



Product Specifications Reference Lenovo® ThinkPad® Notebooks 2005 to 2013 - withdrawn

December 2013 - Version 447



lenovo.com

ThinkPad®



Lenovo® ThinkPad Tablet



Lenovo ThinkPad Tablet



Lenovo ThinkPad Tablet with
ThinkPad Tablet Keyboard Folio Case
0A36370



Lenovo ThinkPad Tablet



Lenovo ThinkPad Tablet with
ThinkPad Tablet Pen
0A33887



Lenovo ThinkPad Tablet

ThinkPad®



Lenovo® ThinkPad Tablet with
ThinkPad Tablet Keyboard Folio Case
0A36370



Lenovo ThinkPad Tablet with
ThinkPad Tablet DC Charger
0A36247



Lenovo ThinkPad Tablet with
ThinkPad Tablet Keyboard Folio Case
0A36370



ThinkPad Tablet AC Charger
0A36248



Lenovo ThinkPad Tablet with
ThinkPad Tablet Dock
0A33953



Lenovo ThinkPad Tablet with
ThinkPad Tablet AC Charger
0A36248

ThinkPad® Tablet 1838 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Storage	ThinkPad Tablet Pen	Camera Front/Rear (MP)	Keyboard Folio Case	ThinkPad Tablet Dock	Ear Buds	WLAN 802.11	PCIe Mini Card WWAN	Carrier	GPS	Bluetooth	Preload	Ann Date (mm/yy)
1838-4RU	Cortex-A9	1G	10.1" WXGA	64G	Pen	2.0/5.0	None	None	None	11b/g/n ²⁸	Gobi 3000	select	GPS	BT	Android	11/11
1838-4QU	Cortex-A9	1G	10.1" WXGA	16G	Pen	2.0/5.0	None	None	None	11b/g/n	Gobi 3000	select	GPS	BT	Android	11/11
1838-4PU	Cortex-A9	1G	10.1" WXGA	32G	Pen	2.0/5.0	None	None	None	11b/g/n	Gobi 3000	select	GPS	BT	Android	11/11
1838-28U	Cortex-A9	1G	10.1" WXGA	64G	Pen	2.0/5.0	None	Dock	None	11b/g/n	None	None	GPS	BT	Android	08/11
1838-27U	Cortex-A9	1G	10.1" WXGA	64G	Pen	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	Android	08/11
1838-26U	Cortex-A9	1G	10.1" WXGA	32G	Pen	2.0/5.0	Keyboard	None	None	11b/g/n	None	None	GPS	BT	Android	08/11
1838-25U	Cortex-A9	1G	10.1" WXGA	32G	Pen	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	Android	08/11
1838-24U	Cortex-A9	1G	10.1" WXGA	16G	Pen	2.0/5.0	Keyboard	None	None	11b/g/n	None	None	GPS	BT	Android	08/11
1838-23U	Cortex-A9	1G	10.1" WXGA	16G	Pen	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	Android	08/11
1838-22U	Cortex-A9	1G	10.1" WXGA	16G	No	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	Android	08/11

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program

Positioning	Touchscreen tablet for on-the-go business											Preloaded operating system ²⁰				
Processor	Dual-core ARM Cortex™-A9 processor (1.0 GHz per core), 1MB L2 cache											Android™ 3.1 (HoneyComb)				
Memory	1GB / 600MHz LPDDR2, mobile DDR / soldered to systemboard, no sockets											Preloaded applications ¹⁴ (only some listed)				
Storage	16GB, 32GB, or 64GB / eMMC (embedded Multi Media Card) flash memory on board											<ul style="list-style-type: none"> • Lenovo® App Shop • Documents To Go® • MyScript Notes Mobile • USB Data Transfer Utility • User Data and SD Card Encryption • Lenovo SocialTouch • PrinterShare™ Mobile Print • McAfee® Mobile Security • Google Voice Search • Google Talk • Google Maps • Netflix • YouTube app • Adobe® Flash player 10.2 • Slacker Radio • Amazon MP3 • mSpot Music • mSpot Movies • Google Books • Kindle for Android • Zinio Magazine Reader • eBuddy Messenger • PokeTALK Tablet Version • ooVoo™ Video Calls • Angry Birds • ArcSoft® PowerMobia® Gallery • ArcSoft PowerMobia eBook Reader and Bookshelf 				
Multicard reader	3-in-1 reader (SD, SDHC, MMC), SD card encryption supported															
Graphics	NVIDIA® ULP (Ultra-low power) GeForce® GPU, integrated in Tegra™ 2, supports 1080p video out via mini-HDMI™ connector, HDCP-compliant															
Display	10.1" (256.5mm) WXGA (1280x800) TFT color, anti-glare display with glossy infinity Corning® Gorilla® Glass, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports pen & six-finger gesture															
Tablet pen	Some: ThinkPad Tablet Pen (0A33887), supports hover, tip, and pressure modes / a button for "long press" function / user replaceable AAAA battery, up to 18 months															
Camera	Front camera: 2.0-megapixel, fixed focus Rear camera: 5.0-megapixel, auto focus, digital zoom															
Video capture	720p video capture (back camera)															
Audio support	High Definition (HD) Audio, Wolfson WM8903 codec / monaural speaker, 0.5 watt x 1 / analog monaural microphone, combo audio/microphone jack															
Ear buds	None															
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, PCM, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid															
Control buttons	Power button, volume control button, reset switch, 4 function buttons (Home, Back, Open Browser, Display Lock)															
Keyboard folio case	Some: ThinkPad Tablet Keyboard Folio Case, connects with system via USB 2.0, 6 row, TrackPoint® pointing device, leather cover, magnetic 3-position landscape stand															
ThinkPad tablet dock	Some: ThinkPad Tablet Dock, one USB 2.0, one micro-USB 2.0 (not for power supply), microphone input jack, headphone jack, DC-IN connector (supports 65W AC Adapter, RapidCharge)															
Light sensor	Ambient Light Sensor															
Proximity sensor	Proximity sensor, Azoteq IQS128															
G-sensor	Accelerometer (G) sensor, supports 3-axis accelerometer															
Gyroscope	3-axis gyroscope															
eCompass	3-axis electronic compass, AKM AK8975C															
Platform	NVIDIA Tegra 2 T20															
Ports	One USB 2.0, one micro-USB 2.0 (power supply / charging support), one mini-HDMI, headphone/microphone combo jack, one ThinkPad Tablet Dock connector															
WLAN ⁴	11b/g/n ²⁸ wireless, Azurewave AW-NH931 module, WiFi + BT combo chip															
WWAN	Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS															
Carrier	Some: User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider															
GPS	Global Positioning System, Broadcom® BCM4751															
Bluetooth™	Bluetooth 2.1+EDR wireless, integrated in Azurewave AW-NH931 combo chip, supports BT 3.0															
Dimensions ³	10.25" x 7.15" x 0.57"; 260.4mm x 181.7mm x 14.5mm															
Weight ²	WiFi model: from 1.64 lb (0.74kg); 3G model: from 1.67 lb (0.76kg)															
Case color	Black															
Case material	PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
System states	Active, Deep Sleep, Off															
Battery - type	Lithium Polymer 2-cell (24Whr)															
Battery - life ¹⁰	up to 5 days (suspend); up to 10 hr (idle); up to 9 hr (WiFi browsing); up to 8 hr (3G browsing and video playback)															
Limited Warranty ¹²	1-year - depot repair service / service upgrades ²² available															

See footnotes for more detailed information

US model(s) announced August 16 or November 22, 2011

US model(s) withdrawn effective December 2012

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(IDG1-1) February 2013

ThinkPad® Tablet 1839 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Pro-cessor	Memory	Widescreen display	Storage	ThinkPad Tablet Pen	Camera Front/Rear (MP)	Keyboard Folio Case	ThinkPad Tablet Dock	Ear Buds	WLAN 802.11	PCIe Mini Card WWAN	Carrier	GPS	Global (G) Blue-tooth (P)	GMP (P) Preload	Ann Date (mm/yy)	
1839-3KU	Cortex-A9	1G	10.1" WXGA	64G	Pen	2.0/5.0	None	None	None	11b/g/n ²⁸	Gobi 3000	select	GPS	BT	Android	11/11	
1839-3JU	Cortex-A9	1G	10.1" WXGA	32G	Pen	2.0/5.0	None	None	None	11b/g/n	Gobi 3000	select	GPS	BT	Android	11/11	
1839-28U	Cortex-A9	1G	10.1" WXGA	64G	Pen	2.0/5.0	None	Dock	None	11b/g/n	None	None	GPS	BT	G	Android	08/11
1839-27U	Cortex-A9	1G	10.1" WXGA	64G	Pen	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	G	Android	08/11
1839-26U	Cortex-A9	1G	10.1" WXGA	32G	Pen	2.0/5.0	Keyboard	None	None	11b/g/n	None	None	GPS	BT	G	Android	08/11
1839-25U	Cortex-A9	1G	10.1" WXGA	32G	Pen	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	G	Android	08/11
1839-24U	Cortex-A9	1G	10.1" WXGA	16G	Pen	2.0/5.0	Keyboard	None	None	11b/g/n	None	None	GPS	BT	G	Android	08/11
1839-23U	Cortex-A9	1G	10.1" WXGA	16G	Pen	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	G	Android	08/11
1839-22U	Cortex-A9	1G	10.1" WXGA	16G	No	2.0/5.0	None	None	None	11b/g/n	None	None	GPS	BT	G	Android	08/11

Positioning	<i>Touchscreen tablet for on-the-go business</i>											Preloaded operating system ²⁰				
Processor	Dual-core ARM Cortex™-A9 processor (1.0 GHz per core), 1MB L2 cache											Android™ 3.1 (HoneyComb)				
Memory	1GB / 600MHz LPDDR2, mobile DDR / soldered to systemboard, no sockets											Preloaded applications ¹⁴ (only some listed)				
Storage	16GB, 32GB, or 64GB / eMMC (embedded Multi Media Card) flash memory on board											<ul style="list-style-type: none"> • Lenovo® App Shop • Documents To Go® • MyScript Notes Mobile • USB Data Transfer Utility • User Data and SD Card Encryption • Lenovo SocialTouch • PrinterShare™ Mobile Print • McAfee® Mobile Security • Google Voice Search • Google Talk • Google Maps • Netflix • YouTube app • Adobe® Flash player 10.2 • Slacker Radio • Amazon MP3 • mSpot Music • mSpot Movies • Google Books • Kindle for Android • Zinio Magazine Reader • eBuddy Messenger • PokeTALK Tablet Version • ooVoo™ Video Calls • Angry Birds • ArcSoft® PowerMobia® Gallery • ArcSoft PowerMobia eBook Reader and Bookshelf 				
Multicard reader	3-in-1 reader (SD, SDHC, MMC), SD card encryption supported															
Graphics	NVIDIA® ULP (Ultra-low power) GeForce® GPU , integrated in Tegra™ 2, supports 1080p video out via mini-HDMI™ connector, HDCP-compliant															
Display	10.1" (256.5mm) WXGA (1280x800) TFT color , anti-glare display with glossy infinity Corning® Gorilla® Glass, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing), MultiTouch screen supports pen & six-finger gesture															
Tablet pen	<i>Some:</i> ThinkPad Tablet Pen (0A33887), supports hover, tip, and pressure modes / a button for "long press" function / user replaceable AAAA battery, up to 18 months															
Camera	<i>Front camera:</i> 2.0-megapixel, fixed focus <i>Rear camera:</i> 5.0-megapixel, auto focus, digital zoom															
Video capture	720p video capture (back camera)															
Audio support	High Definition (HD) Audio, Wolfson WM8903 codec / monaural speaker, 0.5 watt x 1 / analog monaural microphone, combo audio/microphone jack															
Ear buds	None															
Media capable	Audio formats: MP3, AAC, AAC+, eAAC+, WAV, PCM, WMA Video formats: MPEG-4, H.263, H.264, VC-1, WMV9, Xvid															
Control buttons	Power button, volume control button, reset switch, 4 function buttons (Home, Back, Open Browser, Display Lock)															
Keyboard folio case	<i>Some:</i> ThinkPad Tablet Keyboard Folio Case, connects with system via USB 2.0, 6 row, TrackPoint® pointing device, leather cover, magnetic 3-position landscape stand															
ThinkPad tablet dock	<i>Some:</i> ThinkPad Tablet Dock, one USB 2.0, one micro-USB 2.0 (not for power supply), microphone input jack, headphone jack, DC-IN connector (supports 65W AC Adapter, RapidCharge)															
Light sensor	Ambient Light Sensor															
Proximity sensor	Proximity sensor, Azoteq IQS128															
G-sensor	Accelerometer (G) sensor, supports 3-axis accelerometer															
Gyroscope	3-axis gyroscope															
eCompass	3-axis electronic compass, AKM AK8975C															
Platform	NVIDIA Tegra 2 T20															
Ports	One USB 2.0, one micro-USB 2.0 (power supply / charging support), one mini-HDMI, headphone/microphone combo jack, one ThinkPad Tablet Dock connector															
WLAN ⁴	11b/g/n ²⁸ wireless, Azurewave AW-NH931 module, WiFi + BT combo chip															
WWAN	<i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS															
Carrier	<i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider															
GPS	Global Positioning System, Broadcom® BCM4751															
Bluetooth™	Bluetooth 2.1+EDR wireless, integrated in Azurewave AW-NH931 combo chip, supports BT 3.0															
Dimensions ³	10.25" x 7.15" x 0.57"; 260.4mm x 181.7mm x 14.5mm															
Weight ²	<i>WiFi model:</i> from 1.64 lb (0.74kg); <i>3G model:</i> from 1.67 lb (0.76kg)															
Case color	Black															
Case material	PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
System states	Active, Deep Sleep, Off															
Battery - type	Lithium Polymer 2-cell (24Whr)															
Battery - life ¹⁰	up to 5 days (suspend); up to 10 hr (idle); up to 9 hr (WiFi browsing); up to 8 hr (3G browsing and video playback)															
Limited Warranty ¹²	1-year - depot repair service / service upgrades ²² available															

See footnotes for more detailed information

US model(s) announced August 16 or November 22, 2011

US model(s) withdrawn effective December 2012

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10-watt AC Adapter (via micro-USB)
Optional: 65W AC Adapter (via Dock)
ROHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
For compatible accessories, please go to O-Tablet sheet;
For Lenovo service²² upgrade options, please go to S-Tablet sheet

ThinkPad® Tablet Accessories - withdrawn

Personal Systems Reference (PSREF)

ThinkPad Tablet Expansion

ThinkPad Tablet Dock 0A33953 *ann 08/16/11*

Keyboard

ThinkPad Tablet Keyboard Folio Case 0A36370 *ann 08/16/11*

Multimedia

ThinkPad In-Ear Headphones with microphone 57Y4488 *ann 01/07/10*

Lenovo Mini Speakers M220 55Y2033 *ann 01/07/10*

Lenovo Speaker M0520 (black) 57Y6360 *ann 02/08/11*

Lenovo Speaker M0520 (red) 57Y6361 *ann 02/08/11*

Tablet

ThinkPad Tablet Pen 0A33887 *ann 08/16/11*

ThinkPad Tablet Tether (3-pack) 41U4820 *ann 11/14/06*

Security

3M 10.1W Privacy Screen Protector (landscape) 0B33486 *ann 09/27/11*

3M 10.1W Privacy Screen Protector (portrait) 0B33487 *ann 09/27/11*

3M 10.1W Anti-Glare Matte Screen Protector 0B33488 *ann 09/27/11*

Power Adapters

ThinkPad Tablet AC Charger 0A36248 *ann 08/16/11*

ThinkPad Tablet DC Charger 0A36247 *ann 08/16/11*

ThinkPad 65W AC Adapter⁶⁶ 40Y7696 *ann 01/05/06*

⁶⁶ Attachment via the *ThinkPad Tablet Dock* 0A33953.

More info at www.lenovo.com/support/poweradapters

Carrying Cases

ThinkPad Tablet Keyboard Folio Case 0A36370 *ann 08/16/11*

ThinkPad 11W Sling Case 57Y4287 *ann 08/16/11*

More information at www.lenovo.com/support/cases

Lenovo luxury cases at www.lenovoluxurycases.com

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad® R40e - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Security chip	Preload	Workhorse (W) or Global (G) or Entry (E)	Avail date
2684-22U	Celeron®	1.7	128MB	13.3" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	E	Mar 2003
2684-G2U	Celeron	1.8	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	E	May 2003
2684-G8U	Celeron	1.8	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Pro	No	May 2003
2684-CAU	Pentium® 4-M	1.7	256MB	14.1" XGA	20GB	Combo	None	Modem	10/100	No	Windows XP Pro	No	Mar 2003
2684-B2U	Pentium 4-M	1.8	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	No	Mar 2003
2684-Q2U	Pentium 4-M	2.2	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	E	May 2003
2684-QQU	Pentium 4-M	2.2	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	No	Windows XP Pro	No	May 2003
2684-QBU	Pentium 4-M	2.2	256MB	14.1" XGA	40GB	Combo	11b Wi-Fi ³²	Modem	10/100	No	Windows XP Pro	No	May 2003
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Mobile Intel® Celeron 1.7 or 1.8GHz with 400MHz frontside bus or Mobile Intel Pentium 4 Processor-M 1.8 or 2.2GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz frontside bus										SOFTWARE¹⁴		
L2 cache	Celeron: 256KB ; Pentium 4-M: 512KB ; All: on die (at processor speed) / ECC										Windows XP Home models		
Memory	128 or 256MB std / 1GB max ⁷ / PC2100 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Home Edition ²⁰ ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Windows XP Pro models		
CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable										- Microsoft Windows XP Professional ²⁰		
Combo	Some: Combo / 24X/10X/24X/8X ²¹ speed / fixed, not removable										◆ Disk-to-Disk Recovery (in hidden protected area)		
Ultrabay™ 2000	None												
Disk	20, 30, or 40GB⁸ , 4200 rpm, 9.5mm, S.M.A.R.T. / removable and upgradable / 9.5mm high bay												
Display	Some: 13.3" (337.8mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits All: Easy-open cover to unlatch and open with one hand (two latches)										Preloaded		
Graphics	ATI® RADEON™ IGP 330M / integrated in northbridge / 16MB DDR1 (DDR-SDRAM)										• Access IBM		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• Adobe Reader		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Rapid Restore™ PC		
TrackPoint®	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• RecordNow and DLA by Veritas® (combo models)		
Touch pad	No UltraNav™ multi-pointing system										• InterVideo WinDVD (combo models)		
ThinkLight™	None										• Norton® AntiVirus (OEM edition)		
Dimensions ³	12.3 x 10.0 x 1.53" / 313mm x 254mm x 38.9mm										• PC-Doctor™		
Weight ²	with optical drive and battery: <i>G2U/G8U/B2U/Q2U</i> : 5.9 lb (2.67kg); <i>22U/CAU/QQU/QBU</i> : 6.0 lb (2.72kg)										• ThinkPad Utilities		
Case material	Color: Black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Update Connector™.15		
Battery - type	Lithium Ion 6-cell / intelligent										Downloadable		
Battery - life ¹⁰	Celeron models: 2.1 hrs; Pentium 4-M models: 2.6 hrs										• IBM Director Agent		
Architecture	ATI RADEON IGP 330M chipset / IGP 330M northbridge (memory controller, graphics controller, PCI bus) / ALi® M1535+ southbridge (ATA-100 EIDE, Low Pin Count [LPC] interface, USB, parallel, audio) / PCI 2.1, 32-bit 33MHz (TI® PCI1510 CardBus controller) / LPC bus 33MHz (PC87392 Super I/O for parallel)										• Software Delivery Assistant		
Port replicator	No port replicator support										• System Migration Assistant		
Docking station	No docking station support										License (CD not included)		
PC Card Std slots	One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ports	Two USB (Version 1.1) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage		
Video out	None										Universal 72 watt AC adapter		
IEEE 1394	None										PC 2001 and PXE 2.0-compliant		
Wireless antenna	Some (non-wireless models): None / can upgrade to wireless via optional PC Cards Some (wireless model QBU): UltraConnect™ Antenna built into the display cover										ACPI 1.0b and 2.0-compliant		
Mini PCI	Some (non-wireless models): No Mini PCI slot (Communications Bay)										CIM and DMI 2.0-compliant		
11b Wi-Fi ³²	Some (wireless model QBU): 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intersil® Prism 2.5 chipset										International Warranty Service ¹⁷		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset										ServicePac®.22 1yr IOR 9x5 NBD 30L9188		
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®										ServicePac 2 yr IOR 9x5 NBD 30L9189		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; mono) / headphone jack (3.5 mm; stereo) / no line-in jack										ServicePac 3 yr IOR 9x5 NBD 30L9195		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ServicePac 4 yr IOR 9x5 NBD 30L9194		
Security chip	None										ServicePac 5 yr IOR 9x5 NBD 30L9196		
Limited warranty ¹²	1 year - EasyServ™.19 onsite pickup and delivery courier service										ServicePac 2 yr P&L P/U Depot 30L9191		
Service options	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)										ServicePac 3 yr P&L P/U Depot 30L9192		
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad R40e Li-Ion Battery (6-cell)	08K8218										
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Multiple Multiple Battery Charger II	22P9040										
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad 72W AC Adapter	02K6699										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad 72W AC/DC Combo Adapter	22P9010										
USB Portable Diskette Drive	05K9276	Enh Perf Wireless Keyboard and Mouse	73P4067										
USB Serial Parallel Adapter	22P5298	USB Travel Keyboard with UltraNav	31P9490										
USB 2.0 Combo Drive	73P4515	ThinkPad Monitor Stand 2001	22P5265										
USB 2.0 Memory Key 256MB	22P9228	11a/b/g Wireless CardBus Adapter	31P9101										
USB 2.0 Memory Key 512MB	22P9230	Optical 3-Button Travel Wheel Mouse	31P7410										
USB 2.0 Portable 80GB Hard Disk	40Y8726	Optical 3-Button ScrollPoint® Mouse	31P7405										
GemPC400 Smart Card Reader/Writer	31P8901	Nylon Carrying Case	10K0207										
M400 Projector	0037A04	Leather Carrying Case	10K0209										
C400 Projector	0039A04	ThinkPad Carrying Case - Expander	73P3597										
ThinkVision® E500 Projector	0038A05	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced March 12 or May 21, 2003
US models withdrawn effective July 2003, January 2004, October 2004, or December 2005

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ThinkPad® R40 (2723) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics	Disk memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security Chip	Workhorse (W) or Global (G) Avail date
2723-2FU	Pentium® M	1.3	256MB	14.1" XGA	16MB	20G	DVD	*Intel 11b Wi-Fi ³²	Modem	10/100		Yes	XP Pro	W G Mar 2003
2723-26U	Pentium M	1.3	256MB	14.1" XGA	16MB	20G	DVD	Open; wireless upg ³⁶	Modem	10/100		Yes	XP Pro	W G Mar 2003
2723-27U	Pentium M	1.3	256MB	14.1" XGA	16MB	20G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	W Mar 2003
2723-2SU	Pentium M	1.3	256MB	14.1" XGA	16MB	20G	DVD	Cisco® 802.11b ³²	Modem	10/100	1394	Yes	XP Pro	W Mar 2003
2723-3LU	Pentium M	1.3	256MB	14.1" XGA	32MB	40G	Combo	11a/b Wi-Fi ²⁷	Modem	10/100	1394	Yes	XP Pro	W Apr 2003
2723-58U	Pentium M	1.3	256MB	15.0" XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	W Apr 2003
2723-5TU	Pentium M	1.3	256MB	15.0" XGA	32MB	40G	DVD	Cisco 802.11b	Modem	10/100	1394	Yes	XP Pro	W Apr 2003
2723-6LU	Pentium M	1.3	256MB	15.0" SXGA+	32MB	40G	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes	XP Pro	W Apr 2003
2723-BSU	Pentium M	1.4	256MB	15.0" XGA	32MB	40G	DVD	Cisco 802.11b	Modem	10/100		Yes	XP Pro	W G Apr 2003
2723-B4U	Pentium M	1.4	256MB	15.0" XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100		Yes	XP Pro	W G Apr 2003
2723-F2U	Pentium M	1.5	256MB	15.0" XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	W Apr 2003
2723-BAU	Pentium M	1.4	256MB	15.0" XGA	32MB	40G	DVD	*Intel 11b Wi-Fi	Modem	10/100		Yes	XP Pro	W G Apr 2003
2723 models have a 3 year limited warranty (other 2722 ThinkPad R40 systems have a 1 year limited warranty)														
Positioning	Mainstream performance and features; two-spindle system											SOFTWARE¹⁴		
Processor	Intel® Pentium® M Processor 1.3, 1.4, or 1.5GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz frontside bus											Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area)		
L2 cache	1MB / on die (at processor speed) / ECC													
Memory	256MB std / 2GB max ⁷ / PC2100 266MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											Preloaded • Access Program • Access Connections™ • Adobe Reader • Rapid Restore™ PC • RecordNOW and DLA by Veritas (combo models) • InterVideo WinDVD (Combo, DVD) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ ¹⁵		
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive													
DVD	Some: DVD-ROM / 8X-3.3X ⁹ speed / bootable / removable from Ultrabay 2000											Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)		
Combo	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / removable from Ultrabay 2000													
Ultrabay 2000	One modular bay for interchangeable devices / Ultrabay Plus-compatible / 12.7 mm high											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Disk	20GB ⁸ or 40GB, 4200 rpm, 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits All: Easy-open cover to unlatch and open with one hand (two latches)											Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Graphics	Some: ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)													
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											ServicePac® , ²² 2 yr IOR 9x5 NBD 30L9190 ServicePac 3 yr IOR 9x5 NBD 30L9197 ServicePac 5 yr IOR 9x5 NBD 69P9200 ServicePac 5 yr P&L P/U Depot 69P9201		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											ThinkPad Port Replicator II 74P6733 ThinkPad Mini Dock 287810U ThinkPad 72W AC Adapter 02K6699 72W Slim AC/DC Combo Adapter 73P4485		
Dimensions ³	14.1" models: 12.3" x 10.0" x 1.53"; 15.0" models: 13.0" x 10.5" x 1.59"													
Weight ²	with optical drive and battery: 14.1" models: 6.0 to 6.1 lb; 15.0": 6.6 to 6.7 lb (3.0 to 3.4kg)											USB 2.0 Portable CD-RW Drive 22P5297 Other options at lenovo.com/options		
Case material	Color: Black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000											See footnotes for important warranty information US models announced March 12, 2003 US models withdrawn effective October 2003, January 2004, April 2004, or October 2004		
Battery - life ¹⁰	Model BAU: 5.0 hr; Others: 5.7 to 6.2 hr													
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)											* Powered by Intel Centrino™ mobile technology		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port											© Lenovo (R403M) October 2005		
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector											*		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											**		
Wireless upg ³⁶	Some: Wireless upgradable with wireless Mini PCI options													
11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset											***		
Cisco 802.11b ³²	Some: 802.11b wireless ⁴ , Mini PCI, Cisco® Aironet® Wireless 802.11b													
11a/b Wi-Fi ²⁷	Some: 11a/b Wi-Fi ²⁷ wireless ⁴ , Mini PCI, Atheros™ AR5001X chipset											****		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset											*****		
Bluetooth	None													
Ethernet	10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer) / PXE											*****		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole											*****		
Security chip	Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Limited warranty ¹²	3 years/1 year battery - EasyServ™ ¹⁹ onsite pickup and delivery											*****		
128MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028		40GB HS Hard Disk 9.5mm (5400 rpm)		08K9816									
256MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030		GemPC400 Smart Card Reader/Writer		31P8901									
512MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032		ThinkPad R32/R40 Series Li-Ion Battery		02K7052									
1GB PC2100 DDR-SDRAM CL2.5 SOD	10K0034		Ultrabay 2000 Li-Ion battery		02K6646									
CD-RW/DVD Combo IV Ultrabay 2000	22P6991		ThinkPad Multiple Battery Charger II		22P9040									
Second HDD Adapter for Ultrabay 2000	08K6068		11a/b/g Wireless CardBus Adapter		31P9101									
USB Portable Diskette Drive	05K9276		11a/b/g Wireless Mini PCI Adapter		31P9701									
Optical 3-Button Travel Wheel Mouse	31P7410		C400 Projector		0039A04									
USB 2.0 Memory Key 256MB	22P9228		ThinkVision® E500 Projector		0038A05									
USB 2.0 Memory Key 512MB	22P9230		ThinkPad Carrying Case - Expander		73P3597									

See footnotes for important warranty information
US models announced March 12, 2003
US models withdrawn effective October 2003, January 2004, April 2004, or October 2004

* Powered by Intel Centrino™ mobile technology

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ThinkPad® R40 (XP Home) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics memory	Disk GB ⁹	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security Chip	Workhorse (W) or Global (G) Avail Preload or Entry (E) date																																																						
2681-15U	Celeron®	1.6	128MB	13.3" XGA	16MB	20GB	CD	Open; wireless upg ³⁶	Modem	10/100	1394	No	XP Home E Jan 2003																																																						
2681-25U	Celeron	1.6	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394	No	XP Home E Jan 2003																																																						
2681-43U	Celeron	1.8	128MB	14.1" XGA	16MB	20GB	DVD	Open; wireless upg	Modem	10/100	1394	No	XP Home No Jan 2003																																																						
2681-35U	Celeron	1.6	128MB	15.0" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394	No	XP Home No Jan 2003																																																						
2681-4FU	Celeron	1.8	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394	No	XP Home E May 2003																																																						
2681-5FU	Celeron	1.8	128MB	15.0" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394	No	XP Home No May 2003																																																						
2681-7CU	Celeron	2.0	128MB	15.0" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394	No	XP Home No Nov 2003																																																						
2681-C1U	Pentium® 4-M	1.9	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394	No	XP Home No Jan 2003																																																						
2681-J5U	Pentium 4-M	2.2	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394	No	XP Home E May 2003																																																						
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Mobile Intel® Celeron 1.6, 1.8, or 2.0GHz with 400MHz system bus or Mobile Intel Pentium 4 Processor-M 1.9 or 2.2GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus <i>Celeron: 256KB; Pentium 4-M: 512KB; All: on die (at processor speed) / ECC</i> 128MB std / 1GB max ⁷ / PC2100 266MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											SOFTWARE¹⁴ Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area)																																																							
L2 cache Memory	None standard / use optional Ultrabay™-based or USB-based diskette drive <i>Some: CD-ROM / 24X-10X⁹ speed / bootable / removable from Ultrabay 2000</i> <i>Some: DVD-ROM / 8X-3.3X⁹ speed / bootable / removable from Ultrabay 2000</i> One modular bay for interchangeable devices / Ultrabay Plus -compatible / 12.7mm high 20GB⁸ , 4200 rpm, 9.5mm high, S.M.A.R.T. / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000											Preloaded • Access IBM - Access Connections - Access Help - Access Support • Adobe Reader • Rapid Restore™ PC • InterVideo WinDVD (DVD models) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™.15																																																							
Diskette drive CD DVD Ultrabay 2000 Disk	None standard / use optional Ultrabay™-based or USB-based diskette drive <i>Some: CD-ROM / 24X-10X⁹ speed / bootable / removable from Ultrabay 2000</i> <i>Some: DVD-ROM / 8X-3.3X⁹ speed / bootable / removable from Ultrabay 2000</i> One modular bay for interchangeable devices / Ultrabay Plus -compatible / 12.7mm high 20GB⁸ , 4200 rpm, 9.5mm high, S.M.A.R.T. / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000											Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant																																																							
Display	<i>Some: 13.3" (337.8mm) XGA (1024x768) TFT color / Active Matrix / 150 nits /</i> <i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits /</i> <i>Some: 15.0" (381mm) XGA (1024x768) TFT color / Active Matrix / 150 nits /</i> <i>All: Easy-open cover to unlatch and open with one hand (two latches)</i>											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																							
Graphics Graphics external	ATI® Mobility™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM) External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage																																																							
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions											Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)																																																							
Dimensions ³ Weight ²	13.3/14.1" models: 12.3" x 10" x 1.5"; 15.0" models: 13" x 10.5" x 1.6" with optical drive and battery: 43U/C1U/4FU/J5U: 6.0 lb; 25U: 6.1 lb; 15U: 6.2 lb; 7CU: 6.6 lb; 35U/5FU: 6.7 lb											ServicePac®.22 1yr IOR 9x5 NBD 30L9188																																																							
Case material Battery - type Battery - life ¹⁰	<i>Color: Black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i> Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000 13.3/14.1" models: 3.8 to 4.0 hrs; 15.0" models: 3.4 to 3.6 hrs											ServicePac 2 yr IOR 9x5 NBD 30L9189																																																							
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)											ServicePac 3 yr IOR 9x5 NBD 30L9195																																																							
Port Replicator PC Card Std slots Ports	Optional Port Replicator and Mini Dock (no ThinkPad Dock support) One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port											ServicePac 4 yr IOR 9x5 NBD 30L9194																																																							
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ CDC Modem Ethernet Audio support	S-video out port (TV out) / one 4-pin industry standard connector IEEE 1394 (FireWire) port / 4-pin connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable <i>All: Wireless upgradable with wireless Mini PCI options</i> One Communications Daughter Card (CDC) socket (used by modem) / not accessible <i>All: 56K⁶ V.90 (V.92-designed²⁹) modem in CDC / Agere® chipset</i> 10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer) Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											ServicePac 5 yr IOR 9x5 NBD 30L9196																																																							
Security	Power-on password / hard disk password / supervisor password / security keyhole											ServicePac 2 yr P&L P/U Depot 30L9191																																																							
Limited warranty ¹²	1 year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available											ServicePac 3 yr P&L P/U Depot 30L9192																																																							
128MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad R32/R40 Series Li-Ion Battery	02K7052	256MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Ultrabay 2000 Li-Ion battery	02K6646	512MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad Multiple Battery Charger II	22P9040	UltraLight 8X Max DVD Ultrabay 2000	22P9102	USB Keyboard with UltraNav	31P8950	CD-RW/DVD Combo IV Ultrabay 2000	22P6991	ThinkPad Monitor Stand 2001	22P5265	24X-10X CD-ROM Ultrabay 2000 Drive	05K9233	40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	Second HDD Adapter for Ultrabay 2000	08K6068	ThinkPad Monitor Stand 2001	22P5265	Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	11a/b/g Wireless Mini PCI Adapter	31P9701	USB Portable Diskette Drive	05K9276	11a/b/g Wireless CardBus Adapter	31P9101	USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad 72W AC Adapter	02K6699	USB Serial Parallel Adapter	22P5298	ThinkPad 72W AC/DC Combo Adapter	22P9010	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Port Replicator II	74P6733	M400 Projector	0037A04	ThinkPad Mini Dock	287810U	C400 Projector	0039A04	GemPC400 Smart Card Reader/Writer	31P8901	ThinkVision® E500 Projector	0038A05	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Ultrabay Plus Carrier	22P5737	ThinkPad Carrying Case - Expander	73P3597	ThinkPad Ultrabay Plus Numeric Keypad	22P7330	Other options at lenovo.com/options	Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf

See footnotes for important warranty information

US models announced on January 28, May 21, or November 11, 2003

US models withdrawn effective January 2004, April 2004, or December 2005

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ThinkPad® R40 (2682) - October 2003 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics memory	Disk GB ³	Optical	Mini PCI Comm Bay wireless	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Preload Entry (E)	Avail date		
2682-N7U	Pentium® 4-M	2.4	256MB	14.1" XGA	16MB	30G	Combo	Open; wireless upg ³⁶	Modem	10/100	Yes	XP Pro	No	Oct 2003	
2682-NAU	Pentium 4-M	2.4	256MB	14.1" XGA	16MB	30G	DVD	Open; wireless upg	Modem	10/100	Yes	XP Pro	No	Oct 2003	
2682-PAU	Pentium 4-M	2.4	256MB	15.0" XGA	32MB	40G	Combo	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	No	Oct 2003

2682 models have a 3 year limited warranty (other 2681 and 2896 ThinkPad R40 systems have a 1 year limited warranty)

Positioning Processor	Mainstream performance and features; two-spindle system Mobile Intel® Pentium 4 Processor-M 2.4GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											SOFTWARE¹⁴				
L2 cache	512KB / on die (at processor speed) / ECC											Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area)				
Memory	256MB std / 1GB max ⁷ / PC2100 266MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available															
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive											Preloaded • Access IBM • Access Connections™ • Adobe Reader • Rapid Restore™ PC • RecordNOW and DLA by Veritas (combo models) • InterVideo WinDVD (DVD model) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ ¹⁵				
DVD	Some: DVD-ROM / 8X-3.3X ⁹ speed / bootable / removable from Ultrabay 2000															
Combo	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / removable from Ultrabay 2000											• IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)				
Ultrabay 2000	One modular bay for interchangeable devices / Ultrabay Plus-compatible / 12.7 mm high															
Disk	30GB ⁸ or 40GB, 4200 rpm, 9.5mm high, S.M.A.R.T. / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / Some: 15.0" (381mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / All: easy-open cover to unlatch and open with one hand (two latches)															
Graphics	Some: ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)											Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)				
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B															
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	14.1" models: 12.3" x 10" x 1.5"; 313mm x 254mm x 38.9mm 15.0" models: 13" x 10.5" x 1.6"; 329mm x 267.5mm x 40.5mm											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Weight ²	with optical drive and battery: N7U: 6.1 lb (2.7kg); NAU: 6.0 lb (2.7kg); PAU: 6.7 lb (3.0kg)															
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Battery - type	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000															
Battery - life ¹⁰	4.02 hrs											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)															
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage				
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port															
Video out	S-video out port (TV out) / one 4-pin industry standard connector											Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)				
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector															
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											ServicePac®. ²² 2 yr IOR 9x5 NBD 30L9190				
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable															
Wireless upg ³⁶	Wireless upgradable with wireless Mini PCI options											ServicePac 3 yr IOR 9x5 NBD 30L9197				
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible															
Modem	56K ⁶ V.90 (V.92-designed ²³) modem in CDC / Agere® chipset											ServicePac 4 yr IOR 9x5 NBD 69P9198				
Ethernet	10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer)															
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											ServicePac 5 yr IOR 9x5 NBD 69P9200				
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											ServicePac 4 yr P&L P/U Depot 69P9199				
Limited warranty ¹²	3 years/1 year battery - EasyServ™ ¹⁹ onsite pickup and delivery															
Service options	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)											ServicePac 5 yr P&L P/U Depot 69P9201				
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad R32/R40 Series Li-Ion Battery	02K7052	256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Ultrabay 2000 Li-Ion battery	02K6646	512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad Multiple Battery Charger II	22P9040		CD-RW/DVD Combo IV Ultrabay 2000	22P6991	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273
Ultralight 8X Max DVD Ultrabay 2000	22P9102	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716	24X-10X CD-ROM Ultrabay 2000 Drive	05K9233	Cisco Aironet Wireless 802.11b Mini PCI	31P8301	Second HDD Adapter for Ultrabay 2000	08K6068	11a/b/g Wireless Mini PCI Adapter	31P9701	Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 5 yr IOR 9x5 NBD 69P9200
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699	USB Serial Parallel Adapter	22P5298	ThinkPad 72W AC/DC Combo Adapter	22P9010	USB 2.0 Combo Drive	73P4515	ThinkPad Monitor Stand 2001	22P5265	USB 2.0 Portable 80GB Hard Disk	40Y8726	M400 Projector	0037A04	ServicePac 4 yr P&L P/U Depot 69P9199
USB 2.0 Memory Key 256MB	22P9228	C400 Projector	0039A04	USB 2.0 Memory Key 512MB	22P9230	ThinkVision® E500 Projector	0038A05	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Port Replicator II	74P6733	Optical 3-Button ScrollPoint® Mouse	31P7405	ThinkPad Mini Dock	287810U	ServicePac 5 yr P&L P/U Depot 69P9201
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Expander	73P3597	GemPC400 Smart Card Reader/Writer	31P8901	Other options at lenovo.com/options										Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf

See footnotes for important warranty information
US models announced October 7, 2003
US models withdrawn effective October 2004 or December 2005

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ThinkPad® R40 (2682) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics memory	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) or Global (G) Avail date
2682-48U	Celeron®	1.8	128MB	14.1" XGA	16MB	20GB	CD	11a/b Wi-Fi ²⁷	Modem	10/100	1394	XP Pro	No Mar 2003
2682-FXU	Pentium® 4-M	2.0	256MB	14.1" XGA	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes XP Pro	No Mar 2003
2682-LAU	Pentium 4-M	2.2	256MB	15.0" SXGA+	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes XP Pro	No Mar 2003
2682-6GU	Celeron	2.0	128MB	14.1" XGA	16MB	20GB	CD	11a/b Wi-Fi	Modem	10/100	1394	Yes XP Pro	No Oct 2003
2682-RDU	Pentium 4-M	2.2	256MB	14.1" XGA	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes XP Pro	No Oct 2003
2682-QGU	Pentium 4-M	2.4	256MB	15.0" SXGA+	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes XP Pro	No Oct 2003

These educational models of the ThinkPad R40 notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller.

The model or models for education are not available for resale to any other organization or individual.

2682 models have a 3 year limited warranty (other 2681 and 2896 ThinkPad R40 systems have a 1 year limited warranty)

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Mobile Intel® Celeron 1.8 or 2.0GHz with 400MHz system bus or Mobile Intel® Pentium 4 Processor-M 2.0, 2.2, or 2.4GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴		
L2 cache	Celeron: 256KB; Pentium 4-M: 512KB; All: on die (at processor speed) / ECC										Windows XP Professional		
Memory	128 or 256MB std / 1GB max ⁷ / PC2100 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive										Preloaded		
CD-ROM	<i>Some: CD-ROM / 24X-10X⁹ speed / bootable / removable from Ultrabay 2000</i>										• Access IBM		
Combo	<i>Some: DVD-ROM/CD-RW / 24X/10X/24X/8X²¹ speed / removable from Ultrabay 2000</i>										• Access Connections™		
Ultrabay 2000	One modular bay for interchangeable devices / Ultrabay Plus -compatible / 12.7 mm high										• Adobe Reader		
Disk	20GB⁸ or 40GB , 4200 rpm, 9.5mm high, S.M.A.R.T. / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000										• Rapid Restore™ PC		
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits /</i> <i>Some: 15.0" (381mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits /</i> <i>All: easy-open cover to unlatch and open with one hand (two latches)</i>										• RecordNOW and DLA by Veritas (combo models)		
Graphics	<i>Some: ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM)</i> <i>Some: ATI MOBILITY RADEON 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)</i>										• InterVideo WinDVD (combo mlds)		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• Norton AntiVirus (OEM edition)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• PC-Doctor™		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• ThinkPad Utilities		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Update Connector™ ¹⁵		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Downloadable		
Dimensions ³	14.1" models (WxDxH): 12.3" x 10" x 1.5"; 313mm x 254mm x 38.9mm 15.0" models (WxDxH): 13" x 10.5" x 1.6"; 329mm x 267.5mm x 40.5mm with optical drive and battery: 14.1" models: 6.0 to 6.1 lb (2.7kg); 15.0": 6.7 lb (3.0kg)										• IBM Director Agent		
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Software Delivery Assistant		
Case material	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000										• System Migration Assistant		
Battery - type	14.1" Celeron models: 3.8 hrs; 14.1" Pentium 4-M models: 3.8 hrs; 15.0" mods: 3.4 hrs										• Client Security Software (models with security chip)		
Battery - life ¹⁰	Architecture										License (CD not included)		
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										Ultrabay Plus integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential functionality by supporting the Ultrabay Plus Numeric Keypad		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ServicePac®. ²² 2 yr IOR 9x5 NBD 30L9190		
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector										ServicePac 3 yr IOR 9x5 NBD 30L9197		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ServicePac 4 yr IOR 9x5 NBD 69P9198		
Mini PCI	One Mini PCI type III slot (Communications Bay) / not custom upgradable										ServicePac 5 yr IOR 9x5 NBD 69P9200		
11a/b Wi-Fi ²⁷	11a/b Wi-Fi ²⁷ wireless ⁴ , Mini PCI, Atheros™ AR5001X chipset										ServicePac 4 yr P&L P/U Depot 69P9199		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ServicePac 5 yr P&L P/U Depot 69P9201		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset										Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf		
Ethernet	10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer)												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole <i>Some: Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant</i>												
Limited warranty ¹²	3 years/1 year battery - EasyServ™ ¹⁹ onsite pickup and delivery												
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad R32/R40 Series Li-Ion Battery	02K7052										
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Ultrabay 2000 Li-Ion Battery	02K6646										
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad Multiple Battery Charger II	22P9040										
CD-RW/DVD Combo IV Ultrabay 2000	22P6991	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273										
Ultralight 8X Max DVD Ultrabay 2000	22P9102	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716										
24X-10X CD-ROM Ultrabay 2000 Drive	05K9233	11a/b/g Wireless Mini PCI Adapter	31P9701										
Second HDD Adapter for Ultrabay 2000	08K6068	11a/b/g Wireless CardBus Adapter	31P9101										
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	ThinkPad 72W AC Adapter	02K6699										
ThinkPad Slim Drive Adpr for Ultrabay 2000	62P4557	ThinkPad 72W AC/DC Combo Adapter	22P9010										
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733										
USB 2.0 Portable Combo Drive	22P9194	ThinkPad Mini Dock	287810U										
USB 2.0 Memory Key 512MB	22P9230	ThinkPad Carrying Case - Expander	73P3597										
M400 Projector	0037A04	Other options at lenovo.com/options											

See footnotes for important warranty information

US models announced March 25 or October 7, 2003

US models withdrawn effective April 2004, October 2004, or December 2005

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ThinkPad® R40 (March 2003) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics	Disk memory GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) or Global (G) Entry (E)	Avail date	
2722-5JU	Pentium® M1.3	256MB	15.0"	XGA	32MB	40G	Combo	Open; wireless upg ³⁶	Modem	10/100	1394	Yes	XP Pro	Apr 2003	
2722-58U	Pentium M	1.3	256MB	15.0"	XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	Apr 2003
2722-F2U	Pentium M	1.5	256MB	15.0"	XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	W Apr 2003
2722-G3U	Pentium M	1.5	256MB	15.0"	SXGA+	32MB	60G	Combo	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	Apr 2003
2722-GAU	Pentium M	1.5	256MB	15.0"	SXGA+	32MB	40G	Combo	*Intel 11b Wi-Fi ³²	Mod/Blu	10/100	1394	Yes	XP Pro	Apr 2003
2722-GDU	Pentium M	1.5	256MB	15.0"	SXGA+	32MB	60G	Combo	11a/b Wi-Fi ²⁷	Modem	10/100	1394	Yes	XP Pro	Apr 2003
2722-22U	Pentium M	1.3	128MB	14.1"	XGA	16MB	20G	CD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	Mar 2003
2722-2QU	Pentium M	1.3	256MB	14.1"	XGA	16MB	20G	DVD	*Intel 11b Wi-Fi	Modem	10/100	1394	Yes	XP Pro	Mar 2003
2722-27U	Pentium M	1.3	256MB	14.1"	XGA	16MB	20G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	W Mar 2003
2722-2JU	Pentium M	1.3	256MB	14.1"	XGA	16MB	40G	Combo	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	Mar 2003
2722-47U	Pentium M	1.3	256MB	15.0"	XGA	16MB	20G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	Mar 2003
2722-24U	Pentium M	1.3	128MB	14.1"	XGA	16MB	20G	CD	Open; wireless upg	Modem	10/100	1394	Yes	XP Home	Mar 2003
2722-9FU	Pentium M	1.4	128MB	14.1"	XGA	16MB	20G	CD	*Intel 11b Wi-Fi	Modem	10/100	1394	Yes	XP Home E	Oct 2003
2722-8FU	Pentium M	1.4	128MB	15.0"	XGA	16MB	20G	CD	*Intel 11b Wi-Fi	Modem	10/100	1394	Yes	XP Home E	Nov2003
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Pentium® M Processor 1.3, 1.4, or 1.5GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											SOFTWARE¹⁴ Windows XP Pro models - Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area) Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area) INCLUDED SOFTWARE¹⁴ (all) Preloaded • Access IBM - Access Connections • Adobe Reader • Rapid Restore™ PC • RecordNOW and DLA by Veritas (combo models) • InterVideo WinDVD (Combo, DVD) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ ¹⁵ Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
L2 cache	1MB / on die (at processor speed) / ECC														
Memory	128 or 256MB std / 2GB max ⁷ / PC2100 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available														
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive														
CD	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / bootable / removable from Ultrabay 2000														
DVD	<i>Some:</i> DVD-ROM / 8X-3.3X ⁹ speed / bootable / removable from Ultrabay 2000														
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / removable from Ultrabay 2000														
Ultrabay 2000	One modular bay for interchangeable devices / Ultrabay Plus -compatible / 12.7 mm high														
Disk	20GB³, 40GB³, or 60GB³ , 4200 rpm, 9.5mm / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000														
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1450x1050) TFT color / Active Matrix / 150 nits														
Graphics	<i>Some:</i> ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM) <i>Some:</i> ATI MOBILITY RADEON 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)														
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B														
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models: 12.3" x 10.0" x 1.53"; 15.0" models: 13.0" x 10.5" x 1.59"														
Weight ²	with optical drive and battery: 14.1" models: 6.0 to 6.7 lb; 15.0": 6.6 to 6.7 lb (3.0 to 3.4kg)														
Case material	<i>Color:</i> Black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000														
Battery - life ¹⁰	<i>Model GAU:</i> 5.0 hr; <i>Others:</i> 5.7 to 6.2 hr														
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI®) PC1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)														
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port														
Video out	S-video out port (TV out) / one 4-pin industry standard connector														
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector														
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception														
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable														
Wireless upg ³⁶	<i>Some:</i> Wireless upgradable with wireless Mini PCI options														
11b Wi-Fi ³²	<i>Some:</i> 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset														
11a/b Wi-Fi ²⁷	<i>Some:</i> 11a/b Wi-Fi ²⁷ wireless ⁴ , Mini PCI, Atheros™ AR5001X chipset														
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
Modem	56K ⁶ V.90 (V.92-designed ²⁵) modem in CDC / Agere® chipset														
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)														
Ethernet	10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer) / PXE														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant														
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available														
128MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816												
256MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273												
512MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad R32/R40 Series Li-Ion Battery	02K7052												
1GB PC2100 DDR-SDRAM CL2.5 SOD	10K0034	Ultrabay 2000 Li-Ion battery	02K6646												
CD-RW/DVD Combo IV Ultrabay 2000	22P6991	ThinkPad Multiple Battery Charger II	22P9040												
Second HDD Adapter for Ultrabay 2000	08K6068	11a/b/g Wireless CardBus Adapter	31P9101												
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter	31P9701												
USB 2.0 Combo Drive	73P4515	ThinkPad Carrying Case - Expander	73P3597												
USB 2.0 Memory Key 512MB	22P9230	M400 Projector	0037A04												
See footnotes for important warranty information												* Powered by Intel Centrino™ mobile technology			
US models announced March 12, October 21, or November 11, 2003												© Lenovo			
US models withdrawn effective January 2004, April 2004, October 2004, or December 2005												(R40M) October 2005			

See footnotes for important warranty information
US models announced March 12, October 21, or November 11, 2003
US models withdrawn effective January 2004, April 2004, October 2004, or December 2005

ThinkPad® R50e (1834) - September 2004 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed	L2 cache	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Limited warranty ¹²	Workhorse (W) Global (G) Avail Entry (E) date		
1834-ELU	Celeron® M 330	1.4	512K	128MB	14.1" XGA	30GB	CD	None	Modem	Extreme™ 2	No	XP Home	1 yr	E	Dec 04
1834-EKU	Celeron M 330	1.4	512K	256MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Dec 04
1834-GPU	Celeron M 330	1.4	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Dec 04
1834-E2U	Celeron M 340	1.5	512K	128MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr	E	Sep 04
1834-E9U	Celeron M 350	1.3	1MB	128MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr	E	Sep 04
1834-E4U	Celeron M 340	1.5	512K	256MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Sep 04
1834-E7U	Celeron M 340	1.5	512K	256MB	14.1" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
1834-G4U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Sep 04
1834-G7U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
1834-PEU	Pentium® M 710	1.4	2MB	128MB	14.1" XGA	30GB	CD	* Intel 11b/g ³²	Modem	Extreme 2	No	XP Home	1 yr	E	Oct 04
1834-PMU	Pentium M 715a	1.5	2MB	256MB	14.1" XGA	30GB	Combo	* Intel 11b/g	Modem	Extreme 2	No	XP Home	1 yr	E	Jan 05
1834-FEU	Pentium M 725	1.6	2MB	128MB	14.1" XGA	30GB	CD	* Intel 11b/g	Modem	Extreme 2	No	XP Home	1 yr	E	Sep 04
1834-FKU	Pentium M 725	1.6	2MB	256MB	14.1" XGA	30GB	Combo	* Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
1834-HRU	Pentium M 725	1.6	2MB	256MB	15.0" XGA	30GB	Combo	* Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Celeron M Processor 330 (1.4GHz), 340 (1.5GHz) or 350 (1.3GHz) with 400MHz system bus or Intel Pentium M Processor 710 (1.4GHz), 715/715a (1.5GHz), or 725 (1.6GHz) with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus <i>Celeron M 330/340: 512KB; Celeron M 350: 1MB; Pentium M 710/725: 2 MB; All: ECC</i> 128MB or 256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											SOFTWARE¹⁴ Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰ - <i>Dec/Jan models: Service Pack 2</i> ◆ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache												Windows XP Pro models - Microsoft Windows XP Professional ²⁰ ◆ Disk-to-Disk Recovery (in hidden protected area)			
Memory												Preloaded (all) • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models)			
Diskette drive	None standard / use optional USB-based diskette drive														
CD	None: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7 mm high														
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7 mm														
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options 30GB⁸ (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber														
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits														
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GM GMCH / uses main memory (up to 64MB) / 200MHz														
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B														
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	No UltraNav™ multi-pointing system														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)														
Weight ²															
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery														
Battery - life ¹⁰	Celeron M models: up to 3.4 hr; Pentium M models: up to 4.0 hr; Optional High Capacity 9-cell: up to 5.4 hr														
Architecture	Intel 855GM chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)														
Port replicator	No port replicator support														
Docking station	No docking station support														
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port														
Wireless antenna	Some: none / can upgrade to wireless via optional PC Cards Some: UltraConnect™ Antenna built into the display cover														
Mini PCI	Some: no Mini PCI slot (Communications Bay) Some: one Mini PCI slot (Communications Bay) / not customer upgradable Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset														
Intel 11b/g ³²	Some: one Mini PCI slot (Communications Bay) / not customer upgradable														
CDC	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset														
Modem	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
Ethernet	56K® V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset														
Audio support	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	None														
Limited warranty ¹²	1 year - EasyServ™¹⁹ onsite pickup and delivery courier service														
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828				T40/R50 Series Li-Ion Battery 6-cell				08K8214			ServicePac 2 yr P&L P/U Depot			
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830				T40/R50 High Capacity Li-Ion Batt 9-cell				08K8197			30L9188			
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832				ThinkPad Multiple Battery Charger II				22P9040			ServicePac 3 yr P&L P/U Depot			
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834				60GB HS Hard Disk 9.5mm (5400 rpm)				73P3357			30L9189			
USB Portable Diskette Drive	05K9276				80GB HS Hard Disk (used 9.5mm (5400 rpm)				09N4273			ServicePac 4 yr P&L P/U Depot			
USB 2.0 Combo Drive	73P4515				11a/b/g Wireless CardBus Adapter				31P9101			69P9195			
USB 2.0 Portable Multi-Burner Drive	22P9163				ThinkPad 72W AC/DC Combo Adapter				22P9010			ServicePac 5 yr P&L P/U Depot			
USB 2.0 Memory Key 512MB	22P9230				Other options at lenovo.com/options							69P9197			

See footnotes for important warranty information * Powered by Intel Centrino™ mobile technology
US models announced Sept 14, Oct 12, or Dec 21, 2004, or Jan 11, 2005
US models withdrawn effective September 2005

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ThinkPad® R50e (1834) - March 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed	L2 cache	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Preload	Limited warranty ¹²	Global Entry	Avail date
1834-K5U	Celeron® M 350	1.3	1MB	256MB	14.1" XGA	30GB	CD	None	Modem	Extreme™ 2	No	XP Home	1 yr	No	Mar 05
1834-M4U	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr	No	Mar 05
1834-L7U	Pentium® M 735	1.7	2MB	256MB	14.1" XGA	30GB	Combo	*Intel 11b/g ³²	Modem	Extreme 2	No	XP Pro	1 yr	No	Mar 05
1834-R3U	Pentium M 735	1.7	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr	No	Mar 05
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Celeron M Processor 350 (1.3GHz) with 400MHz system bus or Intel Pentium M Processor 735 (1.7GHz) with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											SOFTWARE¹⁴			
L2 cache	<i>Celeron M 350: 1MB; Pentium M 735: 2 MB; All: on die (at processor speed) / ECC</i>											Windows XP Home models			
Memory	256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											- Microsoft® Windows® XP Home Edition ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive											Windows XP Professional models			
CD	<i>Some: CD-ROM / 24X-10X⁹ speed / fixed, not removable / 12.7 mm high</i>											- Microsoft Windows XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)			
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / fixed, not removable / 12.7 mm</i>														
Ultradisk Enhanced Disk	None / no support for removable Ultradisk™ options 30GB⁸ (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber														
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>											Preloaded (all) • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models)			
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GM GMCH / uses main memory (up to 64MB) / 200MHz											Downloadable (all) • IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	No UltraNav™ multi-pointing system														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm														
Weight ²	with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery														
Battery - life ¹⁰	<i>Celeron M models: up to 3.4 hr; Pentium M models: up to 4.0 hr; Optional High Capacity 9-cell: up to 5.4 hr</i>														
Architecture	Intel 855GM chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)														
Port replicator	No port replicator support														
Docking station	No docking station support														
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage			
Wireless antenna	<i>Some: none / can upgrade to wireless via optional PC Cards</i> <i>Some: UltraConnect™ Antenna built into the display cover</i>											Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Mini PCI	<i>Some: no Mini PCI slot (Communications Bay)</i> <i>Some: one Mini PCI slot (Communications Bay) / not customer upgradable</i> <i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i>														
Intel 11b/g ³²	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
CDC	56K ⁵ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset														
Modem	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®														
Ethernet	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Audio support	Power-on password / hard disk password / supervisor password / security keyhole														
Security	None											ServicePac®. ²² 1yr IOR 9x5 NBD 30L9188			
Security chip	None											ServicePac 2 yr IOR 9x5 NBD 30L9189			
Limited warranty ¹²	1 year - EasyServ™. ¹⁹ onsite pickup and delivery courier service											ServicePac 3 yr IOR 9x5 NBD 30L9195			
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828					ThinkPad T40/R50 Li-Ion Battery 6-cell					92P1101				
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830					ThinkPad T40/R50 Li-Ion Battery 9-cell					92P1102				
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832					ThinkPad Multiple Battery Charger II					22P9040				
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834					Kensington® MicroSaver® Security Cable					73P2582				
USB Portable Diskette Drive	05K9276					GemPC400 Smart Card Reader/Writer					31P8901				
USB 2.0 Portable 80GB Hard Disk	40Y8726					11a/b/g Wireless CardBus Adapter					31P9101				
USB 2.0 Combo Drive	73P4515					ThinkPad 72W AC Adapter					02K6699				
USB 2.0 Portable Multi-Burner Drive	22P9163					ThinkPad 72W AC/DC Combo Adapter					22P9010				
USB 2.0 Memory Key 256MB	22P9228					Optical 3-Button Travel Wheel Mouse					31P7410				
USB 2.0 Memory Key 512MB	22P9230					Optical 3-Button ScrollPoint® Mouse					31P7405				
USB Keyboard with UltraNav	31P8950					Optical 3-Button ScrollPoint Pro Mouse					31P8700				
USB Travel Keyboard with UltraNav	31P9490					USB Optical Wheel Mouse (black)					06P4069				
Enh Perf Wireless Keyboard and Mouse	73P4067					ThinkPad Nylon Carrying Case					10K0207				
Preferred Pro PS/2 Keyboard (black)	31P7415					ThinkPad Carrying Case - Organizer					73P3598				
C400 Projector	0039A04					ThinkPad Carrying Case - Expander					73P3597				
M400 Projector	0037A04					ThinkPad Carrying Case - BackPack					73P3599				
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816					ThinkPad Carrying Case - Leather					73P3600				
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273					Other options at lenovo.com/options									

See footnotes for important warranty information
US models announced March 1, 2005
US models withdrawn effective November 2005

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Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf

ThinkPad® R50e (1842) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Limited warranty ¹²	Workhorse (W) Global (G) Avail Entry (E) date		
1842-2QU	Celeron® M	1.3	512K	256MB	15.0" XGA	20GB	CD	None	Modem	Extreme™ 2	No	XP Pro	1 yr	No	May 04
1842-2RU	Celeron M	1.3	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	May 04
1842-BJU	Pentium® M 715	1.5	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g ³²	Modem	Extreme 2	No	XP Pro	1 yr	No	July 04
1842-PPU	Pentium M 715a	1.5	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr	No	Jan 05
1842-GQU	Celeron M 330	1.4	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Dec 04
1842-GRU	Celeron M 330	1.4	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Dec 04
1842-G3U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-G7U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-GBU	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-GDU	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-HRU	Pentium M 725	1.6	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04

• These small and medium business (SMB) models are part of the US Think Express Program • The 1842 has a 1 year limited warranty

Positioning	Mainstream performance and features; two-spindle system	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ - Dec/Jan models: Service Pack 2 ✦ Disk-to-Disk Recovery (in hidden protected area)
Processor	Intel® Celeron M Processor 1.3GHz, 330 (1.4GHz), 340 (1.5GHz) or 350 (1.3GHz) with 400MHz system bus or Intel Pentium M Processor 715/715a (1.5GHz) or 725 (1.6GHz) with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus	
L2 cache	Celeron M and M 330/340: 512KB; Celeron M 350: 1MB; Pentium M 715/715a/725: 2 MB	Preloaded • Access IBM • Access Connections • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models)
Memory	256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available	
Diskette drive	None standard / use optional USB-based diskette drive	Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
CD	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7 mm high	
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7 mm	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit ibm.com/thinkvantage Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options 20GB⁸ or 30GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber	
Display	15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits / one latch to unlatch and open with one hand	ServicePac®. ²² 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GM GMCH / uses main memory (up to 64MB) / 200MHz	
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	No UltraNav™ multi-pointing system	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm	
Weight ²	with optical drive and battery: 15.0" models: 6.6 lb (3.0kg)	
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery	
Battery - life ¹⁰	<i>Celeron M models:</i> up to 3.5 hr; <i>Pentium M models:</i> 4.0 hr; <i>Optional 9-cell:</i> up to 5.4 hr	
Architecture	Intel 855GM chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)	
Port replicator	No port replicator support	
Docking station	No docking station support	
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port	
IEEE 1394	None	
Wireless antenna	<i>Some:</i> none / can upgrade to wireless via optional PC Cards <i>Some:</i> UltraConnect™ Antenna built into the display cover	
Mini PCI	<i>Some:</i> no Mini PCI slot (Communications Bay) <i>Some:</i> one Mini PCI slot (Communications Bay) / not customer upgradable <i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset	
Intel 11b/g ³²	One Communications Daughter Card (CDC) socket (used by modem) / not accessible	
CDC	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset	
Modem	None	
Bluetooth	None	
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	None	
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery courier service	
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	T40/R50 Series Li-Ion Battery 6-cell 08K8214
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	T40/R50 High Capacity Li-Ion Batt 9-cell 08K8197
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Multiple Battery Charger II 22P9040
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	40GB HS Hard Disk 9.5mm (5400 rpm) 08K9816
4GB Microdrive™ with PC Card	09N4280	60GB HS Hard Disk 9.5mm (5400 rpm) 73P3357
USB Portable Diskette Drive	05K9276	80GB HS Hard Disk 9.5mm (5400 rpm) 09N4273
USB 2.0 Portable Multi-Burner Drive	22P9163	11a/b/g Wireless CardBus Adapter 31P9101
USB 2.0 Portable 40GB Hard Disk	22P7196	Optical 3-Button Travel Wheel Mouse 31P7410
USB 2.0 Memory Key 512MB	22P9230	ThinkPad 72W AC/DC Combo Adapter 22P9010
M400 Projector	0037A04	ThinkPad Premiere Leather Carrying Case 10K0209
Kensington® MicroSaver® Security Cable	73P2582	Other options at lenovo.com/options

See footnotes for important warranty information * Powered by Intel Centrino™ mobile technology
US models announced May 18, July 13, Sept 14, or Dec 21, 2004, or Jan 11, 2005
US models withdrawn effective January or September 2005

ThinkPad® R50e (1842) - TopSeller (June 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed	L2 cache	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Limited warranty ¹²	Workhorse Global Entry	Avail date	
1842-QDU	Pentium® M 725a	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g ³²	Modem	Extreme™ 2	No	XP Pro	1-yr	No	Jun 05
1842-QUE	Pentium M 725a	1.6 GHz	2MB	512MB	15.0" XGA	60GB	DVD±RW	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Jun 05
1842-QFU	Pentium M 725a	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Jun 05
1842-STU	Pentium M 725	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SUU	Pentium M 725	1.6 GHz	2MB	512MB	15.0" XGA	60GB	DVD±RW	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SVU	Pentium M 725	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SKU	Celeron® M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SLU	Celeron M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SMU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-STU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SPU	Celeron M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SQU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SRU	Celeron M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SSU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-T4U	Celeron M 360J	1.4 GHz	1MB	256MB	14.1" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-T5U	Celeron M 370	1.5 GHz	1MB	256MB	14.1" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05

• These small and medium business (SMB) models are part of the US TopSeller™ Program
• The 1842 has a 1-year limited warranty

Processor	Intel® Celeron M Processor 360J or 370 with Execute Disable Bit and 400MHz bus or Intel Pentium M Processor 725a or 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus	SOFTWARE¹⁴ Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) Windows XP Professional models - Microsoft® Windows XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded (all) • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW)
L2 cache	<i>Celeron M: 1MB; Pentium M 725a: 2 MB; All: on die (at processor speed) / ECC</i>	
Memory	256MB or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
CD	<i>Some: CD-ROM / 24X-10X⁹ speed / fixed, not removable / 12.7 mm high</i>	
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / fixed, not removable / 12.7 mm</i>	
DVD±RW	<i>Some: DVD and CD burner / Multi-Burner Plus / fixed, not removable / 12.7 mm</i>	
Ultrad Enhanced	None / no support for removable Ultrabay™ options	
Disk	40GB⁸ or 60GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber	
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>	
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GM / uses main memory / 200MHz	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	No UltraNav™ multi-pointing system	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm</i>	
Weight ²	with optical drive and battery: <i>15.0" models: 6.6 lb (3.0kg)</i>	
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>	
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery	
Battery - life ¹⁰	<i>Celeron M models: 3.4 hr; Pentium M models: 4.0 hr; Optional 9-cell: up to 5.4 hr</i>	
Architecture	Intel 855GM chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)	
Docking station	No port replicator or docking station support	
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI slot (Communications Bay) / not customer upgradable	
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset	
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset	
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery courier service	

256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 3-year LOR 9x5 NBD	41C9166
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 4-year LOR 9x5 NBD	41C9168
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 5-year LOR 9x5 NBD	41C9171
USB Portable Diskette Drive	05K9276	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 2-year P&L P/U Depot	41C9169
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 3-year P&L P/U Depot	41C9173
USB 2.0 Portable 80GB Hard Disk	40Y8726	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPlus 4-year P&L P/U Depot	41C9172
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Optical 3-Button ScrollPoint® Mouse	31P7405	ThinkPlus 5-year P&L P/U Depot	41C9174
USB 2.0 Memory Key 1GB	40Y7421	USB Optical Wheel Mouse (black)	06P4069	Other options at lenovo.com/options	
USB Keyboard with UltraNav	31P8950	ThinkPad Carrying Case - Expander	73P3597		
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - BackPack	73P3599		
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Leather	73P3600		
ThinkVision® L171 17" Monitor (black)	9417AC1	ThinkPad Convertible Monitor Stand	40Y7620		
ThinkVision L201p 20.1" Monitor (black)	9320HB1				

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
 US models announced June 28, August 9, or August 23, 2005
 US models withdrawn effective March or October 2006

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ThinkPad® R51e (1843) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB ⁹	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Limited warranty ¹²	Global Entry	Avail date
1843-2HU	Celeron® M 360J	1.4	1MB	256MB	14.1" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No Sep 05
1843-2YU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No Sep 05
1843-35U	Celeron M 360J	1.4	1MB	256MB	14.1" XGA	40GB	Combo	11b/g ³²	Modem	Xpress 200M	No	XP Pro	1-yr	No Sep 05
1843-3CU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No Sep 05
1843-3HU	Pentium® M 740	1.73	2MB	256MB	14.1" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No Sep 05
1843-3PU	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No Sep 05
1843-3QU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No Sep 05
1843-42U	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No Sep 05
1843-47U	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No Sep 05
1843-4SU	Pentium M 740	1.73	2MB	256MB	15.0" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No Sep 05
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Celeron M Processor 360 (1.4GHz) or 370 (1.5GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											SOFTWARE¹⁴		
L2 cache	<i>Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC</i>											Windows XP Professional models		
Memory	256MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / single channel / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive											Windows XP Home models		
CD	<i>Some: CD-ROM / 24X-10X⁹ speed / fixed, not removable / 12.7mm high</i>											- Microsoft Windows XP Home Edition ²⁰ (Service Pack 2)		
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / fixed, not removable / 12.7mm</i>											◆ Disk-to-Disk Recovery (in hidden protected area)		
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options 40GB⁸ (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber											Preloaded (all)		
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>											• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo)		
Graphics	ATI® RADEON® Xpress 200M / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)											License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)											ThinkPad notebooks implement ThinkVantage™ technologies and design; thinkpad.com/thinkvantage		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm</i> with optical drive and battery: <i>14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)</i> <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Weight ²														
Case material														
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery													
Battery - life ¹⁰	<i>6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 4.0 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 6.0 hr</i>													
Architecture	ATI RC410MD chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)													
Docking station	No port replicator or docking station support													
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port													
Wireless antenna	<i>Some: none / can upgrade to wireless via optional PC Cards or ExpressCards</i> <i>Some: UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)</i> <i>Some: no Mini PCI slot (Communications Bay)</i>													
Mini PCI 11b/g ³²	<i>Some: one Mini PCI slot (Communications Bay) / not customer upgradable / ThinkPad 11b/g Wi-Fi³² wireless⁴, Mini PCI, Atheros™ AR5004G chipset</i>													
CDC Modem	One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K ⁹ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Ethernet	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1													
Audio support	AC97 controller / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	None													
Fingerprint reader	None													
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery courier service													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840				ThinkPad T40/R50 Li-Ion Battery 6-cell				92P1101					
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842				ThinkPad T40/R50 Li-Ion Battery 9-cell				92P1102		ThinkPlus 5-year LOR 9x5 NBD			
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844				ThinkPad Multiple Battery Charger II				22P9040		41C9173			
USB Serial Parallel Adapter	22P5298				SonyEricsson® GC83 EDGE PC Card				26K3393		ThinkPlus 2-year P&L P/U Depot			
USB Portable Diskette Drive	05K9276				Verizon Wireless V620 WWAN PC Card ²⁵				40Y9137		41C9169			
USB 2.0 Portable 80GB Hard Disk	40Y8726				72W Slim AC/DC Combo Adapter				73P4485		ThinkPlus 3-year P&L P/U Depot			
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637				Optical 3-Button Travel Wheel Mouse				31P7410		41C9170			
USB 2.0 Memory Key 1GB	40Y7421				ThinkPad Nylon Carrying Case				10K0207		ThinkPlus 4-year P&L P/U Depot			
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716				ThinkPad Carrying Case - Backpack				73P3599		41C9172			
USB Travel Keyboard with UltraNav	31P9490				ThinkPad Carrying Case - Organizer				73P3598		ThinkPlus 5-year P&L P/U Depot			
Enh Perf Wireless Keyboard and Mouse	73P4067				ThinkPad Convertible Monitor Stand				40Y7620		41C9174			
ThinkVision® E500 Projector	0038A05				Kensington® MicroSaver® Security Cable				73P2582		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
ThinkVision L171 17" Monitor (black)	9417AB1				TrackPoint Cap Collection				73P2698					
ThinkVision L192p 19" Monitor (black)	9419HB2				Other options at lenovo.com/options									

See footnotes for important warranty information
US models announced September 20, 2005
US models withdrawn effective April 2006

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ThinkPad® R51e (1843) - January 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB ⁹	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Limited warranty ¹²	Workhorse Global Entry	Avail date	
1843-AJU	Celeron® M 380	1.6	1MB	256MB	14.1" XGA	40GB	CD	11a/b/g ³²	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-ALU	Celeron M 380	1.6	1MB	256MB	14.1" XGA	40GB	Combo	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-ATU	Pentium® M 750	1.86	2MB	256MB	14.1" XGA	40GB	Combo	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-D6U	Pentium M 750	1.86	2MB	512MB	15.0" XGA	60GB	DVD±RW	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-D8U	Pentium M 760	2.0	2MB	512MB	15.0" XGA	60GB	DVD±RW	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
• These models have an EasyServ™¹⁹ onsite pickup and delivery 1-year limited warranty.															
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Celeron M Processor 380 (1.6GHz) with 400MHz system bus or Intel Pentium M Processor 750 (1.86GHz) or 760 (2.0GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC										SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
L2 cache															
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available														
Diskette drive	None standard / use optional USB-based diskette drive														
CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high														
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm														
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / fixed, not removable / 12.7mm high														
Ultrabay Enhanced	None / no support for removable Ultrabay™ options														
Disk	40 or 60GB⁸ (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm bay / Hard Disk Drive Shock Absorber														
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits														
Graphics	ATI® RADEON® Xpress 200M / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)														
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm														
Weight ²	with optical drive and battery: 14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / 2.4Ah / intelligent / supports optional 9-cell battery														
Battery - life ¹⁰	6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 3.5 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 5.0 hr														
Architecture	ATI RC410MD chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)														
Docking station	No port replicator or docking station support														
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port														
Wireless antenna	UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)														
Mini PCI	One Mini PCI slot (Communications Bay) / not customer upgradable / 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI, Adapter II, Atheros™ AR5004X chip														
11a/b/g ³²	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
CDC	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset														
Modem	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1														
Ethernet	AC97 controller / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Audio support	Power-on password / hard disk password / supervisor password / security keyhole														
Security	None														
Security chip	None														
Fingerprint reader	None														
Limited warranty ¹²	1-year - EasyServ™¹⁹ onsite pickup and delivery courier service														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 4-year LOR 9x5 NBD	41C9166										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 2-year LOR 9x5 NBD	41C9167										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 3-year LOR 9x5 NBD	41C9168										
USB Serial Parallel Adapter	22P5298	SonyEricsson® GC83 EDGE PC Card	26K3393	ThinkPlus 4-year LOR 9x5 NBD	41C9171										
USB Portable Diskette Drive	05K9276	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkPlus 5-year LOR 9x5 NBD	41C9173										
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 2-year P&L P/U Depot	41C9169										
USB 2.0 Portable 80GB Hard Disk	40Y8726	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPlus 3-year P&L P/U Depot	41C9170										
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Nylon Carrying Case	10K0207	ThinkPlus 4-year P&L P/U Depot	41C9172										
60GB Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 5-year P&L P/U Depot	41C9174										
80GB Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Organizer	73P3598	ThinkPlus 2-year P&L P/U Depot	41C9175										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkVision® E500 Projector	0038A05	ThinkPlus 3-year P&L P/U Depot	41C9176										
USB Travel Keyboard with UltraNav	31P9490	ThinkVision L171 17" Monitor (black)	9417AC1	ThinkPlus 4-year P&L P/U Depot	41C9177										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HB2	ThinkPlus 5-year P&L P/U Depot	41C9178										
Kensington® MicroSaver® Security Cable	73P2582	ThinkPad Convertible Monitor Stand	40Y7620	Post-warranty annual maintenance agreements at											
Trackpoint Cap Collection	73P2698	Other options at lenovo.com/options		lenovo.com/thinkplus/warranty											

See footnotes for important warranty information
US models announced January 10, 2006
US models withdrawn effective October 2006

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(KD6-3) October 2006

ThinkPad® R51e (1843) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB ⁵	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Limited warranty ¹²	Workhorse Global Entry	Avail date
1843-A2U	Celeron® M 380	1.6	1MB	256MB	14.1" XGA	40GB	CD	11a/b/g II ³²	Modem	Xpress 200M	No	XP Pro	1-yr	No Jan 06
1843-A3U	Pentium® M 750	1.86	2MB	512MB	14.1" XGA	40GB	Combo	11a/b/g II	Modem	Xpress 200M	No	XP Pro	1-yr	No Jan 06

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 1-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features: two-spindle system</i> Intel® Celeron M Processor 380 (1.6 GHz) with 400MHz system bus or Intel Pentium M Processor 750 (1.86 GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache Memory	Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC 256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										◆ Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • Client Security Solution • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo)			
Diskette drive	None standard / use optional USB-based diskette drive										◆ License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
CD	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high													
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm													
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options 40GB⁸ (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber													
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits													
Graphics	ATI® RADEON® Xpress 200M / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>(WxDxH):</i> 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm													
Weight ²	with optical drive and battery: 6.2 lb (2.8kg)													
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell / 2.4Ah / intelligent / supports optional 9-cell battery													
Battery - life ¹⁰	<i>6-cell Celeron models:</i> up to 2.2 hr; <i>6-cell Pentium models:</i> up to 3.5 hr; <i>optional 9-cell Celeron models:</i> up to 3.2 hr; <i>optional 9-cell Pentium models:</i> up to 5.0 hr													
Architecture	ATI RC410MD chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)													
Docking station	No port replicator or docking station support													
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port													
Wireless antenna	UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)										ThinkPad notebooks implement ThinkVantage™ technologies and design; thinkpad.com/thinkvantage			
Mini PCI	One Mini PCI slot (Communications Bay) / not customer upgradable / 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip										Universal 72-watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant RoHS-compliant			
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Ethernet	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1													
Audio support	AC97 controller / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	None													
Fingerprint reader	None													
Limited warranty ¹²	1-year - EasyServ™¹⁹ onsite pickup and delivery courier service										ThinkPlus™ ²² 1-year LOR 9x5 NBD 41C9166			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 2-year LOR 9x5 NBD		41C9167					
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 3-year LOR 9x5 NBD		41C9168					
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		ThinkPad Multiple Battery Charger II		22P9040		ThinkPlus 4-year LOR 9x5 NBD		41C9171					
USB Portable Diskette Drive	05K9276		SonyEricsson® GC83 EDGE PC Card		26K3393		ThinkPlus 5-year LOR 9x5 NBD		41C9173					
USB 2.0/Analog Headset by Sennheiser	40Y8518		Verizon Wireless V620 WWAN PC Card ²⁵		40Y9137		ThinkPlus 2-year P&L P/U Depot		41C9169					
USB 2.0 Lenovo Webcam	40Y8519		72W Slim AC/DC Combo Adapter		73P4485		ThinkPlus 3-year P&L P/U Depot		41C9170					
USB 2.0 Portable 80GB Hard Disk	40Y8726		Optical 3-Button Travel Wheel Mouse		31P7410		ThinkPlus 4-year P&L P/U Depot		41C9172					
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		Optical 3-Button ScrollPoint® Mouse		31P7405		ThinkPlus 5-year P&L P/U Depot		41C9174					
USB 2.0 Memory Key 1GB	40Y7421		Optical 3-Button ScrollPoint Pro Mouse		31P8700		Post-warranty annual maintenance agreements at							
60GB Hard Disk 9.5mm (5400 rpm)	73P3357		ThinkPad Nylon Carrying Case		10K0207		lenovo.com/thinkplus/warranty							
80GB Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Carrying Case - BackPack		73P3599									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Carrying Case - Organizer		73P3598									
USB Travel Keyboard with UltraNav	31P9490		ThinkVision® L171 17" Monitor (black)		9417AC1									
USB Keyboard with UltraNav	31P8950		ThinkVision L171p 17" Monitor (black)		9417HB2									
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkVision L192p 19" Monitor (black)		9419HB2									
Kensington® MicroSaver® Security Cable	73P2582		ThinkVision L201p 20.1" Monitor (black)		9320HB1									
Trackpoint Cap Collection	73P2698		PC Card Gemplus Smart Card Reader		41N3004									
ThinkVision® E500 Projector	0038A05		ThinkPad Monitor Stand		22P5265									
ThinkVision C400 Wireless Projector	0039WA1		Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced January 10, 2006
US models withdrawn effective October 2006

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ThinkPad® R51e (1844) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB ⁹	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Preload	Limited warranty ¹²	Avail date
1844-5FU	Celeron® M 360J	1.4	1MB	256MB	14.1" XGA	40GB 4200	DVD	None	Modem	Xpress 200M	No	XP Home	1-yr	Sep 05
1844-5GU	Pentium® M 740	1.73	2MB	512MB	15.0" XGA	40GB 4200	Combo	11b/g ³²	Modem	Xpress 200M	No	XP Pro	1-yr	Sep 05
1844-68U	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-69U	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6AU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6BU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6CU	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6DU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6EU	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6FU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6GU	Celeron M 360J	1.4	1MB	256MB	14.1" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6HU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 1844 models have a 1-year limited warranty

Positioning	Mainstream performance and features; two-spindle system										SOFTWARE¹⁴			
Processor	Intel® Celeron M Processor 360 (1.4GHz) or 370 (1.5GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache	Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC													
Memory	256MB or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / single channel / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available										Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive													
CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high										Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo)			
DVD	Some: DVD-ROM / 8X-3.3X ⁹ speed / single-layer / fixed, not removable / 12.7mm													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm										License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)			
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options													
Disk	40GB ⁸ (4200 or 5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber										ThinkPad notebooks implement ThinkVantage™ technologies and design; thinkpad.com/thinkvantage			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits													
Graphics	ATI® RADEON® Xpress 200M / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)										Universal 72 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , (no touch pad)										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm										ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Weight ²	with optical drive and battery: 14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										ThinkPlus 3-year LOR 9x5 NBD 41C9168			
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery													
Battery - life ¹⁰	6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 4.0 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 6.0 hr										ThinkPlus 4-year LOR 9x5 NBD 41C9171			
Architecture	ATI RC410MD chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)													
Docking station	No port replicator or docking station support										ThinkPlus 5-year LOR 9x5 NBD 41C9173			
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ThinkPlus 2-year P&L P/U Depot 41C9169			
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port													
Wireless antenna	Some: none / can upgrade to wireless via optional PC Cards or ExpressCards Some: UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)										ThinkPlus 3-year P&L P/U Depot 41C9170			
Mini PCI	Some: no Mini PCI slot (Communications Bay)													
11b/g ³²	Some: one Mini PCI slot (Communications Bay) / not customer upgradable / ThinkPad 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset										ThinkPlus 4-year P&L P/U Depot 41C9172			
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										ThinkPlus 5-year P&L P/U Depot 41C9174			
Ethernet	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1													
Audio support	AC97 controller / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										Other options at lenovo.com/options			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery courier service													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		ThinkPad Multiple Battery Charger II		22P9040									
USB Portable Diskette Drive	05K9276		Verizon Wireless V620 WWAN PC Card ²⁵		40Y9137									
USB 2.0 Portable 80GB Hard Disk	40Y8726		72W Slim AC/DC Combo Adapter		73P4485									
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad Monitor Stand		22P5265									
USB 2.0 Super Multi-Burner Drive	40Y8638		ThinkPad Carrying Case - Expander		73P3597									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Carrying Case - BackPack		73P3599									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Carrying Case - Organizer		73P3598									
Kensington® MicroSaver® Security Cable	73P2582		ThinkPad Convertible Monitor Stand		40Y7620									
ThinkVision® E500 Projector	0038A05													

See footnotes for important warranty information
US models announced September 20 or October 18, 2005
US models withdrawn effective April 2006

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ThinkPad® R51e (1844) - TopSeller (January 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB ⁵	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Preload	Limited warranty ²	Avail date
1844-DGU	Celeron® M 370	1.5	1MB	256MB	14.1" XGA	40GB 4200	CD	11b/g ³²	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DHU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB 4200	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DJU	Celeron M 380	1.6	1MB	256MB	14.1" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DKU	Celeron M 380	1.6	1MB	256MB	14.1" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DLU	Pentium® M 750	1.86	2MB	512MB	14.1" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DMU	Pentium M 750	1.86	2MB	512MB	14.1" XGA	60GB 5400	DVD±RW	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DNU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 4200	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DPU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 4200	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DRU	Celeron M 380	1.6	1MB	256MB	15.0" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DSU	Celeron M 380	1.6	1MB	256MB	15.0" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DXU	Pentium M 750	1.86	2MB	512MB	15.0" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DZU	Pentium M 760	2.0	2MB	512MB	15.0" XGA	60GB 5400	DVD±RW	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-E9U	Pentium M 740	1.73	2MB	512MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Mar 06
1844-EUJ	Pentium M 730	1.60	2MB	512MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Apr 06
1844-EVU	Pentium M 730	1.60	2MB	512MB	15.0" XGA	60GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Apr 06
1844-EWU	Pentium M 730	1.60	2MB	512MB	15.0" XGA	40GB 5400	DVD±RW	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Apr 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system Intel® Celeron M Processor 370 (1.5GHz) or 380 (1.6GHz) with 400MHz system bus or Intel® Pentium M Processor 730, 740, 750, or 760 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus <i>Celeron M: 1MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</i>										SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery Preloaded (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)			
L2 cache Memory	256MB or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / single channel / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available													
Diskette drive CD Combo DVD±RW Ultrabay Enhanced Disk	None standard / use optional USB-based diskette drive <i>Some: CD-ROM / 24X-10X⁹ speed / fixed, not removable / 12.7mm high</i> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / fixed, not removable / 12.7mm</i> <i>Some: DVD and CD burner / Multi-Burner Plus / fixed, not removable / 12.7mm high</i> None / no support for removable Ultrabay™ options 40GB⁸ (4200 or 5400 rpm) or 60GB (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber													
Display	<i>Some: 14.1"</i> (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some: 15.0"</i> (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits													
Graphics	ATI® RADEON® Xpress 200M / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)													
Keyboard TrackPoint™ ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , (no touch pad) Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg) <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>													
Weight ² Case material Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / 2.4Ah / intelligent / supports optional 9-cell battery <i>6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 3.5 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 5.0 hr</i>													
Architecture	ATI RC410MD chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)										ThinkPad notebooks implement ThinkVantage™ technologies and design; thinkpad.com/thinkvantage			
Docking station PC Card Std slot ExpressCard slot Ports	No port replicator or docking station support One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port										Universal 72 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant RoHS - compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Wireless antenna Mini PCI 11b/g ³² CDC Modem Ethernet Audio support	UltraConnect™ Antenna built into the display cover (models with 802.11 wireless) One Mini PCI slot (Communications Bay) / not customer upgradable / ThinkPad 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K® V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset 10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1 AC97 controller / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery courier service													
256MB PC2-4200 DDR2 NP CL4 SOD 512MB PC2-4200 DDR2 NP CL4 SOD 1GB PC2-4200 DDR2 NP CL4 SOD USB Portable Diskette Drive USB 2.0 Memory Key 1GB 100GB Hard Disk 9.5mm PATA (5400 rpm) ThinkVision® L201p 20.1" Monitor (black) ThinkPad Convertible Monitor Stand	73P3840 73P3842 73P3844 05K9276 40Y7421 40Y8716 9320HB1 40Y7620		ThinkPad T40/R50 Li-Ion Battery 6-cell 92P1101 ThinkPad T40/R50 Li-Ion Battery 9-cell 92P1102 ThinkPad Multiple Battery Charger II 22P9040 Verizon Wireless V620 WWAN PC Card ²⁵ 40Y9137 72W Slim AC/DC Combo Adapter 73P4485 ThinkPad Carrying Case - BackPack 73P3599 ThinkPad Carrying Case - Organizer 73P3598 Other options at lenovo.com/options				ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174							

See footnotes for important warranty information
US models announced January 10, March 21, or April 4, 2006
US models withdrawn effective October 2006

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(KD6-5) October 2006

ThinkPad® R51 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory GB	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Preload Entry (E)	Avail date	
1830-ADU	Pentium® M	1.6	256MB	14.1" XGA	7500	40GB	Combo	*Intel 11b/g ³²	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004
1830-AKU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi ³²	Modem	Gigabit	1394	Yes	XP Pro	Apr 2004
1830-ALU	Pentium M	1.6	256MB	14.1" XGA	7500	40GB	Combo	11b/g ³²	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004
1830-BLU	Pentium M	1.6	256MB	15.0" XGA	7500	40GB	Combo	*Intel 11b Wi-Fi ³²	Modem	Gigabit	1394	Yes	XP Pro W G	Apr 2004
1830-BQU	Pentium M	1.6	256MB	15.0" SXGA+	9000	40GB	Combo	*Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004
1830-BVU	Pentium M	1.6	256MB	15.0" XGA	7500	40GB	Combo	11b/g	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004

1830 models have a 3-year limited warranty (other 1829/1836 ThinkPad R51 systems have a 1-year limited warranty)

Positioning	Mainstream performance and features; two-spindle system											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Access Program • Access Connections™ • Rescue and Recovery™ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Processor	Intel® Pentium® M Processor 1.6GHz with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											
L2 cache	1MB / on die (at processor speed) / ECC											
Memory	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced											
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 40GB ⁶ (4200 rpm) or 40GB (HS 5400 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™											
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	Some: ATI® MOBILITY™ RADEON™ 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)											
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery; ADU/AKU/ALU: 6.0 lb (2.7kg); BLU/BQU/BVU: 6.6 lb (3.0kg)											
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced											
Battery - type	Model BQU with SXGA+: up to 4.0 hr; Others: up to 4.7 hr; Optional 9-cell: up to 6.9 hr											
Battery - life ¹⁰												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])											
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset											
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
11b/g ³²	Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset											
11a/b/g Wi-Fi ³²	Some: 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset											
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Bluetooth	None standard											
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™. 22 2-year LOR 9x5 NBD	41C9175							
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176							
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177							
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year LOR 9x5 NBD	41C9179							
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year P&L P/U Depot	41C9178							
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year P&L P/U Depot	41C9180							
USB Portable Diskette Drive	05K9276	ThinkPad Mini Dock	287810U	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty							
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Dock II	287710U									
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Convertible Monitor Stand	40Y7620									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision® C400 Wireless Projector	0039W1									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	Lenovo Laser Mouse (USB, PS/2)	41U3074									
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	Other options at lenovo.com/options										

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced April 6, 2004

(R51) February 2007

US models withdrawn effective January 2005 or February 2007

ThinkPad® R51 (July 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ^B	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Avail
1830-G7U	Pentium® M 725	1.6	256MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g ³²	Modem	Gigabit	1394	Yes	XP Pro No Jul 04
1830-H3U	Pentium M 725	1.6	256MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro No Jul 04
1830-8MU	Pentium M 735	1.7	256MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W G Sep 04
1830-8TU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W Sep 04
1830-9TU	Pentium M 735	1.7	512MB	15.0" SXGA+	9000	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W Sep 04
1830-PVU	Pentium M 735	1.7	256MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W G Sep 04
1830-F4U	Pentium M 735	1.7	512MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W Sep 04

1830 models have a 3-year limited warranty (other 1829/1836 ThinkPad R51 systems have a 1-year limited warranty)

Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 725 (1.6GHz) or 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴		
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional		
Memory	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Access Program		
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high										• Access Connections™		
Disk	40GB (4200 rpm) or 40GB (HS 5400 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional "Second HDD Adapter for Ultrabay Slim" / Hard Disk Drive Shock Absorber / Active Protection System™										• Rescue and Recovery™		
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• Norton AntiVirus (OEM edition)		
Graphics	<i>Some:</i> ATI® MOBILITY™ RADEON™ 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) <i>Some:</i> ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)										• PC-Doctor™		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• ThinkPad Utilities		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Adobe Reader		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Update Connector™ ¹⁵		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (combo)		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery; 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)										Downloadable		
Weight ²											• IBM Director Agent		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• System Migration Assistant		
Battery - life ¹⁰	Model with SXGA+: up to 3.7 hr; Others: up to 4.0 hr; Optional 9-cell: up to 6.2 hr										• Client Security Software (for security chip)		
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										License (CD not included)		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Universal 72-watt AC adapter		
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Asset ID™ ³⁴ (system-specific info in chip accessed over network)		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001 and PXE 2.0-compliant		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant		
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										CIM and DMI 2.0-compliant		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ENERGY STAR®-compliant		
Modem	56K ⁵ V.90 (V.92-designed ²⁵) modem in CDC / Conexant® chipset										ImageUltra™ Services available		
Bluetooth	None standard										International Warranty Service ¹⁷		
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 3-year LOR 9x5 NBD 41C9176		
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail										ThinkPlus 5-year LOR 9x5 NBD 41C9179		
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040										
DVD-ROM Ultrabay Enhanced Drive	39X2642	Kensington® MicroSaver® Security Cable	73P2582										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Monitor Stand	22P5265										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Convertible Monitor Stand	40Y7620										
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB Fingerprint Reader	41U3167	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Port Replicator II	74P6733										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Mini Dock	287810U										
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	SonyEricsson® GC83 EDGE PC Card	26K3393										
USB Travel Keyboard with UltraNav	31P9490	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137										
Preferred Pro USB Fingerprint Keyboard	73P4730	Lenovo M500 Projector	0037A05										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Organizer	73P3598										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Expander	73P3597										
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced July 13 or September 14, 2004
US models withdrawn effective March 2005 or February 2007

* Powered by Intel Centrino® mobile technology

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ThinkPad® R51 (1830) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet planar	Secu- rity chip	Preload	Workhorse (W) Limited warranty ¹²	Global (G) Education	Avail date
1830-AHU	Pentium® M	1.5	512MB	14.1" XGA	40GB	Combo	*Intel 11b/g ³²	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-AJU	Pentium M	1.5	512MB	14.1" XGA	60GB	DVD-RW	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-BTU	Pentium M	1.5	512MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-BUU	Pentium M	1.5	512MB	15.0" SXGA+	60GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-8KU	Pentium M 725	1.6	512MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04
1830-8LU	Pentium M 725	1.6	512MB	14.1" XGA	60GB	DVD±RW	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04
1830-PUU	Pentium M 725	1.6	512MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04
1830-9QU	Pentium M 725	1.6	512MB	15.0" SXGA+	60GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04

• The 1830 has an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW, DVD±RW) • InterVideo WinDVD (combo, DVD-RW, DVD±RW) • InterVideo WinDVD Creator (DVD-RW, DVD±RW) • Simple Backup (DVD-RW, DVD±RW) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378) ThinkPlus™ options at lenovo.com/thinkplus/warranty These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. This model for education is for sale direct from Lenovo or through an Authorized Education Reseller. The model or models for education are not available for resale to any other organization or individual.		
L2 cache	1.5GHz: 1MB ; 1.6GHz: 2MB ; All: on die (at processor speed) / ECC													
Memory	512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced													
DVD-RW	Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Enhanced													
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced													
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 40GB⁹ or 60GB , 4200 rpm, 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using in plane switching (IPS) technology													
Graphics	ATI® MOBILITY™ RADEON™ 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)													
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)													
Weight ²														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	Models with SXGA+: up to 3.7 hr; Others: up to 4.0 hr; <i>Optional 9-cell</i> : up to 6.2 hr													
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports]) One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port													
PC Card Std slots														
Ports														
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth	None standard													
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	72W Slim AC/DC Combo Adapter	73P4485											
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	Kensington® MicroSaver® Security Cable	73P2582											
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Mini Dock	287810U											
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Dock II	287710U											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Convertible Monitor Stand	40Y7620											
Lenovo D221 Wide 22" Monitor (black)	6622HB1	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137											
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at lenovo.com/options												

See footnotes for important warranty information

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US models announced April 6 or September 14, 2004

(R51E) February 2007

US models withdrawn effective November 2005 or February 2007

ThinkPad® R51 (1831) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Security chip	Preload	Workhorse (W) Limited Global (G) Education	Avail date
1831-AHU	Pentium® M	1.5	512MB	14.1" XGA	40GB	Combo	* Intel 11b/g ³²	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-AJU	Pentium M	1.5	512MB	14.1" XGA	60GB	DVD-RW	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-BTU	Pentium M	1.5	512MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-BUU	Pentium M	1.5	512MB	15.0" SXGA+	60GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-8KU	Pentium M 725	1.6	512MB	14.1" XGA	40GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep 2004
1831-8LU	Pentium M 725	1.6	512MB	14.1" XGA	60GB	DVD±RW	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep 2004
1831-PUU	Pentium M 725	1.6	512MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep 2004
1831-9QU	Pentium M 725	1.6	512MB	15.0" SXGA+	60GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep 2004

• The 1831 has a limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴		
L2 cache	1.5GHz: 1MB ; 1.6GHz: 2MB ; All: on die (at processor speed) / ECC										Windows XP Professional		
Memory	512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™		
DVD-RW	Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Enhanced										• Access Program		
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced										• Access Connections™		
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 40GB⁹ or 60GB , 4200 rpm, 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)										• Rescue and Recovery™		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• Norton AntiVirus (OEM edition)		
Graphics	ATI® MOBILITY™ RADEON™ 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)										• PC-Doctor™		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• ThinkPad Utilities		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Adobe® Reader		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Update Connector™ ¹⁵		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW, DVD±RW)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (combo, DVD-RW, DVD±RW)		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										• InterVideo WinDVD Creator (DVD-RW, DVD±RW)		
Weight ²	with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)										• Simple Backup (DVD-RW, DVD±RW)		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										Downloadable		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• IBM Director Agent		
Battery - life ¹⁰	Models with SXGA+: up to 3.7 hr; Others: up to 4.0 hr; Optional 9-cell: up to 6.2 hr										• Software Delivery Assistant		
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										• System Migration Assistant		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										• Client Security Software (for security chip)		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Universal 72 watt AC adapter		
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Asset ID™ ³⁴ (system-specific info in chip accessed over network)		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001 and PXE 2.0-compliant		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant		
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										CIM and DMI 2.0-compliant		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ENERGY STAR®-compliant		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										International Warranty Service ¹⁷		
Bluetooth	None standard										24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. This model for education is for sale direct from Lenovo or through an Authorized Education Reseller. The model or models for education are not available for resale to any other organization or individual.		
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	3-year/1-year battery, limited onsite service , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301										
DVD-ROM Ultrabay Enhanced Drive	39X2642	72W Slim AC/DC Combo Adapter	73P4485										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	Lenovo M500 Projector	0037A05										
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733										
USB Fingerprint Reader	41U3167	ThinkPad Mini Dock	287810U										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Dock II	287710U										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Convertible Monitor Stand	40Y7620										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137										
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced April 6 or September 14, 2004
US models withdrawn effective February 2007

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ThinkPad® R51 (1836) - TopSeller (September 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ³	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Entry (E)	Avail date
1836-Q2U	Pentium® M 725	1.6	256MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g ³²	Modem	10/100		Yes	No	Sep 2004
1836-Q3U	Pentium M 725	1.6	256MB	14.1" XGA	7500	60GB	DVD±RW	11a/b/g II ³²	Modem	Gigabit	1394	Yes	No	Sep 2004
1836-Q4U	Pentium M 725	1.6	256MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	10/100		Yes	No	Sep 2004
1836-Q5U	Pentium M 725	1.6	256MB	15.0" SXGA+	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	No	Sep 2004
1836-Q6U	Pentium M 735	1.7	256MB	15.0" SXGA+	9000	60GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	No	Sep 2004
1836-Q7U	Pentium M 735	1.7	512MB	15.0" SXGA+	9000	80GB	DVD±RW	11a/b/g II	Mod/Blue	Gigabit	1394	Yes	No	Sep 2004
These small and medium business (SMB) models are part of the US TopSeller™ Program														
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 725 (1.6GHz) or 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional			
Memory	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™.15 • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW) • InterVideo WinDVD Creator (DVD±RW) • Simple Backup (DVD±RW)			
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced													
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 40GB⁸ (4200 rpm), 60GB (4200 rpm), or 80GB (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology													
Graphics	Some: ATI® MOBILITY™ RADEON™ 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B													
Keyboard	87-key / Accs IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										Universal 72 watt AC adapter Asset ID™.34 (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Weight ²	with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	Models with SXGA+: up to 3.7 hr; Others: up to 4.0 hr; Optional 9-cell: up to 6.2 hr										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports]) One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
PC Card Std slots	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Ports	S-video out port (TV out) / one 4-pin industry standard connector Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset Some: Bluetooth wireless technology / in CDC (with modem) Some: 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® Some: Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN													
Video out	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
IEEE 1394	Power-on password / hard disk password / supervisor password / security keyhole													
Wireless antenna	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Mini PCI	Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Intel 11b/g ³²	Limited warranty ¹² 1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
11a/b/g II ³²	256MB PC2700 DDR-SDRAM CL2.5 SOD 31P9830													
CDC	512MB PC2700 DDR-SDRAM CL2.5 SOD 31P9832										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Modem	1GB PC2700 DDR-SDRAM CL2.5 SOD 31P9834													
Bluetooth	Second HDD Adapter for Ultrabay Slim 41U3148										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Ethernet	CD-RW/DVD Combo Ultrabay Enhanced 73P3275													
Ethernet	Super Multi-Burner Ultrabay Enh Drv (curved) 40Y8624										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Audio support	USB Portable Diskette Drive 05K9276													
Security	USB 2.0 Super Multi-Burner Drive 41N5565										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Security chip	80GB HS Hard Disk 9.5mm (5400 rpm) 09N4273													
Limited warranty ¹²	100GB Hard Disk 9.5mm PATA (5400 rpm) 40Y8716										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
	Lenovo D221 Wide 22" Monitor (black) 6622HB1													
	ThinkVision® L201p 20.1" Monitor (black) 9220HB1										ThinkPlus 2-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9167 ThinkPlus 4-year LOR 9x5 NBD 41C9168 ThinkPlus 5-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 73P4301 73P4485 ThinkPlus 4-year P&L P/U Depot 74P6733 287810U 287710U ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
	Other options at lenovo.com/options													

See footnotes for important warranty information
US models announced September 14, 2004
US models withdrawn effective February 2007

* Powered by Intel Centrino® mobile technology

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ThinkPad® R51 (2887) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ³	Optical	Mini PCI Comm Bay wireless	Integrated graphics	Ethernet IEEE 1394 port	Secu- rity chip	Limited warranty ¹²	Workhorse (W) Global (G) Avail Entry (E) date	
2887-45U	Celeron® M	1.3	128MB	14.1" XGA	20GB	CD	Open; wireless upg ³⁶	Extreme™ 2	10/100	No	Yes	XP Home 1-yr	Apr 04
2887-67U	Celeron M	1.3	128MB	15.0" XGA	20GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Apr 04
2887-EXU	Celeron M 330	1.4	256MB	14.1" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Dec 04
2887-GWU	Celeron M 330	1.4	256MB	15.0" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Dec 04
2887-E3U	Celeron M 340	1.5	256MB	14.1" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Sep 04
2887-GAU	Celeron M 340	1.5	256MB	15.0" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Sep 04
2887-2KU	Pentium® M	1.5	128MB	14.1" XGA	20GB	CD	* Intel 11b/g ³²	Extreme 2	10/100	No	Yes	XP Home 1-yr	E Apr 04
2887-2LU	Pentium M	1.5	128MB	15.0" XGA	20GB	CD	* Intel 11b/g	Extreme 2	10/100	No	Yes	XP Home 1-yr	E Apr 04
2887-8PU	Pentium M 715	1.5	128MB	14.1" XGA	30GB	CD	* Intel 11b/g	Extreme 2	10/100	No	Yes	XP Home 1-yr	E July 04
2887-P2U	Pentium M 710	1.4	256MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Extreme 2	10/100	No	Yes	XP Pro 1-yr	Nov 04
2887-P3U	Pentium M 710	1.4	256MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Extreme 2	Gigabit	Yes	Yes	XP Pro 1-yr	Nov 04
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Celeron M Processor 1.3GHz or 330 (1.4GHz), 340 (1.5GHz) with 400MHz bus or Intel Pentium M Processor 1.5GHz or Intel Pentium M Processor 710 (1.4GHz) or 715 (1.5GHz) with Enhanced Intel SpeedStep™ technology¹ and 400MHz system bus <i>Celeron M: 512KB; Pentium M: 1MB; Pentium M 710/715: 2 MB; All: ECC</i>										SOFTWARE¹⁴		
L2 cache Memory	128 or 256MB std / 2GB max⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket avail										Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive CD Combo Ultrabay Enhanced Disk	None standard / use optional USB-based diskette drive <i>Some: CD-ROM / 24X-10X⁹ speed / removable from Ultrabay Enhanced</i> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Enhanc</i> One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 20GB⁸, 30GB, or 40GB (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										Windows XP Professional models - Microsoft Windows XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)		
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>										Preloaded (all) • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo)		
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										Downloadable (all) • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage		
Dimensions ³	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm</i> with optical drive and battery: <i>14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)</i>										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166		
Weight ²	with optical drive and battery: <i>14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)</i>										ThinkPlus 3-year LOR 9x5 NBD 41C9168		
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										ThinkPlus 5-year LOR 9x5 NBD 41C9173		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										ThinkPlus 3-year P&L P/U Depot 41C9170		
Battery - life ¹⁰	<i>Celeron M models: up to 3.5 hr; Pentium M models: up to 4.0 hr; Optional High Capacity 9-cell: up to 6.0 hr</i>										ThinkPlus 4-year P&L P/U Depot 41C9172		
Architecture	Intel 855GME chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										ThinkPlus 5-year P&L P/U Depot 41C9174		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	<i>Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard</i>												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Wireless upg ³⁶	<i>Some: wireless upgradable with wireless Mini PCI options</i>												
Intel 11b/g ³²	<i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i>												
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible												
Modem	56K ⁵ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Ethernet	<i>Some: 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®</i> <i>Some: Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN</i>												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant												
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades²² available												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 5-year LOR 9x5 NBD			
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			41C9173			
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ThinkPlus 3-year P&L P/U Depot			
Second HDD Adapter for Ultrabay Slim	41U3148			ThinkPad Multiple Battery Charger II			22P9040			41C9170			
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270			11a/b/g Wireless Mini PCI Adapter II			73P4301			ThinkPlus 4-year P&L P/U Depot			
CD-RW/DVD Combo Ultrabay Enhanced	73P3275			ThinkPad Port Replicator II			74P6733			41C9172			
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624			ThinkPad Mini Dock			287810U			ThinkPlus 5-year P&L P/U Depot			
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637			ThinkPad Dock II			287710U			41C9174			
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273			ThinkPad Convertible Monitor Stand			40Y7620			Post-warranty annual maintenance agreements at			
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137			Verizon Wireless V620 WWAN PC Card ²⁵			40Y9137			at lenovo.com/thinkplus/warranty			
ThinkVision® L201p 20.1" Monitor (black)	9220HB1			Other options at lenovo.com/options									

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced on April 6, July 13, September 14, November 30, or December 21, 2004
US models withdrawn effective January 2005, March 2005, or February 2007

ThinkPad® R51 (2888) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	Ethernet CDC modem planar	IEEE 1394 port	Security chip	Limited warranty ¹²	Workhorse (W) Global (G) Entry (E)	Avail date
2888-4AU	Pentium® M	1.6	256MB	14.1" XGA	30GB	CD	*Intel 11b/g ³²	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-47U	Pentium M	1.5	256MB	14.1" XGA	20GB	DVD	Open; wireless upg ³⁶	Mod 10/100	No	Yes	XP Pro 3-yr	W G	Apr 2004
2888-5RU	Pentium M	1.6	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes	XP Pro 3-yr	W	Apr 2004
2888-4BU	Pentium M	1.6	256MB	14.1" XGA	30GB	DVD	11b/g ³²	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-6AU	Pentium M	1.6	256MB	15.0" XGA	30GB	DVD	11b/g	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-68U	Pentium M	1.6	256MB	15.0" XGA	30GB	CD	*Intel 11b/g	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-69U	Pentium M	1.6	256MB	15.0" XGA	30GB	DVD	Open; wireless upg	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-7JU	Pentium M	1.6	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes	XP Pro 3-yr	W	Apr 2004
2888-BQU	Pentium M 725	1.6	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes	XP Pro 3-yr		July 2004
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 1.5 or 1.6GHz or Intel Pentium M Processor 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus <i>Pentium M: 1MB; Pentium M 725: 2MB; All: on die (at processor speed) / ECC</i>										SOFTWARE¹⁴		
L2 cache											Windows XP Professional		
Memory	256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
CD	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced										• Access Program		
DVD	<i>Some:</i> DVD-ROM / 8X-3.3X ⁹ speed / single-layer / removable from Ultrabay Enhanced										• Access Connections™		
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance										• Rescue and Recovery™		
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 20GB ⁸ , 30GB, or 40GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										• Norton AntiVirus (OEM edition)		
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• PC-Doctor™		
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										• ThinkPad Utilities		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• Adobe® Reader		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Update Connector™ ¹⁵		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• RecordNOW and Drive Letter		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										Access powered by Sonic products (combo models)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (combo, DVD models)		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										Downloadable		
Weight ²	with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)										• IBM Director Agent		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• System Migration Assistant		
Battery - life ¹⁰	Up to 4.7 hr; <i>Optional High Capacity 9-cell:</i> up to 6.9 hr										• Client Security Software (for security chip)		
Architecture	Intel 855GME chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										Licence (CD not included)		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port												
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage		
IEEE 1394	<i>Some:</i> IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Universal 72 watt AC adapter		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Asset ID™ ³⁴ (system-specific info in chip accessed over network)		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										PC 2001 and PXE 2.0-compliant		
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI options										ACPI 1.0b and 2.0-compliant		
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										CIM and DMI 2.0-compliant		
11b/g ³²	<i>Some:</i> 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset										ENERGY STAR®-compliant		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ImageUltra™ Services available		
Modem	56K ⁹ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										International Warranty Service ¹⁷		
Bluetooth	None										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Ethernet	<i>Some:</i> 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®										ThinkPlus™ ²² 2-year LOR 9x5 NBD		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										41C9175		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 3-year LOR 9x5 NBD		
Security chip	Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										41C9176		
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										41C9177		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkVision® E500 Projector	0038A05										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	72W Slim AC/DC Combo Adapter	73P4485										
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Mini Dock	287810U										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Dock II	287710U										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Convertible Monitor Stand	40Y7620										
ThinkPad Carrying Case - BackPack	73P3599	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137										
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at lenovo.com/options											

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced April 6 or July 13, 2004

(2888) February 2007

US models withdrawn effective March 2005 or February 2007

ThinkPad® R51 (2888) - September 2004 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	GHz Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	Ethernet IEEE CDC on 1394 port	Security chip	Limited Workhorse (W) warranty ¹²	Global (G) Entry (E)	Avail date
2888-P9U	Pentium® M 715a	1.5	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g ³²	Mod 10/100	No	Yes XP Pro	3-yr	Jan 2005
2888-PAU	Pentium M 715a	1.5	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	Jan 2005
2888-PBU	Pentium M 715a	1.5	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes XP Pro	3-yr	Jan 2005
2888-ESU	Pentium M 735	1.7	256MB	14.1" XGA	30GB	DVD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W G Sep 2004
2888-ETU	Pentium M 735	1.7	256MB	14.1" XGA	30GB	CD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-EUU	Pentium M 735	1.7	256MB	14.1" XGA	30GB	DVD	Open; wireless upg ³⁶	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-FMU	Pentium M 735	1.7	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes XP Pro	3-yr	W Sep 2004
2888-GRU	Pentium M 735	1.7	256MB	15.0" XGA	30GB	CD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-GSU	Pentium M 735	1.7	256MB	15.0" XGA	30GB	DVD	Open; wireless upg	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-GTU	Pentium M 735	1.7	256MB	15.0" XGA	30GB	DVD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-M9U	Pentium M 735	1.7	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes XP Pro	3-yr	W Sep 2004
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 715 /715a (1.5GHz) or 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴	
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional	
Memory	256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ - <i>Pxx models only</i> : Service Pack 2 ♦ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded	
CD	<i>Some</i> : CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced										• Access Program	
DVD	<i>Some</i> : DVD-ROM / 8X-3.3X ⁹ speed / single-layer / removable from Ultrabay Enhanced										• Access Connections™	
Combo	<i>Some</i> : DVD-ROM/CD-RW / 24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™	
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 30GB⁸ or 40GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										• Norton AntiVirus (OEM edition) • PC-Doctor™	
Display	<i>Some</i> : 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some</i> : 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo, DVD models)	
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										Downloadable	
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										License (CD not included)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH) : 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH) : 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models : 6.0 lb (2.7kg); 15.0" models : 6.6 lb (3.0kg)										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage	
Weight ²											Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
Case material	<i>Color</i> : black; <i>All</i> : Acrylonitrile-Butadiene-Styrene (ABS) plastic											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced											
Battery - life ¹⁰	Up to 4.0 hr; <i>Optional High Capacity 9-cell</i> : up to 6.2 hr											
Architecture	Intel 855GME chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI14510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
IEEE 1394	<i>Some</i> : IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Wireless upg ³⁶	<i>Some</i> : wireless upgradable with wireless Mini PCI options											
Intel 11b/g ³²	<i>Some</i> : 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Bluetooth	None											
Ethernet	<i>Some</i> : 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® <i>Some</i> : Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant										ThinkPlus™ ²² 2-year LOR 9x5 NBD 41C9175	
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										ThinkPlus 3-year LOR 9x5 NBD 41C9176	
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 4-year LOR 9x5 NBD		41C9177			
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 5-year LOR 9x5 NBD		41C9178			
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 4-year P&L P/U Depot		41C9179			
Second HDD Adapter for Ultrabay Slim	41U3148		11a/b/g Wireless Mini PCI Adapter II		73P4301		ThinkPlus 5-year P&L P/U Depot		41C9180			
CD-RW/DVD Combo Ultrabay Enhanced	73P3275		72W Slim AC/DC Combo Adapter		73P4485		Post-warranty annual maintenance agreements at		lenovo.com/thinkplus/warranty			
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkPad Port Replicator II		74P6733							
USB Fingerprint Reader	41U3167		ThinkPad Mini Dock		287810U							
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		ThinkPad Dock II		287710U							
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Convertible Monitor Stand		40Y7620							
ThinkPad Carrying Case - Organizer	73P3598		Verizon Wireless V620 WWAN PC Card ²⁵		40Y9137							
ThinkVision® L201p 20.1" Monitor (black)	9220HB1		Other options at lenovo.com/options									

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced September 14, 2004 or January 11, 2005
US models withdrawn effective November 2005 or February 2007

ThinkPad® R51 (2887/2888) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	IEEE1394 port	Security chip	Limited warranty ¹²	Workhorse (W) Global (G) Avail Entry (E) date
2887-2RU	Celeron® M	1.3	256MB	14.1" XGA	30GB	CD	Intel 11b/g ³²	Modem	Extreme™ 2	No	Yes	1-year	XP Pro Educ Apr 04
2888-2RU	Celeron M	1.3	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Apr 04
2888-EVU	Celeron M 340	1.5	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Sep 04
2888-2WU	Pentium® M	1.5	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Apr 04
2888-EWU	Pentium M 725	1.6	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Sep 04

• The 2887 has an EasyServ™¹⁹ onsite pickup and delivery 1-year limited warranty

• The 2888 has an EasyServ™ onsite pickup and delivery 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Celeron M Processor 1.3GHz or 340 (1.5GHz) with 400MHz system bus or Intel Pentium M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴		
L2 cache	Celeron M: 512KB; Pentium M 1.5GHz: 1MB; Pentium M 725: 2MB; All: on die / ECC										Windows XP Professional		
Memory	256MB std / 2GB max⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
CD	<i>Some: CD-ROM / 24X-10X⁹ speed / removable from Ultrabay Enhanced</i>										• Access Program		
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Enhanced</i>										• Access Connections™		
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 30GB⁸ or 40GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										• Rescue and Recovery™		
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Norton AntiVirus (OEM edition)		
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										• PC-Doctor™		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• ThinkPad Utilities		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Adobe® Reader		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Update Connector™ ¹⁵		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Access powered by Sonic products (combo model)		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm										• InterVideo WinDVD (combo model)		
Weight ²	with optical drive and battery: 6.0 lb (2.7kg)										Downloadable		
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										• IBM Director Agent		
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 2nd battery in Ultrabay Enhanced										• Software Delivery Assistant		
Battery - life ¹⁰	<i>Celeron models: up to 3.4 hr; Pentium model: up to 4.0 hr; Optional 9-cell: up to 6.2 hr</i>										• System Migration Assistant		
Architecture	Intel 855GME chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI-bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Client Security Software (for security chip)		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										License (CD not included)		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Video out	S-video out port (TV out) / one industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
IEEE 1394	None												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Wireless upg ³⁶	<i>Some: wireless upgradable with wireless Mini PCI options</i>												
Intel 11b/g ³²	<i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i>												
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth	None												
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	2887: 1-year - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² available 2888: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades²² avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ options at lenovo.com/thinkplus/warranty Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040										
DVD-ROM Ultrabay Enhanced Drive	39X2642	Preferred Pro USB Fingerprint Keyboard	73P4730										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	Kensington® MicroSaver® Security Cable	73P2582										
Super Multi-Burner Ultrabay Enh Drv (curve)	40Y8624	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273										
USB Fingerprint Reader	41U3167	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716										
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad 72W AC Adapter	02K6699										
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485										
Lenovo M500 Projector	0037A05	ThinkPad Convertible Monitor Stand	40Y7620										
ThinkPad Carrying Case - Leather	73P3600	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137										
Lenovo D221 Wide 22" Monitor (black)	6622HB1	Other options at lenovo.com/options											
ThinkPad Port Replicator II	74P6733												
ThinkPad Mini Dock	287810U												
ThinkPad Dock II	287710U												
TrackPoint Cap Collection	73P2698												
ThinkPad Monitor Stand 2001	22P5265												

See footnotes for important warranty information

US models announced April 6 or September 14, 2004

US models withdrawn effective January 2005, November 2005, or February 2007

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ThinkPad® R51 (2889) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	IEEE Secu- 1394 port	Preload chip	Workhorse (W) Limited Global (G) Avail Entry (E) date
2889-2RU	Celeron® M	1.3	256MB	14.1" XGA	30GB	CD	Intel 11b/g ³²	Modem	Extreme™ 2	No	Yes	XP Pro Onsite Educ Apr 04
2889-EVU	Celeron M 340	1.5	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme 2	No	Yes	XP Pro Onsite Educ Sep 04
2889-2WU	Pentium® M	1.5	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	Yes	XP Pro Onsite Educ Apr 04
2889-EWU	Pentium M 725	1.6	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	Yes	XP Pro Onsite Educ Sep 04

• **The 2889 has a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Celeron M Processor 1.3GHz or 340 (1.5GHz) with 400MHz system bus or Intel Pentium M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴
L2 cache Memory	<i>Celeron M: 512KB; Pentium M 1.5GHz: 1MB; Pentium M 725: 2MB; All: on die / ECC</i> 256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ✦ Disk-to-Disk Recovery (in hidden protected area)
Diskette drive CD Combo	None standard / use optional USB-based diskette drive <i>Some: CD-ROM / 24X-10X⁹ speed / removable from Ultrabay Enhanced</i> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Enhanc</i>										Preloaded • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo model) • InterVideo WinDVD (combo model)
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 30GB⁸ or 40GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)
Dimensions ³ Weight ² Case material	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm with optical drive and battery: 6.0 lb (2.7kg) <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>Celeron models: up to 3.5 hr; Pentium model: up to 4.0 hr; Optional 9-cell: up to 6.2 hr</i>										
Architecture	Intel 855GME chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4150 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										
PC Card Std slots Ports	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										
Video out IEEE 1394	S-video out port (TV out) / one 4-pin industry standard connector None										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage
Wireless antenna Mini PCI	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable										
CDC Modem Bluetooth	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset None										Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR™-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)
Ethernet Audio support	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										
Limited warranty ¹²	3-year/1-year battery, limited onsite service, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190								
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040								
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273								
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716								
Super Multi-Burner Ultrabay Enh Drv (curve)	40Y8624	Intel PRO/Wireless 2915ABG Mini PCI	41N2990								
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter II	73P4301								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad 72W AC Adapter	02K6699								
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485								
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo M500 Projector	0037A05								
Kensington® MicroSaver® Security Cable	73P2582	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137								
ThinkPad Carrying Case - Organizer	73P3598	ThinkPad Convertible Monitor Stand	40Y7620								
Lenovo D221 Wide 22" Monitor (black)	6622HB1	PC Card Gemplus Smart Card Reader	41N3004								
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at lenovo.com/options									
ThinkPad Port Replicator II			74P6733								
ThinkPad Mini Dock			287810U								
ThinkPad Dock II			287710U								
TrackPoint Cap Collection			73P2698								
ThinkPad Monitor Stand			22P5265								

See footnotes for important warranty information

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US models announced April 6 or September 14, 2004

(2889E) February 2007

US models withdrawn effective January 2005, November 2005, or February 2007

ThinkPad® R51 (2883) - TopSeller (September 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Secu- rity chip	Limited warranty ¹² Preload	Workhorse (W) Global (G) Avail Entry (E) date
2883-GXU	Celeron® M 330	1.4	512KB	256MB	15.0" XGA	30GB	Combo	Intel 11b/g ³²	Modem	Extreme™ 2	Yes	1-yr XP Pro	No Dec 04
2883-GHU	Celeron M 340	1.5	512KB	256MB	15.0" XGA	30GB	Combo	Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04
2883-GJU	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	Combo	Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04
2883-ELU	Pentium® M 725	1.6	2MB	256MB	14.1" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04
2883-GKU	Pentium M 725	1.6	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04

• These small and medium business (SMB) models are part of the US TopSeller™ Program • The 2883 has a 1-year limited warranty

Positioning	Mainstream performance and features; two-spindle system										
Processor	Intel® Celeron M Processor 330 (1.4GHz), 340 (1.5GHz) or 350 (1.3GHz) with 400MHz system bus or Intel Pentium M Processor 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										
L2 cache	Celeron M 330/340: 512KB; Celeron M 350: 1MB; Pentium M 725: 2 MB; All: ECC										
Memory	256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										
Diskette drive	None standard / use optional USB-based diskette drive										
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance										
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high										
Disk	30GB⁸ (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										
Display	<i>Some: 14.1"</i> (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some: 15.0"</i> (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: <i>14.1" models:</i> 6.0 lb (2.7kg); <i>15.0" models:</i> 6.6 lb (3.0kg)										
Weight ²											
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										
Battery - life ¹⁰	<i>Celeron M models:</i> up to 3.4 hr; <i>Pentium M models:</i> up to 4.0 hr; <i>Optional High Capacity 9-cell:</i> up to 6.2 hr										
Architecture	Intel 855GME chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										
Video out	S-video out port (TV out) / one 4-pin industry standard connector										
IEEE 1394	None										
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										
Modem	56K ⁵ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										
Bluetooth	None										
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®										
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available										
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ ²² 1-year LOR 9x5 NBD							
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	41C9166							
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	41C9167							
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 3-year LOR 9x5 NBD							
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	41C9168							
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716	ThinkPlus 4-year LOR 9x5 NBD							
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301	41C9171							
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 5-year LOR 9x5 NBD							
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Port Replicator II	74P6733	41C9173							
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Mini Dock	287810U	ThinkPlus 2-year P&L P/U Depot							
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Dock II	287710U	41C9169							
Kensington® MicroSaver® Security Cable	73P2582	PC Card Gemplus Smart Card Reader	41N3004	ThinkPlus 3-year P&L P/U Depot							
SonyEricsson® GC83 EDGE PC Card	26K3393	Lenovo D221 Wide 22" Monitor (black)	6622HB1	41C9170							
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkVision® L201p 20.1" Monitor (black)	9220HB1	41C9172							
ThinkPad Carrying Case - Expander	73P3597	Lenovo M500 Projector	0037A05	41C9174							
ThinkPad Carrying Case - BackPack	73P3599	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkPlus 5-year P&L P/U Depot							
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							

See footnotes for important warranty information
US models announced September 14 or December 21, 2004
US models withdrawn effective March 2005 or February 2007

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ThinkPad® R52 (1846) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 print port reader	Secu- rity chip	Workhorse or Global Entry	Avail date	
1846-59U	Pentium® M 740	1.73	256MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g ³²	Modem	No	No	Yes	No	Mar 05
<p align="center">• This model has a 1 year limited warranty</p>														
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 740 (1.73GHz) with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional			
Memory	256MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™ • Access IBM			
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high										• Access Connections • Norton AntiVirus			
Disk	40GB⁸ (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System (shock protection)										• PC-Doctor™ • ThinkPad Utilities • Adobe Reader			
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo model)			
Graphics	ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory										• InterVideo WinDVD (combo model) • Client Security Software (for security chip)			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										Downloadable			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass /										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										License (CD not included)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage			
Weight ²	with optical drive and battery: 14.1" model: 6.1 lb (2.8kg)										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										ServicePac® ²² 1yr IOR 9x5 NBD 30L9188			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										ServicePac 2 yr IOR 9x5 NBD 30L9189			
Battery - life ¹⁰	Up to 3.6 hr; Optional 9-cell: up to 5.6 hr										ServicePac 3 yr IOR 9x5 NBD 30L9195			
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										ServicePac 4 yr IOR 9x5 NBD 30L9194			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										ServicePac 5 yr IOR 9x5 NBD 30L9196			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ServicePac 2 yr P&L P/U Depot 30L9191			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ServicePac 3 yr P&L P/U Depot 30L9192			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ServicePac 4 yr P&L P/U Depot 69P9195			
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										ServicePac 5 yr P&L P/U Depot 69P9197			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf			
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	None													
Limited warranty ¹² 1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad Multiple Battery Charger II	22P9040											
USB 2.0 Memory Key 128MB	73P4512	ThinkPad 72W AC/DC Combo Adapter	22P9010											
USB 2.0 Memory Key 256MB	22P9228	11a/b/g Wireless Mini PCI Adapter II	73P4301											
USB 2.0 Memory Key 512MB	22P9230	Intel PRO/Wireless 2200BG Mini PCI	73P2801											
USB 2.0 Portable 40GB Hard Disk	22P7196	11a/b/g Wireless CardBus Adapter	31P9101											
4GB Microdrive® with PC Card	09N4280	ThinkPad Port Replicator II	74P6733											
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Mini Dock	287810U											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Dock II	287710U											
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597											
USB Fingerprint Reader	73P4774	ThinkPad Carrying Case - Backpack	73P3599											
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Carrying Case - Leather	73P3600											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Carrying Case - Organizer	73P3598											
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	M400 Projector	0037A04											
Enh Perf Wireless Keyboard and Mouse	73P4067	E400 Projector	0038A04											
USB Travel Keyboard with UltraNav	31P9490	TrackPoint Cap Collection	73P2698											
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Monitor Stand 2001	22P5265											
Optical 3-Button Travel Wheel Mouse	31P7410	SonyEricsson® GC83 EDGE PC Card	26K3393											
Kensington® MicroSaver® Security Cable	73P2582	Other options at lenovo.com/options												

See footnotes for important warranty information
US model announced March 1, 2005
US model withdrawn effective September 2005

* Powered by Intel Centrino™ mobile technology

ThinkPad® R52 (1846) - August 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty ¹²	Workhorse or Global Entry	Avail date
1846-96U	Pentium® M 750	1.86	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g ³²	Modem	1394	No	1-yr	No	Aug 05
1846-9AU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-yr	No	Aug 05
1846-9BU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-yr	No	Aug 05
1846-9CU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Mod/Blue	1394	Finger	1-yr	No	Aug 05
• These models have a 1-year limited warranty														
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Memory	256MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo model) • InterVideo WinDVD (combo model) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)			
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced													
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high										Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Disk	40GB ⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)													
Display	15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Graphics	ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										Universal 72-watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Weight ²	with optical drive and battery: 14.1" model: 6.1 lb (2.8kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (RICH® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ ²² 1-year LOR 9x5 NBD										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	41C9166										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 2-year LOR 9x5 NBD										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040	41C9167										
USB Fingerprint Reader	41U3167	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 3-year LOR 9x5 NBD										
USB Gemplus GemPC Smart Card Reader	41N3040	11a/b/g Wireless Mini PCI Adapter II	73P4301	41C9168										
USB 2.0/Analog Headset by Sennheiser	40Y8518	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 4-year LOR 9x5 NBD										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Port Replicator II	74P6733	41C9171										
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Mini Dock	287810U	ThinkPlus 5-year LOR 9x5 NBD										
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Dock II	287710U	41C9173										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Carrying Case - Expander	73P3597	ThinkPlus 2-year P&L P/U Depot										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Backpack	73P3599	41C9169										
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Carrying Case - Leather	73P3600	ThinkPlus 3-year P&L P/U Depot										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Organizer	73P3598	41C9170										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkVision® E500 Projector	0038A05	ThinkPlus 4-year P&L P/U Depot										
Second HDD Adapter for Ultrabay Slim	41U3148	Lenovo M500 Projector	0037A05	41C9172										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	TrackPoint Cap Collection	73P2698	ThinkPlus 5-year P&L P/U Depot										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Monitor Stand	22P5265	41C9174										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Convertible Monitor Stand	40Y7620	Post-warranty annual maintenance agreements at										
USB Travel Keyboard with UltraNav	31P9490	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	lenovo.com/thinkplus/warranty										
Kensington® MicroSaver® Security Cable	73P2582	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective February 2007

* Powered by Intel Centrino® mobile technology

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ThinkPad® R52 (1847) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Security Limited chipwarranty ¹²	Workhorse (W) Global (G) Entry (E)	Avail date	
1847-22U	Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g ³²	Modem	No	Yes	3-year	W G	Mar 05
1847-28U	Pentium M 750	1.86	256MB	14.1" XGA	X300 32MB	40GB	Combo	* Intel 11a/b/g ³²	Modem	No	Yes	3-year	W	Mar 05
1847-29U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1847-2BU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1847-32U	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	40HS	Combo	* Intel 11b/g	Modem	No	Yes	3-year	W G	Mar 05
1847-38U	Pentium M 750	1.86	256MB	15.0" XGA	X300 32MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1847-39U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1847-3CU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	No	Yes	3-year	W	Mar 05
1847-3JU	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	Yes	3-year	W	Mar 05
1847-46U	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	1394	Yes	3-year	W	Mar 05
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional			
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high / 40GB⁸ (4200 rpm), 40GB (HS 5400 rpm), or 60GB (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)										• Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Client Security Software (for security chip)			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Graphics	Some: ATI™ MOBILITY™ RADEON™ X300 / PCI Express x16 / 32MB GDDR1 memory Some: ATI MOBILITY RADEON X300 / PCI Express x16 / 64MB GDDR1 memory										Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)													
Weight ²														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr													
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	None										ThinkPlus™. ²² 2-year LOR 9x5 NBD 41C9175			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™. ¹⁹ onsite pickup and delivery / service upgrades ²² avail										ThinkPlus 3-year LOR 9x5 NBD 41C9176			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 4-year LOR 9x5 NBD 41C9177							
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 5-year LOR 9x5 NBD 41C9179							
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 4-year P&L P/U Depot 41C9178							
USB Portable Diskette Drive	05K9276		72W Slim AC/DC Combo Adapter		73P4485		ThinkPlus 5-year P&L P/U Depot 41C9180							
USB Fingerprint Reader	41U3167		11a/b/g Wireless Mini PCI Adapter II		73P4301		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							
USB 2.0 Memory Key 1GB	40Y7421		Intel PRO/Wireless 2915ABG Mini PCI		41N2990									
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Port Replicator II		74P6733									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Mini Dock		287810U									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Dock II		287710U									
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkPad Carrying Case - Expander		73P3597									
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkVision® L201p 20.1" Monitor (black)		9220HB1									
Preferred Pro USB Fingerprint Keyboard	73P4730		Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced March 1, 2005
US models withdrawn effective September 2005 or February 2007

* Powered by Intel Centrino® mobile technology

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ThinkPad® R52 (1847) - August 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 print port reader	Warranty ¹²	Workhorse (W) Limited Global (G) Avail Entry (E) date
1847-82U	Pentium® M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g ³²	Modem	No	No	3-year W G Aug 05
1847-83U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	No	Finger	3-year W G Aug 05
1847-92U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	No	3-year W G Aug 05
1847-93U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	Finger	3-year W G Aug 05
1847-8EU	Pentium M 760	2.00	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g ³²	Modem	No	No	3-year W Aug 05
1847-8FU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Finger	3-year W Aug 05
1847-8GU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger	3-year W Aug 05
1847-8HU	Pentium M 760	2.00	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger	3-year W Aug 05
1847-AFU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	1394	Finger	3-year W Aug 05
1847-AGU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB	DVD±RW	* Intel 11a/b/g	Modem	1394	Finger	3-year W Aug 05
1847-9PU	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger	3-year W Aug 05
1847-9QU	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Finger	3-year W Aug 05
1847-9SU	Pentium M 760	2.00	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger	3-year W Aug 05
1847-9TU	Pentium M 760	2.00	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger	3-year W Aug 05
1847-B2U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	Open; upg ³⁶	Modem	No	No	3-year W Aug 05
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴	
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional	
Memory	512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded	
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™	
Ultrabay Enhanced Disk	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB ⁸ (5400 rpm), 60GB (5400 rpm), or 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)										• Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										• InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)	
Graphics	ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory										Downloadable	
Keyboard TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant	
Touch pad ThinkLight™	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage	
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175	
Battery - type	Up to 3.6 hr; Optional 9-cell: up to 5.6 hr										ThinkPlus 3-year LOR 9x5 NBD 41C9176	
Battery - life ¹⁰	One Type I or Type II slot / CardBus 32-bit / integrated door										ThinkPlus 4-year LOR 9x5 NBD 41C9177	
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										ThinkPlus 5-year LOR 9x5 NBD 41C9179	
PC Card Std slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ThinkPlus 4-year P&L P/U Depot 41C9178	
ExpressCard slot	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ThinkPlus 5-year P&L P/U Depot 41C9180	
Ports	S-video out port (TV out) / one 4-pin industry standard connector Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable Some: wireless upgradable with wireless Mini PCI options Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Video out	One Communications Daughter Card (CDC) socket / customer accessible											
IEEE 1394	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Wireless antenna	None											
Mini PCI	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Wireless upg ³⁶	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Intel 11b/g ³²	Power-on password / hard disk password / supervisor password / security keyhole											
Intel 11a/b/g ³²	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant											
CDC	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip											
Modem	Limited warranty ¹² 3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail											
Bluetooth™	256MB PC2-4200 DDR2 NP CL4 SOD 73P3840											
Ethernet	ThinkPad T40/R50 Li-Ion Battery 6-cell 92P1101											
Audio support	512MB PC2-4200 DDR2 NP CL4 SOD 73P3842											
Security	ThinkPad T40/R50 Li-Ion Battery 9-cell 92P1102											
Security chip	1GB PC2-4200 DDR2 NP CL4 SOD 73P3844											
Fingerprint reader	100GB Hard Disk 9.5mm PATA (5400 rpm) 40Y8716											
Limited warranty ¹²	Second HDD Adapter for Ultrabay Slim 41U3148											
	Super Multi-Burner Ultrabay Enh Drv (curved)40Y8624											
	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective June or November 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® R52 (1847) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ³ and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty ¹²	Avail date
1847-2FU	Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	* Intel 11a/b/g ³²	Modem 1394	No	EasyServ	Mar 05	
1847-2GU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	EasyServ	Mar 05	
1847-4BU	Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	EasyServ	Mar 05	
1847-2KU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	11a/b/g II ³²	Modem 1394	No	EasyServ	Aug 05	
1847-2LU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	EasyServ	Aug 05	
1847-4XU	Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	EasyServ	Aug 05	
1847-8JU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB 5400	Combo	* Intel 11a/b/g	Modem 1394	Finger	EasyServ	Aug 05	
1847-8KU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	EasyServ	Aug 05	
1847-AJU	Pentium M 750	1.86	1GB	15.0" SXGA+	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	EasyServ	Aug 05	

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**
 These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning	Processor	L2 cache	Memory	Diskette drive	Combo	DVD±RW	Ultrabay Enhanced	Disk	Display	Graphics	Keyboard	TrackPoint®	Touch pad	ThinkLight™	Dimensions ³	Weight ²	Case material	Battery - type	Battery - life ¹⁰	Architecture	PC Card Std slot	ExpressCard slot	Ports	Video out	IEEE 1394	Wireless antenna	Mini PCI	Intel 11a/b/g ³²	11a/b/g II ³²	CDC	Modem	Ethernet	Audio support	Security	Security chip	Fingerprint reader	Limited warranty ¹²																																								
Mainstream performance and features; two-spindle system		Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus		2MB / on die (at processor speed) / ECC		512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail		None standard / use optional USB-based diskette drive Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance		Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced		One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high		40GB ³ (4200 or 5400 rpm) or 60GB (4200 or 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System		Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits		Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits		ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory		87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)		TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones		Illuminates the keyboard to improve visibility in low-light conditions		14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm		15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm		with optical drive and batt: 14.1" models: up to 6.2 lb; 15" models: up to 6.6 lb (3.0kg)		Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic		Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced		Up to 3.6 hr; Optional 9-cell: up to 5.6 hr		Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Richtek® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])		One Type I or Type II slot / CardBus 32-bit / integrated door		One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)		S-video out port (TV out) / one 4-pin industry standard connector		IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard		UltraConnect™ Antenna built into the display cover for optimal wireless signal reception		One Mini PCI type III slot (Communications Bay) / customer upgradable		Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset		Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip		One Communications Daughter Card (CDC) socket / customer accessible		56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset		Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE		Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)		Power-on password / hard disk password / supervisor password / security keyhole		Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant		Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip		3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail	
SOFTWARE¹⁴										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)																																																																			
Preloaded										<ul style="list-style-type: none"> Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ Rescue and Recovery™ Access Program Access Connections™ Norton AntiVirus PC-Doctor™ ThinkPad Utilities Adobe® Reader RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) InterVideo WinDVD (combo, DVD±RW models) InterVideo WinDVD Creator (DVD±RW models) Client Security Software (for security chip) 																																																																			
Downloadable										<ul style="list-style-type: none"> IBM Director Agent Software Delivery Assistant System Migration Assistant 																																																																			
License (CD not included)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																																			
ThinkPad notebooks implement ThinkVantage® technologies and design;										visit thinkpad.com/thinkvantage																																																																			
Universal 72 watt AC adapter										PC 2001-compliant																																																																			
ACPI 1.0b and 2.0-compliant										CIM and DMI 2.0-compliant																																																																			
PXE 2.1-compliant										ENERGY STAR®-compliant																																																																			
International Warranty Service ¹⁷										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²																																																																			
ThinkPlus™ ²² 2-year LOR 9x5 NBD										41C9175																																																																			
ThinkPlus 3-year LOR 9x5 NBD										41C9176																																																																			
ThinkPlus 4-year LOR 9x5 NBD										41C9177																																																																			
ThinkPlus 5-year LOR 9x5 NBD										41C9179																																																																			
ThinkPlus 4-year P&L P/U Depot										41C9178																																																																			
ThinkPlus 5-year P&L P/U Depot										41C9180																																																																			
Post-warranty annual maintenance agreements at										lenovo.com/thinkplus/warranty																																																																			

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
 US models announced March 1, August 2, or August 16, 2005
 US models withdrawn effective November 2005, June 2006, or February 2007

ThinkPad® R52 (1848) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE Finger 1394 port	3 year limited warranty ¹²	Workhorse (W) or Global Entry	Avail date
1848-83U	Pentium® M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g ³²	Modem	No	Finger	Onsite	W Gbl Aug 05
1848-93U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	Finger	Onsite	W Gbl Aug 05
<p>• These models have a limited onsite service²⁴ 3-year limited warranty</p>													
Positioning Processor	<p>Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, and 533MHz system bus</p>										<p>SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)</p>		
L2 cache	<p>2MB / on die (at processor speed) / ECC</p>										<p>Preloaded • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)</p>		
Memory	<p>512MB std / 2GB max⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available</p>										<p>Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant</p>		
Diskette drive	<p>None standard / use optional USB-based diskette drive</p>										<p>License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>		
Combo	<p>DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Enhance</p>												
Ultrabay Enhanced Disk	<p>One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™</p>												
Display	<p>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits</p>												
Graphics	<p>ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory</p>												
Keyboard	<p>87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)</p>												
TrackPoint®	<p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p>												
Touch pad	<p>UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones</p>												
ThinkLight™	<p>Illuminates the keyboard to improve visibility in low-light conditions</p>												
Dimensions ³	<p>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: 14.1" mod: 6.1 lb (2.8kg); 2GU: 6.2 lb; 15" mod: 6.6 lb (3.0kg)</p>												
Weight ²													
Case material	<p>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</p>												
Battery - type	<p>Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced</p>												
Battery - life ¹⁰	<p>Up to 3.6 hr; Optional 9-cell: up to 5.6 hr</p>												
Architecture	<p>Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])</p>												
PC Card Std slot	<p>One Type I or Type II slot / CardBus 32-bit / integrated door</p>												
ExpressCard slot	<p>One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door</p>												
Ports	<p>Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)</p>												
Video out	<p>S-video out port (TV out) / one 4-pin industry standard connector</p>												
IEEE 1394	<p>None</p>												
Wireless antenna	<p>UltraConnect™ Antenna built into the display cover for optimal wireless signal reception</p>												
Mini PCI	<p>One Mini PCI type III slot (Communications Bay) / customer upgradable</p>												
Intel 11b/g ³²	<p>11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip</p>												
CDC	<p>One Communications Daughter Card (CDC) socket / customer accessible</p>												
Modem	<p>56K⁶ V.90 (V.92-designed²⁹) modem in CDC / Conexant® chipset</p>												
Bluetooth™	<p>None</p>												
Ethernet	<p>Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE</p>												
Audio support	<p>Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)</p>												
Security	<p>Power-on password / hard disk password / supervisor password / security keyhole</p>												
Security chip	<p>Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant</p>												
Fingerprint reader	<p>Fingerprint reader on palm rest / swipe sensor / integrated with security chip</p>												
Limited warranty ¹²	<p>3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time</p>												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Fingerprint Reader	41U3167	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 Lenovo Webcam	40Y8519	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Port Replicator II	74P6733										
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Mini Dock	287810U										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Dock II	287710U										
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Carrying Case - Expander	73P3597										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - BackPack	73P3599										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Leather	73P3600										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Organizer	73P3598										
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkVision® E500 Projector	0038A05										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	TrackPoint Cap Collection	73P2698										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Monitor Stand	22P5265										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Convertible Monitor Stand	40Y7620										
USB Travel Keyboard with UltraNav	31P9490	SonyEricsson® GC83 EDGE PC Card	26K3393										
Optical 3-Button Travel Wheel Mouse	31P7410	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137										
Kensington® MicroSaver® Security Cable	73P2582	Other options at lenovo.com/options											

See footnotes for important warranty information
 US models announced August 2, 2005
 US models withdrawn effective November 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® R52 (1848) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁸ and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ ⁹ Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty ¹²	Avail date
1848-2FU Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	* Intel 11a/b/g ³²	Modem 1394	No	Onsite Mar 05			
1848-2GU Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	Onsite Mar 05			
1848-4BU Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	Onsite Mar 05			
1848-2KU Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	11a/b/g II ³²	Modem 1394	No	Onsite Aug 05			
1848-2LU Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	Onsite Aug 05			
1848-4XU Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	Onsite Aug 05			
1848-8MU Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB 5400	Combo	* Intel 11a/b/g	Modem 1394	Finger	Onsite Aug 05			
1848-8NU Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	Onsite Aug 05			
1848-ALU Pentium M 750	1.86	1GB	15.0" SXGA+	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	Onsite Aug 05			

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus								SOFTWARE¹⁴				
L2 cache	2MB / on die (at processor speed) / ECC								Windows XP Professional				
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail								- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive								Preloaded				
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced								• Education software from Vital Source Technologies®: vidualsource KEY™ and Personal Portable library™				
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (4200 or 5400 rpm) or 60GB (4200 or 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System								• Rescue and Recovery™				
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits								• Access Program				
Graphics	ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory								• Access Connections™				
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)								• Norton AntiVirus				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass								• PC-Doctor™				
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones								• ThinkPad Utilities				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions								• Adobe® Reader				
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: <i>14.1" models:</i> up to 6.2 lb; <i>15" models:</i> up to 6.6 lb (3.0kg)								• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)				
Weight ²									• InterVideo WinDVD (combo, DVD±RW models)				
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic								• InterVideo WinDVD Creator (DVD±RW models)				
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced								• Client Security Software (for security chip)				
Battery - life ¹⁰	Up to 3.6 hr; <i>Optional 9-cell:</i> up to 5.6 hr								Downloadable				
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count (LPC) interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])								• IBM Director Agent				
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door								• Software Delivery Assistant				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door								• System Migration Assistant				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)								License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
11a/b/g II ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole								ThinkPad notebooks implement ThinkVantage® technologies and design;				
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant								visit thinkpad.com/thinkvantage				
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time								Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Multiple Battery Charger II	22P9040										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	72W Slim AC/DC Combo Adapter	73P4485										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Port Replicator II	74P6733										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Mini Dock	287810U										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision® L201p 20.1" Monitor (black)	9220HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology

US models announced March 1, August 2, or August 16, 2005

US models withdrawn effective November 2005, June 2006, or February 2007

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ThinkPad® R52 (1849) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 port	Secu- rity chip	Workhorse or Global Entry	Avail date
1849-2JU	Pentium® M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	DVD±RW	* Intel 11a/b/g ³²	Mod/Blue	1394	No	Yes	Mar 05
1849-3VU	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	1394	No	Yes	Mar 05
1849-4VU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	1394	No	Yes	Mar 05
1849-4WU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80HS	DVD±RW	* Intel 11a/b/g	Mod/Blue	1394	No	Yes	Mar 05
1849-5SU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	40HS	Combo	* Intel 11b/g ³²	Modem	1394	No	Yes	Mar 05
1849-5UU	Pentium M 740	1.73	256MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	No	No	Yes	Mar 05
1849-5ZU	Pentium M 740	1.73	256MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	1394	No	Yes	Mar 05
1849-6VU	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	No	Yes	Mar 05
1849-4PU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB	Combo	* Intel 11b/g	Modem	No	No	Yes	Mar 05
1849-4QU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80HS	DVD±RW	* Intel 11a/b/g	Mod/Blue	1394	No	Yes	Mar 05
1849-4RU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB	DVD±RW	* Intel 11b/g	Modem	1394	No	Yes	Mar 05

- These small and medium business (SMB) models are part of the US Think Express Program
- These 1849 models have a 1 year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 740 (1.73GHz), 750 (1.86GHz), or 760 (2.00GHz) with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus								SOFTWARE¹⁴				
L2 cache	2MB / on die (at processor speed) / ECC								Windows XP Professional				
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail								- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive								Preloaded				
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced								• Rescue and Recovery™				
Ultrabay Enhanced Disk	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (4200 rpm), 40GB (HS 5400 rpm), 60GB (4200 rpm), 80GB⁸ (4200 rpm), or 80GB (HS 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System (shock protection)								• Access IBM • Access Connections • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Client Security Software (for security chip)				
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits								• Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant				
Graphics	ATI® MOBILITY™ RADEON X300 / PCI Express x16 / 64MB GDDR1 memory								• License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions								ThinkPad notebooks implement ThinkVantage™ technologies and design; visit ibm.com/thinkvantage				
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: 14.1" mod: 6.1 lb (2.8kg); 2JU: 6.2 lb; 15" mod: 6.6 lb (3.0kg)								Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic								ServicePac®. ²² 1yr IOR 9x5 NBD 30L9188				
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced								ServicePac 2 yr IOR 9x5 NBD 30L9189				
Battery - type	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr								ServicePac 3 yr IOR 9x5 NBD 30L9195				
Battery - life ¹⁰	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr								ServicePac 4 yr IOR 9x5 NBD 30L9194				
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])								ServicePac 5 yr IOR 9x5 NBD 30L9196				
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door								ServicePac 2 yr P&L P/U Depot 30L9191				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door								ServicePac 3 yr P&L P/U Depot 30L9192				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)								ServicePac 5 yr P&L P/U Depot 69P9197				
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None												
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ServicePac 5 yr IOR 9x5 NBD		30L9196				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ServicePac 2 yr P&L P/U Depot		30L9191				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ServicePac 3 yr P&L P/U Depot		30L9192				
USB 2.0 Memory Key 512MB	22P9230		ThinkPad Port Replicator II		74P6733		ServicePac 5 yr P&L P/U Depot		69P9197				
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357		ThinkPad Mini Dock		287810U								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Dock II		287710U								
Second HDD Adapter for Ultrabay Slim	62P4554		ThinkPad Carrying Case - Backpack		73P3599								
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312		Other options at lenovo.com/options										

See footnotes for important warranty information
US models announced March 1, 2005
US models withdrawn effective September 2005

* Powered by Intel Centrino™ mobile technology

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ThinkPad® R52 (1849) - Express (August 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Finger print reader	Security chip	Workhorse or Global Entry	Avail date
1849-8CU	Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g ³²	Modem	1394	Finger	Yes	No	Aug 05
1849-8DU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	DVD±RW	* Intel 11a/b/g ³²	Mod/Blue	1394	Finger	Yes	No	Aug 05
1849-9WU	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	1394	Finger	Yes	No	Aug 05
1849-ADU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	1394	Finger	Yes	No	Aug 05

- These small and medium business (SMB) models are part of the US Think Express Program
- These 1849 models have a 1 year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz) with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional			
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™			
Ultrabay Enhanced Disk	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System (shock protection)										• Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										• Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Graphics	ATI® MOBILITY™ RADEON X300 / PCI Express x16 / 64MB GDDR1 memory													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: 14.1" mod: 6.1 lb (2.8kg); 2JU: 6.2 lb; 15" mod: 6.6 lb (3.0kg)													
Weight ²														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr													
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage			
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Stereo audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant										ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip										ThinkPlus 3-year LOR 9x5 NBD 41C9168			
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available										ThinkPlus 4-year LOR 9x5 NBD 41C9171			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 5-year LOR 9x5 NBD		41C9173	
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPad Multiple Battery Charger II		22P9040		ThinkPlus 2-year P&L P/U Depot		41C9169	
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		11a/b/g Wireless CardBus Adapter		31P9101		ThinkPad Port Replicator II		74P6733		ThinkPlus 3-year P&L P/U Depot		41C9170	
USB 2.0 Portable Multi-Burner Drive	22P9163		ThinkPad Mini Dock		287810U		USB 2.0 Memory Key 1GB		40Y7421		ThinkPlus 4-year P&L P/U Depot		41C9172	
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Dock II		287710U		100GB Hard Disk 9.5mm PATA (5400 rpm)		40Y8716		ThinkPlus 5-year P&L P/U Depot		41C9174	
USB Portable Diskette Drive	05K9276		ThinkPad Carrying Case - Expander		73P3597		USB FingerPrint Reader		73P4774		Post-warranty annual maintenance agreements at		lenovo.com/thinkplus/warranty	
Second HDD Adapter for Ultrabay Slim	62P4554		ThinkPad Carrying Case - BackPack		73P3599		CD-RW/DVD Combo Ultrabay Enhanced		73P3275					
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312		ThinkPad Carrying Case - Organizer		73P3598		Optical 3-Button Travel Wheel Mouse		31P7410					
Optical 3-Button Travel Wheel Mouse	31P7410		ThinkVision® E500 Projector		0038A05		Kensington® MicroSaver® Security Cable		73P2582					
Kensington® MicroSaver® Security Cable	73P2582		ThinkPad Monitor Stand		22P5265									

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective June 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® R52 (1858) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Secu-1394 port	rity Chipset	91x Preload or Global Avail	Workhorse or Entry date
1858-22U	Celeron® M 360	1.4	256MB	14.1" XGA	GMA 900	40GB	CD	Open; upg ³⁶	Modem	No	Yes	GML	Home No Mar 05
1858-4UU	Celeron M 360	1.4	256MB	15.0" XGA	GMA 900	40GB	CD	Open; upg	Modem	No	Yes	GML	Home No Mar 05
1858-3BU	Pentium® M 740	1.73	512MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g ³²	Mod/Blue	1394	Yes	GM	Pro No Mar 05
1858-4MU	Pentium M 760	2.00	512MB	15.0" SXGA+	GMA 900	80GB	DVD±RW	* Intel 11a/b/g ³²	Mod/Blue	1394	Yes	GM	Pro No Mar 05
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Celeron M Processor 360 (1.4GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) or 760 (2.00GHz) with enhanced Intel SpeedStep™ technology ¹ . Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴		
L2 cache	Celeron M: 1 MB ; Pentium M: 2MB ; All: on die (at processor speed) / ECC										Windows XP Home models		
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Home Edition ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Windows XP Professional models		
CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced										- Microsoft Windows XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										◇ Disk-to-Disk Recovery (in hidden protected area)		
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced												
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high												
Disk	40GB⁸ (4200 rpm), 40GB (HS 5400 rpm), or 80GB (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System (shock protection)										Preloaded (all) • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Client Security Software (for security chip)		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										Downloadable (all) • IBM Director Agent • Software Delivery Assistant • System Migration Assistant		
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit ibm.com/thinkvantage		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
ThinkLight™													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)										ServicePac ²² 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196		
Weight ²													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced												
Battery - life ¹⁰	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; <i>Optional 9-cell: up to 5.8 hr</i>										Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf		
Architecture	Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										Other options at lenovo.com/options		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Wireless upg ³⁶	Some: wireless upgradable with wireless Mini PCI options												
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92 designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None												
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101								
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102								
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190								
USB 2.0 Portable Multi-Burner Drive	22P9163		ThinkPad 72W AC/DC Combo Adapter		22P9010								
USB 2.0 Memory Key 512MB	22P9230		11a/b/g Wireless Mini PCI Adapter II		73P4301								
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357		Intel PRO/Wireless 2200BG Mini PCI		73P2801								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		11a/b/g Wireless CardBus Adapter		31P9101								
USB Fingerprint Reader	73P4774		ThinkPad Port Replicator II		74P6733								
Second HDD Adapter for Ultrabay Slim	62P4554		ThinkPad Mini Dock		287810U								
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312		ThinkPad Dock II		287710U								
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkPad Carrying Case - Organizer		73P3598								
Preferred Pro USB Fingerprint Keyboard	73P4730		E400 Projector		0038A04								
Kensington® MicroSaver® Security Cable	73P2582												

See footnotes for important warranty information
US models announced March 1, 2005
US models withdrawn effective September 2005

* Powered by Intel Centrino™ mobile technology

ThinkPad® R52 (1858) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Integrated graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Finger print reader	Chip set 91x cells	Bat- tery war- ranty ¹²	Limited work- horse or Global Avail Entry date		
1858-9EU	Celeron® M 370	1.5	256MB	14.1" XGA	GMA 40GB	CD		Open; upg ³⁶	Modem	No	No	GML	6-cell	1 yr	No	Aug 05
1858-9FU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 40GB	Combo	* Intel 11b/g ³²		Modem	No	Finger	GM	6-cell	1 yr	No	Aug 05
1858-9GU	Pentium M 750	1.86	256MB	14.1" XGA	GMA 40GB	Combo	* Intel 11b/g		Modem	No	Finger	GM	6-cell	1 yr	No	Aug 05
1858-9HU	Pentium M 750	1.86	256MB	15.0" XGA	GMA 40GB	Combo	* Intel 11b/g		Modem	No	Finger	GM	6-cell	1 yr	No	Aug 05
1858-9LU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 40GB	Combo	* Intel 11b/g		Modem	Yes	No	GM	6-cell	1 yr	No	Aug 05
1858-AAU	Pentium M 770	2.13	512MB	15.0" XGA	GMA 80GB	DVD±RW	* Intel 11a/b/g ³²	Mod/Blue	Yes	Finger	GM	6-cell	1 yr	No	Aug 05	
1858-AKU	Pentium M 780	2.26	512MB	15.0" SXGA+	GMA 100G	DVD±RW	* Intel 11a/b/g	Mod/Blue	Yes	No	GM	9-cell	1 yr	No	Aug 05	
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Celeron M Processor 370 with Execute Disable Bit and 400MHz system bus or Intel® Pentium® M Processor 740, 750, 770, 780 with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											SOFTWARE¹⁴				
L2 cache	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC											Windows XP Professional				
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive											Preloaded				
CD	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced											• Rescue and Recovery™				
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced											• Access Program				
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk in Ultrabay Enhanced with option / Hard Disk Drive Shock Absorber / Active Protection System											• Access Connections™				
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits											• Norton AntiVirus				
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz											• PC-Doctor™				
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											• ThinkPad Utilities				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											• Adobe Reader				
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• InterVideo WinDVD (combo, DVD±RW models)				
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm											• InterVideo WinDVD Creator (DVD±RW models)				
Weight ²	with optical drive and battery: <i>14.1" models:</i> 6.1 lb (2.8kg); <i>15" models:</i> 6.6 lb (3.0kg)											• Fingerprint Software (fingerprint models)				
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic											• Client Security Software (for security chip)				
Battery - type	Lithium Ion 6- or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced											Downloadable				
Battery - life ¹⁰	<i>6-cell:</i> up to 3.9 hr; <i>9-cell:</i> up to 5.7 hr											• IBM Director Agent				
Architecture	<i>Some:</i> Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])											• System Delivery Assistant				
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											• System Migration Assistant				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											License (CD not included)				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Video out	S-video out port (TV out) / one 4-pin industry standard connector											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage				
IEEE 1394	<i>Some:</i> IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard											Universal 72 watt AC adapter				
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											PC 2001-compliant				
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											ACPI 1.0b and 2.0-compliant				
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI options											CIM and DMI 2.0-compliant				
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											PXE 2.1-compliant				
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											ENERGY STAR®-compliant				
CDC	One Communications Daughter Card (CDC) socket / customer accessible											International Warranty Service ¹⁷				
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)											ThinkPlus™.22 1yr LOR 9x5 NBD				
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											41C9166				
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											ThinkPlus 2 yr LOR 9x5 NBD				
Security	Power-on password / hard disk password / supervisor password / security keyhole											41C9167				
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant											ThinkPlus 3 yr LOR 9x5 NBD				
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip											41C9168				
Limited warranty ¹²	1 year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available											ThinkPlus 4 yr LOR 9x5 NBD				
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 5 yr LOR 9x5 NBD		41C9171							
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 2 yr P&L P/U Depot		41C9173							
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 3 yr P&L P/U Depot		41C9169							
USB Fingerprint Reader	73P4774		72W Slim AC/DC Combo Adapter		73P4485		ThinkPlus 4 yr P&L P/U Depot		41C9170							
USB 2.0 Portable Multi-Burner Drive	22P9163		11a/b/g Wireless Mini PCI Adptr II		73P4301		ThinkPlus 5 yr P&L P/U Depot		41C9172							
USB 2.0 Memory Key 1GB	40Y7421		11a/b/g Wireless CardBus Adapter		31P9101		Post-warranty annual maintenance agreements at		41C9174							
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Port Replicator II		74P6733		agreements at									
Second HDD Adapter for Ultrabay Slim	62P4554		ThinkPad Mini Dock		287810U		lenovo.com/thinkplus/warranty									
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312		ThinkPad Dock II		287710U											
Kensington® MicroSaver® Security Cable	73P2582		Other options at lenovo.com/options													

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective February 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® R52 (1859) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Security chip	Chipset 91x	Workhorse or Global Avail	date
1859-28U	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g ³²	Modem	1394	Yes	915GM	No	Mar 05
1859-4YU	Celeron® M 350	1.3	256MB	15.0" XGA	GMA 900	40GB	Combo	Intel 11b/g	Modem	1394	Yes	910GML	No	Mar 05
1859-5RU	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	1394	Yes	915GM	No	Mar 05
1859-4AU	Pentium M 740	1.73	512MB	15.0" SXGA+	GMA 900	60GB	Combo	* Intel 11a/b/g ³²	Modem	1394	Yes	915GM	No	Mar 05
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US Think Express Program • These 1859 models have a 1 year limited warranty 														
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Celeron M Processor 350 (1.3GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	Celeron M: 1 MB ; Pentium M: 2MB ; All: on die (at processor speed) / ECC										Windows XP Professional			
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (4200 rpm) or 60GB (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System										• Access IBM • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • RecordNow and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Client Security Software (for security chip)			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										• Downloadable			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										License (CD not included)			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass /										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)										ServicePac [®] . ²² 1yr IOR 9x5 NBD 30L9188			
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										ServicePac 2 yr IOR 9x5 NBD 30L9189			
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										ServicePac 3 yr IOR 9x5 NBD 30L9195			
Battery - type	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; <i>Optional 9-cell</i> : up to 5.8 hr										ServicePac 4 yr IOR 9x5 NBD 30L9194			
Battery - life ¹⁰	Architecture										ServicePac 5 yr IOR 9x5 NBD 30L9196			
Architecture	Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										ServicePac 2 yr P&L P/U Depot 30L9191			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										ServicePac 3 yr P&L P/U Depot 30L9192			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ServicePac 4 yr P&L P/U Depot 69P9195			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ServicePac 5 yr P&L P/U Depot 69P9197			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf			
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	None													
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ServicePac 3 yr P&L P/U Depot 30L9192				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			ServicePac 4 yr P&L P/U Depot 69P9195				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ServicePac 5 yr P&L P/U Depot 69P9197				
USB 2.0 Portable Multi-Burner Drive	22P9163			ThinkPad 72W AC/DC Combo Adapter			22P9010							
USB 2.0 Memory Key 512MB	22P9230			11a/b/g Wireless Mini PCI Adptr II			73P4301							
USB 2.0 Portable 40GB Hard Disk	22P7196			Intel PRO/Wireless 2200BG Mini PCI			73P2801							
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273			11a/b/g Wireless CardBus Adapter			31P9101							
USB Fingerprint Reader	73P4774			ThinkPad Port Replicator II			74P6733							
Second HDD Adapter for Ultrabay Slim	62P4554			ThinkPad Mini Dock			287810U							
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312			ThinkPad Dock II			287710U							
Enh Perf Wireless Keyboard and Mouse	73P4067			M400 Projector			0037A04							
Preferred Pro USB Fingerprint Keyboard	73P4730			ThinkPad Carrying Case - Leather			73P3600							
Kensington® MicroSaver® Security Cable	73P2582			Other options at lenovo.com/options										

See footnotes for important warranty information
US models announced March 1, 2005
US models withdrawn effective September 2005

* Powered by Intel Centrino™ mobile technology

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ThinkPad® R52 (1859) - TopSeller (July 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Security chip	Chipset or 91x	Workhorse or Global Entry	Avail date
1859-6VU	Celeron® M 360	1.4	256MB	15.0" XGA	GMA 900	40GB	Combo	Intel 11b/g ³²	Modem	1394	Yes	910GML	No	July 05
1859-6WU	Celeron M 370	1.5	256MB	15.0" XGA	GMA 900	40GB	Combo	Intel 11b/g	Modem	1394	Yes	910GML	No	July 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 1859 models have a 1-year limited warranty

Positioning	Mainstream performance and features; two-spindle system												
Processor	Intel® Celeron M Processor 360 (1.4GHz) or 370 (1.5GHz) with 400MHz system bus												
Features	Celeron M Processor 370: Execute Disable Bit												
L2 cache	1 MB / on die (at processor speed) / ECC												
Memory	256MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced												
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high												
Disk	40GB ⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™												
Display	15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits												
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory with 256MB+ / 200MHz												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm												
Weight ²	with optical drive and battery: 15" models: 6.6 lb (3.0kg)												
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced												
Battery - life ¹⁰	Optional 6-cell: up to 2.2 hr; Optional 9-cell: up to 4.2 hr												
Architecture	Mobile Intel 910GML Express Chipset / 82910GML Graphics Memory Cont Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None												
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™.22 1-year LOR 9x5 NBD	41C9166								
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 2-year LOR 9x5 NBD	41C9167								
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 3-year LOR 9x5 NBD	41C9168								
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 4-year LOR 9x5 NBD	41C9171								
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 5-year LOR 9x5 NBD	41C9173								
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 2-year P&L P/U Depot	41C9169								
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year P&L P/U Depot	41C9170								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Port Replicator II	74P6733	ThinkPlus 4-year P&L P/U Depot	41C9172								
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Mini Dock	287810U	ThinkPlus 5-year P&L P/U Depot	41C9174								
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Dock II	287710U	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Expander	73P3597										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Backpack	73P3599										
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkPad Carrying Case - Leather	73P3600										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Carrying Case - Organizer	73P3598										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkVision® C400 Wireless Projector	0039WA1										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Monitor Stand	22P5265										
USB Travel Keyboard with UltraNav	31P9490	Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Convertible Monitor Stand	40Y7620										
Kensington® MicroSaver® Security Cable	73P2582	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced July 6, 2005
US models withdrawn effective February 2007

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ThinkPad® R52 (1859) - TopSeller (August 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty ¹²	Workhorse or Global Entry	Avail date
1859-B6U	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	DVD	Open; upg ³⁶	Modem	1394	No	1-year	No	Aug 05
1859-B7U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g ³²	Modem	1394	Finger	1-year	No	Aug 05
1859-B8U	Pentium M 740	1.73	512MB	14.1" XGA	GMA 900	60GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-year	No	Aug 05
1859-B9U	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-year	No	Aug 05
1859-BAU	Pentium M 740	1.73	512MB	15.0" SXGA+	GMA 900	60GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-year	No	Aug 05
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These 1859 models have a 1-year limited warranty 														
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Features L2 cache	2MB / on die (at processor speed) / ECC													
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail													
Diskette drive	None standard / use optional USB-based diskette drive													
DVD	Some: DVD-ROM / 8X-3.3X ⁹ speed / single-layer / removable from Ultrabay™ Enhance													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance													
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB ⁸ (5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits													
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery; 15" models: 6.6 lb (3.0kg)													
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - type	Optional 6-cell: up to 2.2 hr; Optional 9-cell: up to 4.2 hr													
Battery - life ¹⁰														
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1150 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)]) / One Type I or Type II slot / CardBus 32-bit / integrated door													
PC Card Std slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
ExpressCard slot	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Ports														
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg ³⁶	Some: wireless upgradable with wireless Mini PCI options													
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 4-year LOR 9x5 NBD		41C9166					
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 5-year LOR 9x5 NBD		41C9171					
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 2-year P&L P/U Depot		41C9169					
USB Portable Diskette Drive	05K9276		72W Slim AC/DC Combo Adapter		73P4485		ThinkPlus 3-year P&L P/U Depot		41C9170					
USB Fingerprint Reader	41U3167		11a/b/g Wireless Mini PCI Adapter II		73P4301		ThinkPlus 4-year LOR 9x5 NBD		41C9172					
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad Port Replicator II		74P6733		ThinkPlus 5-year P&L P/U Depot		41C9173					
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Mini Dock		287810U		ThinkPlus 2-year P&L P/U Depot		41C9174					
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Dock II		287710U		ThinkPlus 3-year P&L P/U Depot		41C9175					
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkPad Carrying Case - Expander		73P3597		ThinkPlus 4-year P&L P/U Depot		41C9176					
CD-RW/DVD Combo Ultrabay Enhanced	73P3275		ThinkPad Carrying Case - BackPack		73P3599		ThinkPlus 5-year P&L P/U Depot		41C9177					
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkPad Carrying Case - Leather		73P3600		ThinkPlus 6-year P&L P/U Depot		41C9178					
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkPad Carrying Case - Organizer		73P3598		ThinkPlus 7-year P&L P/U Depot		41C9179					
USB Travel Keyboard with UltraNav	31P9490		ThinkPad Monitor Stand		22P5265		Post-warranty annual maintenance agreements at							
Preferred Pro USB Fingerprint Keyboard	73P4730		ThinkPad Convertible Monitor Stand		40Y7620		agreements at							
ThinkVision® L201p 20.1" Monitor (black)	9220HB1		Other accessories at lenovo.com/accessories				lenovo.com/thinkplus/warranty							

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective February 2007

* Powered by Intel Centrino® mobile technology

ThinkPad® R52 (1860) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Security chip	Warranty ¹² Limited or Global (G) or Entry (E)	Workhorse (W) or Global (G) Entry (E)	Avail date
1860-2BU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g ³²	Modem	No	Yes	3-year	W G	Mar 05
1860-2MU	Pentium M 750	1.86	256MB	14.1" XGA	GMA 900	40GB	CD	* Intel 11a/b/g ³²	Modem	No	Yes	3-year	W	Mar 05
1860-2NU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1860-4QU	Pentium M 750	1.86	512MB	15.0" SXGA+	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1860-5EU	Pentium M 740	1.73	512MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	3-year	W G	Mar 05
1860-5BU	Pentium M 750	1.86	256MB	15.0" XGA	GMA 900	40GB	CD	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1860-5CU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional			
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™			
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Access Program			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (4200 rpm) or 40GB (HS 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										• Access Connections™			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										• Norton AntiVirus			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• PC-Doctor™			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Adobe® Reader			
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• Update Connector™ ¹⁵			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)										• Client Security Software (for security chip)			
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										Downloadable			
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• IBM Director Agent			
Battery - type	Up to 3.8 hr; <i>Optional 9-cell:</i> up to 5.8 hr										• Software Delivery Assistant			
Battery - life ¹⁰											• System Migration Assistant			
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	None													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	None										Universal 72 watt AC adapter PC 2001-compliant			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ACPI 1.0b and 2.0-compliant			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										CIM and DMI 2.0-compliant			
Security	Power-on password / hard disk password / supervisor password / security keyhole										PXE 2.1-compliant			
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant										ENERGY STAR®-compliant			
Fingerprint reader	None										International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ ²² 2-year LOR 9x5 NBD										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	41C9175										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 3-year LOR 9x5 NBD										
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485	41C9176										
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 4-year LOR 9x5 NBD										
USB 2.0 Portable Multi-Burner Drive	22P9163	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	41C9177										
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year LOR 9x5 NBD										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock	287810U	41C9179										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Dock II	287710U	41C9178										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Carrying Case - Expander	73P3597	41C9179										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Leather	73P3600	41C9180										
Preferred Pro USB Fingerprint Keyboard	73P4730	Lenovo M500 Projector	0037A05											
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® L201p 20.1" Monitor (black)	9220HB1											
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US models announced March 1, 2005
US models withdrawn effective February 2007

* Powered by Intel Centrino® mobile technology

ThinkPad® R52 (1860) - August 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Integrated graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 print port reader	Workhorse (W) Limited or Global (G) or Entry (E)	Avail date
1860-9GU	Pentium® M 750	1.86	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g ³²	Modem	No	Finger 3-year	W G Aug 05
1860-BQU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g ³²	Modem	No	Finger 3-year	W Aug 05
1860-BRU	Pentium M 760	2.00	512MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-BSU	Pentium M 760	2.00	256MB	14.1" XGA	GMA 900	40GB	CD	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-BTU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1860-BUU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	No	No 3-year	W G Aug 05
1860-BZU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	No	Finger 3-year	W G Aug 05
1860-C2U	Pentium M 760	2.00	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-C3U	Pentium M 760	2.00	256MB	15.0" XGA	GMA 900	40GB	CD	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-C4U	Pentium M 750	1.86	512MB	15.0" SXGA+	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	Yes	Finger 3-year	W Aug 05
1860-C5U	Pentium M 760	2.00	512MB	15.0" SXGA+	GMA 900	60GB	Combo	* Intel 11a/b/g	Modem	Yes	Finger 3-year	W Aug 05
1860-CDU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 900	40GB	Combo	Open; upg ³⁶	Modem	No	No 3-year	W Aug 05
1860-CPU	Pentium M 750	1.86	1GB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	No	No 3-year	W Jan 06
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴	
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional	
Memory	256MB, 512MB, or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded	
CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced										• Rescue and Recovery™	
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced										• Access Program	
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB ⁸ (5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System										• Access Connections™	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										• Norton AntiVirus	
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM										• PC-Doctor™	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Adobe® Reader	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (combo models)	
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										• FingerPrint Software (fingerprint models)	
Weight ²	with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)										• Client Security Software (for security chip)	
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										Downloadable	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• IBM Director Agent	
Battery - life ¹⁰	Up to 3.8 hr; <i>Optional 9-cell</i> : up to 5.8 hr										• Software Delivery Assistant	
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										• System Migration Assistant	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										License (CD not included)	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage	
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Universal 72 watt AC adapter	
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										PC 2001-compliant	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ACPI 1.0b and 2.0-compliant	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										CIM and DMI 2.0-compliant	
Wireless upg ³⁶	Some: wireless upgradable with wireless Mini PCI options										PXE 2.1-compliant	
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										ENERGY STAR®-compliant	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										International Warranty Service ¹⁷	
CDC	One Communications Daughter Card (CDC) socket / customer accessible										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ThinkPlus 3-year LOR 9x5 NBD 41C9176	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPlus 4-year LOR 9x5 NBD 41C9177	
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 5-year LOR 9x5 NBD 41C9179	
Security chip	Embedded Security Subsystem 2.0³⁵ / in NS PC8394T chip / TCG-compliant										ThinkPlus 4-year P&L P/U Depot 41C9178	
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip										ThinkPlus 5-year P&L P/U Depot 41C9180	
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301									
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Port Replicator II	74P6733									
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Mini Dock	287810U									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Dock II	287710U									
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Expander	73P3597									
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	Other accessories at lenovo.com/accessories										

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced August 2, 2005 or January 17, 2006
US models withdrawn effective August 2006, November 2006, or February 2007

ThinkPad® R52 (1860) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸ rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ TM Bluetooth	IEEE 1394 port	Security chip	Chipset 91x	Limited warranty ¹²	Avail date
1860-25U	Celeron® M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	CD	Intel 11b/g ³²	Modem	1394	Yes	GML	EasyServ	Mar 05
1860-26U	Celeron M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	Combo	Intel 11b/g	Modem	1394	Yes	GML	EasyServ	Mar 05
1860-3RU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g	Modem	1394	Yes	GML	EasyServ	July 05
1860-3SU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394	Yes	GML	EasyServ	July 05
1860-3MU	Pentium® M 725a	1.60	256MB	14.1" XGA	GMA	60GB 5400	Combo	*Intel 11a/b/g ³²	Modem	1394	Yes	GM	EasyServ	Jun 05
1860-2YU	Pentium M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	EasyServ	Mar 05
1860-5SU	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	EasyServ	Mar 05
<p>• These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Celeron M Processor 350 or 360 or Pentium M Processor 725a (1.60GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC										Windows XP Professional			
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
CD	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™			
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enh										• Rescue and Recovery™			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB⁸ (4200 or 5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System										• Access Program			
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• Access Connections™			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Norton AntiVirus			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• PC-Doctor™			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• ThinkPad Utilities			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Adobe® Reader			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ ¹⁵			
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
Weight ²	with optical drive and battery: <i>14.1" models:</i> 6.1 lb (2.8kg); <i>15" models:</i> 6.6 lb (3.0kg)										• InterVideo WinDVD (combo models)			
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Client Security Software (for security chip)			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										Downloadable			
Battery - life ¹⁰	<i>Celeron models:</i> up to 2.2 hr; <i>Pentium models:</i> up to 3.8 hr; <i>Optional 9-cell:</i> up to 5.8 hr										• IBM Director Agent			
Architecture	<i>Some:</i> Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										• Software Delivery Assistant			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• System Migration Assistant			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										License (CD not included)			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Universal 72 watt AC adapter			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001-compliant			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant			
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										CIM and DMI 2.0-compliant			
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										PXE 2.1-compliant			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ENERGY STAR®-compliant			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										International Warranty Service ¹⁷			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™. ²² 2-year LOR 9x5 NBD			
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant										41C9175			
Fingerprint reader	None										ThinkPlus 3-year LOR 9x5 NBD			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail										41C9176			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 4-year LOR 9x5 NBD				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			41C9177				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ThinkPlus 5-year LOR 9x5 NBD				
USB Fingerprint Reader	41U3167			11a/b/g Wireless Mini PCI Adapter II			73P4301			41C9179				
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637			ThinkPad Port Replicator II			74P6733			ThinkPlus 4-year P&L P/U Depot				
USB 2.0 Portable 80GB Hard Disk	40Y8726			ThinkPad Mini Dock			287810U			41C9178				
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273			ThinkPad Dock II			287710U			ThinkPlus 5-year P&L P/U Depot				
Second HDD Adapter for Ultrabay Slim	41U3148			ThinkPad Carrying Case - Expander			73P3597			41C9180				
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624			ThinkVision® L201p 20.1" Monitor (black)			9220HB1			Post-warranty annual maintenance agreements at				
Preferred Pro USB Fingerprint Keyboard	73P4730			Other accessories at lenovo.com/accessories						lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced March 1, June 28, or July 6, 2005

(RY4) February 2007

US models withdrawn effective January 2006 or February 2007

ThinkPad® R52 (1860) - Education (August 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸ rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE Finger 1394 print reader	Chipset 91x	Limited warranty ¹²	Avail date
1860-C6U	Celeron® M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g ³²	Modem	1394 No	GML	EasyServ	Aug 05
1860-C7U	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394 No	GML	EasyServ	Aug 05
1860-3VU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	11a/b/g II ³²	Modem	1394 No	GM	EasyServ	Aug 05
1860-86U	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	11a/b/g II	Modem	1394 No	GM	EasyServ	Aug 05
1860-C8U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g ³²	Modem	1394 No	GM	EasyServ	Aug 05
1860-C9U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394 Finger	GM	EasyServ	Aug 05
1860-CAU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394 No	GM	EasyServ	Aug 05
1860-CBU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394 Finger	GM	EasyServ	Aug 05

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**
These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Processor	Intel® Celeron M Processor 360 with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC	
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	
CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced	
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enh	
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high	
Disk	40GB ⁸ (4200 or 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits	
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)	
Weight ²		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life ¹⁰	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr	
Architecture	Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip	
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant	
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip	
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail	

256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 5-year LOR 9x5 NBD	41C9175
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 4-year LOR 9x5 NBD	41C9179
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year P&L P/U Depot	41C9178
USB Fingerprint Reader	41U3167	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year P&L P/U Depot	41C9180
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Mini Dock	287810U	Post-warranty annual maintenance agreements at	
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Dock II	287710U	lenovo.com/thinkplus/warranty	
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Expander	73P3597		
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkVision® L201p 20.1" Monitor (black)	9220HB1		
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at lenovo.com/accessories			

See footnotes for important warranty information
US models announced August 2 or August 16, 2005
US models withdrawn effective June 2006 or February 2007

* Powered by Intel Centrino® mobile technology

ThinkPad® R52 (1861) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ¹ rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ TM Bluetooth TM	IEEE 1394 port	Security chip	Chipset 91x	Limited warranty ¹²	Avail date
1861-25U	Celeron® M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	CD	Intel 11b/g ³²	Modem	1394	Yes	GML	Onsite	Mar 05
1861-26U	Celeron M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	Combo	Intel 11b/g	Modem	1394	Yes	GML	Onsite	Mar 05
1861-3TU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g	Modem	1394	Yes	GML	Onsite	Mar 05
1861-3UU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394	Yes	GML	Onsite	Mar 05
1861-2YU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g ³²	Modem	1394	Yes	GM	Onsite	Mar 05
1861-5SU	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	Onsite	Mar 05

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Celeron M Processor 350 (1.3) or 360 (1.4GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	<i>Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</i>										Windows XP Professional			
Memory	256 or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
CD	<i>Some: CD-ROM / 24X-10X⁹ speed / removable from Ultrabay Enhanced</i>										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™			
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Enh</i>										• Rescue and Recovery™			
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high										• Access Program			
Disk	40GB⁸ (4200 or 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)										• Access Connections™			
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>										• Norton AntiVirus			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• PC-Doctor™			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Adobe® Reader			
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• Update Connector™ ¹⁵			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
Dimensions ³	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm</i> with optical drive and battery: <i>14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)</i>										• InterVideo WinDVD (combo models)			
Weight ²											• Client Security Software (for security chip)			
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										Downloadable			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• IBM Director Agent			
Battery - life ¹⁰	<i>Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr</i>										• Software Delivery Assistant			
Architecture	<i>Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub</i> <i>Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub</i> <i>All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])</i>										• System Migration Assistant			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										License (CD not included)			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g ³²	<i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip</i>													
Intel 11a/b/g ³²	<i>Some: 11a/b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset</i>													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant™ chipset													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	None													
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190									
USB Fingerprint Reader	41U3167		11a/b/g Wireless Mini PCI Adapter II		73P4301									
USB 2.0 Memory Key 1GB	40Y7421		Intel PRO/Wireless 2915ABG Mini PCI		41N2990									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Port Replicator II		74P6733									
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkPad Mini Dock		287810U									
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkPad Dock II		287710U									
Preferred Pro USB Fingerprint Keyboard	73P4730		ThinkVision® L201p 20.1" Monitor (black)		9220HB1		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							
ThinkPad Convertible Monitor Stand	40Y7620		Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced March 1 or July 6, 2005
US models withdrawn effective February 2007

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ThinkPad® R52 (1861) - Education (August 2005) - withdrawn

Created by Lenovo Training Solution
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸ rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE Finger 1394 print reader	Chipset 91x	Limited warranty ¹²	Avail date	
1861-C6U	Celeron® M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g ³²	Modem	1394	No	GML	Onsite	Aug 05
1861-C7U	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394	No	GML	Onsite	Aug 05
1861-3VU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	11a/b/g II ³²	Modem	1394	No	GM	Onsite	Aug 05
1861-86U	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	11a/b/g II	Modem	1394	No	GM	Onsite	Aug 05
1861-C8U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g ³²	Modem	1394	No	GM	Onsite	Aug 05
1861-C9U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394	Finger	GM	Onsite	Aug 05
1861-CAU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394	No	GM	Onsite	Aug 05
1861-CBU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394	Finger	GM	Onsite	Aug 05
<p>• These models have a limited onsite service²⁴ 3-year limited warranty These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Processor	Intel® Celeron M Processor 360 with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus L2 cache Memory 256 or 512MB std / 2GB max ⁷ / PC-2400 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded • Education software from Vital Source Technologies®: vidualsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)			
CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enh													
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high													
Disk	40GB⁸ (4200 or 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits													
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg) Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Weight ²														
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - type	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr													
Battery - life ¹⁰														
Architecture	Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell		08K8190										
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adptr II		73P4301										
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Port Replicator II		74P6733										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock		287810U										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Dock II		287710U										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Carrying Case - Expander		73P3597										
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
 US models announced August 2 or August 16, 2005
 US models withdrawn effective February 2007

* Powered by Intel Centrino® mobile technology

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ThinkPad® R52 (1958) - TopSeller and Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸ rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Security chip	Chipset 91x	Limited warranty ¹²	Avail date
1958-3FU	Celeron® M 350	1.3	256MB	14.1" XGA	GMA 60GB	4200	CD	Intel 11b/g ³²	Modem	1394	Yes	GML	EasyServ	Mar 05
1958-3QU	Celeron M 360	1.4	256MB	14.1" XGA	GMA 60GB	5400	Combo	Intel 11b/g	Modem	1394	Yes	GML	EasyServ	July 05
1958-3LU	Pentium® M 725a	1.60	256MB	14.1" XGA	GMA 40GB	5400	Combo	*Intel 11a/b/g ³²	Modem	1394	Yes	GM	EasyServ	Jun 05
1958-3GU	Pentium M 740	1.73	256MB	14.1" XGA	GMA 60GB	4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	EasyServ	Mar 05
1958-6QU	Pentium M 740	1.73	512MB	15.0" XGA	GMA 60GB	4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	EasyServ	Mar 05
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty 														
Positioning Processor	Mainstream performance and features; two-spindle system Intel® Celeron M Processor 350 (1.3GHz), 360 (1.4GHz) or Pentium M Processor 725a (1.60GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	technology ¹ , Execute Disable Bit, and 533MHz system bus										Windows XP Professional			
Memory	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC 256 or 512MB std / 2GB max⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay Enhanced										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™			
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enh										• Rescue and Recovery™			
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high										• Access Program			
Disk	40GB⁸ (5400 rpm), 60GB (4200 rpm), or 60GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with opt 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™										• Access Connections™			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• Norton AntiVirus			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 91x GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• PC-Doctor™			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Adobe® Reader			
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (combo models)			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)										• Client Security Software (for security chip)			
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										Downloadable			
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• IBM Director Agent			
Battery - type	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr										• Software Delivery Assistant			
Battery - life ¹⁰	Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										• System Migration Assistant			
Architecture	One Type I or Type II slot / CardBus 32-bit / integrated door										License (CD not included)			
PC Card Std slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
ExpressCard slot	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Ports	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Video out	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Universal 72 watt AC adapter			
IEEE 1394	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001-compliant			
Wireless antenna	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant			
Mini PCI	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										CIM and DMI 2.0-compliant			
Intel 11b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										PXE 2.1-compliant			
Intel 11a/b/g ³²	One Communications Daughter Card (CDC) socket / customer accessible										ENERGY STAR®-compliant			
CDC	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										International Warranty Service ¹⁷			
Modem	None										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Bluetooth™	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Ethernet	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Audio support	Power-on password / hard disk password / supervisor password / security keyhole													
Security	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Security chip	None										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
Fingerprint reader	None										ThinkPlus 3-year LOR 9x5 NBD 41C9176			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail										ThinkPlus 4-year LOR 9x5 NBD 41C9177			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 5-year LOR 9x5 NBD 41C9179				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			ThinkPlus 4-year P&L P/U Depot 41C9178				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ThinkPlus 5-year P&L P/U Depot 41C9180				
USB Fingerprint Reader	41U3167			11a/b/g Wireless Mini PCI Adapter II			73P4301			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
USB 2.0 Memory Key 1GB	40Y7421			Intel PRO/Wireless 2915ABG Mini PCI			41N2990							
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Port Replicator II			74P6733							
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716			ThinkPad Mini Dock			287810U							
Second HDD Adapter for Ultrabay Slim	41U3148			ThinkPad Dock II			287710U							
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624			ThinkPad Carrying Case - Expander			73P3597							
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137			ThinkVision® L201p 20.1" Monitor (black)			9220HB1							
ThinkPad Convertible Monitor Stand	40Y7620			Other accessories at lenovo.com/accessories										

See footnotes for important warranty information

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US models announced April 12, June 28, or July 6, 2005

(RY6) February 2007

US models withdrawn effective September 2005 or February 2007

ThinkPad® R60e (0657) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Chip-set	Preload	Avail date
0657-4HU	Celeron® M 410	1.46	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g ³²	None	None	None	GML	Home	May 06
0657-4JU	Celeron M 410	1.46	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-4KU	Celeron M 410	1.46	256MB	15.0"	XGA GMA166	40GB 5400	Combo	11a/b/g	None	None	None	GML	Home	May 06
0657-4LU	Celeron M 410	1.46	512MB	15.0"	XGA GMA166	60GB 5400	DVD±RW	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-33U	Celeron M 420	1.60	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g	None	None	None	GML	Home	May 06
0657-34U	Celeron M 420	1.60	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-35U	Celeron M 420	1.60	256MB	15.0"	XGA GMA166	40GB 5400	Combo	11a/b/g	None	None	None	GML	Home	May 06
0657-3AU	Celeron M 420	1.60	512MB	15.0"	XGA GMA166	60GB 5400	DVD±RW	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-01U	Celeron M 430	1.73	512MB	15.0"	XGA GMA166	80GB 5400	DVD±RW	11a/b/g	None	None	None	GML	XP Pro	May 07
0657-3TU	Core Duo T2400	1.83	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g ³²	None	None	None	GM	XP Pro	May 06
0657-45U	Core Solo T1300	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-46U	Core Solo T1300	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	Home	May 06
0657-48U	Core Solo T1300	1.66	512MB	15.0"	XGA GMA250	60GB 5400	DVD±RW	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-4NU	Core Solo T1400	1.83	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	XP Pro	Jul 06
0657-4PU	Core Solo T1400	1.83	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	Home	Jul 06
0657-3EU	Core Duo T2300E	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-3FU	Core Duo T2300E	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	Home	May 06
0657-4MU	Core Duo T2300E	1.66	512MB	15.0"	XGA GMA250	60GB 5400	DVD±RW	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-3JU	Core Duo T2300E	1.66	512MB	15.0"	XGA GMA250	60GB 5400	DVD±RW	* Intel 11a/b/g	None	None	None	GM	Home	May 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty²

Positioning Processor	Everyday computing; two spindles Intel® Celeron M Processor 410, 420, or 430 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Solo processor T1300 or T1400 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • DiskKeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Memory	256MB or 512MB std / 940GML models: 2GB max; 945GM models: 4GB max³¹ / PC2-5300 667MHz DDR2 / 940GML models: PC2-5300 memory supported at slower 533MHz (not 667MHz) speed / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm	
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / fixed, not removable	
Ultrabay Enhanced	None / no support for removable Ultrabay™ options	
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber	
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect ratio	
Graphics	Some: Intel Graphics Media Accelerator 950 (GMA 950) / in 940GML / 166MHz Some: Intel Graphics Media Accelerator 950 (GMA 950) / in 945GM / 250MHz	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58" ; 332mm x 269mm x 37.3-40.2mm	
Weight ²	with optical drive and battery: up to 6.3 lb (2.8 kg)	
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell / supports optional 9-cell battery	
Battery - life ¹⁰	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr	
Architecture	Some: Mobile Intel 940GML Express Chipset / 82940GML Graphics Mem Cont Hub Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PC1512 CardBus controller) / no Super I/O	
Docking station	No port replicator or docking station support	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	None	
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	One Mini PCI Express slot / not customer upgradable	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN ¹⁶	None	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	None	
Fingerprint reader	None	
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™ ²² 1-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9168 Other ThinkPlus services at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced May 16, May 30, or July 18, 2006 or May 11, 2007
US models withdrawn effective October 2006 or September 2007

* Powered by Intel Centrino® mobile technology
* Powered by Intel Centrino® Duo mobile technology

ThinkPad® R60e (0657) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	Chip-set	Preload	Avail date
0657-HQU	Core 2 Duo T5500	1.66	512MB	15.0" XGA	GMA250	80GB 5400	Combo	* Intel 11a/b/g ³²	None	None	GM	XP Pro	Oct 06
0657-HRU	Core 2 Duo T5500	1.66	1GB	15.0" XGA	GMA250	120GB 5400	DVD±RW	ThinkPad 11n ²⁸	None	None	GM	XP Pro	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹²

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T5500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>512MB model:</i> std memory in one socket; one socket available; <i>1GB model:</i> std memory in two sockets; no sockets available											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm											
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / fixed, not removable											
Ultrabay Enhance	None / no support for removable Ultrabay™ options											
Serial ATA disk (SATA150)	80GB⁸ or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber											
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect ratio											
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / in 945GM / 250MHz											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm											
Weight ²	with optical drive and battery: up to 6.6 lb (3.0kg)											
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic											
Battery - type	Lithium Ion 6-cell / supports optional 9-cell battery											
Battery - life ¹⁰	<i>6-cell:</i> up to 5.2 hr; <i>optional 9-cell:</i> up to 7.8 hr											
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PCI1512 CardBus controller) / no Super I/O											
Docking station	No port replicator or docking station support											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	None											
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	One Mini PCI Express slot / not customer upgradable											
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
ThinkPad 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x2											
WWAN ¹⁶	None											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket											
Bluetooth™	None											
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	None											
Fingerprint reader	None											
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797									
60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ThinkPad External Battery Charger	40Y7625									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659									
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 90W AC/DC Combo Adapter	40Y7630									
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05									
USB Numeric Keypad	33L3225	Lenovo C500 Projector	0039A05									
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597									
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Backpack	73P3599									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598									
USB 2.0 Security Memory Key 2GB	41U5119	Premiere Leather Carrying Case	10K0209									
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860									
USB 2.0 Port Replicator with Video	40Y8132	USB Fingerprint Reader	73P4774									
USB 2.0 Portable 80GB Hard Disk	41N8378	ThinkPad Convertible Monitor Stand	40Y7620									
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L171 17" Monitor (black)	9227AC1									
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1									
USB Keyboard with UltraNav	31P8950	ThinkVision® L171p 17" Monitor (black)	9417HC2									
USB Travel Keyboard with UltraNav	31P9490	ThinkVision L192p 19" Monitor (black)	9419HC2									
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
TrackPoint Cap Collection	73P2698	Other accessories at lenovo.com/accessories										
SOFTWARE¹⁴												
Windows XP Professional												
- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)												
↳ Disk-to-Disk Recovery (in hidden protected area)												
Preloaded												
• Microsoft Office OneNote® 2003												
• Rescue and Recovery™												
• Access Connections™												
• Client Security Solution™												
• ThinkVantage Productivity Center with Away Manager												
• ThinkVantage System Update												
• Symantec® Client Security™												
• Diskeeper Lite												
• PC-Doctor™ (diagnostics)												
• ThinkPad Utilities (Power Manager and Presentation Director)												
• Adobe® Reader												
• Google Toolbar												
• Google Desktop												
• Picasa from Google												
• Fingerprint Software (fingerprint models)												
• Multimedia Center for Think Offerings												
• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)												
• InterVideo WinDVD (combo, DVD±RW models)												
• InterVideo WinDVD Creator (DVD±RW models)												
CD included												
• Microsoft Office OneNote 2003												
License - CD not included												
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client												
Supports ThinkVantage® technologies												
65-watt AC adapter												
ThinkPad Roll Cage (one-piece magnesium frame)												
RoHS-compliant												
International Warranty Service ¹⁷												
24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²												
ThinkPlus™ ²² 1-year LOR 9x5 NBD 41C9166												
ThinkPlus 2-year LOR 9x5 NBD 41C9167												
ThinkPlus 3-year LOR 9x5 NBD 41C9168												
ThinkPlus 4-year LOR 9x5 NBD 41C9171												
ThinkPlus 5-year LOR 9x5 NBD 41C9173												
ThinkPlus 2-year P&L P/U Depot 41C9169												
ThinkPlus 3-year P&L P/U Depot 41C9170												
ThinkPlus 4-year P&L P/U Depot 41C9172												
ThinkPlus 5-year P&L P/U Depot 41C9174												

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective July 2007

* Powered by Intel Centrino® Duo mobile technology

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ThinkPad® R60e (0658) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	Chip-set	Workhorse Global (G)	Avail date
0658-53U	Celeron® M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	DVD	None; no upg	None	None	GML	XP Pro	May 06
0658-5HU	Celeron M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	DVD	None; no upg	None	None	GML	Home	May 06
0658-5YU	Celeron M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	Combo	11a/b/g ³²	None	None	GML	XP Pro	May 06
0658-G3U	Celeron M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	CD	None; no upg	None	None	GML	Home	G Oct 06
0658-6HU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	40GB 5400	Combo	*Intel 11a/b/g ³²	None	None	GM	XP Pro	May 06
0658-6KU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	60GB 5400	DVD±RW	*Intel 11a/b/g	None	None	GM	XP Pro	May 06
0658-7PU	Core Solo T1300	1.66	256MB	15.0" XGA	GMA250	40GB 5400	Combo	*Intel 11a/b/g	None	None	GM	XP Pro	May 06
0658-G4U	Core Solo T1400	1.83	512MB	15.0" XGA	GMA250	60GB 5400	Combo	*Intel 11a/b/g	None	None	GM	XP Pro	G Oct 06
0658-CKU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA250	60GB 5400	Combo	*Intel 11a/b/g	None	None	GM	XP Pro	G Oct 06
0658-CLU	Core Duo T2500	2.00	512MB	15.0" XGA	GMA250	80GB 5400	DVD±RW	*Intel 11a/b/g	None	None	GM	XP Pro	G Oct 06
Positioning Processor	Everyday computing; two spindles Intel® Celeron M Processor 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Solo processor T1300 or T1400 with single-core, Enhanced Intel Speed-Step™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache												
Memory	256MB or 512MB std / 940GML models: 2GB max; 945GM models: 4GB max³¹ / PC2-5300 667MHz DDR2 / 940GML models: PC2-5300 memory supported at slower 533MHz [not 667MHz] speed / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
EIDE CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high												
EIDE DVD	Some: DVD-ROM / 8X-3.3X ⁹ speed / single-layer / fixed, not removable / 12.7mm high												
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm												
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / fixed, not removable / 12.7mm												
Ultrabay Enhanced	None / no support for removable Ultrabay™ options												
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm), 60GB (5400 rpm), or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber												
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect ratio												
Graphics	Some: Intel Graphics Media Accelerator 950 (GMA 950) / in 940GML / 166MHz Some: Intel Graphics Media Accelerator 950 (GMA 950) / in 945GM / 250MHz												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58" ; 332mm x 269mm x 37.3-40.2mm												
Weight ²	with optical drive and battery: up to 6.3 lb (2.8 kg)												
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell / supports optional 9-cell battery												
Battery - life ¹⁰	6-cell : up to 5.2 hr; optional 9-cell : up to 7.8 hr												
Architecture	Some: Mobile Intel 940GML Express Chipset / 82940GML Graphics Mem Cont Hub Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PCI1512 CardBus controller) / no Super I/O												
Docking station	No port replicator or docking station support												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	None												
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	53U/5HU : no Mini PCI Express slot / no internal 802.11 wireless upg (use PC Card) Others : one Mini PCI Express slot / not customer upgradable												
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN ¹⁶	None												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	None												
Fingerprint reader	None												
Limited warranty ¹²	1-year - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² available												
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battry 6-cell	40Y6799										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battry 9-cell	40Y6797										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659										
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598										
USB 2.0 Security Memory Key 2GB	41U5119	Premiere Leather Carrying Case	10K0209										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Monitor Stand	40Y7620										
USB 2.0 Port Replicator with Video	40Y8132	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1										
TrackPoint Cap Collection	73P2698	Other accessories at lenovo.com/accessories											
65-watt AC adapter	Supports ThinkVantage® technologies												
ThinkPad Roll Cage (one-piece magnesium frame)													
RoHS-compliant													
International Warranty Service ¹⁷	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²												
ThinkPlus™ ²² 1-year LOR 9x5 NBD	41C9166												
ThinkPlus 2-year LOR 9x5 NBD	41C9167												
ThinkPlus 3-year LOR 9x5 NBD	41C9168												
ThinkPlus 4-year LOR 9x5 NBD	41C9171												
ThinkPlus 5-year LOR 9x5 NBD	41C9173												
ThinkPlus 2-year P&L P/U Depot	41C9169												
ThinkPlus 3-year P&L P/U Depot	41C9170												
ThinkPlus 4-year P&L P/U Depot	41C9172												
ThinkPlus 5-year P&L P/U Depot	41C9174												

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
 US models announced May 16, May 30, or October 17, 2006
 US models withdrawn effective May, July, or September 2007

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 (PC1-2) September 2007

ThinkPad® R60e (0658) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue- tooth	Finger- print reader	Chip- set	1-year limited warranty ¹²	Avail date
0658-5XU	Celeron M 420	1.60 256MB	15.0" XGA	GMA166	40GB 5400 CD		11a/b/g ³²	None	None	None	None	GML EasyServ	May 06
0658-6GU	Core Duo T2300E	1.66 512MB	15.0" XGA	GMA250	40GB 5400	Combo *	Intel 11a/b/g ³²	None	None	None	None	GM EasyServ	May 06
<p>• This model has an EasyServ™¹⁹ onsite pickup and delivery 1-year limited warranty These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Celeron M Processor 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)		
Memory	256MB or 512MB std / <i>940GML models: 2GB max; 945GM models: 4GB max³¹ / PC2-5300 667MHz DDR2 / 940GML models: PC2-5300 memory supported at slower 533MHz [not 667MHz] speed) / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available</i>										Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model)		
Diskette drive	None standard / use optional USB-based diskette drive												
EIDE CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high												
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm												
Ultrabay Enhanced	None / no support for removable Ultrabay™ options												
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber												
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect ratio												
Graphics	Some: Intel Graphics Media Accelerator 950 (GMA 950) / in 940GML / 166MHz Some: Intel Graphics Media Accelerator 950 (GMA 950) / in 945GM / 250MHz												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm												
Weight ²	with optical drive and battery: up to 6.3 lb (2.8 kg)												
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell / supports optional 9-cell battery												
Battery - life ¹⁰	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr												
Architecture	Some: Mobile Intel 940GML Express Chipset / 82940GML Graphics Mem Cont Hub Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PCI1512 CardBus controller) / no Super I/O												
Docking station	No port replicator or docking station support												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	None												
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	One Mini PCI Express slot / not customer upgradable												
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN ¹⁶	None												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	None												
Fingerprint reader	None												
Limited warranty ¹² 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battry 6-cell	40Y6799										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battry 9-cell	40Y6797										
60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ThinkPad External Battery Charger	40Y7625										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659										
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05										
USB Portable Diskette Drive	05K9276	Lenovo C500 Projector	0039A05										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598										
USB 2.0 Security Memory Key 2GB	41U5119	Premiere Leather Carrying Case	10K0209										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860										
USB 2.0 Port Replicator with Video	40Y8132	USB Fingerprint Reader	73P4774										
USB 2.0 Portable 80GB Hard Disk	41N8378	ThinkPad Convertible Monitor Stand	40Y7620										
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L171 17" Monitor (black)	9227AC1										
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
USB Travel Keyboard with UltraNav	31P9490	Lenovo D221 Wide 22" Monitor (black)	6622HB1										
Preferred Pro USB Keyboard	73P5220	ThinkVision® L171p 17" Monitor (black)	9417HC2										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HC2										
TrackPoint Cap Collection	73P2698	ThinkVision L201p 20.1" Monitor (black)	9220HB1										
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at lenovo.com/accessories											
										ThinkPlus™ ²² 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
 US models announced May 16 or May 30, 2006
 US models withdrawn effective May or September 2007

* Powered by Intel Centrino® Duo mobile technology

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 (PC1-4) September 2007

ThinkPad® R60e (0659) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Chip-set	Limited warranty ¹²	Avail date
0659-9DU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	40GB 5400	Combo *	Intel 11a/b/g ³²	None	None	None	GM	3-year	May 06
0659-94U	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	80GB 5400	Combo *	Intel 11a/b/g	None	None	None	GM	3-year	May 06
0659-H7U	Core 2 Duo T5500	1.66	512MB	15.0" XGA	GMA250	80GB 5400	Combo *	Intel 11a/b/g	None	None	None	GM	3-year	Oct 06

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ Duo processor T2300E with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T5500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm high													
Ultrabay Enhanced	None / no support for removable Ultrabay™ options													
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber													
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect ratio													
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / in 945GM / 250MHz													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm													
Weight ²	with optical drive and battery: up to 6.3 lb (2.9 kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell / supports optional 9-cell battery													
Battery - life ¹⁰	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PC1512 CardBus controller) / no Super I/O													
Docking station	No port replicator or docking station support													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	None													
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	One Mini PCI Express slot / not customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN ¹⁶	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	None													
Fingerprint reader	None										Supports ThinkVantage® technologies			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battry 6-cell	40Y6799											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battry 9-cell	40Y6797											
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ThinkPad External Battery Charger	40Y7625											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659											
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05											
USB Numeric Keypad	33L3225	Lenovo C500 Projector	0039A05											
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597											
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer	73P3598											
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209											
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Convertible Carrying Case	22P8860											
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774											
USB 2.0 Port Replicator with Video	40Y8132	ThinkPad Convertible Monitor Stand	40Y7620											
USB 2.0 Portable 80GB Hard Disk	41N8378	Lenovo L171 17" Monitor (black)	9227AC1											
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo D221 Wide 22" Monitor (black)	6622HB1											
USB Travel Keyboard with UltraNav	31P9490	ThinkVision® L171p 17" Monitor (black)	9417HC2											
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HC2											
TrackPoint Cap Collection	73P2698	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US models announced May 30 or October 17, 2006
US models withdrawn effective July or September 2007

* Powered by Intel Centrino® Duo mobile technology

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ThinkPad® R60e Accessories - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Partial list of accessories supported on ThinkPad R60e originally announced on May 16, 2006

Memory

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06

Ultrabay Slim 9.5mm

None (no removable bay options)

Ultrabay Enhanced 12.7mm

None (no removable bay options)

Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ann 03/20/07

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless LAN (Mini PCI Express)

No Mini PCI Express upgrade supported (use PC Card)

ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
USB 2.0 Port Replicator with Video	40Y8132	ann 02/23/06
ThinkPad Adjustable Notebook Stand ⁴¹	40Y7676	ann 09/20/05

⁴¹ System will not physically attach to stand but can be placed on the ledge of the stand.

External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Batteries

ThinkPad T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
ThinkPad Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad External Battery Charger ⁴²	40Y7625	ann 09/20/05

⁴² Requires the *ThinkPad 90W AC Adapter* 40Y7659.

ThinkPad 65W AC Adapter ⁴³	40Y7696	
⁴³ Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin 8-outlet 6-foot Surge Protector	31P7659	

Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
USB Fingerprint Reader	41U3167	ann 10/24/06

Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

Other accessories at lenovo.com/accessories

Need to buy accessories no longer marketed by Lenovo? See www.itxchange.com/lenovo for the Options Continuation Program.

ThinkPad® R60 (9455) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ⁸	rpm	EIDE Optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue-tooth	Finger-print reader	Touch pad	1394/S-video port	Workhorse Global (G) Avail date				
9455-4MU	Celeron® M 410	1.46	256	15.0"	XGA	GMA 40G	5400	CD	11a/b/g ³²	None				/S	Home G May 06				
9455-ACU	Celeron M 420	1.60	256	15.0"	XGA	GMA 40G	5400	CD	Open; upg ³⁶	None				/S	Home G Oct 06				
9455-2CU	Core Solo T1300	1.66	256	14.1"	XGA	GMA 40G	5400	Combo	Intel 11a/b/g ³²	None		T		XP Pro	May 06				
9455-C8U	Core Solo T1400	1.83	512	15.0"	XGA	GMA 60G	5400	Combo	11a/b/g	None				XP Pro G	Oct 06				
9455-C9U	Core Solo T1400	1.83	512	15.0"	XGA	GMA 60G	5400	Combo	*Intel 11a/b/g	None		T		XP Pro G	Oct 06				
9455-22U	Core Duo T2300E	1.66	512	14.1"	SXGA+	GMA 60G	5400	Combo	*Intel 11a/b/g	None		T	1394	XP Pro	May 06				
9455-23U	Core Duo T2400	1.83	1GB	14.1"	SXGA+	GMA 100G	5400	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394	XP Pro	May 06				
9455-2DU	Core Duo T2300E	1.66	512	14.1"	XGA	GMA 60G	5400	DVD±RW	*Intel 11a/b/g	None		T		XP Pro	May 06				
9455-2JU	Core Duo T2400	1.83	512	14.1"	XGA	GMA 60G	5400	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394	XP Pro	May 06				
9455-38U	Core Duo T2400	1.83	1GB	15.0"	SXGA+	GMA 100G	7200	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394/S	XP Pro	May 06				
9455-39U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	GMA 100G	7200	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394/S	XP Pro	May 06				
9455-3KU	Core Duo T2300E	1.66	512	15.0"	XGA	GMA 60G	5400	Combo	*Intel 11a/b/g	None		T	/S	XP Pro	May 06				
9455-49U	Core Duo T2400	1.83	512	15.0"	XGA	GMA 60G	5400	DVD±RW	*Intel 11a/b/g	None		Finger T	1394/S	XP Pro	May 06				
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Celeron M Processor 410 or 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Solo processor T1300 or T1400 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache or Intel Core Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴								
Memory	256MB, 512MB, or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery								
EIDE CD	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay™ Enhanced										Preloaded (all; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)								
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanc																		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced																		
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel																		
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm), 60GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System																		
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3 aspect																		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz																		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys																		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																		
Touch pad	<i>Some:</i> UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones																		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical drive and battery: 14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.3 lb (2.9 kg)																		
Weight ²	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic																		
Case material	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced																		
Battery - type	6-cell: up to 5.2 hr; <i>optional 9-cell:</i> up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr																		
Battery - life ¹⁰																			
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)																		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door																		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door																		
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / <i>some:</i> 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port																		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios																		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable																		
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options																		
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG																		
11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX																		
WWAN ¹⁶	None																		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket																		
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator																		
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE																		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack																		
Security	Power-on password / hard disk password / supervisor password / security keyhole																		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant																		
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip																		
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available																		
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	T60/R60 Series Li-Ion Battery 6-cell										40Y6799	ThinkPlus 3-year P&L P/U Depot 41C9169						
ThinkPad Essential Port Replicator	250510W	Z60m/T60/R60 Li-Ion Battery 9-cell										40Y6797	ThinkPlus 2-year LOR 9x5 NBD 41C9167						
ThinkPad Advanced Mini Dock	250410U	ThinkPad 90W AC/DC Combo Adapter										40Y7630	ThinkPlus 3-year LOR 9x5 NBD 41C9168						
Other accessories on O-R60 sheet	Other accessories at lenovo.com/accessories															ThinkPlus 4-year LOR 9x5 NBD 41C9171			
															ThinkPlus 5-year LOR 9x5 NBD 41C9173				
															ThinkPlus 2-year P&L P/U Depot 41C9169				
															ThinkPlus 3-year P&L P/U Depot 41C9170				
															Other ThinkPlus services at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

US models announced May 16, May 30, or Oct 17, 2006

US models withdrawn effective February, July, or September 2007

* Powered by Intel Centrino® mobile technology

* Powered by Intel Centrino Duo mobile technology

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(RC1-1) September 2007

ThinkPad® R60 (9456) - TopSeller (Celeron) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ⁸	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	1394/S-Video port	Battery Preload	Avail date
9456-59U	Celeron® M 420	1.60	256MB	14.1" XGA	GMA	40GB	5400	Combo	11a/b/g ³²	None	None	None	None	6 XP Home	May 06
9456-5BU	Celeron M 420	1.60	256MB	14.1" XGA	GMA	40GB	5400	Combo	11a/b/g	None	None	None	None	6 XP Pro	May 06
9456-5AU	Celeron M 420	1.60	512MB	14.1" XGA	GMA	60GB	5400	DVD±RW	11a/b/g	None	None	None	None	6 XP Pro	May 06
9456-5RU	Celeron M 410	1.46	256MB	14.1" XGA	GMA	40GB	5400	Combo	11a/b/g	None	None	None	None	6 XP Home	May 06
9456-5SU	Celeron M 410	1.46	256MB	14.1" XGA	GMA	40GB	5400	Combo	11a/b/g	None	None	None	None	6 XP Pro	May 06
9456-5TU	Celeron M 410	1.46	512MB	14.1" XGA	GMA	60GB	5400	DVD±RW	11a/b/g	None	None	None	None	6 XP Pro	May 06
9456-5UU	Celeron M 410	1.46	256MB	14.1" XGA	GMA	40GB	5400	CD	11a/b/g	None	None	None	None	6 XP Pro	May 06
9456-5VU	Celeron M 410	1.46	512MB	14.1" XGA	GMA	60GB	5400	CD	11a/b/g	None	None	None	None	6 XP Pro	May 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These models have a 1-year limited warranty¹²

Positioning Processor	Everyday computing; two spindles Intel® Celeron M Processor 410 or 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)	
Memory	256MB or 512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay™ Enhanced		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance		
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced		
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel		
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) or 60GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System		
Display	14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm		
Weight ²	with optical drive and battery: 14.1" models: up to 5.8 lb (2.6kg)		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced		
Battery - life ¹⁰	6-cell: up to 2.5 hr; opt 9-cell: up to 3.8 hr; 9-cell plus Ultrabay battery: up to 4.7 hr		
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T [®] PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no 1394 FireWire 400 / no S-video out / no keyboard, mouse, serial, parallel, or infrared port		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
WWAN ¹⁶	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX		
Modem	None		
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket		
Ethernet	None		
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty ¹² 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector	0037A05
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector	0039A05
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer	73P3598
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Convertible Carrying Case	22P8860
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo D221 Wide 22" Monitor (black)	6622HB1
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkVision® L171p 17" Monitor (black)	9417HC2
ThinkPad Essential Port Replicator	250510W	ThinkVision L192p 19" Monitor (black)	9419HC2
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1
ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories	

Supports ThinkVantage® technologies
 65-watt AC adapter (GMA graphics)
 ThinkPad Roll Cage (one-piece magnesium frame)
 RoHS-compliant
 International Warranty Service¹⁷
 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²
 ThinkPlus™²² 1-year LOR 9x5 NBD 41C9166
 ThinkPlus 2-year LOR 9x5 NBD 41C9167
 ThinkPlus 3-year LOR 9x5 NBD 41C9168
 ThinkPlus 5-year LOR 9x5 NBD 41C9173
 ThinkPlus 2-year P&L P/U Depot 41C9169
 ThinkPlus 3-year P&L P/U Depot 41C9170
 ThinkPlus 5-year P&L P/U Depot 41C9174
 Other ThinkPlus services at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced May 16 or May 30, 2006
 US models withdrawn effective October 2006 or September 2007

ThinkPad® R60 (9456) - TopSeller (Core™ Processor) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ⁵	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger-print reader	1394/S-Video port	Bat-tery cells	Preload	Avail date
9456-54U	Core Duo T2300E	1.66	512MB	14.1" SXGA+	GMA 40GB	5400	Combo	11a/b/g ³²				1394	6	XP Pro	May 06
9456-5DU	Core Solo T1300	1.66	256MB	14.1" XGA	GMA 40GB	5400	Combo	11a/b/g					6	Home	May 06
9456-5EU	Core Solo T1300	1.66	256MB	14.1" XGA	GMA 40GB	5400	Combo	11a/b/g					6	XP Pro	May 06
9456-5GU	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 40GB	5400	Combo	11a/b/g					6	Home	May 06
9456-5HU	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 40GB	5400	Combo	11a/b/g					6	XP Pro	May 06
9456-5KU	Core Duo T2300E	1.66	256MB	14.1" XGA	GMA 40GB	5400	DVD±RW	11a/b/g					6	XP Pro	May 06
9456-5JU	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 60GB	5400	DVD±RW	11a/b/g			Finger		6	XP Pro	May 06
9456-5MU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 60GB	5400	DVD±RW	11a/b/g			Finger		6	XP Pro	May 06
9456-63U	Core Duo T2400	1.83	1GB	15.0" SXGA+	GMA 100G	7200	DVD±RW	11a/b/g			Blue	1394 /S	6	XP Pro	May 06
9456-66U	Core Duo T2500	2.00	1GB	15.0" SXGA+	GMA 100G	7200	DVD±RW	11a/b/g			Blue	1394 /S	9	XP Pro	May 06
9456-68U	Core Solo T1300	1.66	512MB	15.0" XGA	GMA 60GB	5400	Combo	11a/b/g				/S	6	XP Pro	May 06
9456-6XU	Core Solo T1400	1.83	512MB	15.0" XGA	GMA 60GB	5400	Combo	11a/b/g				/S	6	XP Pro	Jul 06
9456-6AU	Core Duo T2300E	1.66	256MB	15.0" XGA	GMA 40GB	5400	DVD±RW	11a/b/g				/S	6	XP Pro	May 06
9456-6JU	Core Duo T2300E	1.66	256MB	15.0" XGA	GMA 40GB	5400	DVD±RW	11a/b/g				1394 /S	6	XP Pro	May 06
9456-6KU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA 60GB	5400	Combo	11a/b/g			Finger	1394 /S	6	XP Pro	May 06
9456-6NU	Core Duo T2300E	1.66	256MB	15.0" SXGA+	GMA 60GB	5400	Combo	*Intel 11a/b/g ³²	Verizon			1394 /S	6	XP Pro	May 06
9456-6PU	Core Duo T2400	1.83	1GB	15.0" SXGA+	GMA 100G	5400	DVD±RW	*Intel 11a/b/g	Verizon			1394 /S	6	XP Pro	May 06
9456-01U	Core Duo T2300E	1.66	1GB	15.0" XGA	GMA 80GB	5400	DVD±RW	*Intel 11a/b/g			Finger	1394 /S	6	XP Pro	Jan 07

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹²

Positioning Processor	Everyday computing; two spindles Intel® Core™ Solo processor T1300 or T1400 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) Preloaded (all) • 01U only: Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Desktop • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD included • 01U only: Microsoft Office OneNote License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Memory	256MB, 512MB, or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 01U: standard memory in both sockets (512MB each socket); no sockets available; Others: standard memory in 1 socket; 1 socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enhance	
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced	
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel	
Serial ATA disk (SATA150)	40GB⁸, 60GB, 80GB (5400 rpm) or 100GB (5400 or 7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with option / Hard Disk Drive Shock Absorber / Active Protection System	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3 aspect	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical drive and battery: 14.1" models: up to 6.2 lb (2.6kg); 15": up to 6.8 lb (3.1 kg)	
Weight ²		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life ¹⁰	6-cell: up to 5.2 hr; 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10.0 hr	
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PC1x512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / some: 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	Supports ThinkVantage® technologies
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	65-watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket	
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	ThinkPlus 3-year LOR 9x5 NBD 41C9168
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip	Other ThinkPlus services at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available	

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
US models announced May 16, May 30, July 18, or December 29, 2006
US models withdrawn effective October 2006, May 2007, or September 2007

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(RC1-3) September 2007

ThinkPad® R60 (9456) - TopSeller (Core™ 2 Duo Processor) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Graphics GB	Disk SATA rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	1394/S-Video port	OneNote preload and CD	Avail date
9456-FBU	Core 2 Duo T5500	1.66	1GB	15.0" XGA	GMA	80GB	5400	Combo	*Intel 11a/b/g ³²	None	None	Finger	1394 /S	OneNote	Oct 06
9456-FCU	Core 2 Duo T5500	1.66	1GB	15.0" XGA	GMA	100G	5400	DVD±RW	*Intel 11a/b/g	None	None	Finger	1394 /S	OneNote	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty²

Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T5500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache													
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in both sockets (512MB each socket) / no sockets available													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enhance													
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced													
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel													
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) or 100GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System													
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect													
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm													
Weight ²	with optical drive and battery: 15" models: up to 6.8 lb (3.1 kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10.0 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T ¹⁶ PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models only: S-video out / no keyboard, mouse, serial, parallel, or infrared port													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN ¹⁶	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ThinkPlus™ ²² 1-year LOR 9x5 NBD										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	41C9166										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 2-year LOR 9x5 NBD										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625	41C9167										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 3-year LOR 9x5 NBD										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630	41C9168										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05	ThinkPlus 4-year LOR 9x5 NBD										
USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo C500 Projector	0039A05	41C9171										
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209	ThinkPlus 5-year LOR 9x5 NBD										
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774	41C9173										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 2-year P&L P/U Depot										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620	41C9169										
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L171 17" Monitor (black)	9227AC1	ThinkPlus 3-year P&L P/U Depot										
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1	41C9170										
ThinkPad Essential Port Replicator	250510W	ThinkVision® L192p 19" Monitor (black)	9419HC2	ThinkPlus 4-year P&L P/U Depot										
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1	41C9172										
ThinkPad Advanced Dock	250310U	TrackPoint Cap Collection	73P2698	ThinkPlus 5-year P&L P/U Depot										
Other accessories on O-R60 sheet		Other accessories at lenovo.com/accessories		41C9174										

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective July 2007

* Powered by Intel Centrino® Duo mobile technology

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(RC2-1) August 2007

ThinkPad® R60 (9457) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	1394/S-Video port	Workhorse (W) Gbl (G) Avail date	
9457-72U	Core Duo T2300E	1.66	512MB	14.1"	SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g ³²			1394	XP Pro	May 06
9457-73U	Core Duo T2400	1.83	512MB	14.1"	SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g			1394	XP Pro W	May 06
9457-76U	Core Duo T2400	1.83	512MB	14.1"	SXGA+	GMA	60GB	5400	DVD±RW	* Intel 11a/b/g		Finger	1394	XP Pro W	May 06
9457-92U	Core Duo T2300E	1.66	512MB	14.1"	XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g				XP Pro G	May 06
9457-93U	Core Duo T2400	1.83	512MB	14.1"	XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g		Finger		XP Pro WG	May 06
9457-7PU	Core Solo T1300	1.66	512MB	14.1"	XGA	GMA	40GB	5400	Combo	* Intel 11a/b/g				XP Pro G	May 06
9457-83U	Core Duo T2400	1.83	512MB	15.0"	SXGA+	GMA	100G	5400	DVD±RW	* Intel 11a/b/g		Blue Finger	/S	XP Pro W	May 06
9457-82U	Core Duo T2400	1.83	512MB	15.0"	SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g		Finger	/S	XP Pro W	May 06
9457-94U	Core Solo T1300	1.66	512MB	15.0"	XGA	GMA	40GB	5400	Combo	* Intel 11a/b/g			/S	XP Pro G	May 06
9457-95U	Core Duo T2300E	1.66	512MB	15.0"	XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g			/S	XP Pro G	May 06
9457-96U	Core Duo T2400	1.83	512MB	15.0"	XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g		Finger	/S	XP Pro WG	May 06
9457-8EU	Core Duo T2400	1.83	512MB	15.0"	XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g			/S	XP Pro W	May 06
9457-97U	Core Duo T2300E	1.66	512MB	15.0"	XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g		Blue Finger	1394 /S	XP Pro G	May 06
9457-98U	Core Duo T2400	1.83	512MB	15.0"	XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g		Blue	1394 /S	Home G	May 06
9457-8PU	Core Duo T2400	1.83	512MB	15.0"	SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g	Verizon		1394 /S	XP Pro W	May 06
9457-8WU	Core Duo T2300E	1.66	512MB	15.0"	XGA	GMA	60GB	5400	DVD±RW	* Intel 11a/b/g		Finger	1394 /S	XP Pro G	May 06
9457-G5U	Core Duo T2400	1.83	512MB	15.0"	XGA	GMA	80GB	5400	Combo	* Intel 11a/b/g		Blue Finger	1394 /S	XP Pro G	May 06
Positioning Processor	Everyday computing; two spindles Intel® Core™ Solo processor T1300 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache												SOFTWARE¹⁴		
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available												Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enhn												Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery		
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced														
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel												Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional Second HDD Adapter for Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System														
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3												License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														
Weight ²	with optical drive and battery: 14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.3 lb (2.9 kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / some: 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												Supports ThinkVantage™ technologies		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												65 watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail														
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	T60/R60 Series Li-Ion Battery 6-cell	40Y6799												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced May 16, May 30, or Oct 17, 2006

* Powered by Intel Centrino® Duo mobile technology

(RC1-4) September 2007

US models withdrawn effective May, July, or September 2007

ThinkPad® R60 (9457) - October 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Graphics GB ³	Disk SATA rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth reader	Finger-print	1394/S-Video port	3-year limited warranty ¹²	Workhorse Gbl Avail date
9457-G2U	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	GMA 80GB	5400	Combo	* Intel 11a/b/g ³²	None	Blue	Finger	1394	3-year	Gbl	Oct 06
9457-G3U	Core 2 Duo T7200	2.00	512M	14.1" XGA	GMA 60GB	5400	Combo	* Intel 11a/b/g	None	Blue	Finger	1394	3-year	Gbl	Oct 06
9457-G4U	Core 2 Duo T7200	2.00	1GB	15.0" SXGA+	GMA 80GB	5400	Combo	* Intel 11a/b/g	None	Blue	Finger	1394	3-year	Gbl	Oct 06
9457-G6U	Core 2 Duo T5600	1.83	512M	15.0" XGA	GMA 60GB	5400	DVD±RW*	Intel 11a/b/g	None	Blue	Finger	1394 / S	3-year	Gbl	Oct 06
9457-G7U	Core 2 Duo T5600	1.83	512M	15.0" XGA	GMA 100G	5400	DVD±RW*	Intel 11a/b/g	None	Blue	Finger	1394 / S	3-year	Gbl	Oct 06
9457-G8U	Core 2 Duo T7200	2.00	1GB	14.1" XGA	GMA 80GB	5400	Combo	* Intel 11a/b/g	None			1394 / S	3-year	Gbl	Oct 06

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T5600 or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus; <i>T5600: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i> 512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>512MB models: standard memory in 1 socket; 1 socket available; 1GB models: std memory in both sockets (512MB each socket); no sockets avail;</i>	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay™ Enhn</i> <i>Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced</i> One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 60GB⁸ (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Drive Shock Absorber / Active Protection System	
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect</i> <i>Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect</i> <i>Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3</i>	
Display	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz	
Graphics	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Keyboard TrackPoint® Touch pad ThinkLight™	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm</i> with optical drive and battery: <i>14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.3 lb (2.9 kg)</i> <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i> Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr</i>	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
Architecture	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / <i>some: 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port</i>	
PC Card Std slot ExpressCard slot Ports	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket <i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i> Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant <i>Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip</i>	
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN ¹⁶	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / <i>some: 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port</i>	
Modem Bluetooth™ Ethernet Audio support	65 watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
Security Security chip Fingerprint reader	ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Limited warranty ¹²	512MB PC2-5300 DDR2 CL5 SODIMM 40Y7733 1GB PC2-5300 DDR2 CL5 SODIMM 40Y7734 2GB PC2-5300 DDR2 SODIMM 40Y7735 Serial Hard Drive Ultrabay Slim Adapter (flat) 40Y8725 Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 ThinkPad DVD Ultrabay Slim Burner (flat) 41N5643 100GB Disk 9.5mm SATA150 (7200 rpm) 41N3013 USB 2.0 Lenovo Multimedia Headset 40Y8518 USB 2.0 Security Memory Key 4GB 41U5120 USB 2.0 Portable 120GB Hard Disk 41N8379 USB 2.0 Super Multi-Burner Drive 41N5565 ThinkPad Essential Port Replicator 250510W ThinkPad Advanced Mini Dock 250410U ThinkPad Advanced Dock 250310U T60/R60 Series Li-Ion Battery 6-cell 40Y6799 Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery 3-cell 40Y6789 ThinkPad External Battery Charger 40Y7625 ThinkPad 90W AC Adapter 40Y7659 ThinkPad 90W AC/DC Combo Adapter 40Y7630 Lenovo M500 Projector 0037A05 Lenovo C500 Projector 0039A05 ThinkPad Convertible Carrying Case 22P8860 USB Fingerprint Reader 73P4774 ThinkPad Adjustable Notebook Stand 40Y7676 ThinkPad Convertible Monitor Stand 40Y7620 Lenovo L192 Wide 19" Monitor (black) 6920AB1 ThinkVision® L201p 20.1" Monitor (blk) 9220HB1 Other accessories at lenovo.com/accessories	

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective July 2007

* Powered by Intel Centrino® Duo mobile technology

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(RC2-2) August 2007

ThinkPad® R60 (9457) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ⁸	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-IIEEE print reader	S-Video 1394 port	3-year limited warranty ¹²	Avail date
9457-74U	Core Duo T2400	1.83	512MB	14.1" SXGA+	GMA	80GB	5400	DVD±RW	* Intel 11a/b/g ³²	None	None	1394	EasyServ	May 06
9457-7GU	Celeron® M 420	1.60	512MB	14.1" XGA	GMA	60GB	5400	Combo	Intel 11a/b/g	None	None	1394	EasyServ	May 06
9457-7HU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g	None	None	1394	EasyServ	May 06
9457-8JU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g	None	None	1394	S-Vid EasyServ	May 06
9457-8KU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	80GB	5400	DVD±RW	* Intel 11a/b/g	None	None	1394	S-Vid EasyServ	May 06

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Celeron M Processor 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴			
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket available										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance										• VitalSource Library education software			
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced										• Adobe® Photoshop® Elements plus Adobe Premiere® Elements			
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel										• Rescue and Recovery™			
Serial ATA disk (SATA150)	60GB⁸ (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System										• Access Connections™			
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect										• Client Security Solution™			
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz										• ThinkVantage Productivity Center with Away Manager			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										• ThinkVantage System Update			
TrackPoint®	TrackPoint™ pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Symantec® Client Security™			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Diskeeper Lite			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• PC-Doctor™ (diagnostics)			
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: <i>14.1" models:</i> up to 5.8 lb (2.6kg); <i>15.0":</i> up to 6.3 lb (2.9kg)										• ThinkPad Utilities (Power Manager and Presentation Director)			
Weight ²	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Adobe Reader			
Case material	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced										• Google Toolbar			
Battery - type	<i>6-cell:</i> up to 5.2 hr; <i>optional 9-cell:</i> up to 7.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 10 hr										• Google Desktop			
Battery - life ¹⁰											• Picasa from Google			
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)										• Multimedia Center for Think Offerings			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										• InterVideo WinDVD (combo, DVD±RW models)			
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)										• InterVideo WinDVD Creator (DVD±RW models)			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										CD			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										• Adobe Photoshop Elements plus Adobe Premiere Elements			
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										License - CD not included			
WWAN ¹⁶	None										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket										Supports ThinkVantage® technologies			
Bluetooth™	None										65-watt AC adapter (GMA graphics)			
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE										ThinkPad Roll Cage (one-piece magnesium frame)			
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										RoHS-compliant			
Security	Power-on password / hard disk password / supervisor password / security keyhole										International Warranty Service ¹⁷			
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Fingerprint reader	None										ThinkPlus™. ²² 2-year LOR 9x5 NBD			
Limited warranty ¹²	3-year /1-yr battery - EasyServ™. ¹⁹ onsite pickup and delivery / service upgrades ²² avail										41C9175			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector	0037A05											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector	0039A05											
USB Portable Diskette Drive	05K9276	Premiere Leather Carrying Case	10K0209											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860											
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Adjustable Notebook Stand	40Y7676											
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L171p 17" Monitor (black)	9417HC2											
ThinkPad Advanced Dock	250310U	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information

* Powered by Intel Centrino® Duo mobile technology

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US models announced May 16, 2006

(RC1-5) September 2007

US models withdrawn effective May or September 2007

ThinkPad® R60 (9457) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ⁵	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger- print reader	S-Video out port	Educ pre- load	3-year limited warranty ¹²	Avail date
9457-LSU	Core 2 Duo T7200	2.00	1GB	15.0" XGA	GMA	80GB	5400	Combo	11a/b/g ³²	None	None	S-Vid	K12	EasyServ	Apr 07

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Basic logo				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										Preloaded applications¹⁴ • K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Picasa from Google				
Diskette drive	None (use optional USB-based diskette drive)										License - CD not included - Lotus® Notes® Stand-alone Client				
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced														
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel														
Serial ATA disk (SATA150)	80GB ⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System														
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect														
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														
Weight ²	with optical and 6-cell battery: 14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.3 lb (2.9kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN ¹⁶	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket										Supports ThinkVantage® technologies				
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE										65-watt AC adapter (GMA graphics)				
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										ThinkPad Roll Cage (one-piece magnesium frame)				
Security	Power-on password / hard disk password / supervisor password / security keyhole										RoHS-compliant				
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										International Warranty Service ¹⁷				
Fingerprint reader	None										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										ThinkPlus™. ²² 2-year LOR 9x5 NBD 41C9175				
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector	0037A05												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Organizer	73P3598												
USB Portable Diskette Drive	05K9276	Premiere Leather Carrying Case	10K0209												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Adjustable Notebook Stand	40Y7676												
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L171p 17" Monitor (black)	9417HC2												
ThinkPad Advanced Dock	250310U	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at lenovo.com/accessories		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											

See footnotes for important warranty information
US model announced April 24, 2007
US model withdrawn effective July 2007

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(RC2-3) August 2007

ThinkPad® R60 (9458) - TopSeller and Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ⁸	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	S-Video port	3-year limited warranty ¹²	Avail date
9458-7MU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g ³²	None	None	None	None	EasyServ	May 06
9458-8QU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g	None	None	None	S-Vid	EasyServ	May 06

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> Intel® Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache (shared)														SOFTWARE¹⁴	
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available														Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery	
Diskette drive	None standard / use optional USB-based diskette drive														Preloaded	
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enhanced														• VitalSource Library education software	
Ultrabay Enhance	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel														• Adobe® Photoshop® Elements plus Adobe Premiere® Elements	
Serial ATA disk (SATA150)	60GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System														• Rescue and Recovery™	
Display	<i>Some: 14.1"</i> (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some: 15.0"</i> (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect														• Access Connections™	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														• Client Security Solution™	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														• ThinkVantage Productivity Center with Away Manager	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														• ThinkVantage System Update	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														• Symantec® Client Security™	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														• Diskeeper Lite	
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														• PC-Doctor™ (diagnostics)	
Weight ²	with optical and 6-cell battery: <i>14.1" models:</i> up to 6.2 lb (2.8kg); <i>15":</i> up to 6.8 lb (3.1 kg)														• ThinkPad Utilities (Power Manager and Presentation Director)	
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic														• Adobe® Reader	
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced														• Google Toolbar	
Battery - life ¹⁰	<i>6-cell:</i> up to 5.2 hr; <i>optional 9-cell:</i> up to 7.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 10 hr														• Google Desktop	
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														• Picasa from Google	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														• Multimedia Center for Think Offerings	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														• Sonic RecordNOW and Drive Letter Access (combo models)	
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <i>15" models:</i> S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														• InterVideo WinDVD (combo models)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														CD	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														• Adobe Photoshop Elements plus Adobe Premiere Elements	
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														License - CD not included	
WWAN ¹⁶	None														• Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket															
Bluetooth™	None															
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage	
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack															
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant															
Fingerprint reader	None															
Limited warranty ¹² 3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail																
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799													
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797													
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846	Advanced Ultrabay Battery 3-cell	40Y6789													
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625													
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659													
Combo II Ultrabay Slim Drive (curved bezel)	73P3288	ThinkPad 90W AC/DC Combo Adapter	40Y7630													
Super Multi-Burner Ultrabay Enh Drv (curve)	40Y8624	Lenovo M500 Projector	0037A05													
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo C500 Projector	0039A05													
USB Portable Diskette Drive	05K9276	ThinkPad Education Backpack	31P8640													
USB 2.0/Analog Headset by Sennheiser	40Y8518	Premiere Leather Carrying Case	10K0209													
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Convertible Carrying Case	22P8860													
USB 2.0 Portable 80GB Hard Disk	40Y8726	USB Fingerprint Reader	73P4774													
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Adjustable Notebook Stand	40Y7676													
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Convertible Monitor Stand	40Y7620													
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	Lenovo L192 Wide 19" Monitor (black)	6920AB1													
ThinkPad Essential Port Replicator	250510W	ThinkVision® L192p 19" Monitor (black)	9419HC2													
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1													
ThinkPad Advanced Dock	250310U	TrackPoint Cap Collection	73P2698													
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo Laser Mouse (USB, PS/2)	41U3074													
Other accessories on O-R60 sheet		Other accessories at lenovo.com/accessories														

See footnotes for important warranty information
US models announced May 16, 2006
US models withdrawn effective May 2007

* Powered by Intel Centrino® Duo mobile technology

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(RC1-6) March 2007

ThinkPad® R60 (9459) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB ⁵	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger- print reader	S-Video out port	Educ pre- load	3-year limited warranty ¹²	Avail date
9459-LTU	Core 2 Duo T7200	2.00	1GB	15.0" XGA	GMA	80GB	5400	Combo	11a/b/g ³²	None	None	S-Vid	K12	Onsite	Apr 07

These models have a limited onsite service²⁴ 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Basic logo			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											Preloaded applications¹⁴ • K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Picasa from Google			
Diskette drive	None (use optional USB-based diskette drive)											License - CD not included - Lotus® Notes® Stand-alone Client			
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced														
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											Supports ThinkVantage® technologies 65-watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System														
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect														
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														
Weight ²	with optical and 6-cell battery: <i>14.1" models:</i> up to 5.8 lb (2.6kg); <i>15":</i> up to 6.3 lb (2.9kg)														
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	<i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 10 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <i>15" models:</i> S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN ¹⁶	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	None														
Limited warranty ¹²	3-year /1-year battery, limited onsite service , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell				40Y6799									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797									
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell				40Y6789									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger				40Y7625									
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter				40Y7630									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector				0037A05									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector				0039A05									
USB Portable Diskette Drive	05K9276	Premiere Leather Carrying Case				10K0209									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Convertible Carrying Case				22P8860									
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Adjustable Notebook Stand				40Y7676									
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	Lenovo L192 Wide 19" Monitor (black)				6920AB1									
ThinkPad Essential Port Replicator	250510W	ThinkVision® L171p 17" Monitor (black)				9417HC2									
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)				9220HB1									
ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US model announced April 24, 2007
US model withdrawn July 2007

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(RC2-4) August 2007

ThinkPad® R60 (9460) - ATI® graphics - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger- print reader	S- Video out	Bat- tery cells	Lim- mited warranty ¹²	Workhorse Gbl Avail date		
9460-25U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g ³²		Finger		6	1-yr	None	May 06	
9460-26U	Core Duo T2300E	1.66	512MB	14.1" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g		Blue		6	1-yr	None	May 06	
9460-27U	Core Duo T2300E	1.66	512MB	14.1" XGA	128MB	60GB	5400	DVD±RW	* Intel 11a/b/g				6	1-yr	None	May 06	
9460-2BU	Core Solo T1300	1.66	512MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	1-yr	None	May 06	
9460-2KU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	Verizon			6	1-yr	None	May 06	
9460-34U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB	5400	DVD±RW	* Intel 11a/b/g		Blue Finger	S	9	1-yr	None	May 06	
9460-35U	Core Duo T2300E	1.66	512MB	15.0" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g				S	6	1-yr	None	May 06
9460-3FU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g				S	6	1-yr	None	May 06
Positioning Processor	Everyday computing; two spindles Intel® Core™ Solo processor T1300 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery					
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)					
Diskette drive	None standard / use optional USB-based diskette drive											• Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client					
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance																
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced											• InterVideo WinDVD Creator (DVD±RW models)					
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel																
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System											• InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)					
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3																
Graphics	Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1											• License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client					
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys																
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage					
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones																
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²					
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: 14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.4 lb (2.9kg) Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic																
Weight ²	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Enhanced											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166					
Case material	6-cell: up to 3.1 hr; 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr																
Battery - type	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)											ThinkPlus 2-year LOR 9x5 NBD 41C9167					
Battery - life ¹⁰	One Type I or Type II slot / CardBus 32-bit / integrated door																
Architecture	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											ThinkPlus 3-year LOR 9x5 NBD 41C9168					
PC Card Std slot	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)																
ExpressCard slot	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											ThinkPlus 4-year LOR 9x5 NBD 41C9171					
Ports	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable																
Wireless antenna	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											ThinkPlus 5-year LOR 9x5 NBD 41C9173					
Mini PCI Express	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless																
Intel 11a/b/g ³² WWAN ¹⁶	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket											ThinkPlus 2-year P&L P/U Depot 41C9169					
Modem	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator																
Bluetooth™	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE											ThinkPlus 3-year P&L P/U Depot 41C9170					
Ethernet	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack																
Audio support	Power-on password / hard disk password / supervisor password / security keyhole											ThinkPlus 4-year P&L P/U Depot 41C9172					
Security	Security chip																
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											ThinkPlus 5-year P&L P/U Depot 41C9174					
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip																
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available																
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell				40Y6799											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell				40Y6789											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter				40Y7630											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector				0037A05											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector				0039A05											
USB Portable Diskette Drive	05K9276	ThinkPad Convertible Carrying Case				22P8860											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Adjustable Notebook Stand				40Y7676											
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Convertible Monitor Stand				40Y7620											
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)				6920AB1											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L192p 19" Monitor (black)				9419HC2											
ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
US models announced May 16 or May 30, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® mobile technology
* Powered by Intel Centrino® Duo processor technology

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(RC1-E) September 2007

ThinkPad® R60 (9461) - ATI® graphics (TopSeller) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB ⁸	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	S-Video out port	Bat-tery cells	Preload	Avail date
9461-42U	Core Duo T2300E	1.66	256MB	14.1" SXGA+	64MB	40GB	5400	Combo	* Intel 11a/b/g ³²				6	XP Pro	May 06
9461-47U	Core Duo T2300E	1.66	256MB	14.1" SXGA+	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Home	May 06
9461-4XU	Core Duo T2300E	1.66	512MB	14.1" XGA	128MB	100GB	5400	DVD±RW	* Intel 11a/b/g		Finger		6	XP Pro	May 06
9461-4HU	Core Solo T1300	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g ³²				6	XP Home	May 06
9461-4JU	Core Solo T1300	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Pro	May 06
9461-4LU	Core Duo T2300E	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Home	May 06
9461-4MU	Core Duo T2300E	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Pro	May 06
9461-4NU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g				6	XP Pro	May 06
9461-4SU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	Verizon			6	XP Pro	May 06
9461-4TU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	100GB	5400	DVD±RW	* Intel 11a/b/g	Verizon			6	XP Pro	May 06
9461-52U	Core Duo T2300E	1.66	512MB	15.0" SXGA+	128MB	100GB	5400	DVD±RW	* Intel 11a/b/g		Finger	S-Vid	6	XP Pro	May 06
9461-56U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB	7200	DVD±RW	* Intel 11a/b/g		Finger	S-Vid	9	XP Pro	May 06
9461-5BU	Core Solo T1300	1.66	256MB	15.0" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g			S-Vid	6	XP Home	May 06
9461-5CU	Core Solo T1300	1.66	256MB	15.0" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g			S-Vid	6	XP Pro	May 06
9461-5EU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g			S-Vid	6	XP Pro	May 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty²

Positioning	<i>Everyday computing; two spindles</i>											SOFTWARE¹⁴			
Processor	Intel® Core™ Solo processor T1300 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											Windows XP Professional models			
Memory	256MB, 512MB, or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery			
Diskette drive	None standard / use optional USB-based diskette drive											Windows XP Home models			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh											- Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced											Preloaded (all)			
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											• Rescue and Recovery™			
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System											• Access Connections™			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3											• Client Security Solution™			
Graphics	Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1											• ThinkVantage Productivity Center with Away Manager			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											• ThinkVantage System Update			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											• Symantec® Client Security™			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											• Diskeeper Lite			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• PC-Doctor™ (diagnostics)			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm											• ThinkPad Utilities (Power Manager and Presentation Director)			
Weight ²	with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)											• Adobe® Reader			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											• Google Toolbar			
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Enhanced											• Google Desktop			
Battery - life ¹⁰	6-cell: up to 3.1 hr; 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr											• Picasa from Google			
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)											• Fingerprint Software (fingerprint models)			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											• Multimedia Center for Think Offerings			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)			
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)											• InterVideo WinDVD (combo, DVD±RW models)			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											• InterVideo WinDVD Creator (DVD±RW models)			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											License - CD not included (all)			
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)			
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											Supports ThinkVantage® technologies			
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket											90-watt AC adapter (discrete graphics)			
Modem	None											ThinkPad Roll Cage (one-piece magnesium frame)			
Bluetooth™	None											RoHS-compliant			
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE											International Warranty Service ¹⁷			
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Security	Power-on password / hard disk password / supervisor password / security keyhole											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											ThinkPlus 3-year LOR 9x5 NBD 41C9168			
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip											Other ThinkPlus services at			
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available											lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced May 16 or May 30, 2006
US models withdrawn effective October 2006, May 2007, or September 2007

* Powered by Intel Centrino® mobile technology
* Powered by Intel Centrino® Duo processor technology

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ThinkPad® R60 (9461) - ATI® graphics (TopSeller) - Oct 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB ⁹ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	S-Video out port	Pre-load and CD	OneNote preload and CD	Avail date
9461-CKU	Core 2 Duo T5500	1.66	512	14.1" XGA	64MB	40GB 5400	CD	*Intel 11a/b/g ³²	Verizon		Home	OneNote	Nov06	
9461-DUU	Core 2 Duo T7200	2.00	1GB	15.0" SXGA+	128MB	120GB 5400	DVD±RW	ThinkPad 11n ²⁸		Finger S-Vid Pro	OneNote	Oct 06		

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 1-year limited warranty¹²**

Positioning	<i>Everyday computing; two spindles</i>										SOFTWARE¹⁴			
Processor	Intel® Core 2 Duo processor T5500 or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz bus; T5500: 2MB shared L2 cache; T7200: 4MB shared L2 cache										Windows XP Professional models			
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery			
Diskette drive	None standard / use optional USB-based diskette drive										Windows XP Home models			
EIDE CD	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay™ Enhanced										- Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay™ Enhanced										Preloaded (all; only some listed)			
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel										• Microsoft Office OneNote® 2003			
Serial ATA disk (SATA150)	40GB or 120GB ⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System										• Rescue and Recovery™			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3										• Access Connections™			
Graphics	Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB memory Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB memory										• Client Security Solution™			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										• ThinkVantage Productivity Center with Away Manager			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• ThinkVantage System Update			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Symantec® Client Security™			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Diskeeper Lite			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)										• PC-Doctor™ (diagnostics)			
Weight ²	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• ThinkPad Utilities (Power Manager and Presentation Director)			
Case material	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced										• Adobe® Reader			
Battery - type	6-cell: up to 3.1 hr; opt 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										• Google Toolbar			
Battery - life ¹⁰											• Fingerprint Software (fingerprint models)			
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)										• Multimedia Center for Think Offerings			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• Sonic RecordNOW and Drive Letter Access (DVD±RW models)			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										• InterVideo WinDVD (DVD±RW)			
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)										• InterVideo WinDVD Creator (DVD±RW models)			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										CD included			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										• Microsoft Office OneNote 2003			
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										License - CD not included			
ThinkPad 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x2										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket										Supports ThinkVantage® technologies			
Modem	None										90-watt AC adapter (discrete graphics)			
Bluetooth™	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE										ThinkPad Roll Cage (one-piece magnesium frame)			
Ethernet	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										RoHS-compliant			
Audio support	Power-on password / hard disk password / supervisor password / security keyhole										International Warranty Service ¹⁷			
Security	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Security chip	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip										ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Limited warranty ¹² 1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available											ThinkPlus 3-year LOR 9x5 NBD 41C9168			
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799	512MB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 4-year LOR 9x5 NBD	41C9171	
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625	Combo II Ultrabay Slim Drive (curved bezel)	73P3288	ThinkPad 90W AC Adapter	40Y7659	ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus 5-year LOR 9x5 NBD	41C9173	
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05	USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo C500 Projector	0039A05	ThinkPad Advanced Mini Dock	250510W	ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 2-year P&L P/U Depot	41C9169	
USB 2.0 Security Memory Key 2GB	41U5119	Premiere Leather Carrying Case	10K0209	USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPad Advanced Dock	250410U	ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus 3-year P&L P/U Depot	41C9170	
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Vision® L192p 19" Monitor (black)	6920AB1	11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Vision L201p 20.1" Monitor (black)	9220HB1	ThinkPad Essential Port Replicator	250510W	Lenovo L192p 19" Monitor (black)	9419HC2	ThinkPlus 4-year P&L P/U Depot	41C9172	
ThinkPad Essential Port Replicator	250510W	TrackPoint Cap Collection	73P2698	ThinkPad Advanced Mini Dock	250410U	Other accessories at lenovo.com/accessories		ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories		ThinkPlus 5-year P&L P/U Depot	41C9174	
ThinkPad Advanced Mini Dock	250410U			ThinkPad Advanced Dock	250310U			Other accessories on O-R60 sheet				Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US models announced October 17 or November 21, 2006
US models withdrawn effective July 2007

*Powered by Intel Centrino® Duo processor technology

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ThinkPad® R60 (9462) - ATI® graphics - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB ³	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-Blue-tooth	S-Video port	Lim- mited warranty ¹²	Workhorse Gbl Avail date	
9462-62U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g ³²				3-yr W	May 06	
9462-68U	Core Duo T2300E	1.66	512MB	14.1" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g				3-yr	May 06	
9462-6AU	Core Duo T2400	1.83	512MB	14.1" XGA	128MB	60GB	5400	Combo	* Intel 11a/b/g				3-yr W	May 06	
9462-6DU	Core Solo T1300	1.66	512MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				3-yr	May 06	
9462-92U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g				3-yr	Gbl May 06	
9462-93U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g		Finger		3-yr	Gbl May 06	
9462-94U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g		Blue		3-yr	Gbl May 06	
9462-92U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	Verizon			3-yr	May 06	
9462-6RU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g	Verizon			3-yr W	May 06	
9462-72U	Core Duo T2400	1.83	512MB	15.0" SXGA+	128MB	80GB	5400	DVD±RW	* Intel 11a/b/g		Finger	S-Vid	3-yr W	May 06	
9462-78U	Core Duo T2300E	1.66	512MB	15.0" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr	May 06	
9462-7AU	Core Duo T2400	1.83	512MB	15.0" XGA	128MB	60GB	5400	Combo	* Intel 11a/b/g		Finger	S-Vid	3-yr W	May 06	
9462-7DU	Core Solo T1300	1.66	512MB	15.0" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr	May 06	
9462-97U	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr	Gbl May 06	
9462-7EU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g			S-Vid	3-yr	May 06	
9462-7XU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	80GB	5400	Combo	* Intel 11a/b/g		Blue Finger	S-Vid	3-yr	Gbl May 06	
9462-95U	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr W	Gbl May 06	
9462-96U	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g			Finger	S-Vid	3-yr W	Gbl May 06
9462-98U	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	80GB	5400	Combo	* Intel 11a/b/g		Blue Finger	S-Vid	3-yr W	Gbl May 06	
Positioning Processor	Everyday computing; two spindles Intel® Core™ Solo processor T1300 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery			
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • DiskKeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models)			
Diskette drive	None standard / use optional USB-based diskette drive											• Multimedia Center for Think Offerings			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh											• InterVideo WinDVD (combo, DVD±RW models)			
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											• InterVideo WinDVD Creator (DVD±RW models)			
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System											License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3 aspect											Supports ThinkVantage® technologies			
Graphics	Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1											90 watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											ThinkPlus 3-year LOR 9x5 NBD 41C9176			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											ThinkPlus 4-year LOR 9x5 NBD 41C9177			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm											ThinkPlus 4-year P&L P/U Depot 41C9178			
Weight ²	with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)											ThinkPlus 5-year P&L P/U Depot 41C9180			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	6-cell: up to 3.1 hr; optional 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr														
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-year / 1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available														

See footnotes for important warranty information
US models announced May 16 or May 30, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® mobile technology
* Powered by Intel Centrino® Duo mobile technology

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(RC1-B) September 2007

ThinkPad® R60 (9462) - ATI® graphics (October 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB ^a	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-S-Video print out reader port	Bat- tery cells	Lim- workhorse warranty ¹²	Global/Avail date
9462-G9U	Core 2 Duo T7200	2.00	1GB	14.1" XGA	128MB	80GB	Combo	*Intel 11a/b/g ³²	None	Finger	S-Vid	6	3-yr Gbl Oct 06
9462-GAU	Core 2 Duo T7200	2.00	512MB	15.0" SXGA+	128MB	100GB	DVD±RW	*Intel 11a/b/g	None	Finger	S-Vid	9	3-yr Gbl Oct 06
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										SOFTWARE¹⁴		
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh										• Rescue and Recovery™		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh										• Access Connections™		
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 80GB⁸ (5400 rpm) or 100GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System										• Client Security Solution™		
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3										• ThinkVantage Productivity Center with Away Manager		
Graphics	ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1										• ThinkVantage System Update		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										• Symantec® Client Security™		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Diskkeeper Lite		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• PC-Doctor™ (diagnostics)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• ThinkPad Utilities (Power Manager and Presentation Director)		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm										• Adobe® Reader		
Weight ²	with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15.0": up to 6.8 lb (3.1 kg)										• Google Toolbar		
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Google Desktop		
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Enhanced										• Picasa from Google		
Battery - life ¹⁰	6-cell: up to 3.1 hr; 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										• Fingerprint Software (fingerprint models)		
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)										• Multimedia Center for Think Offerings		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										• InterVideo WinDVD (combo, DVD±RW models)		
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)										• InterVideo WinDVD Creator (DVD±RW models)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										License - CD not included		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
WWAN ¹⁶	None												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										Supports ThinkVantage® technologies		
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										90 watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05										
USB Portable Diskette Drive	05K9276	Lenovo C500 Projector	0039A05										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer	73P3598										
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Convertible Carrying Case	22P8860										
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620										
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkVision® L192p 19" Monitor (black)	9419HC2										
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)	9220HB1										
ThinkPad Advanced Mini Dock	250410U	TrackPoint Cap Collection	73P2698										
ThinkPad Advanced Dock	250310U	Lenovo Laser Mouse (USB, PS/2)	41U3074										
Other accessories on O-R60 sheet		Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective July 2007

* Powered by Intel Centrino® Duo processor technology

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ThinkPad® R60 (9462) - ATI® graphics (Education) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics	Disk SATA GB ⁸	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger-print reader	S-Video out port	3-year limited warranty ¹²	Avail date
9462-63U	Core Duo T2500	2.00	512MB	14.1" SXGA+	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g ³²	None	None	Finger	EasyServ	May 06
9462-69U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	Finger	EasyServ	May 06
9462-73U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB	7200	DVD±RW	* Intel 11a/b/g	None	None	Finger S-Vid	EasyServ	May 06
9462-7BU	Core Duo T2400	1.83	512MB	15.0" XGA	128MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	S-Vid	EasyServ	May 06
9462-6WU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	Finger	EasyServ	May 06

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two-spindle system</i> Intel® Core™ Duo processor T2400 or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴			
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery			
Diskette drive EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 60GB⁸ (5400 rpm), 80GB (5400 rpm), or 100GB (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System										Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3										• ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Graphics	<i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1										CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg) <i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Weight ²	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 3.1 hr; optional 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Case material	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 3.1 hr; optional 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 3.1 hr; optional 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Battery - life ¹⁰	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 3.1 hr; optional 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI14512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
PC Card Std slot ExpressCard slot	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
WWAN ¹⁶	None										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Bluetooth™	None										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Security	Power-on password / hard disk password / supervisor password / security keyhole										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail										• Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo M500 Projector	0037A05											
USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo C500 Projector	0039A05											
USB 2.0 Webcam	40Y8519	ThinkPad Convertible Carrying Case	22P8860											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Adjustable Notebook Stand	40Y7676											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620											
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
ThinkPad Essential Port Replicator	250510W	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1											
ThinkPad Advanced Mini Dock	250410U	TrackPoint Cap Collection	73P2698											
ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US models announced May 16, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo processor technology

ThinkPad® R60 (9463) - ATI® graphics (TopSeller and Educ) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	S-Video out port	3-year limited warranty ¹²	Avail date
9463-82U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g ³²	None	None	None	None	EasyServ	May 06
9463-7RU	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	None	S-Vid	EasyServ	May 06

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery				
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)				
Diskette drive EIDE Combo	None standard / use optional USB-based diskette drive										CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
UltraBay Enhanced Serial ATA disk (SATA150)	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 60GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System														
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect										90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™. ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Graphics	ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1														
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad ThinkLight™	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														
Weight ²	with optical and 6-cell battery: <i>14.1" models:</i> up to 6.2 lb (2.8kg); <i>15":</i> up to 6.8 lb (3.1 kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	<i>6-cell:</i> up to 3.1 hr; <i>optional 9-cell:</i> up to 4.6 hr; <i>9-cell plus Ultrabay battery:</i> up to 6.6 hr														
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot ExpressCard slot	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <i>15" models:</i> S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express Intel 11a/b/g ³² WWAN ¹⁶	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	None														
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799	Supports ThinkVantage® technologies ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™. ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	Lenovo M500 Projector	0037A05												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector	0039A05												
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Organizer	73P3598												
USB 2.0 Lenovo Multimedia Headset	40Y8518	Premiere Leather Carrying Case	10K0209												
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Convertible Carrying Case	22P8860												
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774												
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620												
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkVision® L171p 17" Monitor (black)	9417HC2												
ThinkPad Essential Port Replicator	250510W	ThinkVision L192p 19" Monitor (black)	9419HC2												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
ThinkPad Advanced Dock	250310U	TrackPoint Cap Collection	73P2698												
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced May 16, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo processor technology

Partial list of accessories supported on ThinkPad R60 originally announced on May 16, 2006

Memory

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm (best to use curved bezel options)

Serial Hard Drive Ultrabay Slim Adapter (flat) ⁴⁰	40Y8725	ann 09/20/05
⁴⁰ Supported, but not recommended because flat bezel.		
DVD-ROM Ultrabay Slim Drive (curved bezel)	73P3270	ann 10/07/03
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

Ultrabay Enhanced 12.7mm (best to use curved bezel options)

DVD-ROM Ultrabay Enhanced Drive (curved)	39X2642	ann 03/14/06
CD-RW/DVD Combo Ultrabay Enhanced (cur)	73P3275	ann 10/07/03

Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5692	ann 03/20/07

⁴¹ Can be used as the main HDD or with ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless LAN (Mini PCI Express)

11a/b/g Wireless Mini PCI Express Adpr ⁴²	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad ⁴²	41N3008	ann 01/05/06
⁴² System must be wireless upgradable.		
Kensington WiFi Finder Plus	40Y7717	

ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock ⁴⁷	250310U	ann 09/20/05
⁴⁷ ThinkPad Advanced Dock supports dual-head graphics adapters:		
- ATI® X1300 256MB Dual Head/TV-out	41U5028	
- ATI Radeon™ X300 SE 128MB Dual Head	41U4813	

External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

Batteries

T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell ⁴³	40Y6789	ann 09/20/05

⁴³ Used in Ultrabay Enhanced bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).		

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	
⁴⁵ Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin 8-outlet 6-foot Surge Protector	31P7659	

Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Other accessories at lenovo.com/accessories

Need to buy accessories no longer marketed by Lenovo? See www.itxchange.com/lenovo for the Options Continuation Program.

ThinkPad® R61e 15W 7650 (GMA) - 1-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Bat-tery tooth cells	Preload	Workhorse (W) Global (G)	Avail date
7650-84U	Celeron 540	1.86	512MB	15.4" WXGA	GMA	80GB 5400	Combo	11b/g ³²	None	None	6 XP Pro	No	July 07
7650-82U	Celeron 540	1.86	512MB	15.4" WXGA	GMA	80GB 5400	Combo	11b/g	None	None	6 Business 32	No	July 07
7650-BPU	Celeron 540	1.86	1GB	15.4" WXGA	GMA	80GB 5400	Combo	11b/g	None	None	6 Business 32	No	Oct 07
7650-EEU	Celeron 550	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	Intel 11a/b/g ³²	None	None	6 Business 32	No	Apr 08
7650-03U	T5670	1.80	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 4965AG ³²	None	None	6 XP Pro	No	July 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program
• These models have a 1-year limited warranty¹²

Positioning Processor	Everyday computing; two spindles Intel® Celeron® Processor 540 or 550 with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel® Core™ 2 Duo processor T5670 with dual-core, 800MHz system bus, and 2MB L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ♦ Vista models: Vista Basic logo Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)		
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available			
Diskette drive	None (use optional USB-based diskette drive)			
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ , fixed, not removable, 12.7mm high			
Ultrabay Enhanced	None (no support for removable Ultrabay™ options)			
Serial ATA disk	80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio			
Camera	None			
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through (no port replicator or docking station support)			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm			
Weight ²	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)			
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic			
Battery - type	Lithium Ion 6-cell			
Battery - life ¹⁰	<i>6-cell Celeron:</i> up to 2.1 hr			
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], / PCI bus (Ricoh® R5C804 Cardbus)			
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit			
ExpressCard slot	None			
Smart Card Read	None			
Multicard Reader	None			
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)			
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios			
Mini PCI Express	One Mini PCI Express slot / not customer upgradable			
11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , ThinkPad 11b/g Mini PCIe Adapter II, Atheros AR5007EG			
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG			
Intel 4965AG ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG			
WWAN	None			
Modem	56K ⁶ V.92 ²⁹ modem, on systemboard, Conexant® CX20548			
Bluetooth™	None			
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE			
Intel AMT	None			
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / microphone input jack, headphone jack			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	None			
Fingerprint reader	None			
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available			
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ThinkPlus 5-year LOR 9x5 NBD
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ThinkPlus 5-year LOR 9x5 NBD
160GB Disk 9.5mm SATA 1.5Gb/s (7200)	41N5737	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 3-year P&L P/U Depot
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter	41N8460	ThinkPlus 3-year P&L P/U Depot
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case	43R2476	ThinkPlus 4-year P&L P/U Depot
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Business Backpack	43R2482	ThinkPlus 4-year P&L P/U Depot
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Deluxe Expander Case	43R2478	ThinkPlus 5-year P&L P/U Depot
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L1940p Wide 19" Monitor	4424HB6	ThinkPlus 5-year P&L P/U Depot
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision L2240p Wide 22" Monitor	4422HB6	ThinkPlus 5-year P&L P/U Depot
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L2440x Wide 24" Monitor	4421HB2	ThinkPlus 5-year P&L P/U Depot
Other accessories on O-R61E sheet		Other accessories at lenovo.com/accessories		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced July 10 or October 30, 2007; or April 8 or July 9, 2008
 US models withdrawn effective December 2007 or November 2008

* Intel Centrino® processor technology
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ThinkPad® R61e 15W (GMA Graphics) - 1-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue-tooth	Battery cells	Preload	Workhorse (W) Global (G)	Avail date
7649-22U	T7300	2.00	1GB	15.4" WXGA	GMA	80GB	5400	Combo	* Intel 11a/b/g ³²	None	None	6	Business 32	G	Jul 07

- This model has a 1-year limited warranty¹²

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo				
Memory	512MB or 1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ , fixed, not removable, 12.7mm high														
Ultrabay Enhanced Serial ATA disk	None (no support for removable Ultrabay™ options) 80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None										Supports ThinkVantage® technologies 65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through (no port replicator or docking station support)														
Keyboard TrackPoint® ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad) Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm														
Weight ²	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)														
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	<i>6-cell Celeron:</i> up to 2.1 hr; <i>6-cell Core 2 Duo:</i> 5.0 hr; <i>9-cell Core 2 Duo:</i> up to 7.0 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], / PCI bus (Ricoh® R5C804 Cardbus) /														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	One Mini PCI Express slot / not customer upgradable														
Intel 11a/b/g ³² WWAN	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548														
Bluetooth™	None														
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	None														
Fingerprint reader	None														
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell		40Y6799											
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell		40Y6797											
160GB Disk 9.5mm SATA 1.5Gb/s (7200)	41N5737	ThinkPad 90W AC Adapter		40Y7659											
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	90W Slim AC/DC Combo Adapter		41N8460											
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Topload Case		43R2476											
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Business Backpack		43R2482											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkVision® L1940p Wide 19" Monitor		4424HB6											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision L2240p Wide 22" Monitor		4422HB6											
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision L2440p Wide 24" Monitor		4420HB2											
Other accessories on O-R61E sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information
US model announced July 10, 2007
US model withdrawn effective May 2009

* Intel Centrino® processor technology

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Partial list of accessories supported on:**• ThinkPad R61e 15W originally announced on July 10, 2007****Memory**

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mm

None (no removable bay options)

Ultrabay Enhanced 12.7mm

None (no removable bay options)

Storage and removable storage

160GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	41N5692	ann	03/20/07
160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)	41N5737	ann	10/16/07
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ann	01/20/09
USB 2.0 Essential Memory Key 1GB	41U4940	ann	01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann	01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 1GB	41U5118	ann	07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

Wireless LAN (Mini PCI Express)

No Mini PCI Express upgrade supported (use PC Card)

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann	01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann	09/20/05
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter*

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the 945GM and GM965 chipset models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

• Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann	12/18/07
• Palm device charge tip (L7)	41R4315	ann	12/18/07
• BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
• iPod and iPhone charge tip (L10a)	41R4481	ann	12/18/07

Carrying Cases**Up to 15.4" widescreen models:**

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance BackPack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann	08/12/08
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Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® R61 14W 7732 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ²	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Bat- tery port cells	1394	Workhorse (W) Vista Global (G) Entry (E)	Avail date
7732-19U T7100	1.80	1GB	14.1" WXGA	GMA	80G	5400	Combo	*Intel 11a/b/g ³²	None	Smart	No	No	4	Business64 W	May 07
<ul style="list-style-type: none"> • This small and medium business (SMB) model is part of the US TopSeller™ Program • This model has a 1-year limited warranty¹² 															
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (64-bit) ◇ Vista Basic logo			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models)			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enhanced														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved														
Serial ATA disk	80GB⁹ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm														
Weight ²	<i>4-cell:</i> starting at 5.2 lb (2.4kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 4-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>4-cell:</i> up to 3.6 hr; <i>optional 6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	Smart Card Reader														
Multicard Reader	None														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)											Supports ThinkVantage® technologies			
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T61/R61 14W Standard Battery 4-cell	41U3196	ThinkPlus™.22 1-year LOR 9x5 NBD	41C9166										
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T61/R61 14W Enhanced Battery 6-cell	41U3198	ThinkPlus 2-year LOR 9x5 NBD	41C9167										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T61/R61 14W High Capacity Batt 7-cell	41U3197	ThinkPlus 3-year LOR 9x5 NBD	41C9168										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250	ThinkPlus 4-year LOR 9x5 NBD	41C9171										
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad External Battery Charger	40Y7625	ThinkPlus 5-year LOR 9x5 NBD	41C9173										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 2-year P&L P/U Depot	41C9169										
USB 2.0 Portable 120GB Hard Disk	41N8379	90W Slim AC/DC Combo Adapter	41N8460	ThinkPlus 3-year P&L P/U Depot	41C9170										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Basic Case	43R9113	ThinkPlus 4-year P&L P/U Depot	41C9172										
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case	43R2476	ThinkPlus 5-year P&L P/U Depot	41C9174										
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad Business Backpack	43R2482	Post-warranty annual maintenance agreements at											
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L190x 19" LCD Monitor	4439HB2	lenovo.com/thinkplus/warranty											
ThinkPad Essential Port Replicator	250510W	ThinkVision L193p 19" LCD Monitor	4431HB2												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L197 Wide 19" LCD	4434HE1												
ThinkPad Advanced Dock	250310U	ThinkVision L220x Wide 22" LCD	4433HB2												
Other accessories on O-R61-14W sheet		Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
 US model announced May 9, 2007
 US model withdrawn effective June 2008

* Intel Centrino® processor technology

ThinkPad® R61 14W 7734 (GMA) - 3-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB ² rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Bat- tery 1394 port	Workhorse (W) Global (G) Avail date
7734-11U	T7100	1.80	1GB	14.1" WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g ³²	None	/54	1394 4	Bus 32 Aug 07
7734-12U	T7100	1.80	1GB	14.1" WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	None	/54	1394 4	XP Pro Aug 07
7734-14U	T7250	2.00	1GB	14.1" WXGA		GMA	160G 5400	DVD±RW	* Intel 11a/b/g	None	/54	1394 4	Bus 32 Sep 07
7734-N3U	T8100	2.10	1GB	14.1" WXGA		GMA	160G 5400	DVD±RW	* Intel 11a/b/g	None	/54	1394 4	XP Pro Jan 08
7734-01U	T5670	1.80	2GB	14.1" WXGA	Cam	GMA	160G 5400	DVD±RW	* Intel 4965AG ³²	None	4-in-1	1394 6	Bus 32 Educ Aug 08
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 3-year limited warranty¹² 													
Positioning Processor	Everyday computing; two spindles Intel® Core™ 2 Duo processor T5670, T7100, T7250, or T8100 with dual-core, 800MHz system bus; T5670/T7100/T7250: 2MB shared L2 cache; T8100: 3MB L2											Preloaded operating system ²⁰	
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											- Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ◇ Vista models: Vista Basic logo	
Diskette drive	None (use optional USB-based diskette drive)											Preloaded applications ¹⁴ (all OSes)	
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced Ultrabay Enhanced One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved												
Serial ATA disk	120GB ⁹ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											• Some: Education software - Microsoft Office OneNote™ 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD)	
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio											• Rescue and Recovery™	
Camera	Some: integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0											• Access Connections™	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											• Client Security Solution™	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											• ThinkVantage Productivity Center	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											• ThinkVantage System Update	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											• System Migration Assistant	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• Norton Internet Security™ (90 days of virus definitions)	
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm											• Diskeeper® Home	
Weight ²	4-cell: starting at 5.2 lb (2.4kg)											• PC-Doctor™ (diagnostics)	
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic											• ThinkPad Utilities (Power Manager and Presentation Director)	
Battery - type	Lithium Ion 4-cell or 6-cell, supports unique 2nd battery in Ultrabay Slim											• Adobe® Reader	
Battery - life ¹⁰	4-cell: up to 3.6 hr; optional 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr											• Windows Live™ Toolbar	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											• Windows Live Search	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											• Picasa from Google	
ExpressCard slot	Some: [54] One ExpressCard/34 or ExpressCard/54											• Fingerprint Software (fingerprint models)	
Smart Card Read	None											• Microsoft Office 2007 Trial (60-day)	
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)											• Sonic RecordNow and Drive Letter Access (DVD±RW)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											• Corel® WinDVD® (DVD±RW)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											• Corel WinDVD Creator (XP Pro DVD±RW models)	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											Supports ThinkVantage® technologies	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
WWAN	None											ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175	
Turbo Memory	None												
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket											ThinkPlus 3-year LOR 9x5 NBD 41C9176	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											ThinkPlus 4-year LOR 9x5 NBD 41C9177	
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											ThinkPlus 5-year LOR 9x5 NBD 41C9179	
Intel AMT	None											ThinkPlus 4-year P&L P/U Depot 41C9178	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											ThinkPlus 5-year P&L P/U Depot 41C9180	
Security	Power-on password, hard disk password, supervisor password, security keyhole											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available												
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell	41U3196										
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell	41U3198										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250										
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 90W AC Adapter	40Y7659										
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	90W Slim AC/DC Combo Adapter	41N8460										
USB 2.0 Portable 160GB Hard Disk	43R1784	ThinkPad Business Topload Case	43R2476										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482										
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision® L1700p 17" Monitor	9417HE2										
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L1940p Wide 19" Monitor	4424HB6										
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6										
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2										
Other accessories on O-R61-14W sheet		Other accessories at lenovo.com/accessories											

See footnotes for important warranty information * Intel Centrino® processor technology
 US models announced Aug 7 or Sep 18, 2007; or Jan 8 or Aug 1, 2008
 US models withdrawn effective Dec 2007, June 2008, or Nov 2008

ThinkPad® R61 14W 7734 (GMA) - 3-year (Linux) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	1394 port	Bat- tery cells	Linux Preload	Workhorse (W) Global (G) Entry (E)	Avail date
7734-15U	T7250	2.00	1GB	14.1" WXGA	GMA	120G 5400	DVD±RW	*Intel 11a/b/g	None	/54	No	1394	4	SLED10	No	Jan 08
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7250 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache											Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock				
Diskette drive EIDE DVD±RW UltraBay Enhanced Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive											Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera				
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio None											Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ²	<i>4-cell 14.1W" (WxDxH):</i> 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm <i>4-cell:</i> starting at 5.2 lb (2.4kg)															
Case material Battery - type Battery - life ¹⁰	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 4-cell , supports unique 2nd battery in Ultrabay Slim Not published															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit [54] One ExpressCard/34 or ExpressCard/54 None None Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN Turbo Memory Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None 56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket None Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE None High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security Security chip Fingerprint reader	None Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip											ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell			41U3196											
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell			41U3198											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell			43R2499											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell			43R9250											
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad External Battery Charger			40Y7625											
USB 2.0 Security Memory Key 4GB	41U5120	90W Slim AC/DC Combo Adapter			41N8460											
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case			43R2476											
ThinkPad Essential Port Replicator	250510W	ThinkPad Business Backpack			43R2482											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor			4422HB6											
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor			4420HB2											
Check Linux compatibility for other accessories	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
 US model announced January 8, 2008
 US model withdrawn effective November 2008

* Intel Centrino® processor technology

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 (LAG1-8) November 2008

ThinkPad® R61 14W 7733 (GMA) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery Linux preload	Workhorse (W) Global (G) Entry	Avail date
7733-3BU	T7500	2.20	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g ³²	None	/54	None	None	6 SLED10	W G Jan 08
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7500 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache													
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available													
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enhanced													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
Serial ATA disk	80GB³ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive													
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	None													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335mm x 261mm x 30.6–34.9mm</i>													
Weight ²	<i>6-cell:</i> starting at 5.5 lb (2.5kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	Not published													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express [®] x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet); IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	None													
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell				41U3196						
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell				41U3198						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell				43R2499						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell				43R9250						
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411			ThinkPad External Battery Charger				40Y7625						
USB 2.0 Essential Memory Key 32GB	45K1258			90W Slim AC/DC Combo Adapter				41N8460						
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Topload Case				43R2476						
ThinkPad Essential Port Replicator	250510W			ThinkPad Business Backpack				43R2482						
ThinkPad Advanced Mini Dock	250410U			ThinkVision® L2240p Wide 22" Monitor				4422HB6						
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor				4420HB2						
Check Linux compatibility for other accessories	Other accessories at lenovo.com/accessories													
Preloaded operating system ²⁰	- SUSE® Linux™ Enterprise Desktop10 Service Pack 1													
Preloaded applications ¹⁴	• None													
Supported devices (only some listed)	<ul style="list-style-type: none"> • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock 													
Non-supported devices (only some listed)	<ul style="list-style-type: none"> • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera 													
Non-supported applications (only some listed)	<ul style="list-style-type: none"> • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer 													
65-watt (GMA graphics) AC adapter	ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant													
International Warranty Service ¹⁷	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378													
ThinkPlus™.22	2-year LOR ²⁴ 9x5 NBD 41C9175													
ThinkPlus	3-year LOR 9x5 NBD 45K6021													
ThinkPlus	4-year LOR 9x5 NBD 45K6022													
ThinkPlus	5-year LOR 9x5 NBD 45K6024													
ThinkPlus	4-year P&L P/U Depot 45K6023													
ThinkPlus	5-year P&L P/U Depot 45K6025													
Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty													

See footnotes for important warranty information
 US model announced January 15, 2008
 US model withdrawn effective May 2009

* Intel Centrino® processor technology

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 (LAG1-9) May 2009

ThinkPad® R61 14W (GMA) - withdrawn

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Battery tooth cells	Vista preload	Limited warranty ¹²	Whorse (W) Gbl (G) Avail date
7733-2UU	540	1.86	1GB	14.1" WXGA	GMA 80G	5400 Combo		Intel 11a/b/g ³²	None	/54	Blue 4	Business32	3-yr	W G Nov07
7738-1GU	T7300	2.00	1GB	14.1" WXGA+	GMA 120G	5400 DVD±RW		*Intel 11a/b/g	None	/54	Blue 4	Business32	1-yr	W G Jun 07
7738-11U	T7300	2.00	1GB	14.1" WXGA+	GMA 120G	5400 DVD±RW		*Intel 11a/b/g	None	/54	Blue 4	Business64	1-yr	W G May07
7733-1GU	T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400 Combo		*Intel 11a/b/g	None	Smart	Blue 4	Business32	3-yr	W G Jun 07
7733-11U	T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400 Combo		*Intel 11a/b/g	None	Smart	Blue 4	Business64	3-yr	W G May07
7733-01U	T7300	2.00	1GB	14.1" WXGA	GMA 100G	7200 Combo		*Intel 11a/b/g	None	/54	6	XP Pro	3-yr	Aug07
7733-1EU	T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400 Combo		*Intel 11a/b/g	None	Smart	Blue 4	XP Pro	3-yr	G Sep07

Italic MTM: not a base model for building a custom model

Positioning Processor	<p><i>Everyday computing; two spindles</i></p> <p>Intel® Celeron® Processor 540 with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit) <p>◇ <i>Vista models:</i> Vista Basic logo</p> <p>Preloaded applications¹⁴ (all OSes)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW) 	
Memory	<p>1GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;</p> <p><i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>		
Diskette drive	None (use optional USB-based diskette drive)		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh		
Ultrabay Enhanced	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh		
Serial ATA disk	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10, 300:1		
Camera	<i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1		
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>4-cell 14.1W" (WxDxH):</i> 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm		
Weight ²	<i>4-cell:</i> starting at 5.2 lb (2.4kg); <i>optional 6-cell:</i> starting at 5.5 lb (2.5kg)		
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	<i>4-cell:</i> up to 3.6 hr; <i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr		
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)		
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit		
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54		
Smart Card Read	<i>Some:</i> Smart Card Reader		
Multicard Reader	None		
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet); <i>Model 1EU:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)		
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG		
WWAN	None		
Turbo Memory	None		
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket		
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator		
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE		
Intel AMT	None		
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip		
Limited warranty ¹²	7738: 1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available 7733: 3-years/1-yr battery - EasyServ depot repair service / srv upgrades ²² available		
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	90W Slim AC/DC Combo Adapter	41N8460
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case	43R2476
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkVision® L2240p Wide 22" Monitor	4422HB6
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2440x Wide 24" Monitor	4421HB2
Other accessories on O-R61-14W sheet		Other accessories at lenovo.com/accessories	

Supports ThinkVantage® technologies

65-watt (GMA graphics) AC adapter
ThinkPad Roll Cage and Top Cover
Roll Cage (one-piece magnesium)
ENERGY STAR® 4.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

ThinkPlus™ options at **lenovo.com/thinkplus/warranty**
Post-warranty annual maintenance agreements at **lenovo.com/thinkplus/warranty**

See footnotes for important warranty information * Intel Centrino® processor technology
US models announced May 9, June 19, Aug 21, Sept 4, or Nov 20, 2007
US models withdrawn effective May 2008 or May 2009

ThinkPad® R61 14W 7735 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Blue- tooth	Bat- tery Preload	Whorse (W) Limited warranty ¹²	Gbl (G) GMP (P)	Avail date
7735-2UU	540	1.86	1GB	14.1" WXGA	GMA	80G 5400	Combo	Intel 11a/b/g ³²	None	/54	Blue	4	Business32	3-yr	W G P Nov 07
7735-1GU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g	None	Smart	Blue	4	Business32	3-yr	W G P Jun 07
7735-11U	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g	None	Smart	Blue	4	Business64	3-yr	W G P May 07
7735-1EU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g	None	Smart	Blue	4	XP Pro	3-yr	W G P May 07

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel® Celeron® Processor 540 with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit) ♦ <i>Vista models:</i> Vista Basic logo</p>			
Memory	<p>1GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)</p>			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enhanced														
Ultrabay Enhanced Serial ATA disk	<p>One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>														
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm														
Weight ²	4-cell: starting at 5.2 lb (2.4kg); optional 6-cell: starting at 5.5 lb (2.5kg)														
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 4-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	4-cell: up to 3.6 hr; 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	<i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54														
Smart Card Read	<i>Some:</i> Smart Card Reader														
Multicard Reader	None														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet); Model 1EU: IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											Supports ThinkVantage® technologies			
Security	Power-on password, hard disk password, supervisor password, security keyhole											65-watt (GMA graphics) AC adapter			
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											ThinkPad Roll Cage and Top Cover			
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											Roll Cage (one-piece magnesium)			
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											ENERGY STAR® 4.0-compliant			
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell			41U3196			RoHS-compliant					
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell			41U3198			International Warranty Service ¹⁷					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell			43R2499			24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell			43R9250			ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD					
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411			90W Slim AC/DC Combo Adapter			41N8460			45K6038					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Topload Case			43R2476			ThinkPlus 5-year LOR 9x5 NBD					
USB 2.0 Portable Secure 320GB Hard Disk	43R2019			ThinkPad Business Backpack			43R2482			43R2162					
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkVision® L2240p Wide 22" Monitor			4422HB6			Post-warranty annual maintenance agreements at					
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2440x Wide 24" Monitor			4421HB2			lenovo.com/thinkplus/warranty					
Other accessories on O-R61-14W sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information
 US models announced May 9, June 19, or November 20, 2007
 US models withdrawn effective May 2008 or May 2009

ThinkPad® R61 14W (GMA Graphics) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ³	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Finger print reader	Battery cells	Vista pre-load	Educ pre-load	Workhorse (W) Limited Gbl warranty ¹²	(G) Avail date	
7733-1BU	T7300	2.00	1GB	14.1" WXGA	GMA	120G	5400	DVD±RW	11a/b/g ³²	None	4-in-1	Fing	6	B32	HE	EasyServ W	May 07
7733-1CU	T7300	2.00	1GB	14.1" WXGA	GMA	80G	5400	Combo	11a/b/g	None	4-in-1	6	B32	K12	EasyServ W	May 07	

• **These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7100 or T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo				
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional - Contribute 4 • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD)				
Diskette drive	None (use optional USB-based diskette drive)											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Picasa from Google • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW) 				
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh															
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh															
Ultrabay Enhanced Serial ATA disk	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Camera	None															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm															
Weight ²	<i>6-cell:</i> starting at 5.5 lb (2.5kg)															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std	One slot (Type I, Type II), CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	None															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² avail															
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell				41U3196								
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell				41U3198								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell				43R2499								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell				43R9250								
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410			ThinkPad External Battery Charger				40Y7625								
USB 2.0 Essential Memory Key 32GB	45K1258			ThinkPad 90W AC Adapter				40Y7659								
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			90W Slim AC/DC Combo Adapter				41N8460								
ThinkPad Essential Port Replicator	250510W			ThinkVision® L1940p Wide 19" Monitor				4424HB6								
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor				4422HB6								
ThinkPad Advanced Dock	250310U			ThinkVision L2440x Wide 24" Monitor				4421HB2								
Other accessories on O-R61-14W sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
US models announced May 9, 2007
US models withdrawn effective May 2009

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ThinkPad® R61 14W (GMA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo Card slot	Finger print reader	Bat-tery cells	Vista pre-load	Educ pre-load	Workhorse (W) Limited Gbl (G) warranty ¹²	Avail date	
7735-1BU	T7300	2.00	1GB	14.1" WXGA	GMA	120G	5400	DVD±RW	11a/b/g ³²	None	4-in-1	Fing	6	B32	HE	Onsite	W May 07
7735-1CU	T7100	1.80	1GB	14.1" WXGA	GMA	80G	5400	Combo	11a/b/g	None	4-in-1	6	B32	K12	Onsite	W May 07	

• **These models have a limited onsite service²⁴ 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7100 or T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB shared L2 cache; T7300: 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Basic logo				
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (all) • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional - Contribute 4 • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)				
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh															
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh															
Ultrabay Enhanced Serial ATA disk	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	None															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm															
Weight ²	<i>6-cell:</i> starting at 5.5 lb (2.5kg)															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	None															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time											Supports ThinkVantage® technologies				
1GB PC2-5300 DDR2 SODIMM	40Y7734		T/R 14W Enhanced Battery 6-cell				41U3198				65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
2GB PC2-5300 DDR2 SODIMM	40Y7735		T/R 14W High Capacity Batt 9-cell				43R2499									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		Advanced Ultrabay Battery II 3-cell				43R9250									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725		ThinkPad External Battery Charger				40Y7625									
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411		90W Slim AC/DC Combo Adapter				41N8460									
USB 2.0 Portable Secure 320GB Hard Disk	43R2019		ThinkPad Business Topload Case				43R2476									
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Business Backpack				43R2482									
USB 2.0 Lenovo Enhanced Port Replicator	43R8770		ThinkVision® L1940p Wide 19" Monitor				4424HB6									
ThinkPad Essential Port Replicator	250510W		ThinkVision L2240p Wide 22" Monitor				4422HB6									
ThinkPad Advanced Dock	250310U		ThinkVision L2440p Wide 24" Monitor				4420HB2									
Other accessories on O-R61-14W sheet	Other accessories at lenovo.com/accessories											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
 US models announced May 9, 2007
 US models withdrawn effective May 2009

ThinkPad® R61u 14W 7733 (GMA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Cam- era	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo slot	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Vista pre- load	Workhorse (W) Limited Gbl (G) warranty ¹²	Avail date
7733-PAU	T8300	2.40	1GB	14.1" WXGA	GMA	80G 5400	Combo	11a/b/g	None	/54			6	B32	EasyServ	No Feb 08
7733-PBU	T8300	2.40	1GB	14.1" WXGA+	GMA Cam	100G 7200	DVD±RW	11a/b/g	None	/54	Blue	Fing	6	B32	EasyServ	No Feb 08
7733-05U	T8300	2.40	2GB	14.1" WXGA	GMA Cam	160G 5400	DVD±RW	11a/b/g	None	4-in-1	Blue	Fing	6	B32	EasyServ	No Apr 08
<i>Italic MTM: not a base model for building a custom model</i>																
<ul style="list-style-type: none"> • These models have an EasyServ™,19 depot repair service 3-year limited warranty 																
Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.																
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo				
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)				
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh															
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high															
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), or 160GB (5400 rpm) / SATA 1.5Gb/s 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10, 300:1 <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1															
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm															
Weight ²	<i>6-cell:</i> starting at 5.5 lb (2.5kg)															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54															
Smart Card Read	None															
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹² 3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades ²² available																
1GB PC2-5300 DDR2 SODIMM	40Y7734		T/R 14W Standard Battery 4-cell				41U3196					ThinkPlus™,22 2-year LOR ²⁴ 9x5 NBD				
2GB PC2-5300 DDR2 SODIMM	40Y7735		T/R 14W Enhanced Battery 6-cell				41U3198					41C9175				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		T/R 14W High Capacity Batt 9-cell				43R2499					45K6021				
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725		Advanced Ultrabay Battery II 3-cell				43R9250					45K6022				
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411		ThinkPad External Battery Charger				40Y7625					45K6023				
USB 2.0 Essential Memory Key 32GB	45K1258		ThinkPad 90W AC Adapter				40Y7659					45K6024				
ThinkPad Adjustable Notebook Stand	40Y7676		90W Slim AC/DC Combo Adapter				41N8460					45K6025				
ThinkPad Essential Port Replicator	250510W		ThinkVision® L1940p Wide 19" Monitor				4424HB6					45K6026				
ThinkPad Advanced Mini Dock	250410U		ThinkVision L2240p Wide 22" Monitor				4422HB6					45K6027				
ThinkPad Advanced Dock	250310U		ThinkVision L2440p Wide 24" Monitor				4420HB2					45K6028				
Other accessories on O-R61-14W sheet			Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
 US models announced February 19 or April 10, 2008
 US models withdrawn effective May 2009

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 (LAG2-1) May 2009

ThinkPad® R61u 14W 7733 (GMA) - Edu (EasyServ) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Cam- era	Disk SATA GB ² rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Bat- tery cells	Linux preload	Limited warranty ¹²	Workhorse (W) Gbl (G) Avail date
7733-3AU	T8100	2.10	1GB	14.1" WXGA	GMA	No	80G 5400	Combo	*Intel 11a/b/g ³²	None	/54	6	SLED10	EasyServ No Feb 08

• **This model has an EasyServ™.19 depot repair service 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T8100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache										Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer			
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available													
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enhanced													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
Serial ATA disk	80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	None													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm													
Weight ²	<i>6-cell:</i> starting at 5.5 lb (2.5kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	/54 One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										Supports ThinkVantage® technologies			
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Bluetooth™	None													
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades²² available										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
1GB PC2-5300 DDR2 SODIMM	40Y7734		T/R 14W Standard Battery 4-cell			41U3196								
2GB PC2-5300 DDR2 SODIMM	40Y7735		T/R 14W Enhanced Battery 6-cell			41U3198								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		T/R 14W High Capacity Batt 9-cell			43R2499								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725		Advanced Ultrabay Battery II 3-cell			43R9250								
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410		ThinkPad External Battery Charger			40Y7625								
USB 2.0 Essential Memory Key 32GB	45K1258		ThinkPad 90W AC Adapter			40Y7659								
ThinkPad Adjustable Notebook Stand	40Y7676		90W Slim AC/DC Combo Adapter			41N8460								
ThinkPad Essential Port Replicator	250510W		ThinkVision® L1940p Wide 19" Monitor			4424HB6								
ThinkPad Advanced Mini Dock	250410U		ThinkVision L2240p Wide 22" Monitor			4422HB6								
ThinkPad Advanced Dock	250310U		ThinkVision L2440x Wide 24" Monitor			4421HB2			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Check Linux compatibility for other accessories	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US model announced February 19, 2008
US model withdrawn effective May 2009

* Intel Centrino® processor technology

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(LAG2-3) May 2009

ThinkPad® R61 14W 7744 (NVIDIA® Graphics) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Bat- tery 1394 port cells	Workhorse (W) Vista Global (G) Avail preload Entry (E) date
7744-1AU	T7500	2.20	1GB	14.1" WXGA+	128MB	160GB	5400	DVD±RW	*Intel 11a/b/g ³²	None	/54	Cam	1394 6	Business32 No Sep 07

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹²

Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7500 with dual-core. Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ♦ Vista Premium logo</p> <p>Preloaded applications¹⁴</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved											
Serial ATA disk	<p>160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>											
Widescreen display	<p>14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio</p>											
Camera	Integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0											
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	6-cell 14.1W™ (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm											
Weight ²	6-cell: starting at 5.5 lb (2.5kg)											
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	6-cell: up to 3.7 hr; 6-cell plus Ultrabay battery: up to 5.2 hr											
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>											Supports ThinkVantage® technologies
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											<p>90-watt (NVIDIA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p> <p>ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175</p> <p>ThinkPlus 3-year LOR 9x5 NBD 41C9176</p> <p>ThinkPlus 4-year LOR 9x5 NBD 41C9177</p> <p>ThinkPlus 5-year LOR 9x5 NBD 41C9179</p> <p>ThinkPlus 4-year P&L P/U Depot 41C9178</p> <p>ThinkPlus 5-year P&L P/U Depot 41C9180</p>
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0											
Smart Card Read	None											
Multicard Reader	None											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Turbo Memory	None											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	None											
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available											

See footnotes for important warranty information
 US model announced September 18, 2007
 US model withdrawn effective June 2008

* Intel Centrino® processor technology

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 (LAG1-7) July 2008

ThinkPad® R61 14W 7743 (NVIDIA® Graphics) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Camera	1394 port	Battery cells	Workhorse (W) Vista Global (G) Avail Entry (E) date
7743-1GU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g ³²		Smart	1394 4	Business32	W G Jun 07		
7743-1HU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g	1G Turbo	Smart	1394 4	Business32	W G Jun 07		
7743-11U	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	1394 4	Business64	W G May 07		
7743-19U	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g	1G Turbo	Smart	1394 4	Business64	W G Jul 07		
7743-01U	T7300	2.00	1GB	14.1" WXGA	128MB	100GB	7200	Combo	*Intel 11a/b/g		/54	1394 6	XP Pro	Aug 07		
7743-02U	T7500	2.20	1GB	14.1" WXGA	128MB	100GB	7200	Combo	*Intel 11a/b/g		/54	1394 6	Business32	W Aug 07		
7743-03U	T7500	2.20	1GB	14.1" WXGA+	128MB	120GB	5400	DVD±RW	*Intel 11a/b/g		4-in-1	Cam 1394 6	Business32	W Aug 07		
7743-1JU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	1394 4	XP Pro	G Sep 07		

Italic MTM: not a base model for building a custom model

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache	Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit) ◇ <i>Vista models:</i> Vista Premium logo
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh	
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh	
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved	
Serial ATA disk	80GB³ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10, 300:1 <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1	
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm <i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm	
Weight ²	<i>4-cell:</i> starting at 5.2 lb (2.4kg); <i>6-cell:</i> starting at 5.5 lb (2.5kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 3.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 5.2 hr	
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	Supports ThinkVantage® technologies
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54	90-watt (NVIDIA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Smart Card Read	<i>Some:</i> Smart Card Reader	
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	
WWAN	None	
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator	ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket	ThinkPlus 3-year LOR 9x5 NBD 41C9176
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	ThinkPlus 4-year LOR 9x5 NBD 41C9177
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	ThinkPlus 5-year LOR 9x5 NBD 41C9179
Intel AMT	None	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus 4-year P&L P/U Depot 41C9178
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip	ThinkPlus 5-year P&L P/U Depot 41C9180
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available	

See footnotes for important warranty information * Intel Centrino® processor technology
US models announced May 9, June 19, Aug 21, or Sept 4, 2007
US models withdrawn effective May or November 2008

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ThinkPad® R61 14W 7743 (NVIDIA®) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Bat- tery 1394 port cells	Workhorse (W) Linux Global (G) Avail preload Entry (E) date
7743-2JU	T7500 2.20 1GB 14.1"	WXGA+	128MB	120GB 5400	DVD±RW	*Intel 11a/b/g	None	/54	None	1394 6	SLED10 W/G Jan 08
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache									Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None	
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available									Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock	
Diskette drive EIDE DVD±RW Ultrabay Enhanced Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive									Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera	
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None									Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer	
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm 6-cell: starting at 5.5 lb (2.5kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim Not published										
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader	One Type I or Type II slot, CardBus 32-bit [54] One ExpressCard/34 or ExpressCard/54 None None										
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN Turbo Memory	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None										
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE None High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack									90-watt (NVIDIA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip										
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											
512MB PC2-5300 DDR2 SODIMM	40Y7733	T/R 14W Standard Battery 4-cell	41U3196								
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Enhanced Battery 6-cell	41U3198								
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W High Capacity Batt 9-cell	43R2499								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery II 3-cell	43R9250								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625								
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	90W Slim AC/DC Combo Adapter	41N8460								
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case	43R2476								
ThinkPad Essential Port Replicator	250510W	ThinkVision® L1940p Wide 19" Monitor	4424HB6								
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6								
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2								
Check Linux compatibility for other accessories	Other accessories at lenovo.com/accessories										

See footnotes for important warranty information
 US model announced January 15, 2008
 US model withdrawn effective November 2008

* Intel Centrino® processor technology

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 (LAG1-10) November 2008

ThinkPad® R61 14W 7751 (NVIDIA®) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Blue- tooth	1394 port	Bat- tery cells	Workhorse (W) Global (G) Avail Preload GMP (P) date
7751-1GU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g ³²	1G Turbo	Smart	Blue	1394	4	Business32 W G P Jun 07
7751-1HU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	Blue	1394	4	Business32 W G P Jun 07
7751-11U	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	Blue	1394	4	Business64 W G P May 07
7751-1JU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	Blue	1394	4	XP Pro W G P Sep 07

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ♦ Vista models: Vista Premium logo				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	Some: DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved														
Serial ATA disk	80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2-1.37"; 335mm x 237mm x 30.6-34.9mm														
Weight ²	4-cell: starting at 5.2 lb (2.4kg); 6-cell: starting at 5.5 lb (2.5kg)														
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 4-cell, supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	4-cell: up to 2.5 hr; 6-cell: up to 3.7 hr; 6-cell plus Ultrabay battery: up to 5.2 hr														
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	Smart Card Reader														
Multicard Reader	None														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator														
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Supports ThinkVantage® technologies 90-watt (NVIDIA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell			41U3196			ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 12X5630 ThinkPlus 5-year LOR 9x5 NBD 43R2162 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell			41U3198								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell			43R2499								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell			43R9250								
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738			90W Slim AC/DC Combo Adapter			41N8460								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Topload Case			43R2476								
USB 2.0 Portable 160GB Hard Disk	43R1784			ThinkVision® L2240p Wide 22" Monitor			4422HB6								
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2440x Wide 24" Monitor			4421HB2								
Other accessories on O-R61-14W sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information

* Intel Centrino® processor technology

US models announced May 9, June 19, or September 4, 2007

US models withdrawn effective May or November 2008

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(LAG1-12) November 2008

ThinkPad® R61u 14W 7743 (NVIDIA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model GHz	Memory GB	Wide- screen display	Graphics controller	Disk SATA GB ⁵	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Blue- tooth	Finger print reader	Bat- tery cells	Vista pre- load	Workhorse (W) Limited Gbl (G) warranty ¹²	Avail date
7743-N4U T8300	2.40 1GB	14.1" WXGA+	128MB	100G 7200	DVD±RW	11a/b/g	None	4-in-1	Cam	Blue	Fing	6	B32	EasyServ No Feb 08
7743-05U T8300	2.40 2GB	14.1" WXGA+	128MB	160G 5400	DVD±RW	11a/b/g	None	4-in-1	Cam	Blue	Fing	6	B32	EasyServ No Apr 08
<i>Italic MTM: not a base model for building a custom model</i>														
<p>• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty</p> <p>Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo</p>		
Memory	<p>1GB or 2GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)</p>		
Diskette drive EIDE DVD±RW Ultrabay Enhanced Serial ATA disk	<p>None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enhanced One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 100GB (7200 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>													
Widescreen display Camera	<p>14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0</p>													
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>													
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions</p>													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm <i>6-cell:</i> starting at 5.5 lb (2.5kg) Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr</p>													
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>													
PC Card ExpressCard slot Smart Card Read Multicard Reader Ports	<p>One slot (Type I, Type II), CardBus 32-bit None None 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>													
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo Memory	<p>UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless¹, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None</p>											<p>Supports ThinkVantage® technologies</p>		
Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>56K V.92® modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE None High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack</p>											<p>65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>		
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>											<p>ThinkPlus™.22 2-year LOR²⁴ 9x5 NBD 41C9175</p>		
Limited warranty ¹²	<p>3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available</p>											<p>ThinkPlus 3-year LOR 9x5 NBD 45K6021</p>		
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter (flat) 250GB Disk FDE SATA 1.5Gb/s (7200 rpm) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Essential Memory Key 32GB ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-R61-14W sheet	<p>40Y7734 40Y7735 41N5643 40Y8725 43N3410 43N3411 45K1258 250510W 250410U 250310U</p>											<p>T/R 14W Standard Battery 4-cell 41U3196 T/R 14W Enhanced Battery 6-cell 41U3198 T/R 14W High Capacity Batt 9-cell 43R2499 Advanced Ultrabay Battery II 3-cell 43R9250 ThinkPad External Battery Charger 40Y7625 ThinkPad 90W AC Adapter 40Y7659 90W Slim AC/DC Combo Adapter 41N8460 ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440x Wide 24" Monitor 4421HB2 Other accessories at lenovo.com/accessories</p>		
											<p>ThinkPlus 4-year LOR 9x5 NBD 45K6022</p>			
											<p>ThinkPlus 5-year LOR 9x5 NBD 45K6024</p>			
											<p>ThinkPlus 4-year P&L P/U Depot 45K6023</p>			
											<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
											<p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>			

See footnotes for important warranty information
 US models announced February 19 or April 10, 2008
 US models withdrawn effective May 2009

ThinkPad® R61u 14W 7743 (NVIDIA) - Edu (EasyServ) - Linux - withdrawn *Personal Systems Reference (PSREF)*

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo slot	Blue- tooth	Finger print reader	Bat- tery cells	Linux pre- load	Workhorse (W) Limited Gbl (G) warranty ¹²	Avail date
7743-3BU	T8300	2.40 1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	*Intel 11a/b/g ³²	None /54	Blue	None	6	SLED10	EasyServ No Feb 08	

• **This model has an EasyServ™.19 depot repair service 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache										Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer			
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enhanced										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
Serial ATA disk	120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	None													
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm													
Weight ²	<i>6-cell:</i> starting at 5.5 lb (2.5kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr													
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades²² available													
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell			41U3196			ThinkPlus 4-year LOR 9x5 NBD 45K6022				
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell			41U3198			ThinkPlus 5-year LOR 9x5 NBD 45K6024				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell			43R2499			ThinkPlus 4-year P&L P/U Depot 45K6023				
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell			43R9250			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411			ThinkPad External Battery Charger			40Y7625							
USB 2.0 Essential Memory Key 32GB	45K1258			ThinkPad 90W AC Adapter			40Y7659							
ThinkPad Adjustable Notebook Stand	40Y7676			90W Slim AC/DC Combo Adapter			41N8460							
ThinkPad Essential Port Replicator	250510W			ThinkVision® L1940p Wide 19" Monitor			4424HB6							
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor			4422HB6							
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor			4420HB2							
Check Linux compatibility for other accessories				Other accessories at lenovo.com/accessories										

See footnotes for important warranty information
US model announced February 19, 2008
US model withdrawn effective May 2009

* Intel Centrino® processor technology

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(LAG2-4) May 2009

Partial list of accessories supported on:

• ThinkPad R61 14W originally announced on May 9, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mm (supports both flat and curved bezel options)
 Serial Hard Drive Ultrabay Slim Adapter (flat)⁴⁸ 40Y8725 ann 09/20/05
 ThinkPad DVD Ultrabay Slim Burner (flat)⁴⁸ 41N5643 ann 05/31/07
⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm (supports both flat and curved bezel)
 CD-RW/DVD Combo Ultrabay Enhanced (cur) 73P3275 ann 10/07/03

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09

⁴¹ Can be used as the main HDD or with ThinkPad
 Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725
 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

T/R 14W Standard Battery 4-cell	41U3196	ann	05/09/07
T/R 14W Enhanced Battery 6-cell	41U3198	ann	05/09/07
T/R 14W High Capacity Battery 9-cell	43R2499	ann	03/04/08
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).			
ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the 945GM and GM965 chipset models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460
 •Dual (ThinkPad+Phone) Charging Y-Cable 41R4345 ann 12/18/07
 •BlackBerry charge tip (L8a) 41R4478 ann 12/18/07
 •iPod and iPhone charge tip (L10a) 41R4481 ann 12/18/07

Carrying Cases

<i>Up to 14.1" widescreen models:</i>			
ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

<i>Up to 15.4" widescreen models:</i>			
Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

<i>Up to 17.0" widescreen models:</i>			
ThinkPad 17W Business Topload Case	43R9117	ann	08/12/08

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® R61 15W (GMA Graphics) - 1-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB ² rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Bat- tery Blue- tooth cells	Workhorse (W) Vista Global (G) Avail preload date
8932-A8U T7100	1.80 1GB	15.4" WXGA	None	GMA	120G 5400	DVD±RW	*Intel 11a/b/g ³²	Smart	Finger	Blue	6 Business64 No Jul 07
<ul style="list-style-type: none"> • This small and medium business (SMB) model is part of the US TopSeller™ Program • This model has a 1-year limited warranty¹² 											
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache										Preloaded operating system²⁰ - Microsoft Windows® Vista™ Business Edition (64-bit) ⇨ Vista Basic logo
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)
Diskette drive DVD burner UltraBay Enhanced Serial ATA disk (SATA150)	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced One bay for removable devices, Ultrabay Slim-compatible, 12.5mm high, flat or curved 120GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, anti-glare None										
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm 6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg) Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr										License - CD not included - Lotus® Notes® Stand-alone Client
Architecture	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit None Smart Card Reader 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™) Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out										Supports ThinkVantage® technologies
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN ¹⁶ Turbo Memory Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios One Mini PCI Express slot / 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None 56K ⁶ V.90 (V.92-designed ²⁹) modem, on systemboard, Conexant® CX20548 Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supported with security chip										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available										
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial Hard Drive Ultrabay Slim Adapter (flat) ThinkPad DVD Ultrabay Slim Burner (flat) 160GB Disk 9.5mm SATA150 (5400 rpm) 160GB Disk 9.5mm SATA150 (7200 rpm) 200GB Disk FDE SATA150 (7200 rpm) USB 2.0 Super Multi-Burner Drive ThinkPad Convertible Monitor Stand ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-R61-15W sheet	40Y7733 40Y7734 40Y7735 40Y8725 41N5643 41N5692 41N5737 41N5738 41N5565 40Y7620 250510W 250410U 250310U	T60/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Expander ThinkPad Carrying Case - Backpack ThinkVision® L171p 17" LCD Monitor ThinkVision L190x 19" LCD Monitor ThinkVision L193p 19" LCD Monitor ThinkVision L220x Wide 22" LCD Lenovo M500 Projector Other accessories at lenovo.com/accessories	40Y6799 40Y6797 40Y6789 40Y7625 40Y7659 40Y7630 73P3597 73P3599 9417HC2 4439HB2 4431HB2 4433HB2 0037A05	41C9166 41C9167 41C9168 41C9171 41C9173 41C9169 41C9170 41C9172 41C9174							

See footnotes for important warranty information
 US model announced July 10, 2007
 US model withdrawn effective December 2007

* Powered by Intel Centrino® Duo processor technology

ThinkPad® R61 15W 8934 (GMA) - 3-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Cam-era	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G) Avail date
8934-A7U	T7100	1.80	1GB	15.4" WXGA		GMA	120G 5400	DVD±RW	*Intel 11a/b/g ³²	/54	Fing		6 XP Pro	Jul 07
8934-BTU	T7250	2.00	1GB	15.4" WXGA		GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6 Bus 32	Sep 07
8934-F9U	T8100	2.10	1GB	15.4" WXGA		GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6 XP Pro	Jan 08
8934-FAU	T8300	2.40	1GB	15.4" WXGA		GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6 Bus 32	Jan 08
8934-01U	T8100	2.10	2GB	15.4" WXGA		GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	Fing		6 Bus 32 Educ	May 08
8934-02U	Celeron 550	2.00	1GB	15.4" WSXGA+	Cam	GMA	80G 5400	DVD±RW	Intel 4965AG ³²	4-in-1	Fing Blue		6 Bus 32 Educ	Aug 08
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 3-year limited warranty¹² 														
Positioning Processor	Everyday computing; two spindles Intel® Celeron® Processor 550 with single-core, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T7100, T7250, T8100, or T8300 with dual-core, 800MHz system bus, T7100/T7250: 2MB L2 cache; T8100/T8300: 3MB L2 cache										Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ (all OSes) • Some: Education software - Microsoft Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection – Photoshop Elements (and CD) – Premier Elements (and DVD) – Acrobat 8 Professional – Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings (XP Pro) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNOW and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
Serial ATA disk	80GB ⁹ (5400 rpm), 120GB (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm													
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)													
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Enhanced													
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	Some: [/54] One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										Supports ThinkVantage® technologies			
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable										65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG													
WWAN	None													
Turbo Memory	None													
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548													
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175			
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 3-year LOR 9x5 NBD 45K6021			
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant										ThinkPlus 4-year LOR 9x5 NBD 45K6022			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supported with security chip										ThinkPlus 5-year LOR 9x5 NBD 45K6024			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available										ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799											
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250											
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	90W Slim AC/DC Combo Adapter	41N8460											
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case	43R2476											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6											
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2											
Other accessories on O-R61-15W sheet		Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US models announced July 10 or September 18, 2007; or January 8, May 9, or August 1, 2008
US models withdrawn effective December 2007 or May 2009

ThinkPad® R61 15W (NVIDIA Graphics) - 3-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Camera	Battery port cells	1394	Vista preload	Whorse (W) Gbl (G)	Avail date
8920-8RU	T7300	2.00	1GB	15.4" WSXGA+	128MB	160G	5400	DVD±RW	*Intel 11a/b/g ³²	Finger	Cam	1394	6	Business32	No	Jun 07	
8920-B6U	T7500	2.20	1GB	15.4" WSXGA+	128MB	160G	5400	DVD±RW	*Intel 11a/b/g	Finger	Cam	1394	6	Business32	No	Sep 07	

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹²

Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo</p>					
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>											<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)</p>					
Diskette drive	None (use optional USB-based diskette drive)																
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable from Ultrabay Enhanced																
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved																
Serial ATA disk	<p>160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>																
Widescreen display	<p>15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio</p>																
Camera	<p><i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0</p>																
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>																
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys																
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones																
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³	<p>6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm</p>																
Weight ²	<p>6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)</p>																
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic																
Battery - type	Lithium Ion 6-cell 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced																
Battery - life ¹⁰	<p>6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr</p>																
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>																
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit																
ExpressCard slot	One ExpressCard/34 or ExpressCard/54																
Smart Card Read	None																
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)																
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out																
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios																
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable																
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG																
WWAN	None																
Turbo Memory	None																
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket																
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator																
Ethernet	Gigabit ethernet on systemboard, Intel 82566MC Nineveh (PHY), PCIe x1 (GLCI), PXE																
Intel AMT	None																
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack																
Security	Power-on password, hard disk password, supervisor password, security keyhole																
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant																
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supported with security chip																
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799														
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797														
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250														
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625														
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad 90W AC Adapter	40Y7659														
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152	90W Slim AC/DC Combo Adapter	41N8460														
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case	43R2476														
USB 2.0 Essential Memory Key 8GB	45J7905	ThinkPad Business Backpack	43R2482														
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkVision® L1700p 17" Monitor	9417HE2														
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision L1940p Wide 19" Monitor	4424HB6														
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L2240p Wide 22" Monitor	4422HB6														
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2440p Wide 24" Monitor	4420HB2														
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2														
Other accessories on O-R61-15W sheet	Other accessories at lenovo.com/accessories																
<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p> <p>ThinkPlus™²² 2-year LOR²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180</p> <p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>																	

See footnotes for important warranty information
 US models announced June 26 or September 18, 2007
 US models withdrawn effective Dec 2007 or Nov 2008

* Intel Centrino® processor technology

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 (WKK1-3) November 2008

ThinkPad® R61 15W (GMA Graphics) - 1-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB ²	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Blue- tooth	Bat- tery cells	Workhorse (W) Vista Global (G) preload	Avail date
8930-23U	T7300	2.00	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	*Intel 11a/b/g ³²	Smart	None	None	6	Business32	G Jul 07

• *This model has a 1-year limited warranty¹²*

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core. Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo					
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;										Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)					
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable from Ultrabay Enhanced															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.5mm high, flat or curved															
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	15.4" (391mm) WXGA (1280x800) color , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, anti-glare															
Camera	None															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm															
Weight ²	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)															
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced															
Battery - life ¹⁰	<i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 7.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr															
Architecture	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	Smart Card Reader															
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable															
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG															
WWAN ¹⁶	None															
Turbo Memory	None															
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem, on systemboard, Conexant® CX20548															
Bluetooth™	None															
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	None															
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell				40Y6799							
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797							
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery 3-cell				40Y6789							
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad External Battery Charger				40Y7625							
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad 90W AC Adapter				40Y7659							
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692				ThinkPad 90W AC/DC Combo Adapter				40Y7630							
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				ThinkPad Carrying Case - Expander				73P3597							
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Carrying Case - Backpack				73P3599							
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkVision® L171p 17" LCD Monitor				9417HC2							
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L193p 19" LCD Monitor				4431HB2							
ThinkPad Essential Port Replicator	250510W				ThinkVision L194 Wide 19" LCD				4434HB6							
ThinkPad Advanced Mini Dock	250410U				ThinkVision L220x Wide 22" LCD				4433HB2							
ThinkPad Advanced Dock	250310U				Lenovo M500 Projector				0037A05							
Other accessories on O-R61-15W sheet											Other accessories at lenovo.com/accessories					
											ThinkPlus™. ²² 1-year LOR 9x5 NBD 41C9166					
											ThinkPlus 2-year LOR 9x5 NBD 41C9167					
											ThinkPlus 3-year LOR 9x5 NBD 41C9168					
											ThinkPlus 4-year LOR 9x5 NBD 41C9171					
											ThinkPlus 5-year LOR 9x5 NBD 41C9173					
											ThinkPlus 2-year P&L P/U Depot 41C9169					
											ThinkPlus 3-year P&L P/U Depot 41C9170					
											ThinkPlus 4-year P&L P/U Depot 41C9172					
											ThinkPlus 5-year P&L P/U Depot 41C9174					
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					

See footnotes for important warranty information
US model announced July 10, 2007
US model withdrawn effective December 2007

* Powered by Intel Centrino® Duo processor technology

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(WKK11-3) December 2007

ThinkPad® R61 15W (GMA Graphics) - 3-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Graphics controller	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Blue-tooth	Battery cells	Workhorse (W) Vista Global (G) Avail date
8933-22U	T7300	2.00	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	*Intel 11a/b/g ³²	Smart	Finger	Blue	6	Business64 W G Jul 07
8933-ACU	T7300	2.00	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	*Intel 11a/b/g	Smart	Finger	Blue	6	Business32 Jul 07
8933-B7U	540	1.86	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	Intel 11a/b/g	Smart	Finger	Blue	6	Business32 Sep07

• **These models have a 3-year limited warranty¹²**

Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel® Celeron® Processor 540 with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ♦ Vista Basic logo</p>				
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>										<p>Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)</p>				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable from Ultrabay™ Enhanced														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved														
Serial ATA disk	<p>80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>														
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm														
Weight ²	starting at 6.4 lb (2.9kg)														
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	<i>6-cell:</i> up to 5.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr														
Chipset	<p>Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	Smart Card Reader														
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K ⁶ V.92 ²⁹ modem, on systemboard, Conexant® CX20548														
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supported with security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799												
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625												
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad 90W AC Adapter	40Y7659												
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152	90W Slim AC/DC Combo Adapter	41N8460												
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case	43R2476												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482												
ThinkPad Essential Port Replicator	250510W	ThinkVision® L1940p Wide 19" Monitor	4424HB6												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6												
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2												
Other accessories on O-R61-15W sheet	Other accessories at lenovo.com/accessories														
															Supports ThinkVantage® technologies
															65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
															ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175
															ThinkPlus 3-year LOR 9x5 NBD 41C9176
															ThinkPlus 4-year LOR 9x5 NBD 41C9177
															ThinkPlus 5-year LOR 9x5 NBD 41C9179
															ThinkPlus 4-year P&L P/U Depot 41C9178
															ThinkPlus 5-year P&L P/U Depot 41C9180
															Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced July 10, July 24, or September 18, 2007
 US models withdrawn effective November 2008

* Intel Centrino® processor technology

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 (WKK11-4) November 2008

ThinkPad® R61u 15W 8933 (GMA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G)	Avail date
8933-ESU	T8100	2.10	1GB	15.4" WXGA	Cam	GMA	80G 5400	Combo	11a/b/g	/54			6	Business32	No Jan 08
8933-ETU	T8300	2.40	1GB	15.4" WSXGA+	Cam	GMA	100G 7200	Combo	11a/b/g	/54	Finger	Blue	6	Business32	No Jan 08
<p>• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty</p> <p>Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>															
Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T8100 or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Basic logo</p>			
Memory	<p>1GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>											<p>Preloaded applications¹⁴ • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (Combo) • Corel® WinDVD® (Combo)</p>			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X21, removable Ultrabay™ Enh, curved														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high														
Serial ATA disk	<p>80GB⁸ (5400 rpm) or 100GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>														
Widescreen display	<p><i>Some:</i> 15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10, 300:1 <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10, 300:1</p>														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0														
Graphics	<p>Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm														
Weight ²	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)														
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	<i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 7.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr														
Chipset	<p>Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None											Supports ThinkVantage® technologies			
Turbo Memory	None														
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548														
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame)			
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE											ENERGY STAR® 4.0-compliant RoHS-compliant			
Intel AMT	None											International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supported with security chip														
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available															
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ThinkPlus™ ²² 2-year LOR ²⁴ 9x5 NBD 41C9175											
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ThinkPlus 3-year LOR 9x5 NBD 45K6021											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250	ThinkPlus 4-year LOR 9x5 NBD 45K6022											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625	ThinkPlus 5-year LOR 9x5 NBD 45K6024											
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 4-year P&L P/U Depot 45K6023											
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	90W Slim AC/DC Combo Adapter	41N8460	ThinkPlus 5-year P&L P/U Depot 45K6025											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Business Topload Case	43R2476	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482												
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPad Deluxe Expander Case	43R2478												
ThinkPad Essential Port Replicator	250510W	ThinkVision® L1940p Wide 19" Monitor	4424HB6												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6												
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2												
Other accessories on O-R61-15W sheet															
Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
 US models announced February 19, 2008
 US models withdrawn effective May 2009

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 (WKK2-1) May 2009

ThinkPad® R61 15W (NVIDIA Graphics) - 1-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue-tooth	Battery 1394 port cells	Vista preload	Whorse (W) Global (G) Avail date
8914-23U	T7300	2.00	1GB	15.4" WXGA	128MB	80GB	5400	Combo	*Intel 11a/b/g ³²	None	None	1394	6	Business32	G Jun 07

• **This model has a 1-year limited warranty²**

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core. Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh, curved														
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices, Ultrabay Slim-compatible, 12.5mm high, flat or curved 80GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	15.4" (391mm) WXGA (1280x800) color , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, anti-glare														
Camera	None														
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm														
Weight ²	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)														
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	<i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 7.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr										License - CD not included - Lotus® Notes® Stand-alone Client				
Architecture	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	Smart Card Reader (under PC Card slot)														
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN ¹⁶	None														
Turbo Memory	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MC Ninevah (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	None														
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell				40Y6799						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797						
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery 3-cell				40Y6789						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger				40Y7625						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter				40Y7659						
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692				ThinkPad 90W AC/DC Combo Adapter				40Y7630						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				ThinkPad Carrying Case - Expander				73P3597						
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Carrying Case - BackPack				73P3599						
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkVision® L171p 17" LCD Monitor				9417HC2						
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L190x 19" LCD Monitor				4439HB2						
ThinkPad Essential Port Replicator	250510W				ThinkVision L194 Wide 19" LCD				4434HB6						
ThinkPad Advanced Mini Dock	250410U				ThinkVision L220x Wide 22" LCD				4433HB2						
ThinkPad Advanced Dock	250310U				Lenovo M500 Projector				0037A05						
Other accessories on O-R61-15W sheet											Other accessories at lenovo.com/accessories				
											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166				
											ThinkPlus 2-year LOR 9x5 NBD 41C9167				
											ThinkPlus 3-year LOR 9x5 NBD 41C9168				
											ThinkPlus 4-year LOR 9x5 NBD 41C9171				
											ThinkPlus 5-year LOR 9x5 NBD 41C9173				
											ThinkPlus 2-year P&L P/U Depot 41C9169				
											ThinkPlus 3-year P&L P/U Depot 41C9170				
											ThinkPlus 4-year P&L P/U Depot 41C9172				
											ThinkPlus 5-year P&L P/U Depot 41C9174				
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US model announced May 31, 2007
US model withdrawn effective December 2007

* Powered by Intel Centrino® Duo processor technology

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(WKK1-1) December 2007

ThinkPad® R61 15W (NVIDIA Graphics) - 3-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue-tooth	Battery 1394 port cells	Workhorse (W) Vista Global (G) Avail date
8919-22U	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g ³²	Finger	Blue	1394 6	Business32 W G Jun 07

- **This model has a 3-year limited warranty¹²**

Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ♦ Vista Premium logo</p> <p>Preloaded applications¹⁴</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>										
Diskette drive EIDE Combo UltraBay Enhanced Serial ATA disk	<p>None (use optional USB-based diskette drive) DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X²¹, removable Ultrabay™ Enh, curved One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved 80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>										
Widescreen display Camera	<p>15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio None</p>										
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>										
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions</p>										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm <i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg) Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 7.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr</p>										
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM) One Type I or Type II slot, CardBus 32-bit</p>										
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	<p>None Smart Card Reader (under PC Card slot) 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out</p>										
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN Turbo Memory	<p>UltraConnect™ II antenna / on-off switch for all wireless radios One Mini PCI Express slot / 802.11 wireless is customer upgradable 11a/b/g wireless⁴, Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None</p>										
Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>56K⁶ V.90 (V.92-designed²⁹) modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MC Nineveh (PHY), PCIe x1 (GLCI), PXE None High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole</p>										<p>90-watt (NVIDIA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>
Security Security chip Fingerprint reader	<p>Trusted Platform Module, Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supported with security chip</p>										
Limited warranty ¹²	<p>3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² avail</p>										
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial Hard Drive Ultrabay Slim Adapter (flat) ThinkPad DVD Ultrabay Slim Burner (flat) 160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm) 200GB Disk FDE SATA 1.5Gb/s (7200 rpm) 250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm) Blu-ray™ Burner Ultrabay Enhanced (curved) USB 2.0 Super Multi-Burner Drive USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Convertible Monitor Stand ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-R61-15W sheet	40Y7734 40Y7735 40Y8725 41N5643 41N5737 41N5738 43R8152 43N3200 41N5565 43R8770 40Y7620 250410U 250310U	T60/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter ThinkPad Basic Case ThinkPad Business Backpack ThinkVision® L174 17" LCD Monitor ThinkVision L171p 17" LCD Monitor ThinkVision L190x 19" LCD Monitor ThinkVision L193p 19" LCD Monitor ThinkVision L220x Wide 22" LCD	40Y6799 40Y6797 43R9250 40Y7625 40Y7659 41N8460 43R9113 43R2482 9227AE1 9417HC2 4439HB2 4431HB2 4433HB2	ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							

See footnotes for important warranty information
 US model announced May 31, 2007
 US model withdrawn effective June 2008

* Intel Centrino® processor technology

ThinkPad® R61 15W 8935 (GMA) - 3-year (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Bat- tery Blue- tooth cells	Vista preload	Workhorse (W) Global (G) Avail GMP (P) date
8935-22U	T7300	2.00 1GB	15.4" WXGA	None	GMA	80GB 5400	Combo	*Intel 11a/b/g ³²	Smart	Finger	Blue	6	Business64 W G P Jul 07

• This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<p><i>Everyday computing; two spindles</i> Intel Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; 4MB shared L2 cache</p>											
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>											
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable from Ultrabay™ Enhanced											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved											
Serial ATA disk	<p>80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>											
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	None											
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm											
Weight ²	starting at 6.4 lb (2.9kg)											
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced											
Battery - life ¹⁰	<i>6-cell:</i> up to 5.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr											
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	Smart Card Reader											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable											
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Turbo Memory	None											
Modem	56K ⁶ V.92 ²⁹ modem, on systemboard, Conexant® CX20548											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE											
Intel AMT	None											
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supported with security chip											
Limited warranty ¹²	3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell										40Y6799
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell										40Y6797
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell										43R9250
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger										40Y7625
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad 90W AC Adapter										40Y7659
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152	90W Slim AC/DC Combo Adapter										41N8460
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case										43R2476
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack										43R2482
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Deluxe Expander Case										43R2478
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L1700p 17" Monitor										9417HE2
ThinkPad Essential Port Replicator	250510W	ThinkVision L1940p Wide 19" Monitor										4424HB6
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor										4422HB6
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor										4421HB2
Other accessories on O-R61-15W sheet	Other accessories at lenovo.com/accessories											
											Supports ThinkVantage® technologies	
											65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
											ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 12X5630	
											ThinkPlus 5-year LOR 9x5 NBD 43R2162	
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
 US model announced July 10, 2007
 US model withdrawn effective November 2008

* Intel Centrino® processor technology

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 (WKK11-5) November 2008

ThinkPad® R61 15W 8927 (NVIDIA) - 3-year (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue- tooth	Bat- tery port cells	Workhorse (W) Vista Global (G) Avail date				
8927-22U	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g ³²	Finger	Blue	1394	6	Business32	W G Jun 07

• **This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	<i>Everyday computing; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Premium logo
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)
Diskette drive	None (use optional USB-based diskette drive)										
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X ²¹ , removable Ultrabay™ Enh, curved										
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved										
Serial ATA disk	80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio										
Camera	None										
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm										
Weight ²	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)										
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										
Battery - type	Lithium Ion 6-cell 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced										
Battery - life ¹⁰	<i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 7.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr										
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit										
ExpressCard slot	None										
Smart Card Read	Smart Card Reader (under PC Card slot)										
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)										
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out										
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable										
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG										
WWAN	None										
Turbo Memory	None										
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket										
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										
Ethernet	Gigabit ethernet on systemboard, Intel 82566MC Nineveh (PHY), PCIe x1 (GLCI), PXE										
Intel AMT	None										
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supported with security chip										Supports ThinkVantage® technologies
Limited warranty ¹²	3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										90-watt (NVIDIA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell	40Y6799					
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797					
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery II 3-cell	43R9250					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad External Battery Charger	40Y7625					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad 90W AC Adapter	40Y7659					
160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter	41N8460					
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738				ThinkPad Basic Case	43R9113					
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152				ThinkPad Business Topload Case	43R2476					
Blu-ray™ Burner Ultrabay Enhanced (curved)	43N3200				ThinkPad Business Backpack	43R2482				ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630	
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkVision® L171p 17" LCD Monitor	9417HC2				ThinkPlus 5-year LOR 9x5 NBD 43R2162	
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L190x 19" LCD Monitor	4439HB2					
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor	4431HB2				Post-warranty annual maintenance agreements at	
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD	4433HB2				lenovo.com/thinkplus/warranty	
Other accessories on O-R61-15W sheet	Other accessories at lenovo.com/accessories										

See footnotes for important warranty information
US model announced May 31, 2007
US model withdrawn effective June 2008

* Intel Centrino® processor technology

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Partial list of accessories supported on:

• ThinkPad R61 15W originally announced on May 31, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm (supports both flat and curved bezel options)
 Serial Hard Drive Ultrabay Slim Adapter (flat)⁴⁸ 40Y8725 ann 09/20/05
 ThinkPad DVD Ultrabay Slim Burner (flat)⁴⁸ 41N5643 ann 05/31/07
⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm (supports both flat and curved bezel)
 CD-RW/DVD Combo Ultrabay Enhanced (cur) 73P3275 ann 10/07/03

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09

⁴¹ Can be used as the main HDD or with ThinkPad

Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725
 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann 02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock	250310U	ann 09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann 06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann 01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Batteries

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann 04/22/08

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger⁴⁴ 40Y7625 ann 09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter⁴⁵ 40Y7696 ann 01/05/06

⁴⁵ Only compatible with the 945GM and GM965 chipset models.

ThinkPad 90W AC Adapter 40Y7659 ann 09/20/05

ThinkPad 90W Slim AC/DC Combo Adapter 41N8460 ann 11/27/07

Charging tips for 90W Slim AC/DC Combo Adapter 41N8460

•Dual (ThinkPad+Phone) Charging Y-Cable	41R4345	ann 12/18/07
•Palm device charge tip (L7)	41R4315	ann 12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann 12/18/07
•iPod and iPhone charge tip (L10a)	41R4481	ann 12/18/07

Carrying Cases

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carr Case - Performance BackPack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann 02/24/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann 08/12/08
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Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® R61i 14W 7732 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Screen type	Camera	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	1394 port	Battery cells	Preload	Workhorse (W) Global (G) Avail date
7732-7BU	T5250	1.50	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g ³²	/54	1394	4	XP Pro	No Jul 07
7732-7CU	T5250	1.50	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	Business 32	No Jul 07
7732-8AU	T2330	1.60	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	1394	4	XP Pro	No Oct 07
7732-8BU	T2330	1.60	1GB	14.1"	WXGA	Glossy Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	1394	4	Business 32	No Oct 07
7732-8CU	T5450	1.66	1GB	14.1"	WXGA	Glossy Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	XP Pro	No Oct 07
7732-8DU	T5450	1.66	1GB	14.1"	WXGA	Glossy Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	Business 32	No Oct 07
7732-2FU	T5450	1.66	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	XP Pro	No Jan 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These models have a 1-year limited warranty¹²

Positioning	Everyday computing; two spindles	Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ⇨ Vista models: Vista Basic logo Preloaded applications¹⁴ (all OSes) • Lenovo Care SM for Think (Oct Vista models) • Rescue and Recovery TM • Access Connections TM • Client Security Solution TM • ThinkVantage System Update • System Migration Assistant • Norton Internet Security • Diskkeeper TM Home • PC-Doctor TM (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Multimedia Center for Think Offerings (XP Pro model) • Windows Live TM Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Network Magic TM (Oct Vista models) • Corel® Small Business Center TM with WordPerfect® Office 12 (Oct Vista models) • QuickBooks Financial Center (Oct Vista models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW model)
Processor	Intel® Pentium® Dual-Core Processor T2330 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5250 or T5450 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
Diskette drive	None (use optional USB-based diskette drive)	
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced	
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved	
Serial ATA disk	120GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System TM	
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) TFT color, anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA (1280x800) TFT color, VibrantView (glossy), 185 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Some: integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm	
Weight ²	4-cell: starting at 5.2 lb (2.4kg)	
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 4-cell, supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	4-cell: up to 3.6 hr; optional 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express [®] x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	None	
Multicard Reader	None	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	
WWAN	None	
Turbo Memory	None	
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	
Intel AMT	None	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available	

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell	41U3196
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell	41U3198
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	T/R 14W High Capacity Batt 9-cell	43R2499
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	Advanced Ultrabay Battery II 3-cell	43R9250
USB 2.0 Super Multi-Burner Drive	41N5565	90W Slim AC/DC Combo Adapter	41N8460
ThinkPad Advanced Mini Dock	250410U	ThinkPad Business Topload Case	43R2476
ThinkPad Advanced Dock	250310U	ThinkVision® L2440x Wide 24" Monitor	4421HB2
Other accessories on O-R61-14W sheet		Other accessories at lenovo.com/accessories	

See footnotes for important warranty information * Intel Centrino® processor technology
 US models announced July 3 or October 2, 2007 or January 8, 2008
 US models withdrawn effective Dec 2007, May 2008, or Nov 2008

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ThinkPad® R61i 14W 7732 (GMA) - TopSeller (March 2008) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Screen type	Cam- era	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Bat- tery 1394 port	Workhorse (W) Global (G) Educ	Avail date	
7732-2KU	T2370	1.73	1GB	14.1"	WXGA+		GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4	XP Pro	Mar 08	
7732-2LU	T2370	1.73	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4	XP Pro	Mar 08	
7732-2MU	T5550	1.83	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	*Intel 11a/b/g	/54	1394 4	XP Pro	Mar 08	
7732-B1U	T2390	1.86	1GB	14.1"	WXGA		GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	1394 4	Business 32	Apr 08	
7732-B2U	T2390	1.86	1GB	14.1"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	/54	1394 4	Business 32	Apr 08	
7732-B3U	T2390	1.86	1GB	14.1"	WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	/54	1394 4	Home Prem	Apr 08	
7732-B4U	T5750	2.00	1GB	14.1"	WXGA		GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	1394 4	Business 32	Apr 08	
7732-B5U	T5750	2.00	1GB	14.1"	WXGA+		Cam	GMA	160G 5400	DVD±RW	*Intel 11a/b/g	/54	1394 4	Business 32	Apr 08
7732-01U	T8100	2.10	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	*Intel 11a/b/g	4-in-1	1394 6	Business 32	Educ May 08	
7732-D1U	T2390	1.86	2GB	14.1"	WXGA		GMA	160G 5400	DVD±RW	Intel 11n ²⁸	/54	1394 4	XP Pro	Aug 08	

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	<p>Intel® Pentium® Dual-Core Processor T2370 or T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or</p> <p>Intel Core™ 2 Duo processor T5550 or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology¹, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache</p> <p>Intel Core 2 Duo processor T8100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista Home Premium Ed (32-bit) <p>◇ D1U/Vista models: Vista Basic logo</p>
Memory	<p>1GB or 2GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;</p> <p><i>Italics:</i> standard memory in both sockets; no sockets available;</p> <p><i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>	<p>Preloaded applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Lenovo CareSM for Think • Rescue and RecoveryTM • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Multimedia Center for Think Offerings (XP Pro models) • Microsoft Office OneNote® 2007 and CD (01U model) • Microsoft Office 2007 Trial (60-day) • Network MagicTM • Corel® Small Business CenterTM with WordPerfect® Office 12 • QuickBooks Financial Center • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced	
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high	
Serial ATA disk	<p>120GB⁸ (5400 rpm) or 160GB (5400 rpm) /</p> <p>SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection SystemTM</p>	
Widescreen display	<p><i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) TFT color, anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio</p> <p><i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) TFT color, VibrantView (glossy), 185 nits, 16:10 aspect ratio, 300:1 contrast ratio</p> <p><i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) TFT color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio</p>	
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm	
Weight ²	4-cell: starting at 5.2 lb (2.4kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	4-cell: up to 3.6 hr; <i>optional 6-cell:</i> up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr	
Chipset	<p>Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub);</p> <p>ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>	<p>Supports ThinkVantage® technologies</p> <p>65-watt (GMA graphics) AC adapter</p> <p>ThinkPad Roll Cage and Top Cover</p> <p>Roll Cage (one-piece magnesium)</p> <p>ENERGY STAR® 4.0-compliant</p> <p>RoHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	None	
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	45K5968
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	ThinkPlus 2-year LOR 9x5 NBD
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	45K5969
WWAN	None	ThinkPlus 3-year LOR 9x5 NBD
Turbo Memory	None	45K5970
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket	ThinkPlus 4-year LOR 9x5 NBD
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	45K5973
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	ThinkPlus 5-year LOR 9x5 NBD
Intel AMT	None	45K5975
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	ThinkPlus 2-year P&L P/U Depot
Security	Power-on password, hard disk password, supervisor password, security keyhole	45K5971
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant	ThinkPlus 3-year P&L P/U Depot
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip	45K5972
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available	ThinkPlus 4-year P&L P/U Depot
		45K5974
		ThinkPlus 5-year P&L P/U Depot
		45K5976

See footnotes for important warranty information *Intel Centrino® processor technology
 US models announced March 4, April 8, May 12, or August 5, 2008
 US models withdrawn effective May 2009

ThinkPad® R61i 15W 7650 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ² rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue-tooth	Battery cells	Preload	Workhorse (W) Global (G) Educ	Avail date
7650-8CU	T5250	1.50	512MB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 11a/b/g ³²	None	None	6	XP Pro		July 07
7650-8DU	T5250	1.50	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	XP Pro		July 07
7650-9LU	T2330	1.60	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	XP Pro		Oct 07
7650-9MU	T2330	1.60	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	Business 32		Oct 07
7650-CDU	T5450	1.66	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	XP Pro		Jan 08
7650-DHU	T2370	1.73	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	XP Pro		Feb 08
7650-DGU	T5550	1.83	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	XP Pro		Feb 08
7650-DRU	T2390	1.86	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	Business 32		Apr 08
7650-02U	T2390	1.86	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11a/b/g	None	None	6	Business 32	Educ	May 08
7650-ELU	T2390	1.86	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	Intel 11n ²⁸	None	None	6	XP Pro		July 08
7650-DSU	T5750	2.00	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11a/b/g	None	None	6	Business 32		Apr 08
7650-01U	T5750	2.00	2GB	15.4" WXGA	GMA	160G 7200	DVD±RW	* Intel 11a/b/g	None	None	6	Business 32		May 08
7650-F6U	T5750	2.00	1GB	15.4" WXGA	GMA	80GB 5400	DVD±RW	* Intel 11n	None	None	6	XP Pro		July 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These models have a 1-year limited warranty¹²

Processor	Intel® Pentium® Dual-Core Processor T2330, T2370, or T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5250, T5450, T5550, or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ✦ Vista 1GB models: Vista Basic logo ✦ 01U model: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Lenovo Care SM for Think (9MU and 2008 models) • Microsoft Office OneNote® 2007 and CD (02U model) • Network Magic™ (9MU and 2008 models) • Corel® Small Business Center™ with WordPerfect® Office 12 (9MU and 2008 models) • QuickBooks Financial Center (9MU and 2008 models) • Corel WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW model)	
Memory	512MB or 1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		
Diskette drive	None (use optional USB-based diskette drive)		
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ , fixed, not removable, 12.7mm high		
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner, dual-layer, not removable, 12.7mm high		
Ultrabay Enhanced	None (no support for removable Ultrabay™ options)		
Serial ATA disk	80GB ⁸ (5400 rpm) or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™		
Widescreen display	15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	None		
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through (no port replicator or docking station support)		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys		
TrackPoint™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ (no touch pad)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm		
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)		
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic		
Battery - type	Lithium Ion 6-cell		
Battery - life ¹⁰	Not published		
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], / PCI bus (Ricoh® R5C804 Cardbus) / One Type I or Type II slot, CardBus 32-bit		
PC Card Std slot	ExpressCard slot		
Smart Card Read	None		
Multicard Reader	None		
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)		
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios		
Mini PCI Express	One Mini PCI Express slot / not customer upgradable		
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG		
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)		
WWAN	None		
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548		
Bluetooth™	None		
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE		
Intel AMT	None		
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / microphone input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty ¹² 1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available			
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	90W Slim AC/DC Combo Adapter	41N8460
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	ThinkPad Business Topload Case	43R2476
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision® L2440p Wide 24" Monitor	4420HB2
Other accessories on O-R61E sheet		Other accessories at lenovo.com/accessories	
			ThinkPlus™ 2-year LOR 9x5 NBD 45K5968
			ThinkPlus 2-year LOR 9x5 NBD 45K5969
			ThinkPlus 3-year LOR 9x5 NBD 45K5970
			ThinkPlus 4-year LOR 9x5 NBD 45K5973
			ThinkPlus 5-year LOR 9x5 NBD 45K5975
			ThinkPlus 2-year P&L P/U Depot 45K5971
			ThinkPlus 3-year P&L P/U Depot 45K5972
			ThinkPlus 4-year P&L P/U Depot 45K5974
			ThinkPlus 5-year P&L P/U Depot 45K5976

See footnotes for important warranty information * Intel Centrino® processor technology
 US models announced July 10, Oct 2, 2007, Jan 8, Feb 26, April 8, May 5, or July 1, 2008
 US models withdrawn effective December 2007 or May 2009

ThinkPad® R61i 15W 8932 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	Screen type	Cam- era	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Bat- tery cells	Workhorse (W) Global (G) Avail date
8932-9WU	T5250 1.50	1GB	15.4"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g ³²	/54	6	Business 32 No Jul 07
8932-9XU	T5250 1.50	1GB	15.4"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54	6	XP Pro No Jul 07
8932-BWU	T2330 1.60	1GB	15.4"	WXGA		GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	6	XP Pro No Oct 07
8932-APU	T2330 1.60	1GB	15.4"	WXGA	GlossyCam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	Blue 6	Business 32 No Oct 07
8932-BXU	T5250 1.50	1GB	15.4"	WXGA	GlossyCam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue 6	XP Pro No Oct 07
8932-AQU	T5250 1.50	1GB	15.4"	WXGA	GlossyCam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue 6	Business 32 No Oct 07
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 1-year limited warranty¹² 												
Positioning Processor	Everyday computing; two spindles Intel® Pentium® Dual-Core Processor T2330 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5250 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo	
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes) • Lenovo Care SM for Think (Oct Vista models) • Rescue and Recovery TM • Access Connections TM • Client Security Solution TM • ThinkVantage System Update • System Migration Assistant • Norton Internet Security • Diskeeper TM Home • PC-Doctor TM (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Multimedia Center for Think Offerings (XP Pro model) • Windows Live TM Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Network Magic TM (Oct Vista models) • Corel® Small Business Center TM with WordPerfect® Office 12 (Oct Vista models) • QuickBooks Financial Center (Oct Vista models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW model)	
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved											
Serial ATA disk	120GB⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System TM											
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color, VibrantView (glossy), 200 nits, 16:10 aspect ratio											
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0											
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm											
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)											
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced											
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr											
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54											
Smart Card Read	None											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable											
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Turbo Memory	None											
Modem	56K ⁶ V.92 ²⁹ modem, on systemboard, Conexant® CX20548											
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE											
Intel AMT	None											
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supported with security chip											
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799									
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250									
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter	41N8460									
ThinkPad Essential Port Replicator	250510W	ThinkPad Business Topload Case	43R2476									
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6									
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2									
Other accessories on O-R61-15W sheet	Other accessories at lenovo.com/accessories											
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ThinkPlus 2-year P&L P/U Depot								
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ThinkPlus 2-year P&L P/U Depot								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250	ThinkPlus 3-year P&L P/U Depot								
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter	41N8460	ThinkPlus 3-year P&L P/U Depot								
ThinkPad Essential Port Replicator	250510W	ThinkPad Business Topload Case	43R2476	ThinkPlus 4-year P&L P/U Depot								
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkPlus 4-year P&L P/U Depot								
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2	ThinkPlus 5-year P&L P/U Depot								
Other accessories on O-R61-15W sheet	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
 US models announced July 10 or October 2, 2007
 US models withdrawn effective December 2007 or November 2008

* Intel Centrino® processor technology

ThinkPad® R61i 15W 8932 (GMA) - TopSeller (January 2008) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Screen type	Camera	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Blue-tooth	Battery cells	Preload	Workhorse (W) Global (G)	Avail date
8932-DZU	T5450	1.66	1GB	15.4" WXGA			GMA	120G 5400	DVD±RW	* Intel 11a/b/g ³²	/54		6	XP Pro	No	Jan 08
8932-E2U	T5450	1.66	1GB	15.4" WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue	6	XP Pro	No	Jan 08
8932-E9U	T2370	1.73	1GB	15.4" WXGA		Cam	GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue	6	XP Pro	No	Jan 08
8932-EAU	T5450	1.66	1GB	15.4" WXGA		Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue	6	Business32	No	Jan 08
8932-FWU	T2370	1.73	1GB	15.4" WXGA			GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54		6	XP Pro	No	Mar 08
8932-FXU	T5550	1.83	1GB	15.4" WXGA			GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54		6	XP Pro	No	Mar 08
8932-G8U	T2390	1.86	1GB	15.4" WXGA			GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54		6	Business32	No	Apr 08
8932-G9U	T2390	1.86	1GB	15.4" WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	Blue	6	Business32	No	Apr 08
8932-GBU	T2390	1.86	1GB	15.4" WXGA	Glossy	Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	Blue	6	Home Prem	No	Apr 08
8932-GZU	T2390	1.86	2GB	15.4" WXGA			GMA	160G 5400	DVD±RW	Intel 11n ²⁸	/54		6	XP Pro	No	July 08
8932-GCU	T5750	2.00	1GB	15.4" WXGA			GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54		6	Business32	No	Apr 08
8932-GDU	T5750	2.00	1GB	15.4" WXGA		Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue	6	Business32	No	Apr 08
8932-H2U	T5750	2.00	2GB	15.4" WXGA			GMA	160G 5400	DVD±RW	* Intel 11n	/54		6	XP Pro	No	July 08

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty²

Processor	Intel® Pentium® Dual-Core Processor T2370 or T2390 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or Intel Core™ 2 Duo processor T5450, T5550, or T5750 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) - Some: Microsoft Windows Vista® Home Premium Ed (32-bit) ◇ Vista models: Vista Basic logo
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications ¹⁴ (all OSes; only some listed) • Lenovo Care SM for Think • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Multimedia Center for Think Offerings (XP Pro models) • Microsoft Office 2007 Trial (60-day) • Corel® Small Business Center™ with WordPerfect® Office 12 • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced	
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high	
Serial ATA disk	120GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) TFT color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) TFT color, VibrantView (glossy), 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm	
Weight ²	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)	
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Enhanced	
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 7.0 hr; 6-cell plus Ultrabay battery: up to 8.5 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	Supports ThinkVantage® technologies
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54	
Smart Card Reader	None	
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out	65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable	45K5968
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	ThinkPlus 2-year LOR 9x5 NBD
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	45K5969
WWAN	None	ThinkPlus 3-year LOR 9x5 NBD
Turbo Memory	None	45K5970
Modem	56K V.92 ⁶ modem, on systemboard, Conexant® CX20548	ThinkPlus 4-year LOR 9x5 NBD
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	45K5973
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE	ThinkPlus 5-year LOR 9x5 NBD
Intel AMT	None	45K5975
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	ThinkPlus 2-year P&L P/U Depot
Security	Power-on password, hard disk password, supervisor password, security keyhole	45K5971
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant	ThinkPlus 3-year P&L P/U Depot
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supported with security chip	45K5972
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available	ThinkPlus 4-year P&L P/U Depot
		45K5974
		ThinkPlus 5-year P&L P/U Depot
		45K5976

See footnotes for important warranty information * Intel Centrino® processor technology
US models announced January 8, March 11, April 8, or July 1, 2008
US models withdrawn effective May 2009

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ThinkPad®



Lenovo® ThinkPad R400



ThinkLight on



Lenovo USB-to-DVI Monitor Adapter
45K5296



Lenovo ThinkPad R400



Lenovo ThinkPad R400



ThinkPad Battery 33++ (9-cell)
43R2499

ThinkPad® R400 7438 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
7438-T6U	P8400	2.26	2GB	14.1" WXGA		GMA	160G 5400	DVD±RW	⇧ Intel 5100 ²⁸	None	None	Finger		6	XP Pro	Aug 08
7438-T7U	T9400	2.53	2GB*	14.1" WXGA	Cam	GMA	160G 7200	DVD±RW	⇧ Intel 5100	None	None	Finger	Blue	6	XP Pro	Aug 08
7438-PAU	P8600	2.40	2GB	14.1" WXGA		GMA	160G 5400	DVD±RW	⇧ Intel 5100	None	None	Finger		6	XP Pro	Mar 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache</i>										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business ⇧ <i>Vista logo: None</i>				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available; *Standard memory in one or two sockets (variable DIMMs)										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution: 2048x1536@75Hz</i>														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm <i>6-cell:</i> starting at 5.1 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)														
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies				
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM ThinkPad Advanced Dock Other accessories on O-R400 sheet	55Y3706 55Y3707 250310U T/R 14W Standard Battery 4-cell 41U3196 T/R 14W Enhanced Battery 6-cell 41U3198 T/R 14W High Capacity Battery 9-cell 43R2499 Other accessories at lenovo.com/accessories										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced August 5, 2008 or March 24, 2009
US models withdrawn effective June or December 2009

⇧ Intel Centrino® 2 processor technology

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ThinkPad® R400 7438 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
7438-68U	P8700	2.53	2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Finger	Blue	6	XP Pro	Oct 09

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has a depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32	
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available;											Preloaded applications¹⁴ (only some listed)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 	
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm <i>6-cell:</i> starting at 5.42 lb (2.46kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54)											Supports ThinkVantage® technologies	
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for important warranty information
US model announced October 22, 2009
US model withdrawn effective August 2010

Intel Centrino® 2 processor technology

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(LAG3-7) August 2010

ThinkPad® R400 7443 (TopSeller) - withdrawn

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
7443-2HU	T6670	2.20	2GB	14.1" WXGA	None	GMA	320G 5400	DVD±RW	11n ²⁸	None	None	Finger	Blue	6	XP Pro	Jul 09

• **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor T6670 with dual-core, Intel HD Boost, 800MHz system bus, 2MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business) ◇ Vista logo: None			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 320GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio None														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution: 2048x1536@75Hz</i>											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2-1.4"; 335.5 x 238mm x 31-35mm</i> <i>6-cell:</i> starting at 5.1 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)														
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Mini PCI Express 11n ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots 11b/g/n wireless, Mini-PCIe Adapter II None None None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM Blu-ray™ Burner Ultrabay Enhanced SATA Serial ATA Hard Drive Bay Adapter III 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Super Multi-Burner Drive Lenovo® Easy Reach Monitor Stand ThinkPad Advanced Dock Other accessories on O-R400 sheet	55Y3706 55Y3707 43R9150 43N3412 43N3400 43N3411 45J5918 41N5565 55Y9258 250310U		T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Battery 9-cell 90W Ultralim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack T400/R400 Series 14W Privacy Filter ThinkVision® L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor Other accessories at lenovo.com/accessories				41U3196 41U3198 43R2499 41R4493 43R2476 43R2482 43R2472 4424HB6 4422HB6 4421HB2		ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty						

See footnotes for important warranty information
US model announced July 7, 2009
US model withdrawn effective October 2009

ThinkPad® R400 7443 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Avail date
7443-31U	T6670	2.20	2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	11n ²⁸	None	None	Finger	Blue	6	XP Pro	Oct 09

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor T6670 with dual-core, Intel HD Boost, 800MHz system bus, and 2MB L2 cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available;											Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies			
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution:</i> 2048x1536 @ 75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰ Chipset	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm 6-cell: starting at 5.42 lb (2.46kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	Three Mini PCI Express slots 11b/g/n wireless, Mini-PCIe Adapter II None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Mini PCI Express 11n ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots 11b/g/n wireless, Mini-PCIe Adapter II None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
 US model announced October 22, 2009
 US model withdrawn effective August 2010

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Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger Card slot	Finger print reader	Blue- tooth	Bat- tery cells	Whorse (W) Gbl (G) Avail date
7439-1WU	Cel 575	2.00	2GB	14.1" WXGA		GMA 160G	5400 DVD±RW		Intel 5100 ²⁸	None		PC	Fing	Blue	6 Bus 32	Sep08
7439-11U	P8400	2.26	1GB	14.1" WXGA		GMA 80G	5400 Combo	⇄ Intel 5100	None	None		PC	Fing	Blue	6 Bus 32	G Aug08
7439-12U	T9400	2.53	1GB	14.1" WXGA		GMA 160G	5400 Combo	⇄ Intel 5100	None	None		PC	Fing	Blue	6 Bus 32	WG Aug08
7439-V1U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G	7200 DVD±RW	⇄ Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug08	
7439-V2U	P8400	2.26	1GB	14.1" WXGA	Cam	GMA 160G	5400 Combo	⇄ Intel 5100	None	None	7-in-1	Fing	Blue	6 Bus 32	WG Aug08	
7439-V5U	T9400	2.53	1GB	14.1" WXGA	Cam	GMA 160G	5400 DVD±RW	⇄ Intel 5100	None	None	7-in-1	Fing	Blue	6 Bus 32	WG Aug08	
7439-1BU	P8600	2.40	2GB	14.1" WXGA+		GMA 160G	5400 DVD±RW	⇄ Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug08	
7439-1CU	T9400	2.53	2GB	14.1" WXGA		GMA 160G	5400 DVD±RW	⇄ Intel 5300 ²⁸	None	2G Turbo	7-in-1	Fing	Blue	6 Bus 32	WG Aug08	
7439-1TU	P8600	2.40	1GB	14.1" WXGA		GMA 160G	5400 DVD±RW	⇄ Intel 5100	None	None		Smart		6 Bus 32	TAA Aug08	
7439-PAU	P8600	2.40	2GB	14.1" WXGA		GMA 160G	5400 Combo	⇄ Intel 5100	None	None		PC	Fing	Blue	6 XP Pro	G Sep08
7439-PCU	P8600	2.40	2GB	14.1" WXGA+		GMA 160G	5400 DVD±RW	⇄ Intel 5100	None	2G Turbo	7-in-1	Fing	Blue	6 XP Pro	G Sep08	
7439-T1U	P8600	2.40	2GB	14.1" WXGA		GMA 160G	5400 Combo	⇄ Intel 5100	None	None		PC	Fing	Blue	6 XP Pro	G Sep08
7439-V3U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G	7200 DVD±RW	⇄ Intel 5100	None	UWB	7-in-1	Fing	Blue	9 Bus 32	W Oct08	
7439-V2U	P8600	2.40	1GB	14.1" WXGA		GMA 160G	5400 DVD±RW	⇄ Intel 5100	None	None		Smart		6 Bus 32	TAA Oct08	
7439-PDU	P8600	2.40	2GB	14.1" WXGA		GMA 160G	5400 DVD±RW	⇄ Intel 5100	None	None		PC	Fing	Blue	6 Bus 32	WG Dec08
US Govt (TAA) ⁵ Processor	1TU/2TU: US Government model (Trade Act Agreement-compliant) Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache Intel Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo				
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	Some: 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution: 2048x1536 @75Hz (VGA DB-15)</i>															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 9.4" x 1.2-1.4"; 335.5 x 238mm x 31-35mm 6-cell: starting at 5.42 lb (2.46kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5 hr; 6-cell plus Ultrabay battery: up to 6.5 hr; 9-cell: up to 7.5 hr											Supports ThinkVantage® technologies				
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) Some: One slot (Type I, Type II), CardBus 32-bit Some: Smart Card reader Some: 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 None Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator Some: Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ² modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information ⇄ Intel Centrino® 2 processor technology
US models announced Aug 5, Sep 2, Sep 30, October 7, or December 2, 2008
US models withdrawn effective August 2009, September 2009, January 2010 or August 2010

ThinkPad® R400 7440 (Onsite) - withdrawn

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam-Integrated era graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Blue/ Fing	Bat- tery cells	Whorse (W) Gbl (G) Avail Preload GMP (P) date
7440-11U	P8400	2.26	1GB	14.1" WXGA	GMA	80G 5400 Combo	✧ Intel 5100 ²⁸	None	None	None	PC	Yes	6	Bus 32 G P Aug 08
7440-12U	T9400	2.53	1GB	14.1" WXGA	GMA	160G 5400 Combo	✧ Intel 5100	None	None	None	PC	Yes	6	Bus 32 W G P Aug 08
7440-V1U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G 7200 DVD±RW	✧ Intel 5100	None	2G Turbo	7-in-1	Yes	6	Bus 32 W G P Aug 08	
7440-V5U	T9400	2.53	1GB	14.1" WXGA	Cam	GMA 160G 5400 DVD±RW	✧ Intel 5100	None	None	7-in-1	Yes	6	Bus 32 W G P Aug 08	
7440-T1U	P8600	2.40	2GB	14.1" WXGA	GMA	160G 5400 Combo	✧ Intel 5100	None	None	None	PC	Yes	6	XP Pro G P Sep 08
7440-PDUP	P8600	2.40	2GB	14.1" WXGA	GMA	160G 5400 DVD±RW	✧ Intel 5100	None	None	None	PC	Yes	6	Bus 32 W G P Dec 08

• **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache</i>											Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 ✧ <i>Vista models:</i> Vista Premium logo		
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)		
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution:</i> 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 9.4" x 1.2–1.4"; 335.5 x 238mm x 31–35mm <i>6-cell:</i> starting at 5.42 lb (2.46kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub) / ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit													
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	<i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None <i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available													

See footnotes for important warranty information
US models announced August 5, September 2, or December 2, 2008
US models withdrawn effective August 2009, January 2010 or August 2010

ThinkPad® R400 7439 (Education) - EasyServ - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam-Integrated era	graphics	Disk SATA GB ⁸	rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G)	Avail date	
7439-E1U	Cel 585	2.16	1GB	14.1" WXGA	Cam	GMA	80G	5400	Combo	Intel 5100 ²⁸	None	2G Turbo	7-in-1	6	Bus 32	W Sep 08	
7439-E2U	T9400	2.53	1GB	14.1" WXGA	Cam	GMA	80G	5400	Combo	Intel 5100	None	2G Turbo	7-in-1	6	Bus 32	W Aug 08	
7439-E3U	T9400	2.53	1GB	14.1" WXGA	Cam	GMA	160G	5400	DVD±RW	Intel 5100	None	2G Turbo	7-in-1	Fing	6	Bus 32	W Aug 08
7439-E4U	T9400	2.53	2GB	14.1" WXGA+	Cam	GMA	160G	7200	DVD±RW	Intel 5100	None	2G Turbo	7-in-1	Fing	9	Bus 32	W Aug 08
7439-E5U	P8600	2.40	2GB	14.1" WXGA	Cam	GMA	160G	5400	DVD±RW	Intel 5100	None	None	7-in-1	6	Bus 32	W Dec 08	
7439-E9U	P8700	2.53	2GB	14.1" WXGA	Cam	GMA	250G	5400	DVD±RW	Intel 5100	None	None	7-in-1	Fing	6	Bus 32	Mar 09
7439-EAU	T9600	2.80	3GB	14.1" WXGA	Cam	GMA	160G	7200	DVD±RW	Intel 5100	None	None	7-in-1	Fing	6	Bus 32	Mar 09

• **These models have a depot repair service 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Celeron® Processor 585 with single-core, 667MHz system bus, and 1MB L2 cache Intel Core™ 2 Duo processor P8600, P8700, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8600/P8700: 3MB L2 cache; T9400/T9600: 6MB L2 cache</i>												Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ◇ Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed)		
Memory	1GB, 2GB, or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW) 		
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution: 2048x1536@75Hz</i>														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 9.4" x 1.2-1.4"; 335.5 x 238mm x 31-35mm <i>6-cell:</i> starting at 5.42 lb (2.46kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr												Supports ThinkVantage® technologies		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) None None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025		
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None <i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information † Intel Centrino® 2 processor technology
US models announced Aug 5, Sep 30, or December 2, 2008, or March 24, 2009
US models withdrawn effective August 2009 or August 2010

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(LAG3-4) August 2010

ThinkPad® R400 7440 (Education) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery Blue- tooth	Whorse (W) Gbl (G) Preload	Avail date							
7440-1NU	P8600	2.40	1GB	14.1"	WXGA	None	GMA	80G	5400	Combo	Intel 5100	None	2G Turbo	7-in-1	None	Blue	6	Bus	32	W	Aug 08

• This model has a limited onsite service²⁴ 3-year limited warranty

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ◇ Vista Premium logo		
Memory	1GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ • Education software - Microsoft® Office OneNote® 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premiere Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Microsoft Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
SATA Combo Ultrabay Enhanced SATA disk	DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio None													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock <i>Maximum external resolution: 2048x1536@75Hz</i>													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.2-1.4"; 335.5 x 238mm x 31-35mm <i>6-cell:</i> starting at 5.1 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.5 hr; <i>9-cell:</i> up to 7.5 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.0 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant None											Supports ThinkVantage® technologies		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM DVD Burner Ultrabay Enh SATA 1.5Gb/s Blu-ray™ Burner Ultrabay Enhanced SATA Serial ATA Hard Drive Bay Adapter III 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Super Multi-Burner Drive ThinkPad Adjustable Notebook Stand ThinkPad Advanced Dock Laser Tilt Wheel Travel Mouse (Bluetooth) Other accessories on O-R400 sheet	55Y3706 55Y3707 43R9149 43R9150 43N3412 43N3400 43N3411 45J5918 41N5565 40Y7676 250310U 41U5008	T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Battery 9-cell Advanced Ultrabay Battery II 3-cell 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack T400/R400 Series 14W Privacy Filter ThinkVision® L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor ThinkVision USB Soundbar (up to 22") Other accessories at lenovo.com/accessories	41U3196 41U3198 43R2499 43R9250 41N8460 43R2476 43R2482 43R2472 4424HB6 4422HB6 4421HB2 40Y7616	ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty										

See footnotes for important warranty information
US model announced August 5, 2008
US model withdrawn effective August 2009

◆ Intel Centrino® 2 processor technology

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Ultrabay Slim 9.5mm⁴⁸

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
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⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad T400/T410/R400 Privacy Filter	43R2472	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 33 (4-cell)	41U3196	ann	05/09/07
ThinkPad Battery 33+ (6-cell)	41U3198	ann	05/09/07
ThinkPad Battery 33++ (9-cell)	43R2499	ann	03/04/08
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
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⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

- BlackBerry charge tip (L8a) 41R4478 ann 12/18/07
- iPod and iPhone Charge Tip (L10a) 41R4481 ann 12/18/07
- Generic Micro USB charge tip (L18) 41R4490 ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

More information at www.lenovo.com/support/cases

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

- www.lenovo.com/support/accessories
- www.lenovo.com/support/notebookaccessories
- www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad R500



ThinkPad Battery 41++ (9-cell)
40Y6797



Lenovo ThinkPad R500



Lenovo USB Fingerprint Keyboard
73P4730



Lenovo ThinkPad R500



Lenovo Essential Notebook Stand
45J9292

ThinkPad® R500 2714 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue-tooth	Battery cells	Whorse (W) Gbl (G) Preload Educ	Avail date
2714-96U	T6570	2.10	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	*Intel 5100 ²⁸	None	Finger	Blue	6	Ult 32 Educ	Mar 09
2714-A7U	T6670	2.20	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	11n ²⁸	None	Finger	Blue	6	XP Pro	Jul 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning	<i>Mainstream business performance; two spindles</i>										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Ultimate 32 ♦ <i>Vista models:</i> Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Processor	Intel® Core™ 2 Duo processor T6570 or T6670 with dual-core , Intel HD Boost, 800MHz system bus, and 2MB L2 cache														
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high														
SATA disk	250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm														
Weight ²	<i>6-cell:</i> starting at 6.4 lb (2.93kg)														
Case color	black														
Case material	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced														
Battery - life ¹⁰	<i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
PC Card	One slot (Type I, Type II), CardBus 32-bit														
Smart Card Read	None														
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)														
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Mini PCI Express	Two Mini PCI Express slots														
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II														
WWAN	None														
2G Turbo	None														
UWB	None														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799												
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797												
ThinkPad Advanced Dock	250310U	Advanced Ultrabay Battery III	57Y4536												
Other accessories on O-R500 sheet	Other accessories at lenovo.com/accessories														
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty															

See footnotes for important warranty information
 US models announced March 17 or July 7, 2009
 US models withdrawn effective December 2009

* Intel Centrino® processor technology

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ThinkPad® R500 2714 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Bat- tery Blue- tooth cells	Workhorse (W) Global (G) Avail date
2714-AFU	T6670	2.20	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	11n ²⁸	None	Finger	Blue	6 XP Pro No Oct 09

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor T6670 with dual-core, Intel HD Boost, 800MHz system bus, and 2MB L2 cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available;											
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>											
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case color	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm 6-cell: starting at 6.4 lb (2.93kg) black											
Battery - type Battery - life ¹⁰	Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Mini PCI Express 11n ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two Mini PCI Express slots 11b/g/n wireless, Mini-PCIe Adapter II None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US model announced October 22, 2009
 US model withdrawn effective August 2010

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 (WKK3-8) August 2010

ThinkPad® R500 2717 (TopSeller) - withdrawn

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Bat- tery Blue- tooth cells	Workhorse (W) Global (G) Preload Educ	Avail date	
2717-5GU	P8400	2.26	2GB	15.4" WXGA		GMA	160G 5400	DVD±RW	⇄ Intel 5100 ²⁸	None	Finger	6	XP Pro	Aug 08	
2717-5HU	T9400	2.53	2GB* 15.4" WXGA		Cam	GMA	160G 7200	DVD±RW	⇄ Intel 5100	None	Finger	Blue	6	XP Pro	Aug 08
2717-8VU	T6570	2.10	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	* Intel 5100	None	Finger	Blue	6	Ult 32 Educ	Mar 09
2717-8WU	P8600	2.40	2GB	15.4" WXGA		GMA	160G 5400	DVD±RW	⇄ Intel 5100	None	Finger	6	XP Pro	Mar 09	
2717-A8U	T6670	2.20	3GB	15.4" WXGA	Cam	GMA	320G 5400	DVD±RW	11n ²⁸	None	Finger	Blue	6	XP Pro	Jul 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor T6570 or T6670 with dual-core, Intel HD Boost, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8400, P8600 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Ultimate 32 ◇ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available; *Standard memory in one or two sockets (variable DIMMs)													
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 160GB⁸ (5400 or 7200 rpm), 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradeable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) black Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express Intel 5100 ²⁸ 11n ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II None None None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	T/R/W/SL Series Li-Ion Battery 6-cell		40Y6799										
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	T/R/W/SL Series Li-Ion Battery 9-cell		40Y6797										
ThinkPad Advanced Dock	250310U	Advanced Ultrabay Battery III		57Y4536										
Other accessories on O-R500 sheet	Other accessories at lenovo.com/accessories													
Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™ ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty														

See footnotes for important warranty information
US models announced August 5, 2008,
March 24, 2009, or July 7, 2009;
US models withdrawn effective June or December 2009

* Intel Centrino® processor technology
⇄ Intel Centrino 2 processor technology

ThinkPad® R500 2717 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Battery Blue-tooth cells	Workhorse (W) Global (G) Preload Educ	Avail date	
2717-ASU	T6670	2.20	3GB	15.4" WXGA	Cam	GMA	320G 5400	DVD±RW	11n ²⁸	None	Finger	Blue 6	XP Pro	No	Oct 09
2717-ATU	P8700	2.53	2GB	15.4" WXGA	Cam	GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	Finger	Blue 6	XP Pro	No	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor T6670 with dual-core, Intel HD Boost, 800MHz system bus, and 2MB L2 cache or Intel Core 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available;											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • FingerPrint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 250GB⁸ (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>											
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) black Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											Supports ThinkVantage® technologies
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Mini PCI Express Intel 5100 ²⁸ WWAN 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security Security chip FingerPrint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-yr battery - depot repair service / service upgrades ²² available											

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective August 2010

✦ Intel Centrino® 2 processor technology

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Type-model	Processor	GHz	Memory	Wide-screen display	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue-tooth	Battery cells	Workhorse (W) Global (G) Avail date
2716-EBU	Cel 575	2.00	2GB	15.4" WXGA	Cam	GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	None	Finger	Blue	9	Bus 32 Sep 08
2716-3KU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	Combo	⇧Intel 5100	None	Finger	Blue	6	Bus 32 G Aug 08
2716-3LU	T9400	2.53	1GB	15.4" WXGA		GMA	160G 5400	DVD±RW	⇧Intel 5100	None	Finger	Blue	6	Bus 32 W G Aug 08
2716-3MU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA	160G 5400	DVD±RW	⇧Intel 5100	None	Finger	Blue	9	Bus 32 W G Aug 08
2716-6JU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	Combo	⇧Intel 5100	None	Finger	Blue	6	XP Pro G Sep 08
2716-6LU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	DVD±RW	⇧Intel 5100	None			6	XP Pro G Sep 08

• These models have a depot repair service 3-year limited warranty

Positioning Processor	Mainstream business performance; two spindles Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache Intel Core™ 2 Duo processor P8400 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB ⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)			
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm 6-cell: starting at 6.4 lb (2.93kg) black PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr										Supports ThinkVantage® technologies			
Chipset ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Mini PCI Express Intel 5100 ²⁸ 2G Turbo WWAN UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information ⇧ Intel Centrino® 2 processor technology
US models announced August 5, September 2, or September 30, 2008
US models withdrawn effective August or October 2009, or August 2010

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(WKK3-2) August 2010

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue-tooth	Battery cells	Preload	Whorse (W) Gbl (G) GMP (P)	Avail date
2718-3KU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	Combo	Intel 5100 ²⁸	None	Finger	Blue	6	Bus 32	G P	Aug 08
2718-3LU	T9400	2.53	1GB	15.4" WXGA		GMA	160G 5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32	WG P	Aug 08
2718-3MU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA	160G 5400	DVD±RW	Intel 5100	None	Finger	Blue	9	Bus 32	WG P	Aug 08
2718-6LU	P8400	2.26	1GB	15.4" WXGA		GMA	80G 5400	DVD±RW	Intel 5100	None			6	XP Pro	G P	Sep 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ 2 Duo processor P8400 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ♦ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm) or 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) black PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr												
Chipset ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express Intel 5100 ²⁸ 2G Turbo WWAN UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Two Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip												ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
 US models announced on August 5 or September 2, 2008
 US models withdrawn effective August 2009 or August 2010

ThinkPad® R500 2716 (Education) - EasyServ - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue-tooth	Battery cells	Workhorse (W) Global (G) Avail date
2716-ECU	Cel 575	2.00	1GB	15.4" WXGA	Cam	GMA 80G	80G 5400	Combo	Intel 5100 ²⁸	None	Finger	Blue	6	Bus 32 No Sep 08
2716-5PU	P8400	2.26	1GB	15.4" WXGA	Cam	GMA 80G	5400	Combo	Intel 5100	None	Finger	Blue	6	Bus 32 No Aug 08
2716-5QU	T9400	2.53	2GB	15.4" WXGA	Cam	GMA 160G	5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32 No Aug 08
2716-8SU	P8600	2.40	2GB	15.4" WXGA	Cam	GMA 160G	7200	DVD±RW	Intel 5100	None	Finger	Blue	6	Ult 32 No Feb 09
2716-8YU	Cel T1600	1.66	1GB	15.4" WXGA	Cam	GMA 160G	5400	Combo	Intel 5100	None	Finger	Blue	6	Bus 32 No Mar 09
2716-8ZU	P8700	2.53	2GB	15.4" WXGA	Cam	GMA 250G	5400	DVD±RW	Intel 5100	None	Finger	Blue	6	Bus 32 No Mar 09

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<p><i>Mainstream business performance; two spindles</i> Intel® Celeron® Processor 575 with single-core, 667MHz system bus, and 1MB L2 cache or Intel Celeron Processor T1600 with dual-core, 667MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2 cache</i></p>										<p>Preloaded operating system²⁰ - Some: Genuine Windows® Vista® Business 32 - Some: Genuine Windows Vista Ultimate 32 ⇨ Vista Premium logo</p> <p>Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)</p>			
Memory	<p>1GB or 2GB std / 4GB max⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available</p>										<p>Supports ThinkVantage® technologies</p>			
SATA Combo SATA DVD±RW Ultrabay Enhanced SATA disk	<p><i>Some:</i> DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9148) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>										<p>65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Silver rating (except Celeron models) ENERGY STAR® 5.0-compliant (except Celeron models) RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>			
Widescreen display Camera	<p>15.4" (391mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus</p>										<p>ThinkPlus™.22 3-year LOR²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Integrated graphics	<p>Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i></p>										<p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>			
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Dimensions ³ Weight ² Case Battery - type Battery - life ¹⁰	<p><i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm <i>6-cell:</i> starting at 6.4 lb (2.93kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 6.0 hr; <i>9-cell:</i> up to 7.1 hr</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Chipset	<p>Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	<p>7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Mini PCI Express	<p>Two Mini PCI Express slots 11a/b/g/n wireless⁴, Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) 2G Turbo None WWAN None UWB None</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>56K V.92⁶ modem Bluetooth 2.1 wireless, LED indicator Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Limited warranty ¹²	<p>3-years/1-yr battery - depot repair service / service upgrades²² available</p>										<p>ThinkPlus 5-year P&L P/U Depot 45K6025</p>			

See footnotes for important warranty information ⇨ Intel Centrino® 2 processor technology
 US models announced August 5 or September 30, 2008, or February 17 or March 24, 2009
 US models withdrawn effective August 2009, February 2010, March 2010, or August 2010

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 (WKK3-4) August 2010

ThinkPad® R500 2718 (Education) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe Turbo	Finger print reader	Blue- tooth	Bat- tery cells	Preload	Whorse (W) Gbl (G) GMP (P)	Avail date
2718-8SU	P8600	2.40	2GB	15.4" WXGA	Cam	GMA	160G 7200	DVD±RW	•Intel 5100 ²⁸	None	Finger	Blue	6	Ult 32	No	Feb 09
<ul style="list-style-type: none"> • This model has a limited onsite service²⁴ 3-year limited warranty • Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. • Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States. 																
Positioning Processor	Mainstream business performance; two spindles Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Ultimate 32 ⇨ Vista Premium logo Preloaded applications¹⁴ (only some listed)				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.4–1.5"; 358.6mm x 260mm x 36–39mm															
Weight ²	6-cell: starting at 6.4 lb (2.93kg)															
Case	Color: black; Material: PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Enhanced															
Battery - life ¹⁰	6-cell: up to 4.5 hr; 6-cell plus Ultrabay battery: up to 6.0 hr; 9-cell: up to 7.1 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)															
ExpressCard/54 PC Card	One slot (ExpressCard/34, ExpressCard/54)															
Smart Card Read	None															
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)															
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express	Two Mini PCI Express slots															
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)															
2G Turbo	None															
WWAN	None															
UWB	None															
Modem	56K V.92 ⁶ modem															
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator															
Ethernet	Gigabit ethernet, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 41+ (6-cell)	40Y6799													
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 41++ (9-cell)	40Y6797													
ThinkPad Advanced Mini Dock	250410U	ThinkPad Battery 43 (4-cell)	57Y4536													
Other accessories on O-R500 sheet	Other accessories at lenovo.com/accessories															
ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty																

See footnotes for important warranty information
 US model announced February 17, 2009
 US model withdrawn effective February 2010

• Intel Centrino® 2 processor technology

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 (WKK3-5) February 2010

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Ultrabay Slim 9.5mm⁴⁸

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
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⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultrabay Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
T500/R500/W500 Series 15W Privacy Filter	43R2474	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 41+ (6-cell)	40Y6799	ann	01/05/06
ThinkPad Battery 41++ (9-cell)	40Y6797	ann	09/20/05
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultrastim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultrastim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

More information at www.lenovo.com/support/cases

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad L412



Lenovo ThinkPad L412 with
ThinkPad Battery 55++ (9-cell)
57Y4186



Lenovo ThinkPad L412



Lenovo ThinkPad L412



Lenovo ThinkPad L412



Lenovo ThinkPad L412

ThinkPad® L412 4403 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4403-32U	i3-350M	2.26	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	May 10
4403-68U	i3-370M	2.40	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Jul 10

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.92 lb (2.23kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 5.0 hr; 9-cell: up to 8.1 hr										ThinkPlus 2-year LOR 9x5 NBD 45K5969			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 3-year LOR 9x5 NBD 45K5970			
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										ThinkPlus 4-year LOR 9x5 NBD 45K5973			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										ThinkPlus 5-year LOR 9x5 NBD 45K5975			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										ThinkPlus 2-year P&L P/U Depot 45K5971			
											ThinkPlus 3-year P&L P/U Depot 45K5972			
											ThinkPlus 4-year P&L P/U Depot 45K5974			
											ThinkPlus 5-year P&L P/U Depot 45K5976			
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced May 11 or July 6, 2010
US models withdrawn effective October 2010

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(DMD3-6) October 2010

ThinkPad® L412 4403 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
4403-33U	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	None		Blue	Pro 64	May 10
4403-34U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	None	Finger	Blue	Pro 64	May 10
4403-69U	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg	None		Blue	Pro 64	Jul 10
4403-75U	i5-480M	2.66	2.93	2GB	14.0" HD	2.0M	320G 7200	11b/g/n	WWAN upg	None			Pro 64	Jan 11

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-480M or i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.92 lb (2.23kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 5.0 hr; 9-cell: up to 8.1 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 2-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole													
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced May 11, July 6, 2010, or January 11, 2011
US models withdrawn effective June 2011 or January 2012

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ThinkPad® L412 4404 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4404-32U	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	May 10
4404-33U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	6	Pro 64	May 10
4404-34U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	May 10
4404-35U	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	May 10
4404-4LU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.92 lb (2.23kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 5.0 hr; 9-cell: up to 8.1 hr	Supports ThinkVantage® technologies
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
See footnotes for important warranty information US models announced May 11 or July 6, 2010 US models withdrawn effective June 2011 or January 2012		

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(DMD3-8) January 2012

ThinkPad® L412 4403 (Discrete) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
4403-58U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	None	None	Blue	Pro 64	Jun 10

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies			
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None										90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 5.09 lb (2.31kg); <i>6-cell:</i> from 5.28 lb (2.40kg); <i>9-cell:</i> from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.4 hr										ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US model announced June 22, 2010
US model withdrawn effective June 2011

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(DMD3-9) June 2011

ThinkPad® L412 4404 (Discrete) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4404-3GU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Finger	Blue	9	Pro 64	Jun 10
4404-3HU	i3-370M	2.40		2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³		Blue	9	Pro 64	Jun 10
4404-3JU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	9	Pro 64	Jun 10
4404-3KU	i3-350M	2.26		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	9	Pro 64	Jun 10
4404-3LU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg			Blue	9	Pro 64	Jun 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 5.09 lb (2.31kg); 6-cell: from 5.28 lb (2.40kg); 9-cell: from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell 4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.4 hr														
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced June 22, 2010
US models withdrawn effective June 2011

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(DMD3-10) June 2011

ThinkPad® L412 0530 (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
0530-52U	i3-330M	2.13	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Apr 10
0530-62U	i3-330M	2.13	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Apr 10

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr										ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available			

See footnotes for important warranty information
US models announced April 20, 2010
US models withdrawn effective July 31, 2010

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(DMD3-2) August 2010

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
0530-63U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	None	Blue	Pro 32	Apr 10
0530-6LU	i3-370M	2.40		2GB	14.0" HD		160G 7200	Intel 6200			None		Pro 64	Jul 10
0530-6MU	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	Intel 6200	WWAN upg		None		Pro 64	Jul 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.92 lb (2.23kg); 6-cell: from 5.11 lb (2.32kg); 9-cell: from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 5.0 hr; 9-cell: up to 8.1 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced April 20 or July 6, 2010
US models withdrawn effective June 2011 or January 2012

ThinkPad® L412 0553 (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
0553-6SU	i3-330M	2.13	2GB	14.0" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Apr 10

• This model has a depot repair service 3-year limited warranty

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr										Supports ThinkVantage® technologies			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced April 20, 2010
US model withdrawn effective July 31, 2010

© Lenovo
(DMD3-4) August 2010

ThinkPad® L412 0553 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Workhorse (W) Gbl (G) Educ	Avail date
0553-35U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000		Finger	Blue	Pro 32		Apr 10
0553-36U	i5-540M	2.53	3.06	4GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000		Finger	Blue	Pro 64		Apr 10
0553-42U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue	Pro 32	W G	Apr 10
0553-43U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	Pro 32	W G	Apr 10
0553-44U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 32	W G	Apr 10
0553-55U	i5-520M	2.40	2.93	2GB	14.0" HD		250G 5400	Intel 6200	WWAN upg			Blue	Pro 32		Apr 10
0553-56U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³	Finger	Blue	Pro 32		Apr 10
0553-57U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	160G 7200	Intel 6200	Gobi 2000		Finger	Blue	Pro 32		Apr 10
0553-58U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	Pro 32	Edu	Apr 10
0553-59U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T	Finger	Blue	Pro 32	Edu	Apr 10
0553-6TU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	AT&T		Blue	Pro 32		Apr 10
0553-7YU	i3-370M	2.40		2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64		Jul 10
0553-7ZU	i5-520M	2.40	2.93	4GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64		Jul 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed)				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										<ul style="list-style-type: none"> • Some: Education software - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr														
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										ThinkPlus 4-year P&L P/U Depot 45K6023				
											ThinkPlus 5-year P&L P/U Depot 45K6025				
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced April 6, April 20, or July 6, 2010
US models withdrawn effective June, August, or October, 2011, or January 2012

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ThinkPad® L412 0553 (Discrete) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Bat- tery Blue- tooth cells	Workhorse (W) Gbl (G) Educ	Avail date
0553-6XU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue 9	Pro 64	W G Jun 10
0553-6YU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg			Blue 9	Pro 64	W G Jun 10
0553-6ZU	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue 9	Pro 64	W G Jun 10
0553-72U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue 9	Pro 64	Jun 10
0553-73U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³	Finger	Blue 9	Pro 64	Jun 10
0553-74U	i3-350M	2.26		2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg			Blue 6	Pro 32	W G Jun 10
0553-75U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 5400	Intel 6200	WWAN upg			Blue 9	Pro 64	W G Jun 10
0553-76U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Finger	Blue 6	Pro 64	W G Jun 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)		
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 5.09 lb (2.31kg); 6-cell: from 5.28 lb (2.40kg); 9-cell: from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell 4-cell: up to 2.5 hr; 6-cell: up to 4.5 hr; 9-cell: up to 7.4 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)											Supports ThinkVantage® technologies		
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider											90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced June 22, 2010
US models withdrawn effective September 2010 or June 2011

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
0585-42U	i5-520M	2.40	2.93	2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg		Blue	Pro 32	W G P	Apr 10
0585-43U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	Pro 32	W G P	Apr 10
0585-44U	i5-540M	2.53	3.06	3GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	Pro 32	W G P	Apr 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.92 lb (2.23kg); <i>6-cell:</i> from 5.11 lb (2.32kg); <i>9-cell:</i> from 5.45 lb (2.47kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.1 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced April 20, 2010
US models withdrawn effective October 2011 or January 2012

ThinkPad® L412 0585 (Discrete) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
0585-6XU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-6YU	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	9	Pro 64	W G P	Jun 10
0585-6ZU	i5-540M	2.53	3.06	2GB	14.0" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-74U	i3-350M	2.26		2GB	14.0" HD		160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	W G P	Jun 10
0585-75U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	320G 5400	Intel 6200	WWAN upg		Blue	9	Pro 64	W G P	Jun 10
0585-76U	i5-520M	2.40	2.93	2GB	14.0" HD	2.0M	160G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	W G P	Jun 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 5.09 lb (2.31kg); <i>6-cell:</i> from 5.28 lb (2.40kg); <i>9-cell:</i> from 5.62 lb (2.55kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell or 9-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.4 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack	Supports ThinkVantage® technologies 90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information

US models announced June 22, 2010

US models withdrawn effective September 2010 or June 2011

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Memory	
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710 <i>ann 03/02/10</i>
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416 <i>ann 03/02/10</i>
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711 <i>ann 03/02/10</i>

Storage and removable storage	
SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422 <i>ann 10/22/09</i>
USB 2.0 Portable 500GB Hard Disk	45K1690 <i>ann 05/26/09</i>
USB 2.0 Portable Secure 320GB Hard Disk	43R2019 <i>ann 11/18/08</i>
USB 3.0 Secure 500GB Hard Drive	0A65619 <i>ann 11/29/11</i>
USB 3.0 Secure 750GB Hard Drive	0A65616 <i>ann 11/29/11</i>
Lenovo Slim USB Portable DVD Burner	0A33988 <i>ann 06/14/11</i>

Wireless WAN (Mini PCI Express)	
<i>Only WWAN upgradable models:</i>	
ThinkPad Gobi™ 2000 Broadband Option	78Y1399 <i>ann 01/07/10</i>
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398 <i>ann 01/07/10</i>

ThinkPad Expansion	
Lenovo® Essential Notebook Stand	45J9292 <i>ann 05/12/09</i>
USB 2.0 Port Replicator with Digital Video	0A33942 <i>ann 03/22/11</i>
ThinkPad Port Replicator Series 3	433610W <i>ann 06/23/09</i>
ThinkPad Mini Dock Series 3 - 90W ⁶¹	433710U <i>ann 06/23/09</i>
ThinkPad Mini Dock Plus Series 3 - 90W ⁶²	433810U <i>ann 06/23/09</i>
⁶¹ When docked, ThinkPad Mini Dock Series 3 - 90W (433710U) Audio ports are inactive, ThinkPad Audio ports are active.	
⁶² When docked, ThinkPad Mini Dock Plus Series 3 - 90W (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.	

Keyboard	
TrackPoint Cap Collection	73P2698 <i>ann 12/16/03</i>
USB Numeric Keypad	33L3225 <i>ann 05/01/00</i>
Preferred Pro USB Keyboard	73P5220 <i>ann 06/21/05</i>
Enhanced Performance USB Keyboard	73P2620 <i>ann 03/23/04</i>
ThinkPad USB Keyboard with TrackPoint	55Y9003 <i>ann 08/18/09</i>
Lenovo® USB Fingerprint Keyboard	73P4730 <i>ann 02/22/05</i>
Lenovo USB Smartcard Keyboard	51J0155 <i>ann 03/24/09</i>

Mouse	
Lenovo Optical Mouse (USB)	06P4069 <i>ann 05/21/03</i>
Lenovo Laser Mouse (USB)	41U3074 <i>ann 01/23/07</i>
ThinkPad USB Laser Mouse	57Y4635 <i>ann 12/15/09</i>
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405 <i>ann 08/27/02</i>
ThinkPad Travel Mouse (USB, Optical)	31P7410 <i>ann 06/04/02</i>
ThinkPad Bluetooth Laser Mouse	41U5008 <i>ann 01/22/08</i>

Multimedia	
ThinkPad In-Ear Headphones with mic	57Y4488 <i>ann 01/07/10</i>

Modem	
USB 2.0 Lenovo Modem	43R1814 <i>ann 02/26/08</i>

Security	
Kensington® MicroSaver® Cable Lock	73P2582 <i>ann 12/29/03</i>
Kensington Twin Head Cable Lock	45K1620 <i>ann 09/30/08</i>
Lenovo Security Cable Lock	57Y4303 <i>ann 08/24/10</i>
USB Gemplus GemPC Smart Card Reader	41N3040 <i>ann 02/21/06</i>

Batteries	
ThinkPad Battery 55+ (6-cell)	57Y4185 <i>ann 03/30/10</i>
ThinkPad Battery 55++ (9-cell)	57Y4186 <i>ann 03/30/10</i>
ThinkPad External Battery Charger ⁴⁴	40Y7625 <i>ann 09/20/05</i>
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter 40Y7659</i> or the adapter provided with the system.	

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696 <i>ann 01/05/06</i>
⁴⁵ Only compatible with the integrated graphics models.	
ThinkPad 90W AC Adapter	40Y7659 <i>ann 09/20/05</i>
ThinkPad 65W AC Adapter with USB Hub	57Y4600 <i>ann 09/07/10</i>
90W Ultralium AC/DC Combo Adapter	41R4493 <i>ann 09/22/09</i>

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralium AC/DC Combo Adapter 41R4493

- iPod and iPhone Charge Tip (L10a) 41R4481 *ann 12/18/07*
- Generic Micro USB charge tip (L18) 41R4490 *ann 01/06/09*

More information at www.lenovopowertips.com

Carrying Cases	
<i>Up to 14" widescreen models:</i>	
ThinkPad 14W Case Sleeve	57Y4294 <i>ann 03/16/10</i>
<i>Up to 15.6" widescreen models:</i>	
ThinkPad 15W Case Sleeve	51J0477 <i>ann 08/18/09</i>
Lenovo Messenger Max	41U5253 <i>ann 05/01/07</i>
ThinkPad Business Topload Case	43R2476 <i>ann 05/13/08</i>
ThinkPad Business Backpack	43R2482 <i>ann 05/13/08</i>
ThinkPad Deluxe Expander Case	43R2478 <i>ann 05/13/08</i>
ThinkPad Executive Leather Case	43R2480 <i>ann 05/13/08</i>

More information at www.lenovo.com/support/cases

Monitors	
ThinkVision® L1711p 17" Monitor	5047HB2 <i>ann 10/20/09</i>
ThinkVision L1900p 19" Monitor	4431HE1 <i>ann 11/11/08</i>
ThinkVision L1951p Wide 19" Monitor	2448HB6 <i>ann 10/20/09</i>
ThinkVision L2250p Wide 22" Monitor	2572HB6 <i>ann 10/20/09</i>
ThinkVision L2251p Wide 22" Monitor	2572HD6 <i>ann 10/20/09</i>
ThinkVision L2251x Wide 22" Monitor	2578HB6 <i>ann 10/20/09</i>
ThinkVision L2321x Wide 23" Monitor	4014HB6 <i>ann 06/10/10</i>
ThinkVision L2440p Wide 24" Monitor	4420HB2 <i>ann 09/17/08</i>

More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶	
Lenovo USB-to-DVI Monitor Adapter	45K5296 <i>ann 05/12/09</i>
Lenovo DisplayPort to VGA Monitor Cable	57Y4393 <i>ann 08/04/09</i>
ThinkVision Soundbar	45K1263 <i>ann 09/16/08</i>
Kensington MicroSaver Cable Lock	73P2582 <i>ann 12/29/03</i>
Kensington Twin Head Cable Lock	45K1620 <i>ann 09/30/08</i>
Lenovo Security Cable Lock	57Y4303 <i>ann 08/24/10</i>
Lenovo Easy Reach Monitor Stand	55Y9258 <i>ann 09/22/09</i>
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.	

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:
www.lenovo.com/accessories
 Purchase Lenovo accessories
www.lenovo.com/support/accessories
 Product specifications on Lenovo Support
www.lenovo.com/accessoriesguide
 Option Compatibility Matrix (OCM) and accessory brochures
www.lenovoquickpick.com
 An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad L420



Lenovo ThinkPad L420



Lenovo ThinkPad L420



Lenovo ThinkPad L420



Lenovo ThinkPad L420



Lenovo ThinkPad L420

ThinkPad® L420 7854 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload
7854-34U	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	9	Pro 64
7854-37U	i5-2410M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7854-38U	i3-2310M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7854-5FU	i3-2350M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	WWAN upg		Blue	6	Pro 64
7854-5GU	i5-2430M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	WWAN upg		Blue	6	Pro 64

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Mainstream business performance; two spindles</i> Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2350M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2430M processor (dual-core, 2.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>							<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (all OSES; only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap <p>Preloaded applications¹⁴ (all OSES; only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™										
mSATA™ SSD	None										
Widescreen display Camera	<p>14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio HD720p resolution, wider view angle, low light sensitive, fixed focus</p>										
Integrated graphics	<p>Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>										
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None</p>										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>14.0W" (WxDxH):</i> 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm <i>4-cell:</i> from 4.94 lb (2.24kg); <i>6-cell:</i> from 5.14 lb (2.33kg); <i>9-cell:</i> from 5.47 lb (2.48kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell (32Whr):</i> up to 3.9 hr; <i>6-cell (57Whr):</i> up to 6.9 hr; <i>9-cell (94Whr):</i> up to 11.6 hr</p>										
Chipset ExpressCard Multicard Reader Ports	<p>Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>										
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack</p>							<p>Supports ThinkVantage® technologies</p> <p>65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>			
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM</p>							<p>For compatible accessories, please go to O-L420 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet</p>			
Limited warranty ¹²	<p>1-year - depot repair service / service upgrades²² available</p>										

See footnotes for more detailed information
 US model(s) announced February 22 or October 4, 2011
 US model(s) withdrawn effective January, March, or December 2012

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ThinkPad® L420 7856 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ^o rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload
7856-34U	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	9	Pro 64
7856-37U	i5-2410M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7856-38U	i3-2310M	4GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Mainstream business performance; two spindles</i> Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>							<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap</p>	
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets							<p>Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</p>	
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™								
mSATA™ SSD	None								
Widescreen display Camera	<p>14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio HD720p resolution, wider view angle, low light sensitive, fixed focus</p>								
Integrated graphics	<p>Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</p>							<p>Supports ThinkVantage® technologies</p> <p>65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p> <p>For compatible accessories, please go to O-L420 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet</p>	
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None</p>								
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>14.0W"</i> (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm 4-cell: from 4.94 lb (2.24kg); 6-cell: from 5.14 lb (2.33kg); 9-cell: from 5.47 lb (2.48kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.9 hr; 6-cell (57Whr): up to 6.9 hr; 9-cell (94Whr): up to 11.6 hr</p>								
Chipset ExpressCard Multicard Reader Ports	<p>Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>								
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack</p>								
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM</p>								
Limited warranty ¹²	<p>3-years/1-yr battery - depot repair service / service upgrades²² available</p>								

See footnotes for more detailed information
 US model(s) announced February 22, 2011
 US model(s) withdrawn effective January or December 2012

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 (DMD4-2) February 2013

ThinkPad® L420 7827 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G)	Preload
7827-5HU	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 64
7827-5GU	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 64
7827-44U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	6		Pro 64
7827-43U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 64
7827-42U	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 64
7827-5DU	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 32
7827-5EU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 32
7827-5FU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg	Finger	Blue	6		Pro 32
7827-45U	i5-2540M	4GBx1	14.0" HD		500G 7200	TP 11b/g/n	WWAN upg			9		Pro 64
7827-46U	i5-2540M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	9		Pro 64
7827-47U	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 32
7827-48U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 32
7827-34U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G	Pro 64
7827-33U	i5-2540M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G	Pro 64
7827-32U	i5-2520M	2+1GB	14.0" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G	Pro 64
7827-5WU	i5-2520M	4GBx1	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 64

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
mSATA™ SSD	None	
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Some: HD720p resolution, wider view angle, low light sensitive, fixed focus	
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	None	
Dimensions ³	<i>14.0W"</i> (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm	
Weight ²	<i>4-cell:</i> from 4.94 lb (2.24kg); <i>6-cell:</i> from 5.14 lb (2.33kg); <i>9-cell:</i> from 5.47 lb (2.48kg)	
Case material	Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell	
Battery - life ¹⁰	<i>4-cell (32Whr):</i> up to 3.9 hr; <i>6-cell (57Whr):</i> up to 6.9 hr; <i>9-cell (94Whr):</i> up to 11.6 hr	
Chipset	Mobile Intel HM65 Express Chipset	
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	Supports ThinkVantage® technologies
WWAN Modem	Wireless WAN upgradable	65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Bluetooth™	Some: Bluetooth 3.0 wireless, LED indicator	
Ethernet	Realtek® RTL8111DL Gigabit Network Connection	
Intel AMT	None	
Audio support	High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	For compatible accessories, please go to O-L420 sheet;
Security chip	Trusted Platform Module, TCG 1.2-compliant	For Lenovo service ²² upgrade options, please go to S-TA sheet
Fingerprint reader	Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced April 5, 2011 or February 22, 2012
US model(s) withdrawn effective October 2011 or December 2012

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(DMD4-3) February 2013

ThinkPad® L420 7829 (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G) GMP (P)	Preload
7829-48U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 64
7829-47U	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 64
7829-44U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205 ²⁸	WWAN upg	Finger	Blue	6		Pro 64
7829-43U	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 64
7829-42U	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 64
7829-4QU	i5-2540M	2+1GB	14.0" HD		500G 7200	Intel 6205	WWAN upg			6		Pro 32
7829-4RU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 32
7829-4SU	i5-2520M	2+1GB	14.0" HD		320G 7200	Intel 6205	WWAN upg	Finger	Blue	6		Pro 32
7829-45U	i5-2540M	4GBx1	14.0" HD		500G 7200	TP 11b/g/n	WWAN upg			9		Pro 64
7829-46U	i5-2540M	4GBx1	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	9		Pro 64
7829-4TU	i5-2540M	2+1GB	14.0" HD	720p	500G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6		Pro 32
7829-4UU	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	TP 11b/g/n	WWAN upg			6		Pro 32
7829-34U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G P	Pro 64
7829-33U	i5-2540M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G P	Pro 64
7829-32U	i5-2520M	2+1GB	14.0" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G P	Pro 64

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64	
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap	
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™	Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
mSATA™ SSD	None		
Widescreen display	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio		
Camera	Some: HD720p resolution, wider view angle, low light sensitive, fixed focus		
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</i>		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH): 13.5" x 9.2" x 1.26–1.42"; 344mm x 233mm x 32–36mm</i> <i>4-cell: from 4.94 lb (2.24kg); 6-cell: from 5.14 lb (2.33kg); 9-cell: from 5.47 lb (2.48kg)</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell (32Whr): up to 3.9 hr; 6-cell (57Whr): up to 6.9 hr; 9-cell (94Whr): up to 11.6 hr</i>		
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)		
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None Some: Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack		Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM		For compatible accessories, please go to O-L420 sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For Lenovo service ²² upgrade options, please go to S-TA sheet	

See footnotes for more detailed information

US models announced February 22, 2011

US model(s) withdrawn effective October 2011 or December 2012

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(DMD4-4) February 2013

ThinkPad® L420 Accessories - withdrawn

Personal Systems Reference (PSREF)

Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann	03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann	03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann	03/02/10

Storage and removable storage

USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann	11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann	11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann	08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann	06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann	04/12/11
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ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann	06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann	06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann	06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann	06/05/12

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann	04/05/11
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann	12/20/11

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Security

3M 14.0W Privacy Filter from Lenovo	0A61769	ann	04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann	06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann	06/05/12
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08
Lenovo Sport Backpack - Red	0A33896	ann	02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann	02/28/12
Lenovo Sport Messenger - Red	0A33898	ann	02/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann	10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included; use optional

DisplayPort to DisplayPort Monitor Cable 0A36537.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann	08/16/11
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More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann	09/13/11
Lenovo USB Soundbar	0A36190	ann	05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad L512



Lenovo ThinkPad L512 with
ThinkPad Battery 55++ (9-cell)
57Y4186



Lenovo ThinkPad L512



Lenovo ThinkPad L512



Lenovo ThinkPad L512



Lenovo ThinkPad L512

ThinkPad® L512 4444 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
4444-32U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	May 10
4444-33U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	6	Pro 64	May 10
4444-34U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	May 10
4444-4EU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	Jul 10
4444-4FU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 64	Jul 10
4444-4VU	i5-560M	2.66	3.20	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	6	Pro 64	Sep 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™										Supports ThinkVantage® technologies			
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None										ThinkPlus 2-year LOR 9x5 NBD 45K5969			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 hr										ThinkPlus 3-year LOR 9x5 NBD 45K5970			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 4-year LOR 9x5 NBD 45K5973			
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced May 11, July 6, or September 28, 2010
US models withdrawn effective June or October 2011

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ThinkPad® L512 4447 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4447-32U	i3-350M	2.26		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 32	May 10
4447-33U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	6	Pro 64	May 10
4447-3EU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue	6	Pro 32	Jul 10
4447-3HU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	6	Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p>Mainstream business performance; two spindles Intel® Core™ i3 processor i3-350M or i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache</p>										<p>Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64</p> <p>Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</p>			
Memory	<p>2GB std / 8GB max⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>										<p>Supports ThinkVantage® technologies</p>			
SATA DVD±RW SATA disk	<p>DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™</p>										<p>65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>			
Widescreen display Camera	<p>15.6" (395mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus</p>										<p>ThinkPlus™, 22 3-year LOR²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025</p>			
Integrated graphics	<p>Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>										<p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>			
Keyboard TrackPoint® Touchpad ThinkLight™	<p>6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None</p>										<p>Limited warranty¹² 3-years/1-yr battery - depot repair service / service upgrades²² available</p>			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<p>15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 hr</p>													
Chipset ExpressCard/34 Multicard Reader Ports	<p>Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack</p>													
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip</p>													

See footnotes for important warranty information
 US models announced May 11 or July 6, 2010
 US models withdrawn effective June or October 2011

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 (RUB3-6) October 2010

ThinkPad® L512 2597 (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
2597-5XU	i3-330M	2.13	2GB	15.6" HD	2.0M	160G 7200	DVD±RW	11b/g/n	WWAN upg	None	Blue	6	XP Pro	Apr 10

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Widescreen display Camera	15.6" (395mm) HD (1366x768) color, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies			
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 hr										ThinkPlus 2-year LOR 9x5 NBD 45K5969			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 3-year LOR 9x5 NBD 45K5970			
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										ThinkPlus 4-year LOR 9x5 NBD 45K5973			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										ThinkPlus 5-year LOR 9x5 NBD 45K5975			
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available										ThinkPlus 2-year P&L P/U Depot 45K5971				
										ThinkPlus 3-year P&L P/U Depot 45K5972				
										ThinkPlus 4-year P&L P/U Depot 45K5974				
										ThinkPlus 5-year P&L P/U Depot 45K5976				
										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US model announced April 20, 2010
US model withdrawn effective July 31, 2010

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(RUB3-2) August 2010

ThinkPad® L512 2597 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Avail date
2597-5YU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	None	Blue	Pro 32	Apr 10
2597-6PU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		None	Blue	Pro 64	Jul 10
2597-6QU	i3-370M	2.40		2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		None	Blue	Pro 64	Jul 10

- *These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)*

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	15.6" (395mm) HD (1366x768) color, anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None										Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.48 lb (2.49kg); 6-cell: from 5.67 lb (2.57kg); 9-cell: from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell 4-cell: up to 2.8 hr; 6-cell: up to 4.9 hr; 9-cell: up to 8.0 hr										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced April 20 or July 6, 2010
US models withdrawn effective June or October 2011

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Workhorse (W) Gbl (G) Educ	Avail date
2598-34U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000				Pro 32		Apr 10
2598-35U	i5-520M	2.40	2.93	4GB	15.6" HD	2.0M	320G 7200	Intel 6200	Gobi 2000		Finger	Blue	Pro 64	W G	Apr 10
2598-42U	i5-520M	2.40	2.93	2GB	15.6" HD		250G 5400	11b/g/n	WWAN upg			Blue	Pro 32	W G	Apr 10
2598-43U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	Pro 32	W G	Apr 10
2598-44U	i5-540M	2.53	3.06	3GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 32	W G	Apr 10
2598-52U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	Pro 32		Apr 10
2598-53U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	AT&T ²³		Blue	Pro 32		Apr 10
2598-54U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	11b/g/n	WWAN upg			Blue	Pro 32	Edu	Apr 10
2598-55U	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg			Blue	Pro 32	Edu	Apr 10
2598-6NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64	W G	May 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Some: Education software - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery TM • Access Connections TM • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System TM														
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 hr										Supports ThinkVantage® technologies				
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	AT&T®, contract required with service provider None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced April 6, April 20, or May 11, 2010
US models withdrawn effective August or October 2011

ThinkPad® L512 2598 (Discrete) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Preload	Whorse (W) Gbl (G) Educ	Avail date
2598-6SU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg			Blue	Pro 64	W G	Jun 10
2598-6TU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg			Blue	Pro 64	W G	Jun 10
2598-6UU	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64	W G	Jun 10
2598-6VU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	Gobi 2000	AT&T ²³	Finger	Blue	Pro 64		Jun 10
2598-6WU	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	Blue	Pro 64		Jun 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™														
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.56 lb (2.52kg); <i>6-cell:</i> from 5.76 lb (2.61kg); <i>9-cell:</i> from 6.10 lb (2.77kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.3 hr														
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies				
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced June 22, 2010
US models withdrawn effective July, 2010

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Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
2550-42U	i5-520M	2.40	2.93	2GB	15.6" HD		250G 5400	11b/g/n	WWAN upg		Blue	Pro 32	W G P	Apr 10
2550-43U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	Pro 32	W G P	Apr 10
2550-44U	i5-540M	2.53	3.06	3GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	Pro 32	W G P	Apr 10
2550-6NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	Pro 64	W G P	May 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™	
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.48 lb (2.49kg); <i>6-cell:</i> from 5.67 lb (2.57kg); <i>9-cell:</i> from 6.01 lb (2.73kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell <i>4-cell:</i> up to 2.8 hr; <i>6-cell:</i> up to 4.9 hr; <i>9-cell:</i> up to 8.0 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack	Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced April 20 or May 11, 2010
US models withdrawn effective August or October 2011

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(RUB3-4) October 2010

ThinkPad® L512 2550 (Discrete) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
2550-6SU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	11b/g/n	WWAN upg		Blue	Pro 64	W G P	Jun 10
2550-6TU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg		Blue	Pro 64	W G P	Jun 10
2550-6UU	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	Pro 64	W G P	Jun 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mainstream business performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
SATA DVD±RW SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable, tray-in 160GB⁸ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Active Protection System™													
Widescreen display Camera	15.6" (395mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	ATI™ Mobility Radeon™ HD 5145 graphics , 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch None													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm <i>4-cell:</i> from 5.56 lb (2.52kg); <i>6-cell:</i> from 5.76 lb (2.61kg); <i>9-cell:</i> from 6.10 lb (2.77kg) black Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 9-cell <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 4.5 hr; <i>9-cell:</i> up to 7.3 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel HM55 Express Chipset One slot (ExpressCard/34) 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole										Supports ThinkVantage® technologies			
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK fingerprint reader on palm rest, swipe sensor, supports the security chip										90-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced June 22, 2010
US models withdrawn effective July, 2010

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Memory	
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710 <i>ann 03/02/10</i>
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416 <i>ann 03/02/10</i>
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711 <i>ann 03/02/10</i>
Storage and removable storage	
SL410/510 500GB Disk SATA 3G/s (5400 rpm)	43N3422 <i>ann 10/22/09</i>
USB 2.0 Portable 500GB Hard Disk	45K1690 <i>ann 05/26/09</i>
USB 2.0 Portable Secure 320GB Hard Disk	43R2019 <i>ann 11/18/08</i>
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400 <i>ann 01/07/10</i>
Lenovo Slim USB Portable DVD Burner	0A33988 <i>ann 06/14/11</i>
Wireless WAN (Mini PCI Express)	
<i>Only WWAN upgradable models:</i>	
ThinkPad Gobi™ 2000 Broadband Option	78Y1399 <i>ann 01/07/10</i>
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398 <i>ann 01/07/10</i>
ThinkPad Expansion	
Lenovo® Essential Notebook Stand	45J9292 <i>ann 05/12/09</i>
USB 2.0 Port Replicator with Digital Video	0A33942 <i>ann 03/22/11</i>
ThinkPad Port Replicator Series 3	433610W <i>ann 06/23/09</i>
ThinkPad Mini Dock Series 3 - 90W ⁶¹	433710U <i>ann 06/23/09</i>
ThinkPad Mini Dock Plus Series 3 - 90W ⁶²	433810U <i>ann 06/23/09</i>
⁶¹ When docked, ThinkPad Mini Dock Series 3 - 90W (433710U) Audio ports are inactive, ThinkPad Audio ports are active.	
⁶² When docked, ThinkPad Mini Dock Plus Series 3 - 90W (433810U) eSATA & Audio ports are inactive, ThinkPad eSATA & Audio ports are active.	
Keyboard	
TrackPoint Cap Collection	73P2698 <i>ann 12/16/03</i>
USB Numeric Keypad	33L3225 <i>ann 05/01/00</i>
Preferred Pro USB Keyboard	73P5220 <i>ann 06/21/05</i>
Enhanced Performance USB Keyboard	73P2620 <i>ann 03/23/04</i>
ThinkPad USB Keyboard with TrackPoint	55Y9003 <i>ann 08/18/09</i>
Lenovo® USB Fingerprint Keyboard	73P4730 <i>ann 02/22/05</i>
Lenovo USB Smartcard Keyboard	51J0155 <i>ann 03/24/09</i>
Mouse	
Lenovo Optical Mouse (USB)	06P4069 <i>ann 05/21/03</i>
Lenovo Laser Mouse (USB)	41U3074 <i>ann 01/23/07</i>
ThinkPad USB Laser Mouse	57Y4635 <i>ann 12/15/09</i>
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405 <i>ann 08/27/02</i>
ThinkPad Travel Mouse (USB, Optical)	31P7410 <i>ann 06/04/02</i>
ThinkPad Bluetooth Laser Mouse	41U5008 <i>ann 01/22/08</i>
Multimedia	
ThinkPad In-Ear Headphones with mic	57Y4488 <i>ann 01/07/10</i>
Modem	
USB 2.0 Lenovo Modem	43R1814 <i>ann 02/26/08</i>
Security	
Kensington® MicroSaver® Cable Lock	73P2582 <i>ann 12/29/03</i>
Kensington Twin Head Cable Lock	45K1620 <i>ann 09/30/08</i>
Lenovo Security Cable Lock	57Y4303 <i>ann 08/24/10</i>
USB Gemplus GemPC Smart Card Reader	41N3040 <i>ann 02/21/06</i>

Batteries	
ThinkPad Battery 55+ (6-cell)	57Y4185 <i>ann 03/30/10</i>
ThinkPad Battery 55++ (9-cell)	57Y4186 <i>ann 03/30/10</i>
ThinkPad External Battery Charger ⁴⁴	40Y7625 <i>ann 09/20/05</i>
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter 40Y7659</i> or the adapter provided with the system.	
More information at www.lenovo.com/alldaycomputing	
ThinkPad 65W AC Adapter ⁴⁵	40Y7696 <i>ann 01/05/06</i>
⁴⁵ Only compatible with the integrated graphics models.	
ThinkPad 90W AC Adapter	40Y7659 <i>ann 09/20/05</i>
ThinkPad 65W AC Adapter with USB Hub	57Y4600 <i>ann 09/07/10</i>
90W Ultralium AC/DC Combo Adapter	41R4493 <i>ann 09/22/09</i>
More info at www.lenovo.com/support/poweradapters	
<i>Charging tips for 90W Ultralium AC/DC Combo Adapter 41R4493</i>	
•iPod and iPhone Charge Tip (L10a)	41R4481 <i>ann 12/18/07</i>
•Generic Micro USB charge tip (L18)	41R4490 <i>ann 01/06/09</i>
More information at www.lenovopowertips.com	
Carrying Cases	
<i>Up to 15.6" widescreen models:</i>	
ThinkPad 15W Case Sleeve	51J0477 <i>ann 08/18/09</i>
Lenovo Messenger Max	41U5253 <i>ann 05/01/07</i>
ThinkPad Business Topload Case	43R2476 <i>ann 05/13/08</i>
ThinkPad Business Backpack	43R2482 <i>ann 05/13/08</i>
More information at www.lenovo.com/support/cases	
Monitors	
ThinkVision® L1711p 17" Monitor	5047HB2 <i>ann 10/20/09</i>
ThinkVision L1900p 19" Monitor	4431HE1 <i>ann 11/11/08</i>
ThinkVision L1951p Wide 19" Monitor	2448HB6 <i>ann 10/20/09</i>
ThinkVision L2250p Wide 22" Monitor	2572HB6 <i>ann 10/20/09</i>
ThinkVision L2251p Wide 22" Monitor	2572HD6 <i>ann 10/20/09</i>
ThinkVision L2251x Wide 22" Monitor	2578HB6 <i>ann 10/20/09</i>
ThinkVision L2321x Wide 23" Monitor	4014HB6 <i>ann 06/10/10</i>
ThinkVision L2440p Wide 24" Monitor	4420HB2 <i>ann 09/17/08</i>
More information at www.lenovo.com/support/monitors	
Monitor Accessories⁴⁶	
Lenovo USB-to-DVI Monitor Adapter	45K5296 <i>ann 05/12/09</i>
Lenovo DisplayPort to VGA Monitor Cable	57Y4393 <i>ann 08/04/09</i>
ThinkVision USB Soundbar	40Y7616 <i>ann 08/23/05</i>
ThinkVision Soundbar	45K1263 <i>ann 09/16/08</i>
Kensington MicroSaver Cable Lock	73P2582 <i>ann 12/29/03</i>
Kensington Twin Head Cable Lock	45K1620 <i>ann 09/30/08</i>
Lenovo Security Cable Lock	57Y4303 <i>ann 08/24/10</i>
Lenovo Easy Reach Monitor Stand	55Y9258 <i>ann 09/22/09</i>
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.	
More information at www.lenovo.com/support/monitoraccessories	
For more information on accessories: www.lenovo.com/accessories Purchase Lenovo accessories	
www.lenovo.com/support/accessories Product specifications on Lenovo Support	
www.lenovo.com/accessoriesguide Option Compatibility Matrix (OCM) and accessory brochures	
www.lenovoquickpick.com An Options Compatibility Configurator for Lenovo systems	

ThinkPad®



Lenovo® ThinkPad L520



Lenovo ThinkPad L520



Lenovo ThinkPad L520



Lenovo ThinkPad L520



Lenovo ThinkPad L520



Lenovo ThinkPad L520

ThinkPad® L520 7859 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Battery cells	Preload
7859-35U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7859-36U	i5-2410M	4GBx1	15.6" HD+	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7859-38U	i3-2310M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7859-68U	i3-2350M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg		Blue	6	Pro 64
7859-69U	i5-2430M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg		Blue	6	Pro 64

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<p><i>Mainstream business performance; two spindles</i></p> <p>Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology</p> <p>Intel Core i3-2350M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology</p> <p>Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology</p> <p>Intel Core i5-2430M processor (dual-core, 2.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology</p> <p>Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>							<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Genuine Windows® 7 Professional 64 <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap <p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™											
mSATA™ SSD	None											
Widescreen display	<p><i>Some:</i> 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</p> <p><i>Some:</i> 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</p>											
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus											
Integrated graphics	<p>Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display;</p> <p><i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>											
Keyboard TrackPoint® Touch pad ThinkLight™	<p>6-row, ThinkVantage button, spill-resistant, multimedia Fn keys</p> <p>TrackPoint® pointing device, Internet Scroll Bar¹³, magnifying glass</p> <p>UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch</p> <p>None</p>											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p>15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm</p> <p>4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg)</p> <p>Acrylonitrile-Butadiene-Styrene (ABS) plastic</p> <p>Lithium Ion 4-cell, 6-cell, or 9-cell</p> <p>4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr</p>											
Chipset ExpressCard Multicard Reader Ports	<p>Mobile Intel HM65 Express Chipset</p> <p>One slot (ExpressCard/34, ExpressCard/54)</p> <p>4-in-1 reader (MMC, SD, SDHC, SDXC)</p> <p>Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>											
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader Limited warranty ¹²	<p>Two PCI Express Mini Card slots</p> <p><i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1</p> <p><i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2</p> <p>Wireless WAN upgradable</p> <p>None</p> <p>Bluetooth 3.0 wireless, LED indicator</p> <p>Realtek® RTL8111DL Gigabit Network Connection</p> <p>None</p> <p>High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack</p> <p>Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Trusted Platform Module, TCG 1.2-compliant</p> <p><i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM</p> <p>1-year - depot repair service / service upgrades²² available</p>							<p>Supports ThinkVantage® technologies</p> <p>65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p> <p>For compatible accessories, please go to O-L520 sheet;</p> <p>For Lenovo service²² upgrade options, please go to S-TA sheet</p>				

See footnotes for more detailed information

US model(s) announced February 22 or October 4, 2011

US model(s) withdrawn effective January, March, or December 2012

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ThinkPad® L520 7860 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Preload
7860-35U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7860-36U	i5-2410M	4GBx1	15.6" HD+	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64
7860-38U	i3-2310M	4GBx1	15.6" HD	720p	320G 7200	TP 11b/g/n	WWAN upg	Finger	Blue	6	Pro 64

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p>Mainstream business performance; two spindles Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p>							<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap</p> <p>Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</p>				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™											
mSATA™ SSD	None											
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio											
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus											
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr											
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)											
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader Limited warranty ¹²	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM 3-years/1-yr battery - depot repair service / service upgrades ²² available							Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-L520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
 US model(s) announced February 22, 2011
 US model(s) withdrawn effective January or December 2012

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ThinkPad® L520 5016 - withdrawn

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat- tery cells	Workhorse (W) Global (G) Preload
5016-43U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205 ²⁸	WWAN upg			9	Pro 64
5016-46U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg			9	Pro 64
5016-42U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205	WWAN upg			9	Pro 32
5016-44U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	9	Pro 64
5016-45U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg			9	Pro 32
5016-47U	i5-2540M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Finger	Blue	9	Pro 64
5016-48U	i5-2520M	2+1GB	15.6" HD		320G 7200	Intel 6205	WWAN upg			6	Pro 64
5016-49U	i5-2520M	2+1GB	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	Pro 64
5016-33U	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G Pro 64
5016-32U	i5-2520M	2+1GB	15.6" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G Pro 64
5016-5ZU	i5-2540M	4GBx1	15.6" HD+		320G 7200	Intel 6205	WWAN upg			9	Pro 64

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology							Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets							Ready to install applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap		
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™									
mSATA™ SSD	None									
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio									
Camera	Some: HD720p resolution, wider view angle, low light sensitive, fixed focus									
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)							Preloaded applications ¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)		
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None									
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr									
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)									
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None Some: Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM							Supports ThinkVantage® technologies 65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-L520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available									

See footnotes for more detailed information
US model(s) announced February 22 or April 5, 2011
US model(s) withdrawn effective October 2011 or December 2012

ThinkPad® L520 5017 (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Bat-tery cells	Workhorse (W) Global (G) GMP (P)	Preload
5017-46U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205 ²⁸	WWAN upg			9		Pro 64
5017-43U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205	WWAN upg			9		Pro 64
5017-42U	i5-2520M	2+1GB	15.6" HD		500G 7200	Intel 6205	WWAN upg			9		Pro 32
5017-44U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	9		Pro 64
5017-45U	i5-2540M	2GBx1	15.6" HD+	720p	320G 7200	Intel 6205	WWAN upg			9		Pro 32
5017-47U	i5-2540M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Finger	Blue	9		Pro 64
5017-48U	i5-2520M	2+1GB	15.6" HD		320G 7200	Intel 6205	WWAN upg			6		Pro 64
5017-49U	i5-2520M	2+1GB	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6		Pro 64
5017-33U	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Finger	Blue	6	W G P	Pro 64
5017-32U	i5-2520M	2+1GB	15.6" HD		320G 7200	TP 11b/g/n	WWAN upg		Blue	6	W G P	Pro 64

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mainstream business performance; two spindles Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology							Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets							Ready to install applications¹⁴ (only some listed)				
Optical SATA disk	DVD burner, 12.7mm high, fixed, not removable, tray-in Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high, removable, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, removable, upgradable, Active Protection System™							<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) 				
mSATA™ SSD	None							<ul style="list-style-type: none"> • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap 				
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio							Preloaded applications¹⁴ (only some listed)				
Camera	Some: HD720p resolution, wider view angle, low light sensitive, fixed focus							<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Integrated graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>											
Keyboard TrackPoint® Touch pad ThinkLight™	6-row, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch None											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 15" x 9.7" x 1.26–1.42"; 380mm x 247mm x 32–36mm 4-cell: from 5.54 lb (2.51kg); 6-cell: from 5.75 lb (2.61kg); 9-cell: from 6.07 lb (2.75kg) Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 4-cell, 6-cell, or 9-cell 4-cell (32Whr): up to 3.5 hr; 6-cell: (57Whr) up to 6.3 hr; 9-cell (94Whr): up to 10.7 hr											
Chipset ExpressCard Multicard Reader Ports	Mobile Intel HM65 Express Chipset One slot (ExpressCard/34, ExpressCard/54) 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, DisplayPort), ethernet (RJ-45)											
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None Some: Bluetooth 3.0 wireless, LED indicator Realtek® RTL8111DL Gigabit Network Connection None High Definition (HD) Audio, Realtek ALC269Q codec / stereo speakers, 1.5 watt x 2 / volume up, down, mute buttons / monaural digital mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, supports the TPM							Supports ThinkVantage® technologies				
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available							65-watt AC adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
								For compatible accessories, please go to O-L520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information

US model(s) announced February 22, 2011

US model(s) withdrawn effective October 2011 or December 2012

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(RUB4-4) February 2013

ThinkPad® L520 Accessories - withdrawn

Personal Systems Reference (PSREF)

Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Storage and removable storage

USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann 06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann 06/05/12

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Security

3M 15.6W Privacy Filter from Lenovo	0A61771	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043	ann 06/27/06

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann 06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann 06/05/12
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance BackPack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12
Lenovo Sport Backpack - Blue	0B47298	ann 08/28/12
Lenovo Sport Slimcase - Blue	0B47300	ann 08/28/12
Lenovo Sport Messenger - Blue	0B47299	ann 08/28/12
Lenovo Sport Backpack - Grey	0B47301	ann 08/28/12
Lenovo Sport Slimcase - Grey	0B47303	ann 08/28/12
Lenovo Sport Messenger - Grey	0B47302	ann 08/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included; use optional

DisplayPort to DisplayPort Monitor Cable 0A36537.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann 09/13/11
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Ethernet on planar	Battery Security cells	Workhorse (W) or Global (G) Avail Entry (E)	date	
2373-1HU	Pentium® M	1.4	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b Wi-Fi ³²	Modem	Gigabit	Yes	6	XP Pro G E	Oct 2003
2373-1FU	Pentium M	1.4	256MB	14.1" XGA	7500	30GB	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6	XP Pro G E	Oct 2003
2373-7FU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-7JU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	Cisco® 802.11b ³²	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-3HU	Pentium M	1.6	512MB	14.1" SXGA+	9000	40HS	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-8RU	Pentium M	1.6	256MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg ³⁶	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-8SU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg	Modem	Gigabit	Yes	6	XP Pro W	Oct 2003
2373-4GU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi ³²	Mod/Blue	Gigabit	Yes	6	XP Pro W	Oct 2003
2373-9EU	Pentium M	1.7	512MB	14.1" SXGA+	9000	60U	Combo	Open; wireless upg	Modem	Gigabit	Yes	6	XP Pro No	Oct 2003
2373-9FU	Pentium M	1.7	512MB	14.1" SXGA+	9000	60U	Combo	11a/b/g Wi-Fi	Mod/Blue	Gigabit	Yes	6	XP Pro No	Oct 2003
2373-9HU	Pentium M	1.7	1GB	14.1" SXGA+	9000	60U	Combo	* Intel 11b Wi-Fi	Mod/Blue	Gigabit	Yes	6	XP Pro No	Oct 2003
2373-9KU	Pentium M	1.7	512MB	14.1" SXGA+	9000	60U	Combo	Cisco® 802.11b	Mod/Blue	Gigabit	Yes	6	XP Pro No	Oct 2003
Positioning Processor	Perfect balance of performance and portability; two-spindle system											SOFTWARE ¹⁴		
L2 cache	Intel® Pentium® M Processor 1.4, 1.6 or 1.6GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											Windows XP Professional		
Memory	1MB / on die (at processor speed) / ECC											- Microsoft® Windows® XP Professional ²⁰		
Diskette drive	None standard / use optional USB-based diskette drive											⇨ Disk-to-Disk Recovery (in hidden protected area)		
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim											Preloaded		
Combo	Some: DVD-ROM/CD-RW / 16X/10X/24X/8X ²¹ speed / removable from Ultrabay Slim											• Access IBM		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											• Access Connections		
Disk	30GB ⁸ (4200 rpm), 40GB HS (5400 rpm), or 60GB Ultra HS (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)											• Adobe Reader		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits											• Rapid Restore™ Ultra		
Graphics	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits											• RecordNOW and Drive Letter Access (combo models)		
Graphics external	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)											• InterVideo WinDVD (combo models)		
Keyboard	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M at 75Hz											• Norton AntiVirus (OEM edition)		
TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											• PC-Doctor™		
Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											• ThinkPad Utilities		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• Update Connector™.15		
Dimensions ³	(WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm											Downloadable		
Weight ²	with optical drive and battery: 4.9 to 5.0 lb (2.2 to 2.3 kg)											• IBM Director Agent		
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											• System Migration Assistant		
Battery - life ¹⁰	6-cell models: 4.1 to 5.0 hr; Optional 9-cell: 7 hr; 9-cell plus Ultrabay Slim battery: 9 hr											• Client Security Software (for security chip)		
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											License (CD not included)		
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											Universal 72 watt AC adapter		
Video out	S-video out port (TV out) / one 4-pin industry standard connector											Asset ID™.34 (system-specific info in chip accessed over network)		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											PC 2001-compliant		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											ACPI 1.0b and 2.0-compliant		
Wireless upg ³⁶	Some: wireless upgradable with wireless Mini PCI options											CIM and DMI 2.0-compliant		
Intel 11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection											PXE 2.0-compliant		
Cisco 802.11b ³²	Some: 802.11b wireless ⁴ , Mini PCI, Cisco® Aironet® Wireless 802.11b											ImageUltra™ Services available		
11a/b/g Wi-Fi ³²	Some: 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset											International Warranty Service ¹⁷		
CDC	One Communications Daughter Card (CDC) socket / customer accessible											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Modem	56K ⁶ V.90 (V.92-designed ²⁵) modem in CDC / Agere® chipset											The Ultrabay Slim supports:		
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)											• standard or optional CD-RW/DVD combo drive		
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											• optional DVD drive		
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											• optional second battery		
Security	Power-on password / hard disk password / supervisor password / security keyhole											• optional HDD adapter (for 2nd disk)		
Security chip	Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											• optional travel bezel		
Limited warranty ¹²	3 years/1 yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail											ServicePac®.22 2yr IOR 9x5 NBD 30L9190		
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ServicePac 4yr P&L P/U Depot										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad 72W AC/DC Combo Adapter	22P9010	69P9199										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 5yr P&L P/U Depot										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	11a/b/g Wireless Mini PCI Adapter II	73P4301	69P9201										
ThinkPad Port Replicator II	74P6733	ThinkVision® L192p 19" Monitor (black)	9419HB2	Post-warranty annual maintenance agreements at										
ThinkPad Mini Dock	287810U	M400 Projector	0037A04	ibm.com/services/its/us/source/maspspleu.pdf										
ThinkPad Dock II	287710U	Other options at lenovo.com/options												

See footnotes for important warranty information

* Powered by Intel Centrino™ mobile technology

US models announced October 7, 2003

US models withdrawn effective July 2004, November 2004, January 2005, May 2005, or December 2005

ThinkPad® T41 (2379) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ^a	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Ethernet on planar chip	Battery Security cells	Limited Warranty	Avail date
2379-DJU	Pentium® M	1.6	256MB	14.1" SXGA+	9000	40HS	Combo	*Intel 11b Wi-Fi ³²	Modem	Gigabit	Yes	6-cell	XP Pro 3 yrs Oct 2003
2379-DKU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi ³²	Modem	Gigabit	Yes	6-cell	XP Pro 3 yrs Oct 2003
<ul style="list-style-type: none"> • <i>These small and medium business (SMB) models are part of the US Think Express Program</i> • <i>The 2379 has a 3 year limited warranty (other ThinkPad T41 2378 models have a 1 year limited warranty)</i> 													
Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 1.6GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE ¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ↳ Disk-to-Disk Recovery (in hidden protected area)		
L2 cache	1MB / on die (at processor speed) / ECC												
Memory	256MB or 512MB standard / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 16X/10X/24X/8X ²¹ speed / removable from Ultrabay™ Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	40GB HS (5400 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)												
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand												
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M at 75Hz												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass /												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	(WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight ²	with optical drive and battery: DKU: 4.9 lb (2.2 kg); DJU: 5.0 lb (2.3kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell models: 4.4 to 4.7 hr; Optional 9-cell: 7 hr; 9-cell plus Ultrabay Slim battery: 9 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset												
11a/b/g Wi-Fi ³²	Some: 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	3 years/1 yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail												
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ServicePac 3yr IOR 9x5 NBD	30L9190
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040	USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699	USB 2.0 Combo Drive	73P4515	ThinkPad 72W AC/DC Combo Adapter	22P9010	ServicePac 4yr IOR 9x5 NBD	69P9198
USB 2.0 Memory Key 512MB	22P9230	11a/b/g Wireless CardBus Adapter	31P9101	CD-RW/DVD II Combo Ultrabay Slim Drive	73P3288	11a/b/g Wireless Mini PCI Adptr II	73P4301	Multi-Burner Plus Ultrabay Slim Drive	73P3342	ThinkVision® L192p 19" Monitor (black)	9419HB2	ServicePac 5yr IOR 9x5 NBD	69P9200
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision E500 Projector	0038A05	60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	C400 Projector	0039A04	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	M400 Projector	0037A04	ServicePac 5yr P&L P/U Depot	69P9199
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	GemPC400 Smart Card Reader/Writer	31P8901	Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Port Replicator II	74P6733	USB Travel Keyboard with UltraNav	31P9490	ThinkPad Mini Dock	287810U	Other ServicePac options at	
ThinkPad Carrying Case - Expander	73P3597	ThinkPad Dock II	287710U	ThinkPad Carrying Case - BackPack	73P3599	Kensington® MicroSaver® Security Cable 73P2582	Other options at lenovo.com/options						

See footnotes for important warranty information
US models announced October 7, 2003
US models withdrawn effective October 2004 or December 2005

* Powered by Intel Centrino™ mobile technology

ThinkPad® T41p (2373) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk memory GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Ethernet on planar chip	Battery Security cells	Workhorse (W) Global (G) Preload Entry (E)	Avail date
2373-GEU	Pentium® M	1.7	512MB	14.1" SXGA+	128MB	60U	Combo	11a/b/g Wi-Fi ³²	Mod/Blue	Gigabit	Yes	9-cell XP Pro W	Nov 2003
2373-GGU	Pentium M	1.7	512MB	14.1" SXGA+	128MB	60U	Combo	*Intel 11b Wi-Fi ³²	Mod/Blue	Gigabit	Yes	9-cell XP Pro W G	Nov 2003

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>											
L2 cache	Intel® Pentium® M Processor 1.7GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											
Memory	1MB / on die (at processor speed) / ECC 512MB standard / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
Combo	DVD-ROM/CD-RW / 16X/10X/24X/8X ²¹ speed / removable from Ultrabay™ Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											
Disk	60GB Ultra HS (7200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)											
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits / 200:1 contrast ratio / one latch to unlatch and open with one hand											
Graphics	ATI® Mobility™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support											
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M at 75Hz											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions											
ThinkLight™												
Dimensions ³	(WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm											
Weight ²	with optical drive and battery: 5.4 lb (2.4 kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	9-cell: 6.3 to 6.4 hr; 9-cell plus Ultrabay Slim battery: up to 8.6 hr											
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1											
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
11b Wi-Fi ³²	<i>Some:</i> 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset											
11a/b/g Wi-Fi ³²	<i>Some:</i> 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K ⁵ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset											
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
Limited warranty ¹²	3 years /1 yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040									
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699									
USB Serial Parallel Adapter	22P5298	ThinkPad 72W AC/DC Combo Adapter	22P9010									
USB 2.0 Portable CD-RW Drive	22P5297	11a/b/g Wireless CardBus Adapter	31P9101									
USB 2.0 Combo Drive	73P4515	11a/b/g Wireless Mini PCI Adptr II	73P4301									
USB 2.0 Portable Multi-Burner Drive	22P9163	SonyEricsson® GC83 EDGE PC Card	26K3393									
USB 2.0 Memory Key 256MB	22P9228	ThinkVision® L192p 19" Monitor (black)	9419HB2									
USB 2.0 Memory Key 512MB	22P9230	ThinkVision E500 Projector	0038A05									
USB 2.0 Portable 80GB Hard Disk	40Y8726	M400 Projector	0037A04									
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	C400 Projector	0039A04									
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	GemPC400 Smart Card Reader/Writer	31P8901									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Port Replicator II	74P6733									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Mini Dock	287810U									
80GB Hard Disk 9.5mm (4200 rpm)	08K9869	ThinkPad Dock II	287710U									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Monitor Stand 2001	22P5265									
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Expander	73P3597									
Optical 3-Button Travel Wheel Mouse	31P7410	Other options at lenovo.com/options										
SOFTWARE¹⁴												
Windows XP Professional												
- Microsoft® Windows® XP Professional ²⁰												
↳ Disk-to-Disk Recovery (in hidden protected area)												
Preloaded												
• Access IBM												
• Access Connections™												
• Adobe Reader												
• Rapid Restore™ Ultra												
• RecordNOW and Drive Letter Access (combo models)												
• InterVideo WinDVD (combo mdl)												
• Norton AntiVirus (OEM edition)												
• PC-Doctor™												
• ThinkPad Utilities												
• Update Connector™ ¹⁵												
Downloadable												
• IBM Director Agent												
• Software Delivery Assistant												
• System Migration Assistant												
• Client Security Software (for security chip)												
License (CD not included)												
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client												
ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage												
Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network)												
PC 2001-compliant												
ACPI 1.0b and 2.0-compliant												
CIM and DMI 2.0-compliant												
PXE 2.0-compliant												
ENERGY STAR®-compliant												
ImageUltra™ Services available												
International Warranty Service ¹⁷												
24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²												
ServicePac® ²² 2yr IOR 9x5 NBD												
30L9190												
ServicePac 3yr IOR 9x5 NBD												
69P9198												
ServicePac 4yr IOR 9x5 NBD												
69P9200												
ServicePac 5yr IOR 9x5 NBD												
69P9199												
ServicePac 4yr P&L P/U Depot												
69P9199												
ServicePac 5yr P&L P/U Depot												
69P9201												
Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf												
Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf												

See footnotes for important warranty information
US models announced October 28, 2003
US models withdrawn effective October 2005

* Powered by Intel Centrino™ mobile technology

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(T41P) October 2005

ThinkPad® T42 (Entry) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ³	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Ethernet on planar	Battery Security cells Preload	Workhorse (W) or Global (G) Entry (E)	Avail date
2373-1UU	Pentium® M	1.5	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b Wi-Fi ³²	Modem	Gigabit	Yes	6 XP Pro E	May 2004
2373-1YU	Pentium M	1.5	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b/g ³²	Modem	Gigabit	Yes	6 XP Pro E	May 2004
2373-1WU	Pentium M	1.5	256MB	14.1" XGA	7500	30GB	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6 XP Pro E G	May 2004
2373-5TU	Pentium M	725 1.6	512MB	14.1" XGA	9000	40HS	Combo	* Intel 11b/g	Modem	Gigabit	Yes	6 XP Pro E	Aug 2004
Positioning Processor	Perfect balance of performance and portability; two-spindle system												
L2 cache	Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz)												
Memory	with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus 1.5GHz: 1MB; 1.6GHz: 2MB; All: on die (at processor speed) / ECC 256MB or 512MB std / 2GB max⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
DVD	<i>Some: DVD-ROM / 24X-8X³ speed / single-layer / removable from Ultrabay™ Slim</i>												
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Slim</i>												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	30GB⁸ (4200 rpm) or 40GB HS (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™												
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits												
Graphics	<i>Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)</i> <i>Some: ATI MOBILITY RADEON 9000 / AGP 4X / 64MB DDR1 (DDR-SDRAM)</i>												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight ²	with optical drive and battery: 4.9 lb (2.2kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell models: up to 5.0 hr; Optional 9-cell: 7 hr; 9-cell plus Ultrabay Slim battery: 9 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b Wi-Fi ³²	<i>Some: 11b Wi-Fi³² wireless⁴, Mini PCI, Intel PRO/Wireless 2100 Network Connection</i> 802.11b, Intel 82531 chipset												
Intel 11b/g ³²	<i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG,</i> Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades²² avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Fingerprint Reader	73P4774	ThinkPad 72W AC Adapter	02K6699										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adptr II	73P4301										
USB 2.0 Portable 80GB Hard Disk	40Y8726	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582										
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	TrackPoint Cap Collection	73P2698										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkVision® E500 Projector	0038A05										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkVision L151p 15" Monitor (black)	9205HB2										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
USB Travel Keyboard with UltraNav	31P9490	PC Card Gemplus Smart Card Reader	41N3004										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Port Replicator II	74P6733										
SonyEricsson® GC83 EDGE PC Card	26K3393	ThinkPad Mini Dock	287810U										
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Dock II	287710U										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											

SOFTWARE¹⁴

Windows XP Professional

- Microsoft® Windows® XP Professional²⁰
- ↳ Disk-to-Disk Recovery (in hidden protected area)

Preloaded

- Access Program
- Access Connections
- Rescue and Recovery™
- RecordNOW and Drive Letter Access powered by Sonic products (combo models)
- InterVideo WinDVD (combo models)
- Norton AntiVirus (OEM edition)
- PC-Doctor™
- ThinkPad Utilities
- Adobe Reader
- Update Connector™.15

Downloadable

- IBM Director Agent
- Software Delivery Assistant
- System Migration Assistant
- Client Security Software (for security chip)

License (CD not included)

- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage

Universal 72 watt AC adapter
Asset ID™.34 (system-specific info in chip accessed over network)
PC 2001-compliant
ACPI 1.0b and 2.0-compliant
CIM and DMI 2.0-compliant
PXE 2.0-compliant
ENERGY STAR®-compliant
ImageUltra™ Services available
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹² via 800-IBM-SERV (426-7378)

The Ultrabay Slim supports:

- standard or optional CD-RW/DVD combo drive
- optional DVD or DVD-RW drive
- optional second battery
- optional HDD adapter (for 2nd disk)
- optional travel bezel

ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175

ThinkPlus 3-year LOR 9x5 NBD 41C9176

ThinkPlus 4-year LOR 9x5 NBD 41C9177

ThinkPlus 5-year LOR 9x5 NBD 41C9179

ThinkPlus 4-year P&L P/U Depot 41C9178

ThinkPlus 5-year P&L P/U Depot 41C9180

Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced May 11 or August 17, 2004
US models withdrawn effective August 2005 or October 2006

ThinkPad® T42 (14.1" display) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Workhorse (W) or Global (G) Preload or Entry (E)	Avail date
2373-3UU	Pentium® M 735	1.7	512MB	14.1" SXGA+	9600	40HS	Combo	11a/b/g Wi-Fi ³²	Mod/Blue	Yes	XP Pro W	May 2004
2373-4WU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b Wi-Fi ³²	Modem	Yes	XP Pro W G	May 2004
2373-8XU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	40HS	Combo	* Intel 11b Wi-Fi	Modem	Yes	XP Pro W	May 2004
2373-8ZU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	40HS	Combo	* Intel 11b/g ³²	Modem	Yes	XP Pro W	May 2004
2373-8TU	Pentium M 735	1.7	256MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg ³⁶	Modem	Yes	XP Pro W G	May 2004
2373-6UU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg	Modem	Yes	XP Pro W	May 2004
2373-6ZU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro W	May 2004
2373-4TU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	Open; wireless upg	Modem	Yes	XP Pro W	May 2004
2373-JTU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	11b/g ³²	Modem	Yes	XP Pro W	May 2004
2373-9XU	Pentium M 745	1.8	512MB	14.1" SXGA+	9600	80HS	Combo	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
2373-9VU	Pentium M 745	1.8	1GB	14.1" SXGA+	9600	80HS	Combo	* Intel 11b/g	Mod/Blue	Yes	XP Pro	May 2004
2373-9ZU	Pentium M 745	1.8	512MB	14.1" SXGA+	9600	80HS	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
Positioning Processor	Perfect balance of performance and portability; two-spindle system											
L2 cache	Intel® Pentium® M Processor 735 (1.7GHz) or 745 (1.8GHz)											
Memory	with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											
Diskette drive	None standard / use optional USB-based diskette drive											
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim											
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim											
DVD-RW	Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											
Disk	40GB ⁸ HS (5400 rpm) or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradeable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™											
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits											
Graphics	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits											
Graphics external	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)											
Keyboard	Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)											
TrackPoint®	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B											
Touch pad	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Dimensions ³	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
Weight ²	Illuminates the keyboard to improve visibility in low-light conditions											
Battery - type	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm											
Battery - life ¹⁰	with optical drive and battery: XGA models: 4.9 lb (2.2kg); SXGA+ mod: 5.0 lb (2.3kg)											
Architecture	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
PC Card Std slots	Up to 4.6 hr; Optional 9-cell: up to 7.5 hr; 9-cell plus Ultrabay Slim battery: up to 9.5 hr											
Ports	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											
Video out	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door											
Wireless antenna	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Mini PCI	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless upg ³⁶	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Intel 11b Wi-Fi ³²	One Mini PCI type III slot (Communications Bay) / customer upgradeable											
Intel 11b/g ³²	Some: wireless upgradeable with wireless Mini PCI options											
11a/b/g Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection											
11b/g ³²	802.11b, Intel 82531 chipset											
CDC	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											
Modem	Some: 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset											
Bluetooth™	Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset											
Ethernet	One Communications Daughter Card (CDC) socket / customer accessible											
Audio support	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Security	Some: Bluetooth wireless technology / in CDC (with modem)											
Security chip	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											
Limited warranty ¹²	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
256MB PC2700 DDR-SDRAM CL2.5 SOD	Power-on password / hard disk password / supervisor password / security keyhole											
512MB PC2700 DDR-SDRAM CL2.5 SOD	Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
1GB PC2700 DDR-SDRAM CL2.5 SOD	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
USB Portable Diskette Drive	ThinkPad T40/R50 Li-Ion Battery 6-cell 92P1101											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	ThinkPad T40/R50 Li-Ion Battery 9-cell 92P1102											
Super Multi-Burner Ultrabay Slim Drv (curve)	Ultrabay Slim Li-Polymer Battery 3-cell 08K8190											
Second HDD Adapter for Ultrabay Slim	11a/b/g Wireless Mini PCI Adapter II 73P4301											
ThinkPad Carrying Case - Leather	Intel PRO/Wireless 2915ABG Mini PCI 41N2990											
80GB HS Hard Disk 9.5mm (5400 rpm)	ThinkPad Port Replicator II 74P6733											
ThinkPad Convertible Monitor Stand	ThinkPad Mini Dock 287810U											
	ThinkPad Dock II 287710U											
	ThinkVision® L201p 20.1" Monitor (black) 9320HB1											
	Other options at lenovo.com/options											
	ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175											
	ThinkPlus 3-year LOR 9x5 NBD 41C9176											
	ThinkPlus 4-year LOR 9x5 NBD 41C9177											
	ThinkPlus 5-year LOR 9x5 NBD 41C9179											
	ThinkPlus 4-year P&L P/U Depot 41C9178											
	ThinkPlus 5-year P&L P/U Depot 41C9180											
	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											

See footnotes for important warranty information
US models announced May 11, 2004
US models withdrawn effective May 2005 or May 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® T42 (14.1" display) - October 2004 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Secu- rity chip	Bat- tery life ⁹ or Entry (E)	Workhorse (W) or Global (G) or Entry (E)	Avail date
2373-J2U	Pentium® M 725	1.6	256MB	14.1" XGA	7500 30GB	DVD	* Intel 11b Wi-Fi ³²	Modem	No	Yes	5.3 hr	E	Oct 04	
2373-J3U	Pentium M 725	1.6	256MB	14.1" XGA	7500 30GB	DVD	* Intel 11b/g ³²	Modem	No	Yes	5.3 hr	E	Oct 04	
2373-J4U	Pentium M 725	1.6	256MB	14.1" XGA	7500 30GB	Combo	* Intel 11b/g	Modem	Finger	Yes	5.3 hr	E G	Oct 04	
2373-K1U	Pentium M 735	1.7	512MB	14.1" XGA	7500 40HS	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	5.1 hr	W G	Oct 04	
2373-KRU	Pentium M 735	1.7	512MB	14.1" XGA	7500 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	5.1 hr	W G	Nov 04	
2373-K2U	Pentium M 735	1.7	256MB	14.1" XGA	7500 40HS	DVD	Open; wireless upg ³⁶	Modem	Finger	Yes	5.3 hr	W G	Oct 04	
2373-K3U	Pentium M 735	1.7	512MB	14.1" XGA	7500 40HS	DVD	* Intel 11b/g	Modem	Finger	Yes	5.1 hr	W	Oct 04	
2373-K5U	Pentium M 735	1.7	512MB	14.1" SXGA+	9600 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	4.0 hr	W G	Oct 04	
2373-K9U	Pentium M 735	1.7	512MB	14.1" XGA	7500 40HS	Combo	11a/b/g II ³²	Mod/Blue	Finger	Yes	5.2 hr	W	Oct 04	
2373-KEU	Pentium M 735	1.7	512MB	14.1" XGA	7500 40HS	Combo	Open; wireless upg	Modem	Finger	Yes	5.3 hr	W	Oct 04	
2373-KFU	Pentium M 735	1.7	256MB	14.1" SXGA+	7500 80HS	Combo	* Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	4.8 hr	W	Feb 05	
2373-KGU	Pentium M 735	1.7	512MB	14.1" XGA	7500 40HS	Combo	11b/g ³²	Modem	Finger	Yes	5.2 hr	W	Oct 04	
2373-KMU	Pentium M 735	1.7	256MB	14.1" XGA	7500 80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	5.2 hr	W	Feb 05	
2373-M1U	Pentium M 745	1.8	512MB	14.1" SXGA+	9600 80HS	Combo	11a/b/g II	Mod/Blue	Finger	Yes	4.1 hr	W	Oct 04	
2373-M2U	Pentium M 745	1.8	512MB	14.1" SXGA+	9600 80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	4.1 hr	W	Feb 05	
2373-M3U	Pentium M 745	1.8	512MB	14.1" SXGA+	9600 60U	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	4.0 hr	W	Oct 04	
2373-PPU	Pentium M 735	1.7	512MB	14.1" XGA	9600 40HS	Combo	* Intel 11b/g	Modem		Yes	4.2 hr	W	Nov 05	
2373-PQU	Pentium M 735	1.7	256MB	14.1" XGA	9600 40HS	DVD	Open; wireless upg	Modem		Yes	4.4 hr	W	Nov 05	
2373-PRU	Pentium M 725	1.6	256MB	14.1" XGA	9600 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	4.2 hr	W	Nov 05	
2373-PSU	Pentium M 735	1.7	512MB	14.1" XGA	9600 40HS	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	4.2 hr	W	Nov 05	
2373-PTU	Pentium M 735	1.7	512MB	14.1" XGA	9600 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	4.2 hr	W	Nov 05	
2373-PUU	Pentium M 735	1.7	256MB	14.1" XGA	9600 40HS	DVD	Open; wireless upg	Modem	Finger	Yes	4.4 hr	W	Nov 05	
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 725 (1.6GHz), 735 (1.7GHz) or 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus													
L2 cache	2MB / on die (at processor speed) / ECC													
Memory	256MB or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
DVD	<i>Some: DVD-ROM / 24X-8X⁹ speed / single-layer / removable from Ultrabay™ Slim</i> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Slim</i>													
Combo	One modular bay for interchangeable devices (right side) / 9.5mm high bay													
Ultrabay Slim	30GB⁸ (4200 rpm), 40GB HS (5400 rpm), 60GB Ultra HS (7200 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System™													
Disk														
Display	<i>Some: 14.1"</i> (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some: 14.1"</i> (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits													
Graphics	<i>Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) <i>Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)</i></i>													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm													
Weight ²	with optical drive and battery: XGA models: 4.9 lb (2.2kg); SXGA+ mod: 5.0 lb (2.3kg)													
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover													
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	Up to 4.9 hr; <i>Optional 9-cell</i> : up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 9.0 hr													
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth], [fingerprint]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])													
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg ³⁶	<i>Some: wireless upgradable with wireless Mini PCI options</i>													
Intel 11b Wi-Fi ³²	<i>Some: 11b Wi-Fi³² wireless⁴, Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset</i>													
Intel 11b/g ³²	<i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip</i>													
Intel 11a/b/g ³²	<i>Some: 11a/b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset</i>													
11b/g ³²	<i>Some: 11b/g Wi-Fi³² wireless⁴, Mini PCI, Atheros™ AR5004G chipset</i>													
11a/b/g II ³²	<i>Some: 11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X</i>													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁵ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	<i>Some: Bluetooth wireless technology / in CDC (with modem)</i>													
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant													
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip</i>													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													

SOFTWARE¹⁴

Windows XP Professional
- Microsoft® Windows® XP Professional²⁰ (Service Pack 2)
◇ Disk-to-Disk Recovery (in hidden protected area)

Preloaded

- Rescue and Recovery™
- Access Program
- Access Connections
- Norton AntiVirus
- PC-Doctor™
- ThinkPad Utilities
- Adobe Reader
- Update Connector™¹⁵
- RecordNOW and Drive Letter Access powered by Sonic products (combo models)
- InterVideo WinDVD (combo, DVD)
- Fingerprint Software (fingerprint models)
- Client Security Software (for security chip)

License (CD not included)
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage

Universal 72 watt AC adapter
Asset ID™³⁴ (system-specific info in chip accessed over network)
PC 2001-compliant
ACPI 1.0b and 2.0-compliant
C1M and DMI 2.0-compliant
PXE 2.1-compliant
ENERGY STAR®-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²

ThinkPlus™²² 2-year LOR 9x5 NBD
41C9175

ThinkPlus 3-year LOR 9x5 NBD
41C9176

ThinkPlus 4-year LOR 9x5 NBD
41C9177

ThinkPlus 5-year LOR 9x5 NBD
41C9179

ThinkPlus 4-year P&L P/U Depot
41C9178

ThinkPlus 5-year P&L P/U Depot
41C9180

See footnotes for important warranty information * Powered by Intel Centrino™ mobile technology © Lenovo
US models announced October 5 or November 30, 2004 or January 11 or November 15, 2005 (T42140) April 2006
US models withdrawn effective May 2006

ThinkPad® T42 (15" display) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Workhorse (W) or Global (G) Preload or Entry (E)	Avail date
2373-6YU	Pentium® M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b Wi-Fi ³²	Modem	Yes	XP Pro	W G May 2004
2373-JXU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	11b/g ³²	Modem	Yes	XP Pro	W May 2004
2373-CWU	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	11a/b/g Wi-Fi ³²	Mod/Blue	Yes	XP Pro	May 2004
2373-CXU	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	* Intel 11b/g ³²	Mod/Blue	Yes	XP Pro	May 2004
2373-CVU	Pentium M 745	1.8	1GB	15.0" SXGA+	9600	80HS	Combo	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
2373-CYU	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>											
L2 cache	Intel® Pentium® M Processor 735 (1.7GHz) or 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											
Memory	2MB / on die (at processor speed) / ECC 512MB or 1GB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
Combo DVD-RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Slim											
Ultrabay Slim Disk	<i>Some:</i> CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim											
Display	One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB⁸ HS (5400 rpm) or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)											
Graphics	<i>Some:</i> ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) <i>Some:</i> ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)											
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>(WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight ²	with optical drive and battery: <i>XGA models:</i> 5.7 lb (2.6kg); <i>SXGA+ mod:</i> 5.8 lb (2.7kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	Up to 4.4 hr; <i>Optional 9-cell:</i> up to 7 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 9 hr											
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door											
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b Wi-Fi ³²	<i>Some:</i> 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset											
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
11a/b/g Wi-Fi ³²	<i>Some:</i> 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset											
11b/g ³²	<i>Some:</i> 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ ²² 2-year LOR 9x5 NBD								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 3-year LOR 9x5 NBD								
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699									
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year LOR 9x5 NBD								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adapter II	73P4301									
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 5-year LOR 9x5 NBD								
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® L151p 15" Monitor (black)	9205HB2	ThinkPlus 4-year P&L P/U Depot								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year P&L P/U Depot								
ThinkPad Premiere Leather Carrying Case	10K0209	ThinkPad Mini Dock	287810U									
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Dock II	287710U	Post-warranty annual maintenance agreements at								
SonyEricsson® GC83 EDGE PC Card	26K3393	TrackPoint Cap Collection	73P2698									
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options										

See footnotes for important warranty information
US models announced May 11, 2004
US models withdrawn effective May 2005 or May 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® T42 (15" display) - October 2004 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Secu- rity chip	Bat- tery life ¹⁰	Workhorse (W) or Global (G) Avail Entry (E) date
2373-L1U	Pentium® M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g ³²	Mod/Blue	Finger	Yes	5.0 hr	W G Oct 04
2373-LAU	Pentium M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	5.0 hr	W G Nov 04
2373-L4U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	3.9 hr	W Oct 04
2373-L5U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b Wi-Fi ³²	Modem	Finger	Yes	3.9 hr	W Oct 04
2373-L6U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	11b/g ³²	Modem	Finger	Yes	3.9 hr	W Oct 04
2373-L7U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11a/b/g ³²	Modem	Finger	Yes	3.9 hr	W Feb 05
2373-N1U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	11a/b/g II ³²	Mod/Blue	Finger	Yes	3.9 hr	Oct 04
2373-N2U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3.9 hr	Feb 05
2373-N3U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	3.9 hr	Oct 04
2373-LCU	Pentium M 735	1.7	512MB	15.0" XGA	9600	40HS	Combo	* Intel 11b/g	Modem		Yes	4.1 hr	Nov 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>												
L2 cache	Intel® Pentium® M Processor 735 (1.7GHz) or 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus												
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	40GB⁸ HS (5400rpm), 80GB HS (5400 rpm), or 60GB Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™												
Display	<i>Some: 15.0"</i> (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits <i>Some: 15.0"</i> (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	<i>Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) <i>Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)</i></i>												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight ²	with optical drive and battery: XGA models: 5.7 lb (2.6kg); SXGA+ mod: 5.8 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	Up to 4.9 hr; <i>Optional 9-cell:</i> up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 9.0 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth], fingerprint) / PCI bus 2.2 32-bit, 33MHz (T ¹⁸ PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI Type III slot (Communications Bay) / customer upgradable												
	<i>Some:</i> 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset												
	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
	<i>Some:</i> 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset												
	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant												
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177								
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 5-year LOR 9x5 NBD	41C9178								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year P&L P/U Depot	41C9179								
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot	41C9180								
Second HDD Adapter for Ultrabay Slim	62P4554	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	Post-warranty annual maintenance agreements at									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II	74P6733										
USB 2.0 Memory Key 512MB	22P9230	ThinkPad Mini Dock	287810U										
ThinkPad Carrying Case - Expander	73P3597	ThinkPad Dock II	287710U										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced October 5 or November 30, 2004 or January 11 or November 15, 2005
US models withdrawn effective May 2006

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ThinkPad® T42 (2378) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Workhorse (W) Global (G) Limited Avail Entry (E) warranty ¹²	date		
2378-DTU	Pentium® M	1.5	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b/g ³²	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DUU	Pentium M	1.5	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-FTU	Pentium M 735	1.7	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-FVU	Pentium M 735	1.7	256MB	14.1" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-FZU	Pentium M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DVU	Pentium M 735	1.7	256MB	15.0" XGA	7500	30GB	DVD	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DWU	Pentium M	1.5	256MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DXU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Yes	XP Pro	No	1-yr	May 2004
2378-2ZU	Pentium M	1.5	256MB	15.0" XGA	7500	30GB	DVD	* Intel 11b Wi-Fi ³²	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-5UU	Pentium M 725	1.6	256MB	14.1" XGA	9000	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	Aug 2004
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • The 2378 has a 1-year limited warranty (other ThinkPad T42 2379 TopSeller models have a 3-year limited warranty) 														
Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) or 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴			
L2 cache	1.5GHz: 1MB ; 1.6/1.7GHz: 2MB ; All: on die (at processor speed) / ECC										Windows XP Professional			
Memory	256MB or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim										• Access Program			
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										• Access Connections™			
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Rescue and Recovery™			
Disk	30GB⁸ (4200 rpm), 40GB HS (5400 rpm), 60GB Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• InterVideo WinDVD (combo models)			
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 64MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)										• Norton AntiVirus (OEM edition)			
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										• PC-Doctor™			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Adobe® Reader			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Update Connector™ ¹⁵			
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" XGA models: 4.9 lb (2.2kg); 14.1" SXGA+: 5.0 lb (2.3kg); 15.0" XGA: 5.7 lb (2.6kg); 15.0" SXGA+: 5.8 lb (2.7kg)										Downloadable			
Weight ²	with optical drive and battery: 14.1" XGA models: 4.9 lb (2.2kg); 14.1" SXGA+: 5.0 lb (2.3kg); 15.0" XGA: 5.7 lb (2.6kg); 15.0" SXGA+: 5.8 lb (2.7kg)										• IBM Director Agent			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• Software Delivery Assistant			
Battery - life ¹⁰	4.0 to 5.0 hr; <i>Optional 9-cell</i> : up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 9.0 hr										• System Migration Assistant			
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Client Security Software (for security chip)			
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										License (CD not included)			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Universal 72 watt AC adapter			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Asset ID™ ³⁴ (system-specific info in chip accessed over network)			
Intel 11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset										PC 2001-compliant			
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										ACPI 1.0b and 2.0-compliant			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										CIM and DMI 2.0-compliant			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										PXE 2.0-compliant			
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										ENERGY STAR®-compliant			
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										ImageUltra™ Services available			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										International Warranty Service ¹⁷			
Security	Power-on password / hard disk password / supervisor password / security keyhole										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)			
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										ThinkPlus™ ²² 1-year LOR 9x5 NBD 41C9166			
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										ThinkPlus 2-year LOR 9x5 NBD 41C9167			
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 2-year P&L P/U Depot		41C9169					
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 3-year P&L P/U Depot		41C9170					
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 4-year P&L P/U Depot		41C9172					
USB Portable Diskette Drive	05K9276		11a/b/g Wireless Mini PCI Adptr II		73P4301		ThinkPlus 5-year P&L P/U Depot		41C9174					
USB 2.0 Super Multi-Burner Drive	40Y8638		ThinkPad Port Replicator II		74P6733									
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622		ThinkPad Mini Dock		287810U									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Dock II		287710U									
ThinkPad Convertible Monitor Stand	40Y7620		Other options at lenovo.com/options											

See footnotes for important warranty information

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US models announced May 11 or August 17, 2004

(T42B) October 2006

US models withdrawn effective June 2005, August 2005, or October 2006

ThinkPad® T42 (2378) - TopSeller (October 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Bat-tery life ¹⁰	Bat-tery cells	Limited war-ranty ¹²	Avail date
2378-R1U	Pentium® M 725	1.6	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g ³²	Modem	Finger	Yes	5.1 hr	6	1-yr	Oct 04
2378-R2U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	3.9 hr	6	1-yr	Oct 04
2378-R3U	Pentium M 725	1.6	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b/g	Modem	No	Yes	5.3 hr	6	1-yr	Oct 04
2378-R4U	Pentium M 725	1.6	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	No	Yes	5.1 hr	6	1-yr	Oct 04
2378-R5U	Pentium M 745	1.8	256MB	14.1" SXGA+	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	7.2 hr	9	1-yr	Oct 04
2378-R6U	Pentium M 725	1.6	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	No	Yes	5.0 hr	6	1-yr	Oct 04
2378-R7U	Pentium M 725	1.6	256MB	15.0" XGA	7500	30GB	DVD	* Intel 11b Wi-Fi ³²	Modem	No	Yes	5.3 hr	6	1-yr	Oct 04
2378-R8U	Pentium M 745	1.8	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	5.0 hr	6	1-yr	Oct 04
2378-R9U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	5.9 hr	9	1-yr	Oct 04
2378-RGU	Pentium M 735	1.7	256MB	14.1" XGA	9600	40HS	Combo	* Intel 11a/b/g ³²	Modem	Finger	Yes	4.3 hr	6	1-yr	Nov05
2378-RJU	Pentium M 735	1.7	512MB	15.0" XGA	9600	40HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	4.2 hr	6	1-yr	Nov05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2378 has a 1-year limited warranty (other ThinkPad T42 2379 TopSeller models have a 3-year limited warranty)

Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 725 (1.6GHz), 735 (1.7GHz), or 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴				
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional				
Memory	256MB or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery				
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded				
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim										• Rescue and Recovery™				
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										• Access Program				
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Connections™				
Disk	30GB ⁸ (4200 rpm), 40GB HS (5400 rpm), or 60GB Ultra HS (7200 rpm) / 9.5mm high / removable, upgradeable / 9.5mm high bay / supports 2nd disk in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™										• Norton AntiVirus				
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• PC-Doctor™				
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)										• ThinkPad Utilities				
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• Adobe® Reader				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Update Connector™ ¹⁵				
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Access powered by Sonic products (combo models)				
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										• InterVideo WinDVD (combo, DVD models)				
Weight ²	with optical drive and battery: 14.1" XGA models: 4.9 lb (2.2kg); 14.1" SXGA+: 5.4 lb (2.4kg); 15.0" XGA: 5.7 lb (2.6kg); 15.0" SXGA+: 5.8 lb [6-cell] or 6.2 lb [9-cell] (2.8kg)										• FingerPrint Software (fingerprint models)				
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• Client Security Software (for security chip)				
Battery - type	Lithium Ion 6- or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										Downloadable				
Battery - life ¹⁰	6-cell: up to 4.9 hr; 9-cell: up to 7.0 hr; 9-cell plus Ultrabay Slim battery: up to 9.0 hr										• IBM Director Agent				
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth], [fingerprint]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Software Delivery Assistant				
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										• System Migration Assistant				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										License (CD not included)				
Video out	S-video out port (TV out) / one 4-pin industry standard connector										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage				
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable										Universal 72 watt AC adapter				
Intel 11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset										Asset ID™ ³⁴ (system-specific info in chip accessed over network)				
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										PC 2001-compliant				
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip										ACPI 1.0b and 2.0-compliant				
CDC	One Communications Daughter Card (CDC) socket / customer accessible										CIM and DMI 2.0-compliant				
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										PXE 2.1-compliant				
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										ENERGY STAR®-compliant				
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										International Warranty Service ¹⁷				
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)				
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™.22 1-year LOR 9x5 NBD				
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant										ThinkPlus 2-year LOR 9x5 NBD				
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip										ThinkPlus 3-year LOR 9x5 NBD				
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available										ThinkPlus 5-year LOR 9x5 NBD				
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101												
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102												
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190												
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Port Replicator II	74P6733												
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Mini Dock	287810U												
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Dock II	287710U												
ThinkVision® L201p 20.1" Monitor (black)	9320HB1	Other options at lenovo.com/options													

See footnotes for important warranty information * Powered by Intel Centrino™ mobile technology
US models announced October 5, 2004 or November 15, 2005
US models withdrawn effective May or October 2006

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(T42BO) October 2006

ThinkPad® T42 (2379) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ²	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Workhorse (W) Global (G) Limited Avail Entry (E) warranty ¹² date
2379-DWU	Pentium® M	1.5	256MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g ³²	Modem	Yes	XP Pro No 3-yr May 2004
2379-5VU	Pentium M 725	1.6	512MB	14.1" XGA	9000	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro No 3-yr Aug 2004
2379-DXU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Yes	XP Pro No 3-yr May 2004

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2379 has a 3-year limited warranty (other ThinkPad T42 2378 TopSeller models have a 1-year limited warranty)

Positioning Processor	Perfect balance of performance and portability; two-spindle system										
L2 cache	Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) or 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										
Memory	1.5GHz: 1MB ; 1.6/1.7GHz: 2MB ; All: on die (at processor speed) / ECC										
Diskette drive	None standard / use optional USB-based diskette drive										
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Slim										
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										
Disk	40GB⁸ HS (5400 rpm) or 60GB Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™										
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 64MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)										
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										
Weight ²	with optical drive and battery: 14.1" XGA model: 4.9 lb (2.2kg); 15.0" XGA model: 5.7 lb (2.6kg); 15.0" SXGA+ model: 5.8 lb (2.7kg)										
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										
Battery - life ¹⁰	Up to 4.7 hr; <i>Optional 9-cell</i> : up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 9.0 hr										
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										
Video out	S-video out port (TV out) / one 4-pin industry standard connector										
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										
CDC	One Communications Daughter Card (CDC) socket / customer accessible										
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades ²² avail										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190								
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040								
USB Fingerprint Reader	73P4774	72W Slim AC/DC Combo Adapter	73P4485								
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adapter II	73P4301								
USB 2.0 Super Multi-Burner Drive	40Y8638	Intel PRO/Wireless 2915ABG Mini PCI	41N2990								
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582								
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkVision® E500 Projector	0038A05								
Second HDD Adapter for Ultrabay Slim	41U3148	Lenovo M500 Projector	0037A05								
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision C400 Wireless Projector	0039WA1								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1								
ThinkPad Carrying Case - Expander	73P3597	ThinkPad Port Replicator II	74P6733								
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Mini Dock	287810U								
TrackPoint Cap Collection	73P2698	ThinkPad Dock II	287710U								
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options									
				SOFTWARE¹⁴							
				Windows XP Professional							
				- Microsoft® Windows® XP Professional ²⁰							
				↳ Disk-to-Disk Recovery (in hidden protected area)							
				Preloaded							
				• Access Program							
				• Access Connections™							
				• Rescue and Recovery™							
				• RecordNow and Drive Letter Access powered by Sonic products (combo models)							
				• InterVideo WinDVD (combo models)							
				• Norton AntiVirus (OEM edition)							
				• PC-Doctor™							
				• ThinkPad Utilities							
				• Adobe® Reader							
				• Update Connector™ ¹⁵							
				Downloadable							
				• IBM Director Agent							
				• Software Delivery Assistant							
				• System Migration Assistant							
				• Client Security Software (for security chip)							
				License (CD not included)							
				- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client							
				ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage							
				Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network)							
				PC 2001-compliant							
				ACPI 1.0b and 2.0-compliant							
				CIM and DMI 2.0-compliant							
				PXE 2.0-compliant							
				ENERGY STAR®-compliant							
				ImageUltra™ Services available							
				International Warranty Service ¹⁷							
				24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)							
				ThinkPlus™. ²² 2-year LOR 9x5 NBD							
				41C9175							
				ThinkPlus 3-year LOR 9x5 NBD							
				41C9176							
				ThinkPlus 4-year LOR 9x5 NBD							
				41C9177							
				ThinkPlus 5-year LOR 9x5 NBD							
				41C9179							
				ThinkPlus 4-year P&L P/U Depot							
				41C9178							
				ThinkPlus 5-year P&L P/U Depot							
				41C9180							
				Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced May 11 or August 17, 2004

(T42B3) October 2006

US models withdrawn effective August 2005 or October 2006

ThinkPad® T42 (2379) - TopSeller (October 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Bat-tery life ¹⁰	Bat-tery cells	Limited war-ranty ¹²	Avail date
2379-R1U	Pentium® M 725	1.6	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g ³²	Modem	Finger	Yes	5.1 hr	6	3-yr	Oct 04
2379-R5U	Pentium M 745	1.8	256MB	14.1" SXGA+	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	7.2 hr	9	3-yr	Oct 04
2379-R6U	Pentium M 725	1.6	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	No	Yes	5.0 hr	6	3-yr	Oct 04
2379-R8U	Pentium M 745	1.8	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	5.0 hr	6	3-yr	Oct 04
2379-R9U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	5.9 hr	9	3-yr	Oct 04
2379-RFU	Pentium M 745	1.8	512MB	14.1" XGA	9000	60HS	Combo	* 11a/b/g II ³²	Modem	Finger	Yes	4.9 hr	6	3-yr	Sep05
2379-RHU	Pentium M 745	1.8	512MB	14.1" XGA	9600	60HS	Combo	* Intel 11a/b/g ³²	Modem	Finger	Yes	4.3 hr	6	3-yr	Nov05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2379 has a 3-year limited warranty (other ThinkPad T42 2378 TopSeller models have a 1-year limited warranty)

Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 725 (1.6GHz) or 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴				
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional				
Memory	256MB or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded				
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										• Rescue and Recovery™				
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Program				
Disk	40GB ⁸ HS (5400 rpm), 60GB HS (5400 rpm), or 60GB Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System (shock protection)										• Access Connections™				
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• Norton AntiVirus (with 90 days of virus definitions)				
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)										• PC-Doctor™				
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Adobe® Reader				
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• Update Connector™ ¹⁵				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)				
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										• InterVideo WinDVD (combo models)				
Weight ²	with optical drive and battery: 14.1" XGA models: 4.9 lb (2.2kg); 14.1" SXGA+: 5.4 lb (2.4kg); 15.0" XGA: 5.7 lb (2.6kg); 15.0" SXGA+: 6.2 lb (2.8kg)										• FingerPrint Software (fingerprint models)				
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• Client Security Software (for security chip)				
Battery - type	Lithium Ion 6- or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										Downloadable				
Battery - life ¹⁰	6-cell: up to 4.9 hr; 9-cell: up to 7.0 hr; 9-cell plus Ultrabay Slim battery: up to 9.0 hr										• IBM Director Agent				
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth], [fingerprint]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Software Delivery Assistant				
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										• System Migration Assistant				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										License (CD not included)				
Video out	S-video out port (TV out) / one 4-pin industry standard connector										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage				
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Universal 72 watt AC adapter				
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										Asset ID™ ³⁴ (system-specific info in chip accessed over network)				
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										PC 2001-compliant				
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip										ACPI 1.0b and 2.0-compliant				
CDC	One Communications Daughter Card (CDC) socket / customer accessible										CIM and DMI 2.0-compliant				
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										PXE 2.1-compliant				
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										ENERGY STAR®-compliant				
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										International Warranty Service ¹⁷				
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)				
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™ ²² 2-year LOR 9x5 NBD				
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant										41C9175				
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip / can replace multiple passwords / UPEK® TCD41B controller with TCS3B sensor										ThinkPlus 3-year LOR 9x5 NBD				
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										41C9176				
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 3-year LOR 9x5 NBD					
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			41C9176					
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ThinkPlus 4-year LOR 9x5 NBD					
USB 2.0 Memory Key 1GB	40Y7421			72W Slim AC/DC Combo Adapter			73P4485			41C9177					
USB 2.0 Super Multi-Burner Drive	40Y8638			11a/b/g Wireless Mini PCI Adapter II			73P4301			ThinkPlus 5-year LOR 9x5 NBD					
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288			ThinkPad Port Replicator II			74P6733			41C9179					
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622			ThinkPad Mini Dock			287810U			ThinkPlus 4-year P&L P/U Depot					
Second HDD Adapter for Ultrabay Slim	62P4554			ThinkPad Dock II			287710U			41C9178					
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716			ThinkPad Carrying Case - Leather			73P3600			ThinkPlus 5-year P&L P/U Depot					
ThinkPad Convertible Monitor Stand	40Y7620			Other options at lenovo.com/options						41C9180					

See footnotes for important warranty information

* Powered by Intel Centrino™ mobile technology

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US models announced October 5, 2004, September 13, 2005, or November 15, 2005

(T42B30) April 2006

US models withdrawn effective May 2006

ThinkPad® T42 (2373) - Education - withdrawn

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Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Preload	Limited warranty ¹²	Avail date
2373-6VU	Pentium® M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g ³²	Modem	Yes	XP Pro	EasyServ	May 2004
2373-3VU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	80HS	DVD-RW	* Intel 11b/g	Modem	Yes	XP Pro	EasyServ	May 2004
2373-3XU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	EasyServ	May 2004

• **The 2373 has an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller.

The model or models for education are not available for resale to any other organization or individual.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>												
L2 cache	Intel® Pentium® M Processor 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus												
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Slim												
DVD-RW	<i>Some:</i> CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	40GB⁸ HS (5400 rpm) or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™												
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	<i>Some:</i> ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) <i>Some:</i> ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; <i>15.0" models (WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: <i>14.1" XGA model:</i> 4.9 lb (2.2kg); <i>14.1" SXGA+ model:</i> 5.0 lb (2.3kg); <i>15.0" model:</i> 5.8 lb (2.7 kg)												
Weight ²													
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	Up to 4.5 hr; <i>Optional 9-cell:</i> up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 9.0 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177								
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year LOR 9x5 NBD	41C9179								
USB 2.0 Super Multi-Burner Drive	40Y8638	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 4-year P&L P/U Depot	41C9178								
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Port Replicator II	74P6733										
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Mini Dock	287810U	ThinkPlus 5-year P&L P/U Depot	41C9180								
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Dock II	287710U										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	TrackPoint Cap Collection	73P2698	Post-warranty annual maintenance agreements at									
ThinkPad Carrying Case - Backpack	73P3599	ThinkVision® L201p 20.1" Monitor (black)	9320HB1	lenovo.com/thinkplus/warranty									
ThinkPad Convertible Monitor Stand	40Y7620	Other options at	lenovo.com/options										

See footnotes for important warranty information
US models announced May 11, 2004
US models withdrawn effective May 2006

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ThinkPad® T42 (2374) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Preload	Limited warranty ¹²	Avail date
2374-6VU	Pentium® M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g ³²	Modem	Yes	XP Pro	Onsite	May 2004
2374-3VU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	80HS	DVD-RW	* Intel 11b/g	Modem	Yes	XP Pro	Onsite	May 2004
2374-3XU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	Onsite	May 2004

• **The 2374 has a limited onsite service²⁴ 3-year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>										SOFTWARE¹⁴		
L2 cache	Intel® Pentium® M Processor 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										Windows XP Professional		
Memory	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰		
Diskette drive	None standard / use optional USB-based diskette drive										↳ Disk-to-Disk Recovery (in hidden protected area)		
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay™ Slim</i>										Preloaded		
DVD-RW	<i>Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim</i>										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Program		
Disk	40GB⁹ HS (5400 rpm) or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™										• Access Connections™		
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology</i>										• Rescue and Recovery™		
Graphics	<i>Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)</i> <i>Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)</i>										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW models)		
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										• InterVideo WinDVD (combo, DVD-RW models)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• InterVideo WinDVD Creator (DVD-RW models)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Norton AntiVirus (OEM edition)		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• PC-Doctor™		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• ThinkPad Utilities		
Dimensions ³	<i>14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm;</i> <i>15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm</i> with optical drive and battery: <i>14.1 XGA model: 4.9 lb (2.2kg);</i> <i>14.1" SXGA+ model: 5.0 lb (2.3kg); 15.0" model: 5.8 lb (2.7 kg)</i>										• Adobe® Reader		
Weight ²	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• Update Connector™.15		
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										Downloadable		
Battery - type	Up to 4.5 hr; <i>Optional 9-cell: up to 7.0 hr; 9-cell plus Ultrabay Slim battery: up to 9.0 hr</i>										• IBM Director Agent		
Battery - life ¹⁰	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Software Delivery Assistant		
Architecture	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										• System Migration Assistant		
PC Card Std slots	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										• Client Security Software (for security chip)		
Ports	S-video out port (TV out) / one 4-pin industry standard connector										License (CD not included)		
Video out	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Wireless antenna	One Mini PCI type III slot (Communications Bay) / customer upgradable										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage		
Mini PCI	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										Universal 72 watt AC adapter		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										Asset ID™.34 (system-specific info in chip accessed over network)		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										PC 2001-compliant		
Bluetooth™	None										ACPI 1.0b and 2.0-compliant		
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										CIM and DMI 2.0-compliant		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										PXE 2.0-compliant		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ENERGY STAR®-compliant		
Security chip	Embedded Security Subsystem 2.0³⁵ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										ImageUltra™ Services available		
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time										International Warranty Service ¹⁷		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Enh Perf Wireless Keyboard and Mouse	73P4067										
Super Multi-Burner Ultrabay Slim Drv (curv)	40Y8622	ThinkPad Port Replicator II	74P6733										
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Mini Dock	287810U										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Dock II	287710U										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	TrackPoint Cap Collection	73P2698										
ThinkPad Premiere Leather Carrying Case	10K0209	ThinkVision® L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced May 11, 2004
US models withdrawn effective May 2006

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ThinkPad® T42p (14.1" display) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics	Disk controller	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Battery cells	Workhorse (W) or Global (G) Avail Preload or Entry (E) date	
2373-GVU	Pentium® M 745	1.8	512M	14.1" SXGA+	FireGL 60U	Combo	11a/b/g Wi-Fi ³²	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-GUU	Pentium M 745	1.8	1GB	14.1" SXGA+	FireGL 60U	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-GTU	Pentium M 745	1.8	512M	14.1" SXGA+	FireGL 60U	DVD-RW	* Intel 11b Wi-Fi ³²	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-GRU	Pentium M 745	1.8	512M	14.1" SXGA+	FireGL 60U	DVD-RW	* Intel 11b/g ³²	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-KTU	Pentium M 755	2.0	1GB	14.1" SXGA+	FireGL 60U	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-KUU	Pentium M 755	2.0	512M	14.1" SXGA+	FireGL 60U	Combo	* Intel 11b/g	Mod/Blue	Yes	9	XP Pro	No	May 2004
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>												
L2 cache	Intel® Pentium® M Processor 745 (1.8GHz) or 755 (2.0GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus												
Memory	2MB / on die (at processor speed) / ECC 512MB or 1GB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo DVD-RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Slim												
Ultrabay Slim Disk	<i>Some:</i> CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay 60GB⁸ Ultra HS (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™												
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits												
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight ²	with optical drive and battery: 5.4 lb (2.4kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	9-cell models: up to 6.4 hr; 9-cell plus Ultrabay Slim battery: 8.4 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b Wi-Fi ³²	<i>Some:</i> 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset												
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
11a/b/g Wi-Fi ³²	<i>Some:</i> 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Fingerprint Reader	73P4774	ThinkPad 72W AC Adapter	02K6699										
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	SonyEricsson® GC83 EDGE PC Card	26K3393										
Super Multi-Burner Ultrabay Slim (curve)	40Y8622	Lenovo M500 Projector	0037A05										
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® C400 Wireless Projector	0039WA1										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733										
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Mini Dock	287810U										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Dock II	287710U										
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Monitor Stand	22P5265										
Preferred Pro USB Fingerprint Keyboard	73P4730	TrackPoint Cap Collection	73P2698										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											
SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ↗ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Access Program • Access Connections™ • Rescue and Recovery™ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² The Ultrabay Slim supports: • standard or optional CD-RW/DVD combo drive or DVD-RW drive • optional DVD • optional second battery • optional HDD adapter (for 2nd disk) • optional travel bezel ThinkPlus™ ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty													

See footnotes for important warranty information
US models announced May 11, 2004
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® T42p (15" display) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Battery cells	Workhorse (W) or Global (G) or Entry (E)	Avail date
2373-HVU	Pentium® M 745	1.8	1GB	15.0" UXGA	FireGL	60U	Combo	11a/b/g Wi-Fi ³²	Mod/Blue	Yes	9	XP Pro	May 2004
2373-HTU	Pentium M 745	1.8	1GB	15.0" UXGA	FireGL	60U	DVD-RW	*Intel 11b Wi-Fi ³²	Mod/Blue	Yes	9	XP Pro G	May 2004
2373-KXU	Pentium M 755	2.0	1GB	15.0" UXGA	FireGL	60U	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	9	XP Pro	May 2004
2373-KYU	Pentium M 755	2.0	1GB	15.0" UXGA	FireGL	60U	Combo	*Intel 11b/g ³²	Mod/Blue	Yes	9	XP Pro	May 2004
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>										SOFTWARE¹⁴		
L2 cache	Intel® Pentium® M Processor 745 (1.8GHz) or 755 (2.0GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										Windows XP Professional		
Memory	2MB / on die (at processor speed) / ECC 1GB std / 2GB max⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
Combo DVD-RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Slim										• Access Program		
Ultrabay Slim Disk	Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay 60GB⁸ Ultra HS (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™										• Access Connections™		
Display	15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• Rescue and Recovery™		
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)		
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										• InterVideo WinDVD (combo models)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• Norton AntiVirus (OEM edition)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• PC-Doctor™		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• ThinkPad Utilities		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Adobe® Reader		
Dimensions ³	<i>15.0" models (WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										• Update Connector™ ¹⁵		
Weight ²	with optical drive and battery: 5.4 lb (2.4kg)										Downloadable		
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• IBM Director Agent		
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• Software Delivery Assistant		
Battery - life ¹⁰	<i>9-cell models:</i> up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery:</i> 7.7 hr										• System Migration Assistant		
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										Universal 72 watt AC adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										The Ultrabay Slim supports:		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										• standard or optional CD-RW/DVD combo drive or DVD-RW drive		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										• optional DVD		
Intel 11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset										• optional second battery		
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										• optional HDD adapter (for 2nd disk)		
11a/b/g Wi-Fi ³²	Some: 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset										• optional travel bezel		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ThinkPlus™ ²² 2-year LOR 9x5 NBD 41C9175		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										ThinkPlus 3-year LOR 9x5 NBD 41C9176		
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)										ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPlus 4-year P&L P/U Depot 41C9178		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 5-year P&L P/U Depot 41C9180		
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad 72W AC Adapter	02K6699										
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Super Multi-Burner Drive	40Y8638	11a/b/g Wireless Mini PCI Adapter II	73P4301										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05										
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® C400 Wireless Projector	0039WA1										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision E500 Projector	0038A05										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Nylon Carrying Case	10K0207	Gemplus GemPC Smart Card Reader	41N3004										
ThinkPad Carrying Case - Backpack	73P3599	ThinkPad Port Replicator II	74P6733										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Mini Dock	287810U										
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Dock II	287710U										
TrackPoint Cap Collection	73P2698	ThinkPad Monitor Stand	22P5265										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced May 11, 2004
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® T42p - October 2004 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Battery life ¹⁰	Workhorse (W) or Global (G) Entry (E)	Availability date
2373-P1U	Pentium® M 765	2.1	1GB	14.1" SXGA+	FireGL	60U	DVD-RW	11a/b/g II ³²	Mod/Blue	Finger	Yes	5.8 hr		Oct 2004
2373-P2U	Pentium M 765	2.1	1GB	14.1" SXGA+	FireGL	60U	Combo	*Intel 11b/g ³²	Mod/Blue	Finger	Yes	6.0 hr		Oct 2004
2373-P3U	Pentium M 765	2.1	1GB	14.1" SXGA+	FireGL	60U	DVD-RW	*Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	5.9 hr		Jan 2005
2373-Q1U	Pentium M 765	2.1	1GB	15.0" UXGA	FireGL	60U	DVD-RW	11a/b/g II	Mod/Blue	Finger	Yes	5.3 hr		Oct 2004
2373-Q2U	Pentium M 765	2.1	1GB	15.0" UXGA	FireGL	60U	Combo	*Intel 11b/g	Mod/Blue	Finger	Yes	5.4 hr	G	Oct 2004
2373-Q4U	Pentium M 765	2.1	1GB	15.0" UXGA	FireGL	60U	DVD-RW	*Intel 11a/b/g	Mod/Blue	Finger	Yes	5.3 hr		Jan 2005
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 765 (2.1GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional			
Memory	1GB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded			
Combo DVD-RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Slim <i>Some:</i> CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads many formats / removable from Ultrabay Slim										• Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus (with 90 days of virus definitions) • PC-Doctor™			
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 60GB⁸ Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)										• ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW) • InterVideo WinDVD (combo, DVD-RW) • InterVideo WinDVD Creator (DVD-RW) • Fingerprint Software • Client Security Software (for security chip)			
Display	<i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: 5.4 lb (2.4kg); 15" models: 6.2 lb (2.8kg)													
Weight ²														
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover													
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	9-cell: up to 6.0 hr; 9-cell plus Ultrabay Slim battery: up to 8.5 hr													
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, Bluetooth, fingerprint) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])													
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage			
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
11a/b/g II ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible										Universal 72 watt AC adapter			
Modem	56K ⁶ V.90 (V.92-designed ²⁵) modem in CDC / Conexant® chipset										Asset ID™ ³⁴ (system-specific info in chip accessed over network)			
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)										PC 2001-compliant			
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										ACPI 1.0b and 2.0-compliant			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip / can replace multiple passwords / UPEK® TCD41B controller with TCS3B sensor													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades ²² avail										ThinkPlus™ ²² 2-year LOR 9x5 NBD 41C9175			
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	72W Slim AC/DC Combo Adapter	73P4485											
USB 2.0 Portable 80GB Hard Disk	40Y8726	11a/b/g Wireless Mini PCI Adapter II	73P4301											
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990											
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582											
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Gemplus GemPC Smart Card Reader	41N3004											
Second HDD Adapter for Ultrabay Slim	62P4554	Lenovo M500 Projector	0037A05											
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Port Replicator II	74P6733											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Mini Dock	287810U											
SonyEricsson® GC83 EDGE PC Card	26K3393	ThinkPad Dock II	287710U											
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options												

See footnotes for important warranty information
US models announced October 20, 2004 or January 11, 2005
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® T42p (2378 and 2379) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Limited warranty ¹²	Avail date
2378-DYU	Pentium® M 745	1.8	512MB	15.0" UXGA	FireGL	80GB	DVD-RW	11a/b/g Wi-Fi ³²	Mod/Blue		Yes	XP Pro 1-year	May 2004
2379-RKU	Pentium M 755	2.0	1GB	15.0" UXGA	FireGL	60GB	DVD-RW	Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	XP Pro 3-year	Nov 2005
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • The 2378 has a 1-year limited warranty; the 2379 has a 3-year limited warranty 													
Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 745 (1.8GHz) or 755 (2.0GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴		
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional		
Memory	512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
DVD-RW	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / same as optional ThinkPad Multi-Burner Ultrabay Slim Drive Option / removable from Ultrabay™ Slim										• Access Program • Access Connections™ • Rescue and Recovery™ • RecordNOW and Drive Letter Access powered by Sonic products (DVD-RW) • InterVideo WinDVD (DVD-RW) • InterVideo WinDVD Creator (DVD-RW) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™.15		
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 60GB⁸ (7200 rpm) or 80GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)		
Display	15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage		
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536 at 75Hz / DDC2B										Universal 72 watt AC adapter Asset ID™.34 (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										2378: ThinkPlus™.22 1yr LOR 9x5 NBD 41C9166		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										2378: ThinkPlus 3-yr LOR 9x5 NBD 41C9168		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										2378: ThinkPlus 5-yr LOR 9x5 NBD 41C9173		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										2378: ThinkPlus 3-yr P&L P/U Depot 41C9170		
Dimensions ³	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										2378: ThinkPlus 5-yr P&L P/U Depot 41C9174		
Weight ²	with optical drive and battery: 5.9 lb (2.7kg)										2379: ThinkPlus 2-yr LOR 9x5 NBD 41C9175		
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										2379: ThinkPlus 3-yr LOR 9x5 NBD 41C9176		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										2379: ThinkPlus 5-yr LOR 9x5 NBD 41C9179		
Battery - life ¹⁰	Up to 3.5 hr; <i>Optional 9-cell</i> : up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr										2379: ThinkPlus 5-yr P&L P/U Depot 41C9180		
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										Other ThinkPlus services at lenovo.com/thinkplus/warranty/		
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some: 11a/b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset</i> <i>Some: 11a/b/g Wi-Fi³² wireless⁴, Mini PCI, Atheros™ AR5001X+ chipset</i>												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip</i>												
Limited warranty ¹²	<i>Some: 1-year - EasyServ™.19 onsite pickup and delivery / service upgrades²² avail</i> <i>Some: 3-year - EasyServ onsite pickup and delivery / service upgrades avail</i>												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190								
USB Portable Diskette Drive	05K9276		ThinkPad Multiple Battery Charger II		22P9040								
USB Serial Parallel Adapter	22P5298		72W Slim AC/DC Combo Adapter		73P4485								
USB Fingerprint Reader	73P4774		11a/b/g Wireless Mini PCI Adapter II		73P4301								
USB 2.0 Memory Key 1GB	40Y7421		Intel PRO/Wireless 2915ABG Mini PCI		41N2990								
USB 2.0 Super Multi-Burner Drive	40Y8638		Kensington® MicroSaver® Security Cable		73P2582								
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288		Lenovo M500 Projector		0037A05								
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270		ThinkVision® E500 Projector		0038A05								
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622		Lenovo C500 Projector		0039A05								
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkVision C400 Wireless Projector		0039WA1								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Port Replicator II		74P6733								
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkPad Mini Dock		287810U								
USB Keyboard with UltraNav	31P8950		ThinkPad Dock II		287710U								
Preferred Pro USB Fingerprint Keyboard	73P4730		ThinkPad Monitor Stand 2001		22P5265								
ThinkPad Convertible Monitor Stand	40Y7620		Other options at lenovo.com/options										

See footnotes for important warranty information

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US models announced May 11, 2004 or November 15, 2005

(T42PB) October 2006

US models withdrawn effective May or October 2006

ThinkPad® T42p (2379) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Workhorse (W) Global (G) Limited warranty ¹²	Avail date
2379-DYU	Pentium® M	745	1.8	512MB	15.0" UXGA	FireGL 80HS	DVD-RW	11a/b/g Wi-Fi ³²	Mod/Blue	Yes	XP Pro No	3 year May 2004
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US Think Express Program • The 2379 has a 3 year limited warranty (other ThinkPad T42p 2378 Express models have a 1 year limited warranty) 												
Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 745 (1.8GHz) with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											
L2 cache	2MB / on die (at processor speed) / ECC											
Memory	512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
DVD-RW	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / same as optional ThinkPad Multi-Burner Ultrabay Slim Drive Option / removably from Ultrabay™ Slim											
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 80GB⁸ HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System (shock protection)											
Display	15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support											
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536 at 75Hz / DDC2B											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions											
ThinkLight™												
Dimensions ³	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight ²	with optical drive and battery: 5.9 lb (2.7kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	Up to 3.5 hr; <i>Optional 9-cell</i> : up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr											
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports]) 2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door											
PC Card Std slots	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Ports												
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
11a/b/g Wi-Fi ³²	11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
Limited warranty ¹²	3 years /1 yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40 Li-Ion Battery 6-cell	08K8214									
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	T40 High Capacity Li-Ion Battery 9-cell	08K8197									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040									
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699									
USB Serial Parallel Adapter	22P5298	ThinkPad 72W AC/DC Combo Adapter	22P9010									
USB 2.0 Combo Drive	73P4515	11a/b/g Wireless CardBus Adapter	31P9101									
USB 2.0 Portable Multi-Burner Drive	22P9163	11a/b/g Wireless Mini PCI Adptr II	73P4301									
USB 2.0 Memory Key 512MB	22P9230	SonyEricsson® GC83 EDGE PC Card	26K3393									
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Intel PRO/Wireless 2200BG Mini PCI	73P2801									
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	Kensington® MicroSaver® Security Cable	73P2582									
Multi-Burner Plus Ultrabay Slim Drive	73P3342	M400 Projector	0037A04									
Second HDD Adapter for Ultrabay Slim	62P4554	E400 Projector	0038A04									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	C400 Projector	0039A04									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	GemPC400 Smart Card Reader/Writer	31P8901									
ThinkPad Carrying Case - Backpack	73P3599	ThinkPad Port Replicator II	74P6733									
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Mini Dock	287810U									
ThinkPad Carrying Case - Organizer	73P3598	ThinkPad Dock II	287710U									
4GB Microdrive™ with PC Card	09N4280	ThinkPad Monitor Stand 2001	22P5265									
USB Keyboard with UltraNav	31P8950	TrackPoint Cap Collection	73P2698									
USB Travel Keyboard with UltraNav	31P9490	Other options at lenovo.com/options										
<p>SOFTWARE¹⁴</p> <p>Windows XP Professional</p> <ul style="list-style-type: none"> - Microsoft® Windows® XP Professional²⁰ ↳ Disk-to-Disk Recovery (in hidden protected area) <p>Preloaded</p> <ul style="list-style-type: none"> • Access IBM • Access Connections • Rescue and Recovery™ • RecordNOW and Drive Letter Access powered by Sonic products (DVD-RW) • InterVideo WinDVD (DVD-RW) • InterVideo WinDVD Creator (DVD-RW) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™¹⁵ <p>Downloadable</p> <ul style="list-style-type: none"> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) <p>License (CD not included)</p> <ul style="list-style-type: none"> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client <p>ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage</p> <p>Universal 72 watt AC adapter Asset ID™³⁴ (system-specific info in chip accessed over network)</p> <p>PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹² via 800-IBM-SERV (426-7378)</p> <p>ServicePac®²² 2yr IOR 9x5 NBD 30L9190</p> <p>ServicePac 3yr IOR 9x5 NBD 30L9197</p> <p>ServicePac 4yr IOR 9x5 NBD 69P9198</p> <p>ServicePac 5yr IOR 9x5 NBD 69P9200</p> <p>ServicePac 4yr P&L P/U Depot 69P9199</p> <p>ServicePac 5yr P&L P/U Depot 69P9201</p> <p>Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf</p>												

See footnotes for important warranty information
US model announced May 11, 2004
US model withdrawn effective August 2005

* Powered by Intel Centrino™ mobile technology

ThinkPad® T42p (2373) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁶	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Preload	Limited warranty ¹²	Avail date
2373-7XU	Pentium® M 745	1.8	512MB	15.0" UXGA	FireGL	80HS	DVD-RW	*Intel 11b/g ³²	Modem	Yes	XP Pro	EasyServ	May 2004
<p>• The 2373 has an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty</p> <p>These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.</p>													
Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ↪ Disk-to-Disk Recovery (in hidden protected area)	
L2 cache	2MB / on die (at processor speed) / ECC												
Memory	512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
DVD-RW	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / removable from Ultrabay™ Slim												
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 80GB⁸ HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™												
Display	15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7m / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight ²	with optical drive and battery: 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	Up to 3.5 hr; <i>Optional 9-cell:</i> up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad 72W AC Adapter	02K6699										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adapter II	73P4301										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	SonyEricsson® GC83 EDGE PC Card	26K3393										
Second HDD Adapter for Ultrabay Slim	62P4554	Kensington® MicroSaver® Security Cable	73P2582										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	Lenovo M500 Projector	0037A05										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision® E500 Projector	0038A05										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Premiere Leather Carrying Case	10K0209	Gemplus GemPC Smart Card Reader	41N3004										
ThinkPad Carrying Case - Backpack	73P3599	ThinkPad Port Replicator II	74P6733										
ThinkPad Carrying Case - Organizer	73P3598	ThinkPad Mini Dock	287810U										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Dock II	287710U										
TrackPoint Cap Collection	73P2698	ThinkPad Monitor Stand	22P5265										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											
				ThinkPlus™. ²² 2-year LOR 9x5 NBD									
				24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)									
				41C9175									
				ThinkPlus 3-year LOR 9x5 NBD									
				41C9176									
				ThinkPlus 4-year LOR 9x5 NBD									
				41C9177									
				ThinkPlus 5-year LOR 9x5 NBD									
				41C9179									
				ThinkPlus 4-year P&L P/U Depot									
				41C9178									
				ThinkPlus 5-year P&L P/U Depot									
				41C9180									
				Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									

See footnotes for important warranty information
US model announced May 11, 2004
US model withdrawn effective May 2006

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ThinkPad® T42p (2374) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Preload	Limited warranty ¹²	Avail date
2374-7XU	Pentium® M 745	1.8	512MB	15.0" UXGA	FireGL	80HS	DVD-RW	*Intel 11b/g ³²	Modem	Yes	XP Pro	Onsite	May 2004

• This model has a limited onsite service²⁴ 3-year limited warranty

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller. The model or models for education are not available for resale to any other organization or individual.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Access Program • Access Connections™ • Rescue and Recovery™ • RecordNOW and Drive Letter Access powered by Sonic products (DVD-RW models) • InterVideo WinDVD (DVD-RW) • InterVideo WinDVD Creator (DVD-RW models) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
L2 cache	2MB / on die (at processor speed) / ECC												
Memory	512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
DVD-RW	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / removable from Ultrabay™ Slim												
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 80GB⁸ HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)												
Display	15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight ²	with optical drive and battery: 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	Up to 3.5 hr; <i>Optional 9-cell:</i> up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PC14520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	Universal 72 watt AC adapter									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	Asset ID™ ³⁴ (system-specific info in chip accessed over network)									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	PC 2001-compliant									
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040	ACPI 1.0b and 2.0-compliant									
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	CIM and DMI 2.0-compliant									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adptr II	73P4301	PXE 2.0-compliant									
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ENERGY STAR®-compliant									
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582	ImageUltra™ Services available									
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05	International Warranty Service ¹⁷									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® E500 Projector	0038A05	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision C400 Wireless Projector	0039WA1										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733										
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Mini Dock	287810U										
Enhanced Performance USB Keyboard	73P2620	ThinkPad Dock II	287710U										
TrackPoint Cap Collection	73P2698	ThinkPad Monitor Stand	22P5265										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									

See footnotes for important warranty information
US model announced May 11, 2004
US model withdrawn effective May 2006

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ThinkPad® T43 (Entry) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Workhorse (W) or Global (G) Avail or Entry (E) date
1871-11U	Pentium® M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	DVD	* Intel 11b/g ³²	Modem	No	Yes	XP Pro Entry Feb 05
1871-12U	Pentium M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	XP Pro Entry Feb 05
1871-13U	Pentium M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Home Entry Feb 05
1871-16U	Pentium M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Feb 05
1871-22U	Pentium M 730	1.60	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	XP Pro Entry Feb 05
1871-24U	Pentium M 730	1.60	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Feb 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 730 (1.60GHz) with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴	
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional models	
Memory	256MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										Windows XP Home models	
DVD	<i>Some:</i> DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim										- Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											
Disk	40GB⁸ HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System™											
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										Preloaded (all)	
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™.15 • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo, DVD models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										Downloadable (all)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass /										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant	
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										License (CD not included)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight ²	with optical drive and battery: 14.1" models: up to 5.1 lb (2.3kg); 15": up to 5.8 lb (2.6 kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	Up to 4.0 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr											
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Bluetooth™	None										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant											
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip											
Limited warranty ¹²	3 years/1 yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades²² avail											
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad Multi-Battery Charger II	22P9040									
USB 2.0 Memory Key 512MB	22P9230	72W Slim AC/DC Combo Adapter	73P4485									
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adapter II	73P4301									
USB 2.0 Portable 80GB Hard Disk	40Y8726	Intel PRO/Wireless 2915ABG Mini PCI	41N2990									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	11a/b/g Wireless CardBus Adapter	31P9101									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733									
USB Portable Diskette Drive	05K9276	ThinkPad Mini Dock	287810U									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Dock II	287710U									
Multi-Burner Plus Ultrabay Slim Drive	73P3342	ThinkPad Carrying Case - Backpack	73P3599									
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Leather	73P3600									
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Organizer	73P3598									
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkVision® E500 Projector	0038A05									
Kensington® MicroSaver® Security Cable	73P2582	M400 Projector	0037A04									
SonyEricsson® GC83 EDGE PC Card	26K3393	TrackPoint Cap Collection	73P2698									
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	Other options at lenovo.com/options										

See footnotes for important warranty information
US models announced January 19, 2005
US models withdrawn effective January 2006

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ThinkPad® T43 (Entry) - August 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Workhorse (W) or Global (G) Avail or Entry (E) date
1871-31U	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	DVD	* Intel 11b/g ³²	Modem	No	Yes	XP Pro Entry Aug 05
1871-32U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	XP Pro E Gbl Aug 05
1871-33U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Home Entry Aug 05
1871-36U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Aug 05
1871-51U	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Aug 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴	
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional models	
Memory	256MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										Windows XP Home models	
DVD	<i>Some:</i> DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim										- Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											
Disk	40GB⁸ HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System™											
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										Preloaded (all)	
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo, DVD models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight ²	with optical drive and battery: 14.1" models: up to 5.1 lb (2.3kg); 15": up to 5.8 lb (2.6 kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	Up to 4.0 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr											
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										Downloadable (all)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										License (CD not included)	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											
Bluetooth™	None										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant											
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip											
Limited warranty ¹² 3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
USB Portable Diskette Drive	05K9276	ThinkPad Multi-Battery Charger II	22P9040									
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485									
USB 2.0 Portable 80GB Hard Disk	40Y8726	11a/b/g Wireless Mini PCI Adapter II	73P4301									
USB 2.0 Super Multi-Burner Drive	40Y8638	Intel PRO/Wireless 2915ABG Mini PCI	41N2990									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II	74P6733									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock	287810U									
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Dock II	287710U									
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Carrying Case - BackPack	73P3599									
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Leather	73P3600									
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Organizer	73P3598									
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector	0038A05									
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkVision C400 Wireless Projector	0039WA1									
SonyEricsson® GC83 EDGE PC Card	26K3393	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
ThinkPad Monitor Stand	22P5265	TrackPoint Cap Collection	73P2698									
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options										

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective May or November 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® T43 (14.1" display) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Secu- rity chip set	Workhorse (W) or Global (G) Entry (E)	Avail date
1871-48U	Pentium® M 750	1.86	512MB	14.1" XGA	GMA 40HS	DVD	* Intel 11a/b/g ³²	Modem	No	Yes	915GM	W	Feb 05
1871-4AU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11b/g ³²	Modem	No	Yes	915GM	W G	Feb 05
1871-4BU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915GM	W	Feb 05
1871-4CU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915GM	W	Feb 05
1871-4PU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 40HS	DVD	Open; wireless upg ³⁶	Modem	No	Yes	915GM	W	Mar 05
2668-41U	Pentium M 750	1.86	256MB	14.1" XGA	X300 40HS	DVD	Open; wireless upg	Modem	No	Yes	915PM	W	Feb 05
2668-42U	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	DVD	Open; wireless upg	Modem	No	Yes	915PM	W G	Feb 05
2668-43U	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	DVD	* Intel 11b/g	Modem	No	Yes	915PM	W G	Feb 05
2668-49U	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	W	Feb 05
2668-44U	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G	Feb 05
2668-45U	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W	Feb 05
2668-46U	Pentium M 750	1.86	512MB	14.1" SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	No	Yes	915PM	W G	Feb 05
2668-4DU	Pentium M 750	1.86	512MB	14.1" SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G	Feb 05
2668-4EU	Pentium M 750	1.86	512MB	14.1" SXGA+	X300 40HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W	Feb 05
2668-71U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Feb 05
2668-72U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Feb 05
2668-73U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915PM		Feb 05
2668-74U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	Combo	11a/b/g II ³²	Mod/Blue	Finger	Yes	915PM		Feb 05
2668-75U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	DVD±RW	11a/b/g II	Mod/Blue	Finger	Yes	915PM		Feb 05
2668-76U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	Combo	11a/b/g II	Mod/Blue	No	Yes	915PM		Feb 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>												
L2 cache	Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus												
Memory	2MB / on die (at processor speed) / ECC												
Diskette drive	None standard / use optional USB-based diskette drive												
DVD	<i>Some:</i> DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim												
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim												
DVD±RW	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	40GB⁸ HS (5400 rpm) or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System												
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits												
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight ²	with optical drive and battery: up to 5.2 lb (2.3kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	Up to 4.0 hr; <i>Optional 9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.8 hr												
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI options												
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
11a/b/g II ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail												

SOFTWARE¹⁴

Windows XP Professional
- Microsoft® Windows® XP Professional²⁰ (Service Pack 2)
↔ Disk-to-Disk Recovery (in hidden protected area)

Preloaded

- Rescue and Recovery™
- Access Program
- Access Connections™
- Norton AntiVirus
- PC-Doctor™
- ThinkPad Utilities
- Adobe® Reader
- Update Connector™¹⁵
- RecordNow and Drive Letter Access powered by Sonic products (combo, DVD±RW)
- InterVideo WinDVD (combo, DVD±RW models)
- InterVideo WinDVD Creator (DVD±RW models)
- Simple Backup (DVD±RW)
- Fingerprint Software (fingerprint models)
- Client Security Software (for security chip)

Downloadable

- IBM Director Agent
- Software Delivery Assistant
- System Migration Assistant

ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage

Universal 72 watt AC adapter
PC 2001-compliant
ACPI 1.0b and 2.0-compliant
CIM and DMI 2.0-compliant
PXE 2.1-compliant
ENERGY STAR®-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²

ThinkPlus™.²² 2-year LOR 9x5 NBD
41C9175

ThinkPlus 3-year LOR 9x5 NBD
41C9176

ThinkPlus 4-year LOR 9x5 NBD
41C9177

ThinkPlus 5-year LOR 9x5 NBD
41C9179

ThinkPlus 4-year P&L P/U Depot
41C9178

ThinkPlus 5-year P&L P/U Depot
41C9180

ThinkPad® T43 (14.1" display) - August 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Secu- rity chip set	Workhorse (W) or Global (G) Entry (E)	Avail date
1871-62U	Pentium® M 760	2.00	512MB	14.1" XGA	GMA 40HS	DVD	* Intel 11a/b/g ³²	Modem	No	Yes	915GM	W	Aug 05
1871-63U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11b/g ³²	Modem	No	Yes	915GM	W G	Aug 05
1871-64U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915GM	W G	Aug 05
1871-65U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915GM	W	Aug 05
1871-66U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	DVD	Open; wireless upg ³⁶	Modem	No	Yes	915GM	W	Aug 05
2668-68U	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	DVD	Open; wireless upg	Modem	No	Yes	915PM	W G	Aug 05
2668-6AU	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	DVD	* Intel 11b/g	Modem	No	Yes	915PM	W G	Aug 05
2668-6BU	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	W	Aug 05
2668-61U	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G	Aug 05
2668-6CU	Pentium M 760	2.00	512MB	14.1" XGA	X300 60HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W	Aug 05
2668-6DU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	W	Aug 05
2668-6EU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G	Aug 05
2668-6ZU	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11b/g	Modem	No	Yes	915PM	W G	Aug 05
2668-R1U	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915PM	W G	Sep 05
2668-6FU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 60HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM	W	Aug 05
2668-6GU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W	Aug 05
2668-J1U	Pentium M 770	2.13	512MB	14.1" SXGA+	X300 80U	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Aug 05
2668-J2U	Pentium M 770	2.13	1GB	14.1" SXGA+	X300 80U	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Aug 05
2668-J3U	Pentium M 770	2.13	512MB	14.1" SXGA+	X300 100GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Aug 05

Positioning Processor	<i>Perfect balance of performance and portability; two spindles</i> Intel® Pentium® M Processor 750 (1.86GHz), 760 (2.00GHz), or 770 (2.13GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus	SOFTWARE¹⁴ Windows XP Professional
L2 cache	2MB / on die (at processor speed) / ECC	- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	Preloaded • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNow and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)
DVD	<i>Some:</i> DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim	
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim	
DVD±RW	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay	Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant
Disk	40GB⁸ HS (5400 rpm), 60GB HS (5400 rpm), 80GB HS (5400 rpm), 80GB Ultra HS (7200 rpm), 100GB (5400 rpm) / 9.5mm high / removable, upgrade / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits	License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X300 / PCI Express x16 / 64MB GDDR1 memory	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm with optical drive and battery: up to 5.2 lb (2.3kg)	
Weight ²	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover	
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - type	Up to 4.0 hr; <i>Optional 9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.8 hr	
Battery - life ¹⁰		
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI Type III slot (Communications Bay) / customer upgradable <i>Some:</i> wireless upgradable with wireless Mini PCI options <i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
Wireless upg ³⁶		
Intel 11b/g ³²		
Intel 11a/b/g ³²		
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset	
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant	
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹²	3-year/1-year battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available	

See footnotes for important warranty information
US models announced August 2 or August 30, 2005
US models withdrawn effective November 2006 or August 2007

* Powered by Intel Centrino® mobile technology

ThinkPad® T43 (15.0" display) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ³	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger-print reader	Secu-rity chip	Workhorse (W) or Global (G) set	Chip or Entry (E) Avail date
1871-86U	Pentium® M 750	1.86	512MB	15.0"	XGA	GMA	40HS Combo	* Intel 11a/b/g ³²	Modem	Finger	Yes	915GM W	Feb 05
2668-87U	Pentium M 750	1.86	512MB	15.0"	XGA	X300	40HS Combo	* Intel 11a/b/g	Modem	No	Yes	915PM W	Feb 05
2668-83U	Pentium M 750	1.86	512MB	15.0"	XGA	X300	40HS Combo	* Intel 11b/g ³²	Modem	Finger	Yes	915PM W G	Feb 05
2668-84U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	40HS Combo	* Intel 11b/g	Mod/Blue	No	Yes	915PM W G	Feb 05
2668-88U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	40HS Combo	* Intel 11a/b/g	Modem	No	Yes	915PM W	Feb 05
2668-85U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	40HS Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Feb 05
2668-89U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	80HS Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Feb 05
2668-91U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915PM W	Feb 05
2668-93U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM W	Feb 05
2668-92U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM W	Feb 05
2668-94U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	60U Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM W	Feb 05
2668-95U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	11a/b/g II ³²	Mod/Blue	No	Yes	915PM W	Feb 05
2668-96U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	11a/b/g II	Mod/Blue	Finger	Yes	915PM W	Feb 05
2668-97U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS DVD±RW	11a/b/g II	Mod/Blue	Finger	Yes	915PM W	Feb 05
2668-98U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	60U Combo	11a/b/g II	Mod/Blue	Finger	Yes	915PM W	Feb 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>												
L2 cache	Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus												
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim												
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	40GB ⁸ HS (5400 rpm), 60GB ⁸ Ultra HS (7200 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System												
Display	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight ²	with optical drive and battery: up to 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	Up to 3.9 hr; <i>Optional 9-cell</i> : up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr												
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	11a/b/g Wireless Mini PCI Adapter II											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II											
Other options at lenovo.com/options		ThinkPad Dock II											
		92P1101											
		92P1102											
		73P4301											
		74P6733											
		287710U											
			ThinkPlus™.22 2-year LOR 9x5 NBD										
			41C9175										
			ThinkPlus 3-year LOR 9x5 NBD										
			41C9176										
			ThinkPlus 4-year LOR 9x5 NBD										
			41C9177										
			ThinkPlus 5-year LOR 9x5 NBD										
			41C9179										
			ThinkPlus 4-year P&L P/U Depot										
			41C9178										
			ThinkPlus 5-year P&L P/U Depot										
			41C9180										
			Post-warranty annual maintenance agreements at										
			lenovo.com/thinkplus/warranty										

See footnotes for important warranty information
US models announced January 19, 2005
US models withdrawn effective May or November 2006

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ThinkPad® T43 (15.0" display) - August 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger-print reader	Secu-rity chip	Workhorse (W) or Global (G) or Entry (E)	Avail date
1871-K1U	Pentium® M 760	2.00	512MB	15.0"	XGA	GMA 40HS	Combo	* Intel 11a/b/g ³²	Modem	Finger	Yes	915GM W	Aug 05
1871-K2U	Pentium M 760	2.00	512MB	15.0"	XGA	GMA 40HS	Combo	* Intel 11b/g ³²	Modem	Finger	Yes	915GM W G	Aug 05
2668-K5U	Pentium M 760	2.00	512MB	15.0"	XGA	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM W	Aug 05
2668-K6U	Pentium M 760	2.00	512MB	15.0"	XGA	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM W G	Aug 05
2668-K7U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM W G	Aug 05
2668-K8U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300 60HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Aug 05
2668-K9U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Aug 05
2668-L2U	Pentium M 780	2.26	1GB	15.0"	SXGA+	X300 100GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Aug 05
2668-L3U	Pentium M 770	2.13	1GB	15.0"	SXGA+	X300 80U	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Aug 05
2668-L4U	Pentium M 770	2.13	512MB	15.0"	SXGA+	X300 100GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Aug 05
Positioning Processor	Perfect balance of performance and portability; two spindles Intel® Pentium® M Processor 760 (2.00GHz), 770 (2.13GHz), or 780 (2.26GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											SOFTWARE¹⁴	
L2 cache	2MB / on die (at processor speed) / ECC											Windows XP Professional	
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive											Preloaded	
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim											• Rescue and Recovery™	
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB ⁸ HS (5400 rpm), 60GB HS (5400 rpm), 80GB HS (5400 rpm), 80GB Ultra HS (7200 rpm), 100GB (5400 rpm) / 9.5mm high / removable, upgrade / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System™											• Access Program	
Display	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology											• Access Connections™	
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz Some: ATI® MOBILITY™ Radeon™ X300 / PCI Express x16 / 64MB GDDR1 memory											• Norton AntiVirus	
Keyboard TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											• PC-Doctor™	
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											• ThinkPad Utilities	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• Adobe® Reader	
Dimensions ³	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)	
Weight ²	with optical drive and battery: up to 5.9 lb (2.7kg)											• InterVideo WinDVD (combo, DVD±RW models)	
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											• DVD±RW Creator (DVD±RW models)	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											• Fingerprint Software (fingerprint models)	
Battery - life ¹⁰	Up to 3.9 hr; Optional 9-cell: up to 5.9 hr; 9-cell plus Ultrabay Slim battery: up to 7.7 hr											• Client Security Software (for security chip)	
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip [TPM], Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])											Downloadable	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											• IBM Director Agent	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											• Software Delivery Assistant	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											• System Migration Assistant	
Video out	S-video out port (TV out) / one 4-pin industry standard connector											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											Universal 72-watt AC adapter	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											PC 2001-compliant	
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											ACPI 1.0b and 2.0-compliant	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											CIM and DMI 2.0-compliant	
CDC	One Communications Daughter Card (CDC) socket / customer accessible											PXE 2.1-compliant	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset											International Warranty Service ¹⁷	
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											ThinkPlus™.22 2-year LOR 9x5 NBD	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											41C9175	
Security	Power-on password / hard disk password / supervisor password / security keyhole											ThinkPlus 3-year LOR 9x5 NBD	
Security chip	Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant											41C9176	
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip											ThinkPlus 4-year LOR 9x5 NBD	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail											41C9177	
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 5-year LOR 9x5 NBD	41C9179								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 4-year P&L P/U Depot	41C9178								
2GB PC2-5300 DDR2 SODIMM	40Y7735	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	Post-warranty annual maintenance agreements at									
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Multiple Battery Charger II	22P9040	lenovo.com/thinkplus/warranty									
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Adapter II	73P4301										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Mini Dock	287810U										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo M500 Projector	0037A05										
USB Travel Keyboard with UltraNav	31P9490	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1										
ExpressCard Gemplus Smart Card Reader	41N3043	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective May 2006, Nov 2006, or Aug 2007

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ThinkPad® T43p - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Battery life ⁶	Workhorse (W) or Global (G) Entry (E)	Avail date
2668-G1U	Pentium® M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	5.2 hr		Apr 05
2668-G3U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	5.2 hr		Apr 05
2668-G2U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	5.1 hr		Apr 05
2668-G5U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	11a/b/g II ³²	Mod/Blue	Finger	Yes	5.2 hr		Apr 05
2668-G6U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	11a/b/g II	Mod/Blue	No	Yes	5.2 hr		Apr 05
2668-G7U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	DVD±RW	11a/b/g II	Mod/Blue	Finger	Yes	5.1 hr		Apr 05
2668-GDU	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11b/g ³²	Mod/Blue	Finger	Yes	5.1 hr	Global	Jul 05
2668-GEU	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11b/g	Mod/Blue	No	Yes	5.1 hr	Global	Jul 05
2668-H1U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	4.8 hr		Apr 05
2668-H3U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	11a/b/g II	Mod/Blue	Finger	Yes	4.8 hr		Apr 05
2668-H2U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	Yes	4.7 hr	Global	Apr 05
2668-H4U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	4.8 hr		Apr 05
2668-H5U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	DVD±RW	* Intel 11a/b/g	Mod/Blue	No	Yes	4.7 hr		Apr 05
2668-H7U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	11a/b/g II	Mod/Blue	No	Yes	4.8 hr		Apr 05
2668-H8U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	DVD±RW	11a/b/g II	Mod/Blue	No	Yes	4.7 hr		Apr 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>										SOFTWARE¹⁴			
L2 cache	Intel® Pentium® M Processor 770 (2.13GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										Windows XP Professional			
Memory	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)			
Diskette drive	1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										◇ Disk-to-Disk Recovery (in hidden protected area)			
DVD Combo	None standard / use optional USB-based disk drive										Preloaded			
DVD±RW	Some: DVD-ROM/24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim										• Rescue and Recovery™			
Ultrabay Slim	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										• Access Program			
Disk	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim										• Access Connections™			
	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Norton AntiVirus			
	60GB ⁸ Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System										• PC-Doctor™			
Display	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits										• ThinkPad Utilities			
Graphics	Some: 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• Adobe® Reader			
Keyboard	ATI® MOBILITY™ FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)			
TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• InterVideo WinDVD (combo, DVD±RW models)			
Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• InterVideo WinDVD Creator (DVD±RW models)			
ThinkLight™	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Simple Backup (DVD±RW)			
Dimensions ³	Illuminates the keyboard to improve visibility in low-light conditions										• Fingerprint Software (fingerprint models)			
Weight ²	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm										• Client Security Software (for security chip)			
Case material	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										Downloadable			
Battery - type	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• IBM Director Agent			
Battery - life ¹⁰	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• Software Delivery Assistant			
Architecture	9-cell: up to 5.2 hr; 9-cell plus Ultrabay Slim battery: up to 7.7 hr										• System Migration Assistant			
PC Card Std slot	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint] / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										License (CD not included)			
ExpressCard slot	One Type I or Type II slot / CardBus 32-bit / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ThinkPad notebooks implement ThinkVantage™ technologies an design; visit thinkpad.com/thinkvantage			
Video out	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										Universal 72 watt AC adapter			
Wireless antenna	S-video out port (TV out) / one 4-pin industry standard connector										PC 2001-compliant			
Mini PCI	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ACPI 1.0b and 2.0-compliant			
Intel 11b/g ³²	One Mini PCI type III slot (Communications Bay) / customer upgradable										CIM and DMI 2.0-compliant			
Intel 11a/b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										PXE 2.1-compliant			
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										ENERGY STAR®-compliant			
CDC	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip										International Warranty Service ¹⁷			
Modem	One Communications Daughter Card (CDC) socket / customer accessible										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										ThinkPlus™.22 2-year LOR 9x5 NBD			
Ethernet	Bluetooth wireless technology / in CDC (with modem)										41C9175			
Audio support	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ThinkPlus 3-year LOR 9x5 NBD			
Security	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										41C9176			
Security chip	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 4-year LOR 9x5 NBD			
Fingerprint reader	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant										41C9177			
Limited warranty ¹²	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip										ThinkPlus 5-year LOR 9x5 NBD			
	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail										41C9179			
	256MB PC2-4200 DDR2 NP CL4 SOD 73P3840										ThinkPlus 4-year P&L P/U Depot			
	512MB PC2-4200 DDR2 NP CL4 SOD 73P3842										41C9178			
	1GB PC2-4200 DDR2 NP CL4 SOD 73P3844										ThinkPlus 5-year P&L P/U Depot			
	ExpressCard Gemplus Smart Card Reader 41N3043										41C9180			
	100GB Hard Disk 9.5mm PATA (5400 rpm) 40Y8716										Post-warranty annual maintenance agreements at			
	Super Multi-Burner Ultrabay Slim Drv (curve)40Y8622										lenovo.com/thinkplus/warranty			
	ThinkPad T40/R50 Li-Ion Battery 6-cell 92P1101													
	ThinkPad T40/R50 Li-Ion Battery 9-cell 92P1102													
	11a/b/g Wireless Mini PCI Adapter II 73P4301													
	ThinkPad Port Replicator II 74P6733													
	ThinkPad Dock II 287710U													
	Other options at lenovo.com/options													

See footnotes for important warranty information
US models announced January 19 or July 19, 2005
US models withdrawn effective November 2006

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ThinkPad® T43p (August 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB ⁸ and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Secu- rity chip	Bat- tery cells	Workhorse or Global Entry	Avail date
2668-P3U	Pentium® M 780	2.26	1GB	14.1" SXGA+	128MB 80GB	7200	Combo	* Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-P1U	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 80GB	7200	Combo	* Intel 11b/g ³²	Mod/Blue	No	Yes	9-cell	Global	Aug 05
2668-P4U	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 80GB	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-P2U	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 100G	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-Q3U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-Q1U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	Yes	9-cell	Global	Aug 05
2668-Q2U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 100G	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-Q6U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	9-cell		Aug 05
2668-Q7U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	No	Yes	9-cell		Aug 05
2668-PDU	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 100G	7200	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	Yes	9-cell	Global	Oct 05
Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 780 (2.26GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus													
L2 cache	2MB / on die (at processor speed) / ECC													
Memory	1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim													
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay													
Disk	80GB⁸ (7200 rpm) or 100GB⁸ (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System													
Display	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology													
Graphics	ATI® MOBILITY™ FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.3 lb (2.4kg); 15.0": up to 6.1 lb (2.8 kg)													
Weight ²														
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover													
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	9-cell: up to 5.0 hr; 9-cell plus Ultrabay Slim battery: up to 7.5 hr													
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
Intel 11b/g ³²														
Intel 11a/b/g ³²														
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
Limited warranty ¹²	3-year /1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 2-year LOR 9x5 NBD	41C9175									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177									
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 5-year LOR 9x5 NBD	41C9179									
USB 2.0 Portable 80GB Hard Disk	40Y8726	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year P&L P/U Depot	41C9178									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot	41C9180									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty									
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Mini Dock	287810U											
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Dock II	287710U											
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision® E500 Projector	0038A05											
USB Travel Keyboard with UltraNav	31P9490	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
Optical 3-Button Travel Wheel Mouse	31P7410	Other options at lenovo.com/options												

See footnotes for important warranty information
US models announced August 2 or October 11, 2005
US models withdrawn effective November 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® T43 and T43p (1871 and 2668) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty ¹²	Avail date
T43 1871-C1U	Pentium® M 750	1.86	512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g ³²	Modem	No	915GM	EasyServ	Feb 05
T43 2668-C5U	Pentium M 760	2.00	512MB	14.1" XGA	X300	60HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
T43 2668-C2U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
T43 2668-C6U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
T43 2668-C3U	Pentium M 760	2.00	512MB	15.0" SXGA+	X300	60HS	Combo	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
T43p 2668-C4U	Pentium M 770	2.13	1GB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Apr 05
T43 1871-CBU	Pentium M 750	1.86	512MB	14.1" XGA	GMA	40HS	Combo	11a/b/g II ³²	Modem	No	915GM	EasyServ	Aug 05
T43 2668-CCU	Pentium M 760	2.00	512MB	14.1" XGA	X300	60HS	DVD±RW	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
T43 2668-CDU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	Combo	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
T43 2668-CEU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
T43 2668-CFU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300	60HS	Combo	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
T43p 2668-CGU	Pentium M 770	2.13	1GB	15.0" UXGA	V3200	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 750 (1.86GHz), 760 (2.00GHz), or 770 (2.13GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz bus	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)
L2 cache	512MB / on die (at processor speed) / ECC	Preloaded • Education software from Vital Source Technologies®: vidualsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Client Security Software (for security chip)
Memory	2MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage
Disk	40GB⁸ HS (5400 rpm), 60GB⁸ HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory <i>Some:</i> ATI MOBILITY FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory	ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	ThinkPlus 3-year LOR 9x5 NBD 41C9176
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	ThinkPlus 4-year LOR 9x5 NBD 41C9177
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	ThinkPlus 5-year LOR 9x5 NBD 41C9179
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	ThinkPlus 4-year P&L P/U Depot 41C9178
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm	ThinkPlus 5-year P&L P/U Depot 41C9180
Weight ²	with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15" models: up to 5.9 lb (2.7 kg)	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	Up to 4 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr	
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
11a/b/g II ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip	
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant	
Fingerprint reader	None	
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail	

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced January 19, 2005 or August 16, 2005
US models withdrawn effective March, October, or November 2006

ThinkPad® T43 and T43p (1871 and 2668) - Education (Aug 05) - withdrawn Created by Lenovo Training Solutions Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty ¹²	Avail date
T43 1871-CJU	Pentium® M 760	2.00	512MB	14.1" XGA	GMA	40HS Combo	* Intel 11a/b/g ³²	Modem	Finger	915GM	EasyServ	Aug 05	
T43 2668-CKU	Pentium M 770	2.13	512MB	14.1" XGA	X300	60HS DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05	
T43 2668-CLU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS Combo	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05	
T43 2668-CMU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05	
T43 2668-CNU	Pentium M 770	2.13	512MB	15.0" SXGA+	X300	60HS Combo	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05	
T43p 2668-CPU	Pentium M 780	2.26	1GB	15.0" UXGA	V3200	80HS DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05	

• **These models have an EasyServ™.19 onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 760 (2.00GHz), 770 (2.13GHz), or 780 (2.26GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz bus							SOFTWARE¹⁴					
L2 cache	2MB / on die (at processor speed) / ECC							Windows XP Professional					
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail							- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)					
Diskette drive	None standard / use optional USB-based diskette drive							Preloaded					
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim							• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™					
Ultrabay Slim	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim							• Rescue and Recovery™					
Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB⁸ HS (5400 rpm), 60GB⁸ HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System							• Access Program					
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology							• Access Connections™					
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory <i>Some:</i> ATI MOBILITY FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory							• Norton AntiVirus					
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)							• PC-Doctor™					
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass							• ThinkPad Utilities					
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones							• Adobe® Reader					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions							• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)					
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm							• InterVideo WinDVD (combo, DVD±RW models)					
Weight ²	with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15": up to 6.0 lb (2.7 kg)							• InterVideo WinDVD Creator (DVD±RW models)					
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover							• Fingerprint Software					
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim							• Client Security Software (for security chip)					
Battery - life ¹⁰	Up to 4 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr							Downloadable					
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])							• IBM Director Agent					
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door							• Software Delivery Assistant					
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door							• System Migration Assistant					
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)							ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage					
Video out	S-video out port (TV out) / one 4-pin industry standard connector							Universal 72 watt AC adapter					
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception							PC 2001-compliant					
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable							ACPI 1.0b and 2.0-compliant					
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset							CIM and DMI 2.0-compliant					
CDC	One Communications Daughter Card (CDC) socket / customer accessible							PXE 2.1-compliant					
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset							ENERGY STAR®-compliant					
Bluetooth™	None							International Warranty Service ¹⁷					
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE							24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²					
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)							ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175					
Security	Power-on password / hard disk password / supervisor password / security keyhole							ThinkPlus 3-year LOR 9x5 NBD 41C9176					
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant							ThinkPlus 4-year LOR 9x5 NBD 41C9177					
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip							ThinkPlus 5-year LOR 9x5 NBD 41C9179					
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail							ThinkPlus 4-year P&L P/U Depot 41C9178					
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 5-year P&L P/U Depot 41C9180						
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty						
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		11a/b/g Wireless Mini PCI Adapter II		73P4301								
USB Fingerprint Reader	73P4774		ThinkPad Port Replicator II		74P6733								
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Dock II		287710U								
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkVision® L201p 20.1" Monitor (black)		9320HB1								
Enh Perf Wireless Keyboard and Mouse	73P4067		Other options at lenovo.com/options										

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced August 2, 2005

(T16) October 2006

US models withdrawn effective May, October, or November 2006

ThinkPad® T43 and T43p (1872 and 2669) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty ¹²	Avail date
T43	1872-C1U	Pentium® M 750	1.86 512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g ³²	Modem	No	915GM	Onsite	Feb 05
T43	2669-C5U	Pentium M 760	2.00 512MB	14.1" XGA	X300	60HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C2U	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C6U	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C3U	Pentium M 760	2.00 512MB	15.0" SXGA+	X300	60HS	Combo	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43p	2669-C4U	Pentium M 770	2.13 1GB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	Onsite	Apr 05
T43	2669-C7U	Pentium M 750	1.86 512MB	14.1" XGA	X300	40HS	Combo	* Intel 11b/g ³²	Modem	No	915PM	Onsite	Feb 05
T43	2669-C8U	Pentium M 750	1.86 512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C9U	Pentium M 750	1.86 512MB	15.0" SXGA+	X300	40HS	DVD±RW	* Intel 11b/g	Modem	No	915PM	Onsite	Feb 05
T43p	2669-CAU	Pentium M 750	1.86 512MB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11b/g	Mod/Blue	No	915PM	Onsite	Apr 05
T43	1872-CBU	Pentium M 750	1.86 512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g II ³²	Modem	No	915GM	Onsite	Aug 05
T43	2669-CCU	Pentium M 760	2.00 512MB	14.1" XGA	X300	60HS	DVD±RW	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43	2669-CDU	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	Combo	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43	2669-CEU	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43	2669-CFU	Pentium M 760	2.00 512MB	15.0" SXGA+	X300	60HS	Combo	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43p	2669-CGU	Pentium M 770	2.13 1GB	15.0" UXGA	V3200	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	Onsite	Aug 05

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Processor	Intel® Pentium® M Processor 750 (1.86GHz), 760 (2.00GHz), or 770 (2.13GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz bus	<p>SOFTWARE¹⁴</p> <p>Windows XP Professional</p> <ul style="list-style-type: none"> - Microsoft® Windows® XP Professional²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) <p>Preloaded</p> <ul style="list-style-type: none"> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Client Security Software (for security chip) <p>Downloadable</p> <ul style="list-style-type: none"> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <p>License (CD not included)</p> <ul style="list-style-type: none"> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache	2MB / on die (at processor speed) / ECC	
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay	
Disk	40GB ⁸ HS (5400 rpm), 60GB ⁸ HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology Some: 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory Some: ATI® MOBILITY FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15": up to 5.9 lb (2.7 kg)	
Weight ²	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover	
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - type	Up to 3.9 hr; <i>Optional 9-cell</i> : up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr	
Battery - life ¹⁰		
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip	
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset	
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant	
Limited warranty ¹²	3-year/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time	
	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage	
	Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced January 19, 2005 or August 16, 2005
US models withdrawn effective March, October, or November 2006

ThinkPad® T43 and T43p (1872 and 2669) - Education (Aug 05) - withdrawn Created by Lenovo Training Solutions Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	GDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty ¹²	Avail date
T43 1872-CJU	Pentium® M 760	2.00	512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g ³²	Modem	Finger	915GM	Onsite	Aug 05
T43 2669-CKU	Pentium M 770	2.13	512MB	14.1" XGA	X300	60HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
T43 2669-CLU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
T43 2669-CMU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
T43 2669-CNU	Pentium M 770	2.13	512MB	15.0" SXGA+	X300	60HS	Combo	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
T43p 2669-CPU	Pentium M 780	2.26	1GB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
T43 2669-CQU	Pentium M 760	2.00	512MB	14.1" XGA	X300	40HS	Combo	* Intel 11b/g ³²	Modem	Finger	915PM	Onsite	Aug 05
T43 2669-CRU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11b/g	Modem	Finger	915PM	Onsite	Aug 05
T43 2669-CSU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300	40HS	DVD±RW	* Intel 11b/g	Modem	Finger	915PM	Onsite	Aug 05
T43p 2669-CTU	Pentium M 760	2.00	512MB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	915PM	Onsite	Aug 05

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> Intel® Pentium® M Processor 760 (2.00GHz), 770 (2.13GHz), or 780 (2.26GHz) with Enhanced Intel SpeedStep™ technology ⁷ , Execute Disable Bit, and 533MHz bus	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
L2 cache	2MB / on die (at processor speed) / ECC	Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software • Client Security Software (for security chip)
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim	
Ultrabay Slim	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB⁸ HS (5400 rpm), 60GB⁸ HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory <i>Some:</i> ATI® MOBILITY FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	ENERGY STAR®-compliant International Warranty Service¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15": up to 6.0 lb (2.7 kg)	
Weight ²	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover	
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - type	Up to 3.9 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr	
Battery - life ¹⁰		
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
Intel 11b/g ³²	One Communications Daughter Card (CDC) socket / customer accessible	
Intel 11a/b/g ³²	56K⁶ V.90 (V.92-designed²⁹) modem in CDC / Conexant® chipset	
CDC	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)	
Modem	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Bluetooth™	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Ethernet	Power-on password / hard disk password / supervisor password / security keyhole	
Audio support	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant	
Security	Fingerprint reader on palm rest / swipe sensor / integrated with security chip	
Security chip		
Fingerprint reader		
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time	

See footnotes for important warranty information
US models announced August 2, 2005
US models withdrawn effective May or October 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® T43 (1875) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Limited warranty ¹² or TopSeller	Workhorse or Global TopSeller	Avail date
1875-D1U	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	DVD	* Intel 11b/g ³²	Modem	No	1-year	TopSeller	Feb 05
1875-D2U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11a/b/g ³²	Modem	No	1-year	TopSeller	Feb 05
1875-D6U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11a/b/g	Modem	Finger	1-year	TopSeller	Feb 05
1875-D9U	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11a/b/g	Modem	No	1-year	TopSeller	Feb 05
1875-DAU	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11a/b/g	Modem	Finger	1-year	TopSeller	Feb 05
1875-DNU	Pentium M 740	1.73	512MB	14.1" XGA	GMA 900	60HS	Combo	* Intel 11a/b/g	Modem	Finger	1-year	TopSeller	Jun 05
1875-DPU	Pentium M 740	1.73	512MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11a/b/g	Modem	Finger	1-year	TopSeller	Jun 05
1875-DQU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	60HS	Combo	* Intel 11a/b/g	Modem	Finger	1-year	TopSeller	Jun 05
1875-DLU	Pentium M 740	1.73	512MB	14.1" XGA	GMA 900	60HS	Combo	* Intel 11b/g	Modem	Finger	1-year	TopSeller	Aug 05
1875-DMU	Pentium M 740	1.73	512MB	15.0" XGA	GMA 900	60HS	Combo	* Intel 11b/g	Modem	Finger	1-year	TopSeller	Aug 05
1875-M1U	Pentium M 740	1.73	512MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	1-year	TopSeller	Aug 05
1875-M2U	Pentium M 750	1.86	512MB	14.1" XGA	GMA 900	60HS	Combo	* Intel 11b/g	Modem	Finger	1-year	TopSeller	Aug 05
1875-M3U	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	60HS	Combo	* Intel 11b/g	Modem	Finger	1-year	TopSeller	Aug 05
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These 1875 models have a 1-year limited warranty (other ThinkPad T43/T43p 2687 TopSeller models have a 3-year limited warranty) 													
Processor	Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴		
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional		
Memory	256MB or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim										• Rescue and Recovery™		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										• Access Program		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Connections™		
Disk	40GB⁸ HS (5400 rpm) or 60GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System										• Norton AntiVirus		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• PC-Doctor™		
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• ThinkPad Utilities		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• Adobe® Reader		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• Update Connector™ ¹⁵		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Letter Access powered by Sonic products (combo models)		
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.1 lb (2.3kg); 15": up to 5.8 lb (2.6 kg)										• InterVideo WinDVD (combo, DVD models)		
Weight ²	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• Fingerprint Software (fingerprint models)		
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• Client Security Software (for security chip)		
Battery - type	Up to 3.9 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr										Downloadable		
Battery - life ¹⁰											• IBM Director Agent		
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										• Software Delivery Assistant		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• System Migration Assistant		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										License (CD not included)		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Universal 72-watt AC adapter		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										PC 2001-compliant		
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										ACPI 1.0b and 2.0-compliant		
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										CIM and DMI 2.0-compliant		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										PXE 2.1-compliant		
Modem	56K ⁶ V.90 (V.92-designed ²⁵) modem in CDC / Conexant® chipset										International Warranty Service ¹⁷		
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ThinkPlus™.22 1-year LOR 9x5 NBD		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										41C9166		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 2-year LOR 9x5 NBD		
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant										41C9167		
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip										ThinkPlus 3-year LOR 9x5 NBD		
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										41C9168		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 4-year LOR 9x5 NBD		41C9171				
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 5-year LOR 9x5 NBD		41C9173				
2GB PC2-5300 DDR2 SODIMM	40Y7735		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 2-year P&L P/U Depot		41C9169				
USB 2.0 Super Multi-Burner Drive	41N5565		72W Slim AC/DC Combo Adapter		73P4485		ThinkPlus 3-year P&L P/U Depot		41C9170				
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Port Replicator II		74P6733		ThinkPlus 3-year P&L P/U Depot		41C9172				
USB Portable Diskette Drive	05K9276		ThinkPad Mini Dock		287810U		ThinkPlus 4-year P&L P/U Depot		41C9174				
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkPad Dock II		287710U		ThinkPlus 5-year P&L P/U Depot		41C9174				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		ThinkVision® L201p 20.1" Monitor (black)		9220HB1		ThinkPlus 5-year P&L P/U Depot		41C9174				
ThinkPad Convertible Monitor Stand	40Y7620		Other accessories at lenovo.com/accessories										

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced January 19, June 7, or August 9, 2005

(T8) August 2007

US models withdrawn effective May 2006, Oct 2006, or Aug 2007

ThinkPad® T43 (1876 and 2687) - TopSeller and Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB ⁵	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Chip set	Limited warranty ¹²	Avail date
1876-DBU	Pentium® M 750	1.86	512MB	14.1" XGA	GMA 60HS	60HS	Combo	* Intel 11a/b/g ³²	Modem	No	Yes	915GM	3-yr EasyServ	Mar 05
2687-DCU	Pentium M 760	2.00	512MB	14.1" XGA	X300	60HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	3-yr EasyServ	Mar 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty (other ThinkPad T43 1875 TopSeller models have a 1-year limited warranty)
- These models have an EasyServ™,¹⁹ onsite pickup and delivery 3-year limited warranty

Positioning Processor	Perfect balance of performance and portability; two-spindle system Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus												
L2 cache	2MB / on die (at processor speed) / ECC												
Memory	512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	60GB⁸ HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System™ (shock protection)												
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits												
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight ²	with optical drive and battery: up to 5.1 lb (2.3kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	Up to 3.9 hr; <i>Optional 9-cell</i> : up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr												
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None												
Limited warranty ¹²	3-year/1-yr battery - EasyServ™, ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040										
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Port Replicator II	74P6733										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock	287810U										
Super Multi-Burner Ultrabay Slim Drv (curved)	40Y8622	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Backpack	73P3599										
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Organizer	73P3598										
Kensington® MicroSaver® Security Cable	73P2582	Lenovo M500 Projector	0037A05										
ExpressCard Gemplus Smart Card Reader	41N3043	TrackPoint Cap Collection	73P2698										
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkVision® L201p 20.1" Monitor (black)	9220HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											
				SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™, ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo) • InterVideo WinDVD (combo) • Client Security Software (for security chip) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client									
				ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage Universal 72-watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™, ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									

See footnotes for important warranty information
US models announced January 19, 2005
US models withdrawn effective October or December 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® T43 (2686) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Discrete graphics controller	Disk GB ⁸ and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Battery cells	Limited warranty ¹²	Avail date	
2686-DHU	Pentium® M 740	1.73	512MB	15.0" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g ³²	Modem	Finger	6-cell	1-yr	Jun 05	
2686-DFU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05	
2686-DGU	Pentium M 750	1.86	512MB	14.1" SXGA+	X300 64MB	60GB 7200	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05	
2686-DJU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80GB 5400	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05	
2686-M4U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05	
2686-M5U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 64MB	60GB 5400	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05	
2686-M6U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05	
2686-M7U	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB 5400	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05	
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller Program • These 2686 models have a 1-year limited warranty (other ThinkPad T43 1867 and 2687 TopSeller models have a 3-year limited warranty) 														
Processor	Intel® Pentium® M Processor 740 (1.73GHz), 750 (1.86GHz), or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional			
Memory	512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)			
Diskette drive	None standard / use optional USB-based diskette drive										↔ Disk-to-Disk Recovery (in hidden protected area)			
Combo DVD±RW	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										Preloaded			
Ultrabay Slim	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim										• Rescue and Recovery™			
Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Program			
	60GB ⁸ (5400 or 7200 rpm) or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System										• Access Connections™			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Norton AntiVirus			
	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits										• PC-Doctor™			
	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• ThinkPad Utilities			
	Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• Adobe® Reader			
Graphics	ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• InterVideo WinDVD (combo, DVD±RW models)			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• InterVideo WinDVD Creator (DVD±RW models)			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Simple Backup (DVD±RW)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Fingerprint Software			
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm										• Client Security Software			
	15.0" model (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										Downloadable			
Weight ²	with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15" models: 5.9 lb (2.7 kg)										• IBM Director Agent			
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• Software Delivery Assistant			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• System Migration Assistant			
Battery - life ¹⁰	6-cell: up to 3.3 hr; 9-cell: up to 5.6 hr; 9-cell plus Ultrabay Slim battery: up to 7.4 hr													
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, [docking-based ports (serial, diskette)])										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										Universal 72-watt AC adapter			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										PC 2001-compliant			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ACPI 1.0b and 2.0-compliant			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										CIM and DMI 2.0-compliant			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PXE 2.1-compliant			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ENERGY STAR®-compliant			
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										International Warranty Service ¹⁷			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™.22 1-year LOR 9x5 NBD			
Security chip	Embedded Security Subsystem 2.0 ³³ / in NS PC8394T chip / TCG-compliant										41C9166			
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip										ThinkPlus 2-year LOR 9x5 NBD			
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available										41C9167			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190									
USB 2.0 Memory Key 1GB	40Y7421		72W Slim AC/DC Combo Adapter		73P4485									
USB 2.0 Super Multi-Burner Drive	40Y8638		11a/b/g Wireless Mini PCI Adapter II		73P4301									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Port Replicator II		74P6733									
USB Portable Diskette Drive	05K9276		ThinkPad Mini Dock		287810U									
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkPad Dock II		287710U									
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622		ThinkPad Carrying Case - BackPack		73P3599									
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkPad Carrying Case - Leather		73P3600									
USB Travel Keyboard with UltraNav	31P9490		ThinkPad Carrying Case - Organizer		73P3598									
Kensington® MicroSaver® Security Cable	73P2582		ThinkVision® E500 Projector		0038A05									
ThinkPad Monitor Stand	22P5265		ThinkVision L201p 20.1" Monitor (black)		9220HB1									
ThinkPad Convertible Monitor Stand	40Y7620		Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced June 7 or August 9, 2005
US models withdrawn effective May, October, or December 2006

* Powered by Intel Centrino® mobile technology

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(T11) December 2006

ThinkPad® T43 and T43p (2687) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Battery life ¹⁰	Battery cells	Limited warranty ¹²	Avail date
T43	2687-DEU Pentium® M 750	1.86	512MB	14.1" XGA	64MB	40GB	Combo	* Intel 11a/b/g ³²	Modem	No	3.8 hr	6-cell	3-yr	Feb 05
T43	2687-D7U Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	3.6 hr	6-cell	3-yr	Feb 05
T43	2687-D8U Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Modem	No	3.6 hr	6-cell	3-yr	Feb 05
T43	2687-D3U Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Modem	Finger	5.4 hr	9-cell	3-yr	Mar 05
T43	2687-D4U Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	3.4 hr	6-cell	3-yr	Feb 05
T43	2687-DDU Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Modem	No	3.4 hr	6-cell	3-yr	Feb 05
T43	2687-DRU Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	60GB	Combo	* Intel 11a/b/g	Modem	Finger	3.6 hr	6-cell	3-yr	Jun 05
T43	2687-DSU Pentium M 760	2.00	512MB	14.1" SXGA+	64MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	5.4 hr	9-cell	3-yr	Jun 05
T43	2687-DTU Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	60GB	Combo	* Intel 11a/b/g	Mod/Blue	Finger	5.1 hr	9-cell	3-yr	Jun 05
T43	2687-DUU Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	5.1 hr	9-cell	3-yr	Jun 05
T43	2687-DVU Pentium M 760	2.00	512MB	15.0" SXGA+	64MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	5.1 hr	9-cell	3-yr	Jun 05
T43p	2687-D5U Pentium M 760	2.00	1GB	15.0" UXGA	128MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	4.7 hr	9-cell	3-yr	Apr 05
T43p	2687-M8U Pentium M 760	2.00	1GB	15.0" UXGA	128MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	4.7 hr	9-cell	3-yr	Jul 06
T43p	2687-M9U Pentium M 760	2.00	2GB	15.0" UXGA	128MB	100GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	4.7 hr	9-cell	3-yr	Jul 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty (other ThinkPad T43 1875 TopSeller models have a 1-year limited warranty)

Positioning Processor	Perfect balance of performance and portability; two spindles Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) Preloaded • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache Memory	2MB / on die (at processor speed) / ECC 512MB, 1GB, or 2GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / <i>Others:</i> standard memory in 1 socket; 1 socket available; <i>M9U:</i> standard memory in both sockets (1GB in each); no sockets available	
Diskette drive Combo DVD±RW Ultrabay Slim Disk	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 100GB (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	
Graphics	<i>Some:</i> ATI® MOBILITY™ Radeon™ X300 / PCI Express x16 / 64MB GDDR1 memory <i>Some:</i> ATI MOBILITY FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory	
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15": up to 6.3 lb (2.8 kg)	
Weight ² Case material Battery - type Battery - life ¹⁰	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover Lithium Ion 6- or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 3.9 hr; 9-cell: up to 5.9 hr; 9-cell plus Ultrabay Slim battery: up to 7.7 hr	
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)]) One Type I or Type II slot / CardBus 32-bit / integrated door	Supports ThinkVantage® technologies; visit thinkpad.com/thinkvantage
PC Card Std slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	Universal 72-watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Video out Wireless antenna Mini PCI CDC Modem Bluetooth™ Ethernet Audio support	S-video out port (TV out) / one 4-pin industry standard connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Communications Daughter Card (CDC) socket / customer accessible 56K⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset <i>Some:</i> Bluetooth wireless technology / in CDC (with modem) Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Embedded Security Subsystem 2.0³³ / in NS PC8394T chip / TCG-compliant <i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-year /1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available	

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced January 19, March 15, or June 7, 2005 or June 30, 2006
US models withdrawn effective October 2006 or August 2007

ThinkPad® T60 (Entry) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) Chip or Global (G) Avail or Entry (E) date			
1951-28U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g ³²	None	None	Finger	945GM E Feb 06			
1951-24U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM G E Feb 06			
1951-26U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	DVD *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06			
1951-29U	Core Solo T1300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06			
2007-23U	Core Solo T1300	1.66	512MB	14.1" XGA	X1300	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945PM E Feb 06			
1951-35U	Core Duo T2300	1.66	512MB	15.0" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06			
1951-37U	Core Duo T2300	1.66	512MB	15.0" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06			
1951-2JU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06			
1951-2KU	Core Solo T1400	1.83	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06			
1951-2LU	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06			
1951-2NU	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo Open; upg ³⁶	None	None	None	Finger	945GM E July 06			
1951-3DU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06			
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Solo processor T1300 or T1400 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300, T2300E or T2400 with dual-core, enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache														
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail														
Diskette drive	None standard / use optional USB-based diskette drive														
EIDE DVD	<i>Some:</i> DVD-ROM / 24X-8X9 speed / single-layer / removable from Ultrabay™ Slim														
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™														
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare														
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm														
Weight ²	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.8 kg)														
Case material	14.1": magnesium composite in top cover, CFRP bottom cover; 15": CFRP in top/bottom														
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 6.0 hr; <i>opt 9-cell:</i> up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr														
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options														
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN ¹⁶	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell					40Y6799	Supports ThinkVantage® technologies							
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell					40Y6797	65-watt (1951) or 90-watt (2007) AC adapter							
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell					40Y6789	ThinkPad Roll Cage (one-piece magnesium frame)							
Serial Hard Drive Ultrabay Slim Adapter(flat)	40Y8725	ThinkPad External Battery Charger					40Y7625	RoHS-compliant							
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter					40Y7630	International Warranty Service ¹⁷							
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Expander					73P3597	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²							
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	ThinkPad Carrying Case - BackPack					73P3599	ThinkPlus™.22 2-year LOR 9x5 NBD							
ThinkPad Essential Port Replicator	250510W	Lenovo D221 Wide 22" Monitor (black)					6622HB1	41C9175							
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L201p 20.1" Monitor (blk)					9220HB1	41C9176							
ThinkPad Advanced Dock	250310U	Lenovo M500 Projector					0037A05	41C9177							
Other accessories on O-T60 sheet						Other accessories at lenovo.com/accessories					ThinkPlus 4-year LOR 9x5 NBD				
											ThinkPlus 5-year LOR 9x5 NBD				
											ThinkPlus 5-year P&L P/U Depot				
											ThinkPlus 5-year P&L P/U Depot				
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced January 31 or July 11, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® mobile technology
* Powered by Intel Centrino Duo mobile

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(DV1-1) September 2007

ThinkPad® T60 (1951) - 14.1" display - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Workhorse (W) or Global (G) or Entry (E)	Avail date
1951-43U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g ³²				W G	Feb 06
1951-44U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g			Finger	W G	Feb 06
1951-45U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		Blue	Finger	W	May 06
1951-46U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	DVD	* Intel 11a/b/g				W	Feb 06
1951-47U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	DVD	Open; upg ³⁶				W	Feb 06
1951-48U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	7200	Combo	* Intel 11a/b/g			Finger	W	Feb 06
1951-4DU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g	AT&T		Finger	W	Jun 06
1951-4TU	Core Duo T2400	1.83	1GB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g				W G	Aug 06
Positioning Processor	<i>Premiere performance; two spindles</i> Intel Core Duo processor T2400 (1.83GHz) with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache													
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE DVD	<i>Some:</i> DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim													
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel													
Serial ATA disk (SATA150)	60GB³ (5400 or 7200 rpm) / 9.5mm high / removable,upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™													
Display	14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare													
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm													
Weight ²	with optical drive and battery: up to 5.5 lb (2.5kg)													
Case material	Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover													
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	6-cell: up to 6.0 hr; opt 9-cell: up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options													
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset													
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789											
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger	40Y7625											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter	40Y7696											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Nylon Carrying Case	10K0207											
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597											
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Backpack	73P3599											
USB 2.0 Super Multi-Burner Drive	41N5565	Carrying Case - Leather Attache	73P3600											
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad Women's Leather Trim Tote	22P8856											
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo D221 Wide 22" Monitor (black)	6622HB1											
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L192p 19" Monitor (black)	9419HC2											
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05											
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05											
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories													
												SOFTWARE¹⁴		
												Windows XP Professional		
												- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)		
												↔ Disk-to-Disk Recovery (in hidden protected area)		
												Preadloaded		
												• Rescue and Recovery™		
												• Access Connections™		
												• Client Security Solution™		
												• ThinkVantage Productivity Center with Away Manager		
												• ThinkVantage System Update		
												• Symantec® Client Security™		
												• Diskeeper® Lite		
												• PC-Doctor™ (diagnostics)		
												• ThinkPad Utilities (Power Manager and Presentation Director)		
												• Adobe® Reader		
												• Google Toolbar		
												• Google Desktop		
												• Picasa from Google		
												• Fingerprint Software (fingerprint models)		
												• Multimedia Center for Think Offerings		
												• Sonic RecordNOW and Drive Letter Access (combo models)		
												• InterVideo WinDVD (combo, DVD, models)		
												License - CD not included		
												- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
												Supports ThinkVantage® technologies		
												65-watt AC adapter (GMA graphics)		
												ThinkPad Roll Cage (one-piece magnesium frame)		
												RoHS-compliant		
												International Warranty Service ¹⁷		
												24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
												ThinkPlus™. ²² 2-yr LOR 9x5 NBD		
												41C9175		
												ThinkPlus 3-yr LOR 9x5 NBD		
												41C9176		
												ThinkPlus 4-yr LOR 9x5 NBD		
												41C9177		
												ThinkPlus 5-yr LOR 9x5 NBD		
												41C9179		
												ThinkPlus 4-yr P&L P/U Depot		
												41C9178		
												ThinkPlus 5-yr P&L P/U Depot		
												41C9180		
												Post-warranty annual maintenance agreements at		
												lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US models announced Jan 5, Jan 31, May 16, June 20, or August 1, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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(DV1-2) September 2007

ThinkPad® T60 (2007) - 14.1" display - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) or Global (G) Entry (E)	Avail date
2007-42U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	DVD	*Intel 11a/b/g ³²				W G	Feb 06
2007-43U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g		Blue	Finger	W G	May 06
2007-46U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g			Finger	W G	Feb 06
2007-47U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g	Verizon	Blue	Finger	W	Feb 06
2007-49U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 5400	Combo	*Intel 11a/b/g				W G	Feb 06
2007-4AU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 5400	Combo	*Intel 11a/b/g			Finger	W G	Feb 06
2007-4CU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 5400	Combo	*Intel 11a/b/g		Blue	Finger	W	Feb 06
2007-44U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	DVD	Open; upg ³⁶				W G	Feb 06
2007-48U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g				W	Feb 06
2007-4BU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB 5400	Combo	*Intel 11a/b/g	Verizon	Blue	Finger	W	Feb 06
2007-4DU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	80GB 5400	Combo	*Intel 11a/b/g			Finger	W	Feb 06
2007-4EU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 7200	Combo	*Intel 11a/b/g			Finger	W	Feb 06
2007-62U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	11a/b/g ³²		Blue	Finger		Feb 06
2007-63U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	*Intel 11a/b/g		Blue	Finger		Feb 06
2007-64U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	*Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-67U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	Combo	*Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-66U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	Combo	*Intel 11a/b/g		Blue		G	Feb 06
2007-68U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 7200	DVD±RW	*Intel 11a/b/g		Blue	Finger		Feb 06
2007-05U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g		Blue		W	May 06
2007-4WU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g	AT&T	Blue	Finger	W	Jun 06
2007-4XU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB 5400	Combo	*Intel 11a/b/g	AT&T	Blue	Finger	W	Jun 06
2007-6GU	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	*Intel 11a/b/g	AT&T	Blue	Finger		Jun 06
2007-6HU	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	Combo	*Intel 11a/b/g	AT&T	Blue	Finger		Jun 06

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2400 (1.83GHz) or T2500 (2.00GHz) with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) Preloaded (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE DVD	<i>Some:</i> DVD-ROM / 24X-8X9 speed / single-layer / removable from Ultrabay™ Slim	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim	
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	60GB⁸ (5400 or 7200 rpm), 80GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare	
Graphics	<i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm	
Weight ²	With optical drive and battery: up to 5.5 lb (2.5kg)	
Case material	Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover	
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 6.0 hr; opt 9-cell: up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr	
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options	
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless	
WWAN ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract reqd with AT&T®	Supports ThinkVantage® technologies
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset	90-watt AC adapter (discrete graphics)
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator	ThinkPad Roll Cage (one-piece magnesium frame)
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	RoHS-compliant
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	International Warranty Service ¹⁷
Security	Power-on password / hard disk password / supervisor password / security keyhole	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip	ThinkPlus services at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail	

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
US models announced January 31, May 16, May 25, or June 20, 2006
US models withdrawn effective September or December 2007

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(DV1-3) December 2007

ThinkPad® T60 (1951 and 2007) - 14.1" display - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Bat-Whorse (W) tery Cells	Gbl (G) Avail Entry date
1951-4GU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g ³²				GM 6	W G	July 06
1951-4MU	Core Duo T2400	1.83	1GB	14.1" XGA	GMA	60G 7200	Combo	*Intel 11a/b/g				GM 6	W G	July 06
2007-GAU	Core Duo T2500	2.00	1GB	14.1" XGA	X1300	60G 5400	Combo	*Intel 11a/b/g				PM 6	W G	July 06
1951-4HU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g			Finger	GM 6	W	July 06
1951-4KU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g	AT&T		Finger	GM 6	W	July 06
2007-G3U	Core Duo T2500	2.00	1GB	14.1" SXGA+	X1400	80G 5400	Combo	*Intel 11a/b/g				PM 6	W G	July 06
2007-G4U	Core Duo T2500	2.00	1GB	14.1" SXGA+	X1400	80G 5400	Combo	*Intel 11a/b/g			Finger	PM 6	W G	July 06
2007-G5U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	80G 5400	Combo	*Intel 11a/b/g		Blue	Finger	PM 6	W G	July 06
2007-GBU	Core Duo T2500	2.00	1GB	14.1" SXGA+	X1400	80G 5400	Combo	*Intel 11a/b/g		Blue	Finger	PM 6	W G	July 06
1951-4LU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G 5400	DVD	Open; upg ³⁶				GM 6	W	July 06
2007-G9U	Core Duo T2500	2.00	1GB	14.1" XGA	X1300	60G 5400	Combo	*Intel 11a/b/g			Finger	PM 6	W	July 06
2007-6KU	Core Duo T2600	2.16	1GB	14.1" SXGA+	X1400	100G 5400	DVD±RW	*Intel 11a/b/g	AT&T	Blue	Finger	PM 9		July 06
2007-6LU	Core Duo T2600	2.16	1GB	14.1" SXGA+	X1400	100G 5400	DVD±RW	*Intel 11a/b/g		Blue	Finger	PM 9		July 06
2007-6MU	Core Duo T2600	2.16	1GB	14.1" SXGA+	X1400	100G 5400	Combo	*Intel 11a/b/g		Blue	Finger	PM 9		July 06
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2400, T2500 or T2600 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											SOFTWARE¹⁴		
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 4GU, 4MU, 4HU, 4KU, 4LU: standard memory in both sockets; no sockets available; Others: standard memory in 1 socket; 1 socket available											Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive											Preloaded		
EIDE DVD	<i>Some:</i> DVD-ROM / 24X-8X ⁹ speed / single-layer / removable from Ultrabay™ Slim											• Rescue and Recovery™		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim											• Access Connections™		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											• Client Security Solution™		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											• ThinkVantage Productivity Center with Away Manager		
Serial ATA disk (SATA150)	60GB⁸ (5400 or 7200 rpm), 80GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™											• ThinkVantage System Update		
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare											• Symantec® Client Security™		
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											• Diskeeper® Lite		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											• PC-Doctor™ (diagnostics)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											• ThinkPad Utilities (Power Manager and Presentation Director)		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											• Adobe® Reader		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• Google Toolbar		
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm											• Google Desktop		
Weight ²	With optical drive and battery: up to 5.5 lb (2.5kg)											• Picasa from Google		
Case material	Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover											• Fingerprint Software (fingerprint models)		
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim											• Multimedia Center for Think Offerings		
Battery - life ¹⁰	6-cell: up to 6.0 hr; 9-cell: up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)		
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)											• InterVideo WinDVD (DVD, combo, DVD±RW models)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											• InterVideo WinDVD Creator (DVD±RW models)		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											License - CD not included		
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											Supports ThinkVantage® technologies		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											65-watt (1951) or 90-watt (2007) AC adapter		
Wireless upg	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options											ThinkPad Roll Cage (one-piece magnesium frame)		
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											RoHS-compliant		
WWAN ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®											International Warranty Service ¹⁷		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											ThinkPlus™.22 2-yr LOR 9x5 NBD		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											41C9175		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											ThinkPlus 3-yr LOR 9x5 NBD		
Security	Power-on password / hard disk password / supervisor password / security keyhole											41C9176		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											ThinkPlus 4-yr LOR 9x5 NBD		
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											41C9177		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail											ThinkPlus 5-yr LOR 9x5 NBD		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733		T60 Series Li-Ion Battery 6-cell		40Y6799									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734		Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797									
2GB PC2-5300 DDR2 SODIMM	40Y7735		Advanced Ultrabay Battery 3-cell		40Y6789									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		ThinkPad 90W AC Adapter		40Y7659									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013		ThinkPad 90W AC/DC Combo Adapter		40Y7630									
11a/b/g Wireless Mini PCI Express Adpr	40Y7026		ThinkPad Carrying Case - Expander		73P3597									
Other accessories on O-T60 sheet			Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced July 11, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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ThinkPad® T60 (1951 and 2007) - 14.1" display (October 2006) - withdrawn Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory GB	Screen	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger print chip	Bat- tery Cells	Workhorse Global Entry date	
1951-2QU	Core™ 2 Duo T5500	1.66	512M	14.1" XGA	GMA	40G 5400	Combo	*Intel 11a/b/g ³²	None	GM 6	Entry	Oct 06	
1951-2RU	Core 2 Duo T5600	1.83	512M	14.1" XGA	GMA	40G 5400	Combo	*Intel 11a/b/g	None	Finger	GM 6	Entry	Oct 06
1951-2SU	Core 2 Duo T5500	1.66	512M	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g	None	Blue Finger	GM 6	Entry	Oct 06
1951-4NU	Core 2 Duo T7200	2.00	1GB	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g	None	GM 6	Gbl	Oct 06	
2007-GCU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	X1300	80G 5400	Combo	*Intel 11a/b/g	None	Finger	PM 6	Gbl	Oct 06
2007-GDU	Core 2 Duo T7200	2.00	1GB	14.1" XGA	X1300	80G 5400	Combo	*Intel 11a/b/g	None	Finger	PM 6	Gbl	Oct 06
1951-4PU	Core 2 Duo T5600	1.83	1GB	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g	None	GM 6	Gbl	Nov06	
2007-GEU	Core 2 Duo T5600	1.83	1GB	14.1" SXGA+	X1300	80G 5400	Combo	*Intel 11a/b/g	None	Blue Finger	PM 6	Gbl	Nov06
2007-6PU	Core 2 Duo T7400	2.16	1GB	14.1" SXGA+	X1400	120G 5400	Combo	*Intel 11a/b/g	None	Blue Finger	PM 9	Oct 06	
2007-6QU	Core 2 Duo T7400	2.16	1GB	14.1" SXGA+	X1400	120G 5400	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM 9	Gbl	Nov06

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core 2 Duo processor T5500, T5600, T7200, or 7400 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus;	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskkeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>4NU:</i> standard memory in both sockets (512MB each socket); no sockets available; <i>Others:</i> standard memory in 1 socket; 1 socket available			
Diskette drive	None standard / use optional USB-based diskette drive			
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim			
EIDE DVD±RW	<i>Some:</i> DVD burner / super Multi-Burner (40Y8623) dual layer, removable Ultrabay Slim			
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel			
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™			
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare			
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB memory <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB memory <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm			
Weight ²	With optical drive and battery: up to 5.5 lb (2.5kg)			
Case material	Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover			
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim			
Battery - life ¹⁰	6-cell: up to 5.9 hr; 9-cell: up to 6.9 hr; 9-cell plus Ultrabay battery: up to 8.5 hr			
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door			
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable			
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG			
WWAN ¹⁶	None			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset			
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator			
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE			
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack			
Security	Power-on password / hard disk password / supervisor password / security keyhole			
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant			
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	ThinkPlus 3-yr LOR 9x5 NBD
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	41C9176
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 4-yr LOR 9x5 NBD
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625	41C9177
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus 5-yr LOR 9x5 NBD
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad Carrying Case - Expander	73P3597	41C9179
ThinkPad Essential Port Replicator	250510W	ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 4-yr P&L P/U Depot
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L193p 19" LCD Monitor	4431HB2	41C9178
ThinkPad Advanced Dock	250310U	Lenovo M500 Projector	0037A05	ThinkPlus 5-yr P&L P/U Depot
Other accessories on O-T60 sheet		Other accessories at lenovo.com/accessories		41C9180

See footnotes for important warranty information
 US models announced October 17 or November 28, 2006
 US models withdrawn effective September or December 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® T60 (15.0" display) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁵	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Bat- tery Cells	Whorse (W) Gbl (G) Avail date
2007-55U	Core Duo T2400	1.83	512M	15.0"	SXGA+	X1300	60G	5400	Combo	*Intel 11a/b/g ³²		Finger	PM	6	W G Feb 06
1951-52U	Core Duo T2400	1.83	512M	15.0"	XGA	GMA	60G	5400	Combo	*Intel 11a/b/g		Finger	GM	6	W G Feb 06
2007-56U	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	60G	5400	Combo	*Intel 11a/b/g		Finger	PM	6	W G Feb 06
2007-57U	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	60G	5400	Combo	*Intel 11a/b/g			PM	6	W Feb 06
2007-58U	Core Duo T2400	1.83	512M	15.0"	SXGA+	X1300	60G	5400	Combo	*Intel 11a/b/g	Verizon	Blue Finger	PM	6	W Feb 06
2007-59U	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	60G	7200	Combo	*Intel 11a/b/g		Finger	PM	6	W Feb 06
2007-5BU	Core Duo T2400	1.83	512M	15.0"	SXGA+	X1300	60G	7200	Combo	*Intel 11a/b/g		Blue Finger	PM	6	W Feb 06
2007-5CU	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	80G	5400	Combo	*Intel 11a/b/g		Blue Finger	PM	6	W Feb 06
2007-72U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	6	W Feb 06
2007-74U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g	Verizon	Blue Finger	PM	6	Feb 06
2007-73U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	5400	Combo	*Intel 11a/b/g		Blue	PM	6	Feb 06
2007-76U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	7200	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	6	Feb 06
1951-58U	Core Duo T2500	2.00	1GB	15.0"	XGA	GMA	60G	5400	Combo	*Intel 11a/b/g		Finger	GM	6	W G July 06
2007-58RU	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1300	80G	5400	Combo	*Intel 11a/b/g ³²			PM	6	W July 06
2007-5SU	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1300	80G	5400	Combo	*Intel 11a/b/g	AT&T	Finger	PM	6	W July 06
2007-5TU	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g		Blue Finger	PM	6	W G July 06
2007-7DU	Core Duo T2600	2.16	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	9	July 06
2007-7GU	Core Duo T2600	2.16	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g	AT&T	Blue Finger	PM	9	July 06
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2400, T2500 or T2600 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)			
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / 58U: standard memory in both sockets; no sockets available; Others: standard memory in 1 socket; 1 socket available											Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60GB⁸ (5400 or 7200 rpm), 80GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™														
Display	<i>Some:</i> 15.0" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology														
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1 All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.0" models (WxDxH): 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm with optical drive and battery: up to 6.3 lb (2.8 kg) CFRP in top/bottom Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.0 hr; 9-cell: up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr														
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203) One Type I or Type II slot / CardBus 32-bit / integrated door														
PC Card Std slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna Mini PCI Express Intel 11a/b/g ³² 11a/b/g ³² WWAN ¹⁶ WWAN ²³	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® <i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®											Supports ThinkVantage® technologies			
Modem Bluetooth™ Ethernet Audio support Security Security chip	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant											65-watt (1951) or 90-watt (2007) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
Limited warranty ¹² 3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail												ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 5-year LOR 9x5 NBD 41C9179 Other ThinkPlus services at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
US models announced January 31 or July 11, 2006
US models withdrawn effective October 2006 or September 2007

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ThinkPad® T60 (15.0" display) - October 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Blue- tooth	Finger print reader	Bat- tery Cells	Workhorse Global Avail Entry date	
1951-3GU	Core™ 2 Duo T5600	1.83	512M	15.0" XGA	GMA	40GB 5400	Combo	*Intel 11a/b/g ³²	None	Finger	GM 6	Entry Oct 06	
2007-J2U	Core 2 Duo T7200	2.00	1GB	15.0" XGA	X1300	80GB 5400	Combo	*Intel 11a/b/g	None	Finger	PM 6	Gbl Oct 06	
2007-J3U	Core 2 Duo T5600	1.83	1GB	15.0" SXGA+	X1300	80GB 5400	DVD±RW	*Intel 11a/b/g	None	Blue Finger	GM 6	Gbl Nov 06	
2007-7JU	Core 2 Duo T7400	2.16	1GB	15.0" SXGA+	X1400	120G 5400	Combo	*Intel 11a/b/g	None	Blue Finger	PM 9	Gbl Oct 06	
2007-7KU	Core 2 Duo T7400	2.16	1GB	15.0" SXGA+	X1400	120G 5400	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM 9	Gbl Nov 06	
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core 2 Duo processor T5600, T7200, or T7400 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus; <i>T5600: 2MB shared L2 cache; Others: 4MB shared L2 cache</i>												
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim												
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm), 80GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™												
Display	Some: 15.0" (385.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB memory Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB memory All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm</i>												
Weight ²	With optical drive and battery: up to 6.2 lb (2.8kg)												
Case material	Carbon Fiber Reinforced Plastic (CFRP) in top/bottom cover												
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	<i>6-cell: up to 5.9 hr; 9-cell: up to 6.3 hr; 9-cell plus Ultrabay battery: up to 8.5 hr</i>												
Architecture	Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
WWAN ¹⁶	None												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell						40Y6799					
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell						40Y6797					
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell						40Y6789					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC Adapter						40Y7659					
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC/DC Combo Adapter						40Y7630					
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Expander						73P3597					
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad External Battery Charger						40Y7625					
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	ThinkPad Nylon Carrying Case						10K0207					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad Carrying Case - Organizer						73P3598					
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - BackPack						73P3599					
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo L192 Wide 19" Monitor (black)						6920AB1					
ThinkPad Convertible Monitor Stand	40Y7620	Lenovo D221 Wide 22" Monitor						6622HB1					
ThinkPad Essential Port Replicator	250510W	ThinkVision® L201p 20.1" Monitor (blk)						9220HB1					
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector						0037A05					
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector						0039A05					
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories												
											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)		
											Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
											License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
											Supports ThinkVantage® technologies		
											65-watt (1951) or 90-watt (2007) AC adapter		
											ThinkPad Roll Cage (one-piece magnesium frame)		
											RoHS-compliant		
											International Warranty Service ¹⁷		
											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
											ThinkPlus™. ²² 2-year LOR 9x5 NBD		
											41C9175		
											ThinkPlus 3-year LOR 9x5 NBD		
											41C9176		
											ThinkPlus 4-year LOR 9x5 NBD		
											41C9177		
											ThinkPlus 5-year LOR 9x5 NBD		
											41C9179		
											ThinkPlus 4-year P&L P/U Depot		
											41C9178		
											ThinkPlus 5-year P&L P/U Depot		
											41C9180		
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US models announced October 17 or November 28, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) or Global (G) Entry (E)	Avail date
2007-82U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	Combo	* Intel 11a/b/g ³²		Blue	Finger		Feb 06
2007-83U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	Feb 06
2007-84U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-86U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	11a/b/g ³²		Blue	Finger		Feb 06
2007-87U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue		G	Feb 06
2007-92U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	11a/b/g		Blue	Finger		Feb 06
2007-93U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	Feb 06
2007-94U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-95U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger		Feb 06
2007-96U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue			Feb 06
2007-8CU	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue	Finger		Jun 06
2007-8DU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	July 06
2007-8EU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue	Finger		July 06
2007-8FU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue			July 06
2007-8GU	Core Duo T2700	2.33	2GB	14.1" SXGA+	256MB	60G 5400	DVD±RW	* Intel 11a/b/g		Blue	Finger		July 06
2007-9EU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	July 06
2007-9FU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue	Finger		July 06
2007-9GU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger		July 06
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2600 or T2700 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache												
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim												
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												
Serial ATA disk (SATA150)	60GB (5400rpm) or 100GB (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™												
Display	<i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	ATI® MOBILITY™ FireGL™ V5200 M56 / PCI Express x16 / 256MB GDDR3 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.8kg)												
Weight ²	14.1": magnesium composite in top cover, CFRP bottom cover; 15": CFRP in top/bottom												
Case material	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim												
Battery - type	9-cell: up to 5.4 hr; 9-cell plus Ultrabay battery: up to 6.9 hr												
Battery - life ¹⁰													
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®												
WWAN ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	T60 Series Li-Ion Battery 6-cell	40Y6799										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797										
ThinkPad Essential Port Replicator	250510W	Advanced Ultrabay Battery 3-cell	40Y6789										
ThinkPad Advanced Mini Dock	250410U	ThinkPad Carrying Case - Backpack	73P3599										
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
US models announced January 31, June 20, or July 11, 2006
US models withdrawn effective October 2006 or September 2007

SOFTWARE ¹⁴	
Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)	
Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)	
License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Supports ThinkVantage® technologies	
90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175
ThinkPlus 3-year LOR 9x5 NBD	41C9176
ThinkPlus 4-year LOR 9x5 NBD	41C9177
ThinkPlus 5-year LOR 9x5 NBD	41C9179
ThinkPlus 4-year P&L P/U Depot	41C9178
ThinkPlus 5-year P&L P/U Depot	41C9180

ThinkPad® T60p 2007 (October 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse or Global Entry	Avail date	
2007-8LU	Core™ 2 Duo T7400	2.16	2GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g ³²	None	Blue	Finger	Gbl	Nov 06	
2007-8JU	Core 2 Duo T7600	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	Gbl	Oct 06	
2007-8HU	Core 2 Duo T7600	2.33	2GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	Gbl	Nov 06	
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core 2 Duo processor T7400 or T7600 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache													
Memory	1GB or 2GB std / 4GB max ³¹ / non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Models 8LU/8HU: PC2-4200 533MHz DDR2; Others: PC2-5300 667MHz DDR2; Non-italics: standard memory in one socket; one socket available</i>													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel													
Serial ATA disk (SATA150)	100GB (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™													
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare													
Graphics	ATI® MOBILITY™ FireGL™ V5250 M66GL-256 / PCI Express x16 / 256MB memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2" ; 316mm x 255mm x 26.6-31mm													
Weight ²	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg)													
Case material	14.1" : magnesium composite in top cover, CFRP bottom cover													
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	9-cell: up to 6.3 hr; 9-cell plus Ultrabay battery: up to 7.8 hr													
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN ¹⁶	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset													
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell						40Y6799	90-watt AC adptr (discrete graphics)					
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell						40Y6797	ThinkPad Roll Cage (one-piece magnesium frame)					
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell						40Y6789	RoHS-compliant					
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger						40Y7625	International Warranty Service ¹⁷					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter						40Y7696	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²					
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ThinkPad 90W AC Adapter						40Y7659	ThinkPlus™ ²² 2-year LOR 9x5 NBD					
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter						40Y7630	41C9175					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Nylon Carrying Case						10K0207	ThinkPlus 3-year LOR 9x5 NBD					
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Expander						73P3597	41C9176					
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer						73P3598	ThinkPlus 4-year LOR 9x5 NBD					
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - BackPack						73P3599	41C9177					
USB 2.0 Security Memory Key 4GB	41U5120	Carrying Case - Leather Attache						73P3600	ThinkPlus 5-year LOR 9x5 NBD					
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Women's Leather Trim Tote						22P8856	41C9179					
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Kensington MicroSaver Security Cable						73P2582	ThinkPlus 4-year P&L P/U Depot					
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	Lenovo L192 Wide 19" Monitor (black)						6920AB1	41C9178					
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo D221 Wide 22" Monitor						6622HB1	ThinkPlus 5-year P&L P/U Depot					
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L192p 19" Monitor (black)						9419HC2	41C9180					
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)						9220HB1	Post-warranty annual maintenance agreements at					
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector						0037A05	lenovo.com/thinkplus/warranty					
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector						0039A05						
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced October 17 or November 28, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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(DV2-2) September 2007

ThinkPad® T60p (Linux-ready) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) or Global (G) or Entry (E)	Avail date
2007-8ZU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g ³²	None	Blue	Finger	Gbl	Aug 06
2007-9ZU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	Gbl	Aug 06

• **Linux-ready with DOS entitlement**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2700 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim											
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	100GB (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™											
Display	<i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	ATI® MOBILITY™ FireGL™ V5200 M56 / PCI Express x16 / 256MB GDDR3 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm											
Weight ²	14.1" models: up to 5.5 lb (2.5kg); 15" models: up to 6.3 lb (2.8kg)											
Case material	14.1" models: magnesium composite in top cover, CFRP bottom cover; 15" models: CFRP in top/bottom											
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	9-cell: up to 5.4 hr; 9-cell plus Ultrabay battery: up to 6.9 hr											
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset											
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	ThinkPad Roll Cage (one-piece magnesium frame)								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	RoHS-compliant								
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	International Warranty Service ¹⁷								
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger	40Y7625	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter	40Y7696	ThinkPlus™ ²² 2-year LOR 9x5 NBD								
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ThinkPad 90W AC Adapter	40Y7659	41C9175								
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus 3-year LOR 9x5 NBD								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Nylon Carrying Case	10K0207	41C9176								
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Expander	73P3597	41C9177								
USB Fingerprint Reader	41U3167	ThinkPad Carrying Case - Organizer	73P3598	41C9178								
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - BackPack	73P3599	ThinkPlus 4-year LOR 9x5 NBD								
USB 2.0 Security Memory Key 4GB	41U5120	Carrying Case - Leather Attache	73P3600	41C9177								
USB 2.0 Super Multi-Burner Drive	41N5565	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 5-year LOR 9x5 NBD								
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L171 17" Monitor (black)	9227AC1	41C9179								
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1	ThinkPlus 4-year P&L P/U Depot								
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo D221 Wide 22" Monitor (black)	6622HB1	41C9178								
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L192p 19" Monitor (black)	9419HC2	ThinkPlus 5-year P&L P/U Depot								
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)	9220HB1	41C9180								
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05	Post-warranty annual maintenance agreements at								
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05	lenovo.com/thinkplus/warranty								
Other accessories on O-T60 sheet		Other accessories at lenovo.com/accessories										

See footnotes for important warranty information
US models announced August 15, 2006
US models withdrawn effective December 2006 or September 2007

* Powered by Intel Centrino® Duo mobile technology

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(DV11-2) September 2007

ThinkPad® T60p (Linux-ready) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse or Global Entry	Avail date
2623-8YU	Core Duo T2500	2.00	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g ³²	None	Blue	Finger	None	Oct 06

- **Linux-ready with DOS entitlement**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											SOFTWARE	
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											Linux operating system and software applications are provided by the customer.	
Diskette drive	None standard / use optional USB-based diskette drive											Although this system has hardware for the following security features, the Linux operating system does not support them: • Fingerprint reader • Active Protection System • Client Security Solution	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim												
EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 100GB (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™												
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare												
Graphics	ATI® MOBILITY™ FireGL™ V5200 M56 / PCI Express x16 / 256MB GDDR3 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm												
Weight ²	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg)												
Case material	14.1": magnesium composite in top cover, CFRP bottom cover;												
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	9-cell: up to 5.4 hr; 9-cell plus Ultrabay battery: up to 6.9 hr												
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
WWAN	None												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											Supports ThinkVantage® technologies	
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	90-watt AC adapter									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ThinkPad Roll Cage (one-piece magnesium frame)									
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	RoHS-compliant									
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger	40Y7625	International Warranty Service ¹⁷									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²									
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus™ ²² 2-year LOR 9x5 NBD									
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Nylon Carrying Case	10K0207	41C9175									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Carrying Case - Expander	73P3597	ThinkPlus 3-year LOR 9x5 NBD									
100GB Hard Disk 9.5mm SATA (7200 rpm)	41N3013	ThinkPad Carrying Case - Organizer	73P3598	41C9176									
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Backpack	73P3599	41C9177									
USB Fingerprint Reader	41U3167	Carrying Case - Leather Attache	73P3600	41C9178									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Women's Microfiber Tote	22P8855	ThinkPlus 4-year LOR 9x5 NBD									
USB 2.0 Security Memory Key 4GB	41U5120	Kensington® MicroSaver® Security Cable	73P2582	41C9179									
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L171 17" Monitor (black)	9227AC1	ThinkPlus 5-year LOR 9x5 NBD									
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L192 Wide 19" Monitor (black)	6920AB1	41C9179									
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Lenovo D221 Wide 22" Monitor (black)	6622HB1	ThinkPlus 4-year P&L P/U Depot									
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision® L192p 19" Monitor (black)	9419HC2	41C9178									
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L201p 20.1" Monitor (black)	9220HB1	ThinkPlus 5-year P&L P/U Depot									
ThinkPad Essential Port Replicator	250510W	Lenovo M500 Projector	0037A05	41C9180									
ThinkPad Advanced Mini Dock	250410U	Lenovo C500 Projector	0039A05	Post-warranty annual maintenance agreements at									
ThinkPad Advanced Dock	250310U	Lenovo Laser Mouse (USB, PS/2)	41U3074	lenovo.com/thinkplus/warranty									
Other accessories on O-T60 sheet		Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US model announced October 17, 2006
US model withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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(DV11-3) September 2007

ThinkPad® T60 and T60p (1951 and 2007) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger Bat- Blue- tooth reader Cell	Chip set	Limited warranty ¹²	Avail date
T60 1951-C2U	Core™ Duo T2400	1.83	512M	14.1" XGA	GMA	60G 5400	Combo	* Intel 11a/b/g ³²	Blue Finger 6	GM EasyServ		Feb 06
T60 2007-C2U	Core Duo T2400	1.83	512M	14.1" XGA	X1300	60G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Feb 06
T60 2007-C3U	Core Duo T2400	1.83	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Feb 06
T60 2007-C4U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Feb 06
T60 2007-C5U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Feb 06
T60 2007-C6U	Core Duo T2400	1.83	512M	15.0" SXGA+	X1300	60G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Feb 06
T60 2007-C7U	Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	80G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Feb 06
T60p 2007-C8U	Core Duo T2600	2.16	1GB	15.0" UXGA+	V5200	100G 7200	DVD±RW	* Intel 11a/b/g	Blue Finger 9	PM EasyServ		Feb 06
T60 1951-01U	Core Duo T2500	2.00	512M	14.1" XGA	GMA	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	GM EasyServ		Apr 06
T60 2007-01U	Core Duo T2500	2.00	512M	14.1" XGA	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Apr 06
T60 2007-02U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Apr 06
T60 2007-03U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	100G 7200	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Apr 06
T60 2007-04U	Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	100G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ		Apr 06

• **These models have an EasyServ™, onsite pickup and delivery 3-year limited warranty**
These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2400 (1.83GHz), T2500 (2.0GHz), or T2600 (2.16GHz) with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) Preloaded (only some listed) • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel		
Serial ATA disk (SATA150)	60GB⁸ (5400 rpm), 80GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™		
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology		
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1 <i>Some:</i> ATI MOBILITY FireGL™ V5200 M56 / PCI Express x16 / 256MB GDDR3 All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm		
Weight ²	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.8 kg)		
Case material	14.1": magnesium composite in top cover, CFRP bottom cover; 15": CFRP in top/bottom		
Battery - type	Lithium Ion 6- or 9-cell / supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 6.0 hr; T60p 9-cell: up to 5.2 hr; T60 9-cell plus Ultrabay battery: up to 11.5		
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
WWAN ¹⁶	None		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset		
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™, onsite pickup and delivery / service upgrades²² avail		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
ThinkPad Advanced Dock	250310U	ThinkPad 90W AC/DC Combo Adapter	40Y7630
Other accessories on O-T60 sheet		Other accessories at lenovo.com/accessories	

See footnotes for important warranty information
US models announced January 31 or April 4, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® T60 and T60p (1952 and 2008) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Finger-print reader	Battery Cell	Chip set	Limited warranty ¹²	Avail date
T60	1952-C2U Core™ Duo T2400	1.83	512M	14.1" XGA	GMA	60G 5400	Combo	* Intel 11a/b/g ³²	Blue	Finger	6	GM	Onsite	Feb 06
T60	2008-C2U Core Duo T2400	1.83	512M	14.1" XGA	X1300	60G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C3U Core Duo T2400	1.83	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C4U Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C5U Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C6U Core Duo T2400	1.83	512M	15.0" SXGA+	X1300	60G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C7U Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	80G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60p	2008-C8U Core Duo T2600	2.16	1GB	15.0" UXGA+	V5200	100G 7200	DVD±RW	* Intel 11a/b/g	Blue	Finger	9	PM	Onsite	Feb 06
T60	1952-01U Core Duo T2500	2.00	512M	14.1" XGA	GMA	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	GM	Onsite	Apr 06
T60	2008-01U Core Duo T2500	2.00	512M	14.1" XGA	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06
T60	2008-02U Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06
T60	2008-03U Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	100G 7200	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06
T60	2008-04U Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	100G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06

These models have a limited onsite service²⁴ 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2400 (1.83GHz), T2500 (2.0GHz), or T2600 (2.16GHz) with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim	
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	60GB⁸ (5400 rpm), 80GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1 <i>Some:</i> ATI MOBILITY FireGL™ V5200 M56 / PCI Express x16 / 256MB GDDR3 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.8 kg)	
Weight ²	14.1": magnesium composite in top cover, CFRP bottom cover; 15": CFRP in top/bottom	
Case material	Lithium Ion 6- or 9-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - type	6-cell: up to 6.0 hr; T60p 9-cell: up to 5.2 hr; T60 9-cell plus Ultrabay battery: up to 11.5	
Battery - life ¹⁰		
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PC1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)	CD • Adobe Photoshop Elements plus Adobe Premiere Elements
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	Supports ThinkVantage® technologies
WWAN ¹⁶	None	65-watt (1952) or 90 watt (2008) AC adapter
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset	ThinkPad Roll Cage (one-piece magnesium frame)
Bluetooth™	Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator	RoHS-compliant
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	International Warranty Service ¹⁷
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹²	3-year/1-year battery, limited onsite service , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced January 31 or April 4, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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(DV1-7) September 2007

ThinkPad® T60 (2007) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger Bat- print tery reader Cell set	Educ pre- load	Limited warranty ¹²	Avail date
T60	2007-QXU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	X1400	100G 7200 DVD±RW	11a/b/g ³²	Finger 9	PM	HE	EasyServ Apr 07
<p>• This model has an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>												
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache									Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ⇨ Vista Basic logo		
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available									Preloaded applications¹⁴ • Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Adobe Reader • Picasa from Google • Fingerprint Software License - CD not included - Lotus® Notes® Stand-alone Client		
Diskette drive	None standard / use optional USB-based diskette drive									Supports ThinkVantage® technologies 90 watt (2007)AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180		
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	100GB⁸ (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™											
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare											
Graphics	ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm											
Weight ²	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg)											
Case material	14.1": magnesium composite in top cover, CFRP bottom cover											
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	6-cell: up to 6.0 hr; 9-cell: up to 6.8 hr; 9-cell plus <i>Ultrabay battery</i> : up to 11.5											
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN ¹⁶	None											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset											
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			T60 Series Li-Ion Battery 6-cell			40Y6799					
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797					
ThinkPad Advanced Dock	250310U			ThinkPad 90W AC/DC Combo Adapter			40Y7630					
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US model announced April 17, 2007
US model withdrawn effective September 2007

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(DV2-6) September 2007

ThinkPad® T60 (2008) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Bat- tery Cell	Educ pre- load chip set	Limited warranty ¹²	Avail date
T60	2008-QXU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	X1400	100G 7200 DVD±RW	11a/b/g ³²	Finger	9	PM	HE	Onsite Apr 07
<p>This model has a limited onsite service²⁴ 3-year limited warranty This educational model is available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Basic logo</p>		
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available</p>										<p>Preloaded applications¹⁴ • Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial</p>		
Diskette drive	None standard / use optional USB-based diskette drive										<p>License - CD not included - Lotus® Notes® Stand-alone Client</p>		
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												
Serial ATA disk (SATA150)	<p>100GB⁸ (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™</p>												
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare										<p>Supports ThinkVantage® technologies</p> <p>90 watt (2007)AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²</p> <p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>		
Graphics	ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm												
Weight ²	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg)												
Case material	14.1": magnesium composite in top cover, CFRP bottom cover												
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell: up to 6.0 hr; 9-cell: up to 6.8 hr; 9-cell plus Ultrabay battery: up to 11.5												
Architecture	<p>Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)</p>												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN ¹⁶	None												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip												
Limited warranty ¹²	3-year/1-year battery, limited onsite service , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴												
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			T60 Series Li-Ion Battery 6-cell			40Y6799						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797						
ThinkPad Advanced Dock	250310U			ThinkPad 90W AC/DC Combo Adapter			40Y7630						
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US model announced April 17, 2007
US model withdrawn effective September 2007

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(DV2-7) September 2007

ThinkPad® T60 (1953) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Bat-tery	Limited warranty ¹²	Avail date
1953-D5U	Core Solo T1300	1.66	256MB	14.1" XGA	GMA 950	40GB	5400	Combo	* Intel 11a/b/g ³²		None		6-cell	1-yr	Feb 06
1953-D6U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	Feb 06
1953-D7U	Core Duo T2300	1.66	512MB	15.0" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	Feb 06
1953-D8U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	80GB	5400	Combo	* Intel 11a/b/g	AT&T	None	Finger	6-cell	1-yr	May 06
1953-D9U	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	July 06
1953-DAU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	July 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These 1953 models have a 1-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Solo processor T1300 (1.66GHz) with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300, T2300E, or T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access • InterVideo WinDVD License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	256MB or 512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	40GB³ (5400 rpm) or 60GB³ (5400 rpm) or 80GB³ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.8 kg)	
Weight ²	14.1": magnesium composite in top cover, CFRP bottom cover; 15": CFRP in top/bottom	
Case material	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - type	6-cell: up to 6.0 hr; <i>opt 9-cell:</i> up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr	
Battery - life ¹⁰		
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB (Version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, or 1394 (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
WWAN ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹² 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available		Supports ThinkVantage® technologies
512MB PC2-5300 DDR2 CL5 SODIMM 40Y7733		65-watt AC adapter (GMA graphics)
1GB PC2-5300 DDR2 CL5 SODIMM 40Y7734		ThinkPad Roll Cage (one-piece magnesium frame)
2GB PC2-5300 DDR2 SODIMM 40Y7735		RoHS-compliant
Serial Hard Drive Ultrabay Slim Adapter(flat) 40Y8725		International Warranty Service ¹⁷
DVD-ROM Ultrabay Slim Drive (curved) 73P3270		24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Combo II Ultrabay Slim Drive (flat bezel) 40Y8621		ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166
ThinkPad DVD Ultrabay Slim Burner (flat) 41N5643		ThinkPlus 2-year LOR 9x5 NBD 41C9167
160GB Disk 9.5mm SATA150 (7200 rpm) 41N5737		ThinkPlus 3-year LOR 9x5 NBD 41C9168
USB 2.0 Security Memory Key 4GB 41U5120		ThinkPlus 4-year LOR 9x5 NBD 41C9171
USB 2.0 Super Multi-Burner Drive 41N5565		ThinkPlus 5-year LOR 9x5 NBD 41C9173
ExpressCard Gemplus Smart Card Reader 41N3043		ThinkPlus 2-year P&L P/U Depot 41C9169
11a/b/g Wireless Mini PCI Express Adpr 40Y7026		ThinkPlus 3-year P&L P/U Depot 41C9170
ThinkPad Essential Port Replicator 250510W		ThinkPlus 4-year P&L P/U Depot 41C9172
ThinkPad Advanced Mini Dock 250410U		ThinkPlus 5-year P&L P/U Depot 41C9174
ThinkPad Advanced Dock 250310U		
Other accessories on O-T60 sheet		
T60 Series Li-Ion Battery 6-cell 40Y6799		
Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797		
Advanced Ultrabay Battery 3-cell 40Y6789		
ThinkPad External Battery Charger 40Y7625		
ThinkPad 90W AC Adapter 40Y7659		
ThinkPad 90W AC/DC Combo Adapter 40Y7630		
ThinkPad Nylon Carrying Case 10K0207		
ThinkPad Carrying Case - Expander 73P3597		
ThinkPad Carrying Case - Organizer 73P3598		
ThinkPad Carrying Case - Backpack 73P3599		
Kensington® MicroSaver® Security Cable 73P2582		
ThinkVision® L171p 17" LCD Monitor 9417HC2		
ThinkVision L190x 19" LCD Monitor 4439HB2		
ThinkVision L193p 19" LCD Monitor 4431HB2		
Lenovo M500 Projector 0037A05		
Other accessories at lenovo.com/accessories		

See footnotes for important warranty information

US models announced Jan 31, June 20, or July 11, 2006

US models withdrawn effective Oct 2006, Sept 2007, or Dec 2007

* Powered by Intel Centrino® mobile technology

* Powered by Intel Centrino® Duo mobile technology

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(DV1-8) December 2007

ThinkPad® T60 (1953 and 2623) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless tooth	Bat-tery set	Limited warranty ¹²	Avail date
T60 1953-DDU	Core™ 2 Duo T5500	1.66	512M	14.1" XGA	GMA 60GB	5400	Combo	*Intel 11a/b/g ³²		GM 6	1-yr	Oct 06
T60 2623-KEU	Core 2 Duo T5600	1.83	1GB	14.1" SXGA+	64MB	80GB 5400	DVD±RW	*Intel 11a/b/g	Blue	PM 6	3-yr	Oct 06
T60 2623-KFU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	128MB	120GB 5400	DVD±RW	*Intel 11a/b/g	Verizon	Blue PM 9	3-yr	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year or 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T5500, T5600, or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus; <i>T5500/T5600:</i> 2MB shared L2 cache; <i>T7200:</i> 4MB shared L2 cache										
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										
Diskette drive EIDE Combo Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60GB⁸ (5400 rpm), 80GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™										
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare										
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB memory <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB memory <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar™, magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg) 14.1": magnesium composite in top cover, CFRP bottom cover Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 9-cell: up to 6.8 hr; 9-cell plus Ultrabay battery: up to 7.8 hr										
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)										
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)										
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN ¹⁶	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®										
Modem Bluetooth™ Ethernet Audio support	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack										
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip										
Limited warranty ¹²	1953: 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available 2623: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades ²² avail										
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial Hard Drive Ultrabay Slim Adapter (flat) Combo II Ultrabay Slim Drive (flat bezel) ThinkPad DVD Ultrabay Slim Burner (flat) 160GB Disk 9.5mm SATA150 (5400 rpm) USB 2.0 Lenovo Webcam USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive 11a/b/g Wireless Mini PCI Express Adpr ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T60 sheet	40Y7733 40Y7734 40Y7735 40Y8725 40Y8621 41N5643 41N5692 40Y8519 41U5120 41N5565 40Y7026 250510W 250410U 250310U	T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery 3-cell ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Expander ThinkPad Carrying Case - Organizer ThinkPad Carrying Case - Backpack Carrying Case - Leather Attache Kensington MicroSaver Security Cable Lenovo L192 Wide 19" Monitor (black) ThinkVision® L201p 20.1" Monitor (blk) Lenovo M500 Projector Lenovo C500 Projector Other accessories at lenovo.com/accessories	40Y6799 40Y6797 40Y6789 40Y7659 40Y7630 73P3597 73P3598 73P3599 73P3600 73P2582 6920AB1 9220HB1 0037A05 0039A05	Supports ThinkVantage® technologies 90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™ options at lenovo.com/thinkplus/warranty Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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(DV2-1) September 2007

ThinkPad® T60 (1953 and 2623) - TopSeller (January 2007) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller memory	SATA disk GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless tooth	Blue- Chip-set	Battery cells	Vista preload	Limited warranty ¹²	Avail date
1953-P3U	Core™ 2 Duo T5500	1.66	1GB	14.1" XGA	GMA	60GB	Combo	*Intel 11a/b/g ³²			GM	6 Business	1-yr	Jan 07
2623-P2U	Core 2 Duo T5600	1.83	1GB	14.1" SXGA+	64MB	80GB	DVD±RW	*Intel 11a/b/g		Blue	PM	6 Business	3-yr	Jan 07
2623-P3U	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	128MB	120GB	DVD±RW	*Intel 11a/b/g	Verizon	Blue	PM	9 Business	3-yr	Jan 07
2623-QWU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	128MB	120GB	DVD±RW	*Intel 11a/b/g		Blue	PM	9 Ultimate	3-yr	Mar 07
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 1-year or 3-year limited warranty 														
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T5500, T5600, or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus; <i>T5500/T5600: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i> 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available <i>1953-P3U: standard memory in both sockets; no sockets available; Others: standard memory in 1 socket; 1 socket available</i>													Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista™ Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ⇨ 2623-P2U: Vista Basic logo ⇨ Others: Vista Premium logo Preloaded applications¹⁴ (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial License - CD not included (all) - Lotus® Notes® Stand-alone Client
Memory	None standard / use optional USB-based diskette drive Some: DVD-ROM/CD-RW / 24X/24X/8X ²¹ speed / removable from Ultrabay Slim Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60GB⁹ (5400 rpm), 80GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/8X ²¹ speed / removable from Ultrabay Slim													
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel													
Serial ATA disk (SATA150)	60GB⁹ (5400 rpm), 80GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare													
Graphics	Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz Some: ATI MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB memory Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB memory All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2" ; 311mm x 255mm x 26.6-31mm													
Weight ²	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg)													
Case material	14.1" : magnesium composite in top cover, CFRP bottom cover													
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	6-cell: up to 6.3 hr; 9-cell: up to 6.8 hr; 9-cell plus Ultrabay battery: up to 7.8 hr													
Architecture	Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³² WWAN ¹⁶	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset													
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	1953: 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available 2623: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades ²² avail													
Supports ThinkVantage® technologies														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	90-watt AC adapter (discrete graphics)										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ThinkPad Roll Cage (one-piece magnesium frame)										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	RoHS-compliant										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659	International Warranty Service ¹⁷										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Carrying Case - Organizer	73P3598											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Backpack	73P3599											
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Lenovo D221 Wide 22" Monitor	6622HB1											
ThinkPad Essential Port Replicator	250510W	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1											
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05											
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05											
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced January 30 or March 27, 2007
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® T60 and T60p (2623) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Bat-tery	Limited warranty ¹²	Avail date
T60	2623-D2U	Core Duo T2300	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	DVD±RW	11a/b/g ³²	Verizon	Blue	9-cell 3-yrs	Feb 06
T60	2623-D3U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB 5400	DVD±RW *	Intel 11a/b/g ³²	Verizon	Blue	9-cell 3-yrs	Feb 06
T60	2623-D4U	Core Duo T2300	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	Combo *	Intel 11a/b/g			6-cell 3-yrs	Feb 06
T60	2623-D5U	Core Duo T2300	1.66	512MB	14.1" XGA	64MB	60GB 5400	Combo *	Intel 11a/b/g	Verizon		6-cell 3-yrs	Feb 06
T60	2623-D6U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB 5400	DVD±RW *	Intel 11a/b/g		Blue	6-cell 3-yrs	Feb 06
T60	2623-D7U	Core Duo T2500	2.00	512MB	14.1" SXGA+	128MB	100GB 5400	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yrs	Feb 06
T60p	2623-D8U	Core Duo T2500	2.00	1GB	14.1" SXGA+	256MB	100GB 7200	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yrs	Feb 06
T60	2623-D9U	Core Duo T2300	1.66	512MB	15.0" XGA	64MB	60GB 5400	Combo *	Intel 11a/b/g			6-cell 3-yrs	Feb 06
T60	2623-DAU	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	80GB 5400	Combo *	Intel 11a/b/g			6-cell 3-yrs	Feb 06
T60	2623-DBU	Core Duo T2400	1.83	512MB	15.0" SXGA+	64MB	80GB 5400	Combo *	Intel 11a/b/g	Verizon	Blue	6-cell 3-yrs	Feb 06
T60	2623-DCU	Core Duo T2500	2.00	512MB	15.0" SXGA+	128MB	100GB 5400	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yrs	Feb 06
T60p	2623-DDU	Core Duo T2500	2.00	1GB	15.0" UXGA	256MB	100GB 7200	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yrs	Feb 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2623 models have a 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2300 (1.66GHz), T2400 (1.83GHz), or T2500 (2.00GHz) with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim	
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	60GB⁸ (5400 rpm), 80GB (5400 rpm), or 100GB (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™	
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare <i>Some:</i> 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> 15.0" (381.0mm) UXGA (1600x1200) TFT color / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology	
Graphics	<i>Some:</i> ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 <i>Some:</i> ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1 <i>Some:</i> ATI MOBILITY FireGL™ V5200 M56 / PCI Express x16 / 256MB GDDR3 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.8 kg)	
Weight ²	14.1": magnesium composite in top cover, CFRP bottom cover; 15": CFRP in top/bottom	
Case material	Lithium Ion 6- or 9-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - type	6-cell: up to 6.0 hr; 9-cell: up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr	
Battery - life ¹⁰		
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset	
Modem	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator	
Bluetooth™	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	
Ethernet	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	
Audio support	Power-on password / hard disk password / supervisor password / security keyhole	
Security	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Security chip	Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Fingerprint reader		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail	
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell 40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery 3-cell 40Y6789
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC Adapter 40Y7659
ThinkPad Advanced Mini Dock	250410U	ThinkPad Carrying Case - Expander 73P3597
ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories
		ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175
		ThinkPlus 3-year LOR 9x5 NBD 41C9176
		ThinkPlus 4-year LOR 9x5 NBD 41C9177
		ThinkPlus 5-year LOR 9x5 NBD 41C9179
		ThinkPlus 4-year P&L P/U Depot 41C9178
		ThinkPlus 5-year P&L P/U Depot 41C9180
		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

* Powered by Intel Centrino® Duo mobile technology

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US models announced January 31, 2006

(DV1-9) December 2007

US models withdrawn effective Oct 2006, Sept 2007, or Dec 2007

ThinkPad® T60 and T60p (2623) - TopSeller (June 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Bat-tery	Limited warranty ¹²	Avail date
T60	2623-DGU	Core Duo T2300	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	DVD±RW	11a/b/g ³²	AT&T	9-cell	3-yrs	Jun 06
T60	2623-DJU	Core Duo T2300	1.66	512MB	14.1" XGA	64MB	60GB 5400	Combo	* Intel 11a/b/g	AT&T	6-cell	3-yrs	Jun 06
T60	2623-DKU	Core Duo T2500	2.00	512MB	14.1" SXGA+	128MB	100GB 5400	DVD±RW	* Intel 11a/b/g	AT&T	Blue 9-cell	3-yrs	Jun 06
T60p	2623-DLU	Core Duo T2500	2.00	1GB	14.1" SXGA+	256MB	100GB 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue 9-cell	3-yrs	Jun 06
T60	2623-DQU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB 5400	Combo	* Intel 11a/b/g	Verizon	6-cell	3-yrs	July 06
T60	2623-DRU	Core Duo T2300E	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	Combo	* Intel 11a/b/g		6-cell	3-yrs	July 06
T60	2623-DSU	Core Duo T2500	2.00	512MB	14.1" SXGA+	128MB	100GB 5400	DVD±RW	* Intel 11a/b/g	AT&T	Blue 9-cell	3-yrs	July 06
T60	2623-DTU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB 5400	Combo	* Intel 11a/b/g		6-cell	3-yrs	July 06
T60	2623-01U	Core Duo T2300E	1.66	1GB	15.0" SXGA+	128MB	120GB 5400	DVD±RW	* Intel 11a/b/g		Blue 6-cel	3-yrs	Jun 07

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2623 models have a 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2300, T2300E, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim											
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	60GB⁸ (5400 rpm), 80GB (5400 rpm), 100GB (5400 or 7200 rpm), 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™											
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1 Some: ATI MOBILITY FireGL™ V5200 M56 / PCI Express x16 / 256MB GDDR3 All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.8 kg)											
Weight ²	14.1": magnesium composite in top cover, CFRP bottom cover; 15": CFRP in top/bottom)											
Case material	Lithium Ion 6- or 9-cell / supports unique 2nd battery in Ultrabay Slim											
Battery - type	6-cell: up to 6.0 hr; 9-cell: up to 9.0 hr; 9-cell plus Ultrabay battery: up to 11.5 hr											
Battery - life ¹⁰												
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®											
WWAN ²³	Some: Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset											
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	T60 Series Li-Ion Battery 6-cell										40Y6799
2GB PC2-5300 DDR2 SODIMM	40Y7735	Z60m/T60/R60 Li-Ion Battery 9-cell										40Y6797
Serial Hard Drive Ultrabay Slim Adapter(flat)	40Y8725	Advanced Ultrabay Battery 3-cell										40Y6789
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger										40Y7625
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter										40Y7659
Other accessories on O-T60 sheet												Other accessories at lenovo.com/accessories
												lenovo.com/thinkplus/warranty

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
 US models announced June 20 or July 11, 2006 or July 24, 2007
 US models withdrawn effective October 2006 or September 2007

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(DV1-10) September 2007

ThinkPad® T60 15W - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Bat-Chip set	Whorse (W) tery cells	Avail Gbl (G) Entry (E) date
6369-6XU	Core 2 Duo T5500	1.66	512M	15.4" WXGA	GMA 40G	5400	DVD		*Intel 11a/b/g ³²			GM	6	G E Dec06
6369-6FU	Core 2 Duo T5500	1.66	512M	15.4" WXGA	GMA 60G	5400	Combo		*Intel 11a/b/g		Finger	GM	6	G E Dec06
6369-6RU	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA 80G	5400	Combo		*Intel 11a/b/g		Finger	GM	6	G Dec06
8741-85U	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	X1400	80G	5400	Combo	*Intel 11a/b/g		Blue Finger	PM	6	G Dec06
6369-3HU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	GMA 80G	5400	Combo		*Intel 11a/b/g		Finger	GM	6	G Dec06
6369-38U	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	GMA 80G	5400	Combo		*Intel 11a/b/g		Blue Finger	GM	6	Dec06
8741-4GU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g		Blue Finger	PM	6	G Dec06
6369-69U	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA 80G	5400	Combo		*Intel 11a/b/g		Blue Finger	GM	6	G Dec06
8741-55U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	9	G Dec06
8741-4SU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	9	G Dec06
8741-4RU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g	AT&T	Blue Finger	PM	9	Dec06
8741-4YU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g	Verizon	Blue Finger	PM	9	Dec06
8741-52U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	9	G Dec06

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T5500, T7200, T7400, or T7600 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus / <i>T5500: 2MB L2 cache (shared); Others: 4MB L2 cache (shared)</i>	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE DVD	<i>Some: DVD-ROM / 24X-8X9 speed / single-layer / removable from Ultrabay™ Slim</i>	
EIDE Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Slim</i>	
EIDE DVD±RW	<i>Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim</i>	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™	
Widescreen display (anti-glare)	<i>Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio</i> <i>Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect</i> <i>All: stainless steel hinges / one hand activates dual latches</i>	
Graphics	<i>Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz</i> <i>Some: ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory</i> <i>All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</i>	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>15.4" models (WxDxH): 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm</i> with optical drive and battery: up to 6.06 lb (2.75kg)	
Weight ²		
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom	
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>6-cell: up to 5.5 hr; 9-cell: up to 6.1 hr; 9-cell plus Ultrabay battery: up to 7.6 hr</i>	
Architecture	<i>Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub</i> <i>Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub</i> <i>All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T⁸ PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)</i>	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	<i>Some: 11a/b/g wireless⁴, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</i>	
WWAN ¹⁶	<i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, retractable WWAN antenna, service contract reqd with Verizon®</i>	
WWAN ²³	<i>Some: Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, retractable WWAN antenna, service contract required with AT&T®</i>	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset	
Bluetooth™	<i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i>	
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip</i>	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail	
		Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™. ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 5-year LOR 9x5 NBD 41C9179 Other ThinkPlus services at lenovo.com/thinkplus/warranty

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
US models announced November 28 or December 19, 2006
US models withdrawn effective September 2007

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(CR2-1) September 2007

ThinkPad® T60p 15W 8741 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger print reader	Bat-tery Chip set	Whorse (W) Gbl (G) Avail Entry (E) date
8741-C2U	Core 2 Duo T7400	2.16	2GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	*Intel 11a/b/g ³²	None	Blue Finger	PM 9	Dec06
8741-C3U	Core 2 Duo T7600	2.33	2GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM 9	Dec06
8741-C4U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM 9	G Dec06
8741-C5U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	11a/b/g ³²	None	Blue Finger	PM 9	G Dec06
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7400 or T7600 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus / 4MB L2 cache (shared)											
Memory	1GB or 2GB std / 4GB max ³¹ / non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Model C3U:</i> PC2-4200 533MHz DDR2; <i>Others:</i> PC2-5300 667MHz DDR2; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 100GB⁹ (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™											
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect / anti-glare / stainless steel hinges / one hand activates dual latches											
Graphics	ATI® MOBILITY™ FireGL™ V5250 / PCI Express x16 / 256MB memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.13-1.34"; 357.5mm x 255mm x 28.7-34mm with optical drive and battery: up to 6.07 lb (2.76kg) Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 5.7 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.2 hr											
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T [®] PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel [®] 7SC3203)											
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna Mini PCI Express Intel 11a/b/g ³² 11a/b/g ³² WWAN ¹⁶	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None											
Modem Bluetooth™ Ethernet Audio support	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security Security chip Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.2-compliant Power-on password / hard disk password / supervisor password / security keyhole Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail											
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial/Parallel Port Bay Adapter (flat bezel) Serial Hard Drive Ultrabay Slim Adapter (flat) Combo II Ultrabay Slim Drive (flat bezel) ThinkPad DVD Ultrabay Slim Burner (flat) USB Gemplus GemPC Smart Card Reader USB 2.0 Lenovo Multimedia Headset USB 2.0 Lenovo Webcam USB 2.0 Security Memory Key 4GB USB 2.0 Portable 120GB Hard Disk USB 2.0 Super Multi-Burner Drive 11a/b/g Wireless Mini PCI Express Adpr ThinkPad Adjustable Notebook Stand ThinkPad Convertible Monitor Stand ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock TrackPoint Cap Collection Other accessories on O-T60 sheet	T60 Series Li-Ion Battery 6-cell 40Y6799 Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery 3-cell 40Y6789 ThinkPad External Battery Charger 40Y7625 ThinkPad 65W AC Adapter 40Y7696 ThinkPad 90W AC Adapter 40Y7659 ThinkPad 90W AC/DC Combo Adapter 40Y7630 ThinkPad Nylon Carrying Case 10K0207 ThinkPad Carrying Case - Expander 73P3597 ThinkPad Carrying Case - Organizer 73P3598 ThinkPad Carrying Case - BackPack 73P3599 Carrying Case - Leather Attache 73P3600 ThinkPad Women's Microfiber Tote 22P8855 Kensington® MicroSaver® Security Cable 73P2582 Lenovo L192 Wide 19" Monitor (black) 6920AB1 Lenovo D221 Wide 22" Monitor 6622HB1 ThinkVision® L192p 19" Monitor (black) 9419HC2 ThinkVision L201p 20.1" Monitor (black) 9220HB1 Lenovo M500 Projector 0037A05 Lenovo C500 Projector 0039A05 Other accessories at lenovo.com/accessories											
	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											

See footnotes for important warranty information
US models announced November 28, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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(CR2-2) September 2007

ThinkPad® T60 and T60p 15W (6369 and 8741) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Bat-Chip set	Limited warranty ¹²	Avail date
T60 6369-6BU	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	*Intel 11a/b/g ³²	None	Blue	GM 6	EasyServ	Dec 06
T60 8741-49U	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 6	EasyServ	Dec 06
T60 8741-4BU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 9	EasyServ	Dec 06
T60 8741-4PU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 9	EasyServ	Dec 06
T60p 8741-C6U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	V5250	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 9	EasyServ	Dec 06

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7200, T7400, or T7600 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus / 4MB L2 cache (shared)		SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD included • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003 License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™, ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel		
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) or 100GB (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™		
Widescreen display (anti-glare)	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches		
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory <i>Some:</i> ATI MOBILITY FireGL™ V5250 / PCI Express x16 / 256MB memory <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm		
Weight ²	with optical drive and battery: up to 6.05 lb (2.75kg)		
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom		
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 5.2 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 7.5 hr		
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g ³² WWAN ¹⁶	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset		
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip		
Limited warranty ¹² 3-years/1-year battery - EasyServ™ ¹⁹ onsite pickup and delivery / srv upgrades ²² avail			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter	40Y7696
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659
USB Gemplus GempC Smart Card Reader	41N3040	ThinkPad 90W AC/DC Combo Adapter	40Y7630
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Backpack	73P3599
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1
ThinkPad Essential Port Replicator	250510W	Lenovo D221 Wide 22" Monitor	6622HB1
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05
Other accessories on O-T60 sheet		Other accessories at lenovo.com/accessories	

See footnotes for important warranty information
US models announced November 28, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® T60 and T60p 15W (6370 and 8742) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Chip set	Battery cells	Limited warranty ¹²	Avail date
T60 6370-6BU	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	*Intel 11a/b/g ³²	None	Blue	GM	6	Onsite	Dec 06
T60 8742-49U	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	6	Onsite	Dec 06
T60 8742-4BU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	9	Onsite	Dec 06
T60 8742-4PU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	9	Onsite	Dec 06
T60p 8742-C6U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	V5250	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	9	Onsite	Dec 06

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7200, T7400, or T7600 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus / 4MB L2 cache (shared)											SOFTWARE¹⁴		
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available											Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 80GB⁸ (5400 rpm) or 100GB⁸ (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™											Preloaded • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Widescreen display (anti-glare)	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches											• Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003		
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory <i>Some:</i> ATI MOBILITY FireGL™ V5250 / PCI Express x16 / 256MB memory <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											• CD included • Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions											License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.4" models (WxDxH): 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm with optical drive and battery: up to 6.05 lb (2.75kg) Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 5.2 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 7.5 hr													
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)													
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN ¹⁶ Modem Bluetooth™ Ethernet Audio support	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time													
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial Hard Drive Ultrabay Slim Adapter (flat) Combo II Ultrabay Slim Drive (flat bezel) USB Gemplus GempC Smart Card Reader USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive 160GB Disk 9.5mm SATA150 (5400 rpm) ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T60 sheet	40Y7733 40Y7734 40Y7735 40Y8725 40Y8621 41N3040 41U5120 41N5565 41N5692 250510W 250410U 250310U			T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad External Battery Charger ThinkPad 65W AC Adapter ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Organizer ThinkPad Carrying Case - Backpack Lenovo L192 Wide 19" Monitor (black) Lenovo D221 Wide 22" Monitor Lenovo M500 Projector Lenovo C500 Projector Other accessories at lenovo.com/accessories			40Y6799 40Y6797 40Y7625 40Y7696 40Y7659 40Y7630 73P3598 73P3599 6920AB1 6622HB1 0037A05 0039A05							
											Supports ThinkVantage® technologies			
											65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			

See footnotes for important warranty information
US models announced November 28, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® T60 15W (8741) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸	EIDE rpm	optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Bat- set	Educ erty cells	pre-load	Limited warranty ¹²	Avail date
T60 8741-HHU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g ³²	None	PM	9	HE	EasyServ	Apr 07
T60 8741-HJU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g	None	PM	9	K12	EasyServ	Apr 07

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB L2 cache (shared)										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ↔ Vista Basic logo				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										Preloaded applications¹⁴ • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor® (diagnostics) • ThinkPad Utilities • Adobe Reader • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	100GB⁹ (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™														
Widescreen display (anti-glare)	15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect / stainless steel hinges / one hand activates dual latches														
Graphics	ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm														
Weight ²	with optical drive and battery: up to 6.05 lb (2.75kg)														
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom														
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.5 hr														
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN ¹⁶	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset														
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-years/1-year battery - EasyServ™ ¹⁹ onsite pickup and delivery / srv upgrades ²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			T60 Series Li-Ion Battery 6-cell			40Y6799								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797								
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad External Battery Charger			40Y7625								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad 65W AC Adapter			40Y7696								
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621			ThinkPad 90W AC Adapter			40Y7659								
USB 2.0 Lenovo Webcam	40Y8519			ThinkPad 90W AC/DC Combo Adapter			40Y7630								
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Carrying Case - Organizer			73P3598								
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Carrying Case - BackPack			73P3599								
ThinkPad Essential Port Replicator	250510W			Lenovo L192 Wide 19" Monitor (black)			6920AB1								
ThinkPad Advanced Mini Dock	250410U			Lenovo D221 Wide 22" Monitor			6622HB1								
ThinkPad Advanced Dock	250310U			Lenovo C500 Projector			0039A05								
Other accessories on O-T60 sheet											Other accessories at lenovo.com/accessories				
											ThinkPlus™, ²² 2-year LOR 9x5 NBD 41C9175				
											ThinkPlus 3-year LOR 9x5 NBD 41C9176				
											ThinkPlus 4-year LOR 9x5 NBD 41C9177				
											ThinkPlus 5-year LOR 9x5 NBD 41C9179				
											ThinkPlus 4-year P&L P/U Depot 41C9178				
											ThinkPlus 5-year P&L P/U Depot 41C9180				
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced April 17, 2007
US models withdrawn effective September 2007

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(CR2-7) September 2007

ThinkPad® T60 15W (8742) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB ⁸	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Bat-tery set cells	Educ pre-load	Limited warranty ¹²	Avail date
T60 8742-HHU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g ³²	None	PM 9	HE	Onsite	Apr 07
T60 8742-HJU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g	None	PM 9	K12	Onsite	Apr 07

These models have a limited onsite service²⁴ 3-year limited warranty

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB L2 cache (shared)										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ↔ Vista Basic logo	
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										Preloaded applications¹⁴ • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial License - CD not included - Lotus® Notes® Stand-alone Client	
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	100GB⁸ (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™											
Widescreen display (anti-glare)	15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect / stainless steel hinges / one hand activates dual latches											
Graphics	ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm											
Weight ²	with optical drive and battery: up to 6.05 lb (2.75kg)											
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom											
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	<i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.5 hr											
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75SC3203)											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN ¹⁶	None											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset											
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty ¹²	3-year/1-year battery, limited onsite service , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			T60 Series Li-Ion Battery 6-cell			40Y6799			Supports ThinkVantage® technologies		
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797			90-watt (ATI graphics) AC adapter		
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad External Battery Charger			40Y7625			ThinkPad Roll Cage (one-piece magnesium frame)		
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad 65W AC Adapter			40Y7696			RoHS-compliant		
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621			ThinkPad 90W AC Adapter			40Y7659			International Warranty Service ¹⁷		
USB 2.0 Lenovo Webcam	40Y8519			ThinkPad 90W AC/DC Combo Adapter			40Y7630			24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Carrying Case - Organizer			73P3598					
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Carrying Case - Backpack			73P3599					
ThinkPad Essential Port Replicator	250510W			Lenovo L192 Wide 19" Monitor (black)			6920AB1					
ThinkPad Advanced Mini Dock	250410U			Lenovo D221 Wide 22" Monitor			6622HB1					
ThinkPad Advanced Dock	250310U			Lenovo C500 Projector			0039A05			Post-warranty annual maintenance agreements at		
Other accessories on O-T60 sheet											lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
US models announced April 17, 2007
US models withdrawn effective September 2007

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ThinkPad® T60 and T60p 15W (TopSeller) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Chip set	Battery cells	Limited warranty ¹²	Availability date
T60 6371-7DU	Core Duo T2300E	1.66	512MB	15.4" WSXGA	GMA	80GB 5400	Combo	*Intel 11a/b/g ³²	None	GM	6	1-yr	Mar 07	
T60 6371-74U	Core 2 Duo T5500	1.66	512MB	15.4" WXGA	GMA	80GB 5400	Combo	*Intel 11a/b/g	None	GM	6	1-yr	Dec 06	
T60 8744-5BU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	120G 5400	DVD±RW	Thinkpad 11n ²⁸	None	Blue	PM	6	3-yr	Dec 06
T60p 8744-C9U	Core 2 Duo T7200	2.00	2GB	15.4" WSXGA+	V5250	100G 7200	DVD±RW	Thinkpad 11n	None	Blue	PM	9	3-yr	Dec 06

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 1-year or 3-year limited warranty**

Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ Duo processor T2300E with dual-core, Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, 667MHz system bus, and 2MB L2 cache (shared) or Intel Core 2 Duo processor T5500 or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, and 667MHz system bus / T5500: 2MB L2 cache (shared); T7200: 4MB L2 cache (shared)</p>												
Memory	<p>512MB, 1GB, or 2GB std / 4GB max³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / C9U: standard memory in both sockets; no sockets available; Others: standard memory in 1 socket; 1 socket available</p>												
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	<p>None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 80GB⁸ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™</p>												
Widescreen display (anti-glare)	<p><i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches</p>												
Graphics	<p><i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory <i>Some:</i> ATI MOBILITY FireGL™ V5250 / PCI Express x16 / 256MB memory All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>												
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions</p>												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p>15.4" models (WxDxH): 14.1" x 10.0" x 1.13-1.34"; 357.5mm x 255mm x 28.7-34mm with optical drive and battery: up to 6.08 lb (2.76kg) Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 5.5 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 7.0 hr</p>												
Architecture	<p><i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)</p>												
PC Card Std slot ExpressCard slot Ports	<p>One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)</p>												
Wireless antenna Mini PCI Express Intel 11a/b/g ³² ThinkPad 11n ²⁸	<p>UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless⁴, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g/n wireless⁴, ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3</p>												
WWAN ¹⁶ Modem Bluetooth™ Ethernet Audio support	<p>None 56K⁶ V.90 (V.92-designed²⁹) modem in Com Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole</p>												
Security Security chip Fingerprint reader	<p>Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip</p>												
Limited warranty ¹²	<p>6371: 1-year - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² available 8744: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades²² avail</p>												
1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM USB 2.0 Super Multi-Burner Drive ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T60 sheet	<p>40Y7734 40Y7735 41N5565 250510W 250410U 250310U</p>			<p>T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Organizer Lenovo L192 Wide 19" Monitor (black)</p>						<p>40Y6799 40Y6797 40Y7659 40Y7630 73P3598 6920AB1</p>			
<p>Other accessories at lenovo.com/accessories</p>													
<p>SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Microsoft Office OneNote® 2003 or 2007 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD included • Microsoft Office OneNote 2003 License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>													
<p>Supports ThinkVantage® technologies</p>													
<p>65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²</p>													
<p>Onsite service upgrade options²² and post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>													

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
US models announced November 28, 2006 or March 27, 2007

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(CR2-3) September 2007

ThinkPad® T60 and T60p 15W (TopSeller) - Vista™ - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	SATA disk GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Chip-set	Battery cells	Vista preload	Limited warranty ¹²	Avail date
T60 6371-E4U	Core 2 Duo T5500	1.66	1GB	15.4" WXGA	GMA 80GB	80GB	Combo	*Intel 11a/b/g ³²	GM	6	Business		1-yr	Jan 07
T60 8744-H3U	Core 2 Duo T5500	1.66	1GB	15.4" WXGA	X1400	120G	DVD±RW	*Intel 11a/b/g	PM	9	Business		3-yr	Jan 07
T60 6371-E5U	Core 2 Duo T5600	1.83	1GB	15.4" WXGA	GMA 120G	120G	DVD±RW	*Intel 11a/b/g	GM	9	Business		1-yr	Jan 07
T60p 8744-J2U	Core 2 Duo T7200	2.00	2GB	15.4" WSXGA+	V5250	100G	DVD±RW	*Intel 11a/b/g	Blue	PM	9	Business	3-yr	Jan 07
T60p 8744-JVU	Core 2 Duo T7200	2.00	2GB	15.4" WSXGA+	V5250	100G	DVD±RW	ThinkPad 11n ²⁸	Blue	PM	9	Ultimate	3-yr	Mar 07

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year or 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T5500, T5600, or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus / [T5600/T7200: Virtualization Technology not supported] / T5500/T5600: 2MB L2 cache (shared); T7200: 4MB L2 cache (shared)										SOFTWARE¹⁴			
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / E4U/J2U/JVU: standard memory in both sockets; no sockets available; Others: standard memory in 1 socket; 1 socket available										Preloaded operating system - Some: Microsoft® Windows® Vista Business Edition ²⁰ (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ E5U: Vista Basic logo ◇ Others: Vista Premium logo			
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded applications (all)			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										• Rescue and Recovery™			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim										• Access Connections™			
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel										• Client Security Solution™			
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / ThinkPad Shock Mounted Hard Drive / Active Protection System™										• ThinkVantage Productivity Center with Away Manager			
Widescreen display (anti-glare)	Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches										• ThinkVantage System Update			
Graphics	Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz Some: ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory Some: ATI MOBILITY FireGL™ V5250 / PCI Express x16 / 256MB memory All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										• Norton Internet Security™ (90 days of virus definitions)			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										• Diskeeper® Home			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• PC-Doctor™ (diagnostics)			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• ThinkPad Utilities (Power Manager and Presentation Director)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Adobe® Reader			
Dimensions ³	<i>15.4" models (WxDxH): 14.1" x 10.0" x 1.13-1.34"</i> ; 357.5mm x 255mm x 28.7-34mm										• Picasa from Google			
Weight ²	with optical drive and battery: up to 6.08 lb (2.76kg)										• Microsoft Office 2007 Trial			
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom										License - CD not included (all)			
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim										- Lotus® Notes® Stand-alone Client			
Battery - life ¹⁰	6-cell : up to 5.2 hr; 9-cell : up to 6.0 hr; 9-cell plus Ultrabay battery : up to 7.0 hr													
Architecture	Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
ThinkPad 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3													
WWAN ¹⁶	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Com Daughter Card socket / Conexant® chipset													
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										Supports ThinkVantage® technologies			
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	6371: 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail 8744: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades ²² avail										65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733		T60 Series Li-Ion Battery 6-cell		40Y6799									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734		Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797									
2GB PC2-5300 DDR2 SODIMM	40Y7735		ThinkPad External Battery Charger		40Y7625									
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad 65W AC Adapter		40Y7696									
ThinkPad Essential Port Replicator	250510W		ThinkPad 90W AC Adapter		40Y7659									
ThinkPad Advanced Mini Dock	250410U		ThinkPad 90W AC/DC Combo Adapter		40Y7630									
ThinkPad Advanced Dock	250310U		Lenovo D221 Wide 22" Monitor		6622HB1		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty							
Other accessories on O-T60 sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced January 30 or March 27, 2007
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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Partial list of accessories supported on ThinkPad T60 and T60p originally announced on January 5, 2006

Memory

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm (best to use flat bezel options)

Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ann 01/31/06
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ann 09/20/05
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ann 10/07/03
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

Ultrabay Enhanced 12.7mm

None

Storage and removable storage

80GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N5737	ann 10/16/07

⁴¹ Can be used as the main HDD or with ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless LAN (Mini PCI Express)

11a/b/g Wireless Mini PCI Express Adpr ⁴²	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad ⁴²	41N3008	ann 01/05/06

⁴² System must be wireless upgradable.

ThinkPad Expansion

ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock ⁴⁷	250310U	ann 09/20/05

⁴⁷ ThinkPad Advanced Dock supports dual-head graphics adapters:
- ATI® X1300 256MB Dual Head/TV-out 41U5028

External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
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Batteries

T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell ⁴³	40Y6789	ann 09/20/05

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	
⁴⁵ Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin 8-outlet 6-foot Surge Protector	31P7659	

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Organizer	73P3598	
ThinkPad Carrying Case - BackPack	73P3599	
ThinkPad Carrying Case - Leather Attache	73P3600	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Women's Microfiber Tote	22P8855	
ThinkPad Women's Leather Trim Tote	22P8856	
ThinkPad Women's Executive Leather Tote	22P8857	
Women's Executive Red Leather Tote	22P8858	
ThinkPad Convertible Carrying Case	22P8860	
ThinkPad Convertible Back Pack	22P8859	

Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
ThinkVision® L151 15" LCD Monitor	9165AC6	ann 10/23/07
ThinkVision L171 17" LCD Monitor	9227AD1	ann 10/23/07
ThinkVision L171p 17" LCD Monitor	9417HC2	ann 10/31/06
ThinkVision L190x 19" LCD Monitor	4439HB2	ann 10/23/07
ThinkVision L193p 19" LCD Monitor	4431HB2	ann 10/23/07
ThinkVision L194 Wide 19" LCD Monitor	4434HB6	ann 10/23/07
ThinkVision L220x Wide 22" LCD Monitor	4433HB2	ann 10/23/07

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

Other accessories at lenovo.com/accessories

Accessories Guide pdf at lenovo.com/accessoriesguide

Need to buy accessories no longer marketed by Lenovo? See www.itxchange.com/lenovo for the Options Continuation Program.

ThinkPlus™, 22 service upgrade options²² for 1-year warranty models:

1-year Lenovo Onsite Repair 9x5 Next Business Day	41C9166
2-year Lenovo Onsite Repair 9x5 Next Business Day	41C9167
3-year Lenovo Onsite Repair 9x5 Next Business Day	41C9168
4-year Lenovo Onsite Repair 9x5 Next Business Day	41C9171
5-year Lenovo Onsite Repair 9x5 Next Business Day	41C9173
2-year Parts and Labor (P&L) Pickup Depot	41C9169
3-year Parts and Labor (P&L) Pickup Depot	41C9170
4-year Parts and Labor (P&L) Pickup Depot	41C9172
5-year Parts and Labor (P&L) Pickup Depot	41C9174

ThinkPlus™, 22 service upgrade options²² for 3-year warranty models:

2-year Lenovo Onsite Repair 9x5 Next Business Day	41C9175
3-year Lenovo Onsite Repair 9x5 Next Business Day	41C9176
4-year Lenovo Onsite Repair 9x5 Next Business Day	41C9177
5-year Lenovo Onsite Repair 9x5 Next Business Day	41C9179
4-year Parts and Labor (P&L) Pickup Depot	41C9178
5-year Parts and Labor (P&L) Pickup Depot	41C9180

Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

ThinkPad® T61 8895 (GMA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Vista preload	Workhorse (W) Global (G) Entry (E)	Avail date
8895-2FU	T7300	2.00	1GB	14.1" XGA	GMA	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6	Business32 W G	Jun 07
8895-01U	T7300	2.00	1GB	14.1" XGA	GMA	80GB 5400	Combo	* Intel 4965AG	None	Smart	Blue	6	XP Pro	Sep 07
8895-02U	T7500	2.20	1GB	14.1" XGA	GMA	100G 7200	DVD±RW	* Intel 4965AG	None	/54	Blue	6	XP Pro	Sep 07

Italic MTM: not a base model for building a custom model

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista™ Business Edition (32-bit) ◇ <i>Vista models:</i> Vista Basic logo			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW) • InterVideo WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim													
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim													
Ultrabay Slim	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) or 100GB (7200 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Display	14.1" (358.1mm) XGA (1024x768) color , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare													
Camera	None													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1" models (WxDxH): 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery: 5.3 lb (2.4kg)													
Weight ²	<i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Case material	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - type	<i>6-cell:</i> up to 5.7 hr; <i>9-cell:</i> up to 8.6 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.1 hr													
Battery - life ¹⁰	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
Chipset	One Type I or Type II slot, CardBus 32-bit <i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0 <i>Some:</i> Smart Card Reader													
PC Card Std slot	None													
ExpressCard slot	None													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG													
WWAN	None													
Turbo Memory	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole													
Security	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Security chip	Fingerprint reader on palm rest , swipe sensor, supports the security chip													
Fingerprint reader	Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
Limited warranty ¹²	Supports ThinkVantage® technologies													
1GB PC2-5300 DDR2 SODIMM	65-watt (GMA graphics) AC adapter													
2GB PC2-5300 DDR2 SODIMM	ThinkPad Roll Cage and Top Cover													
ThinkPad DVD Ultrabay Slim Burner (flat)	Roll Cage (one-piece magnesium)													
Serial Hard Drive Ultrabay Slim Adapter (flat)	ENERGY STAR® 4.0-compliant													
160GB Disk 9.5mm SATA150 (7200 rpm)	RoHS-compliant													
200GB Disk FDE SATA150 (7200 rpm)	International Warranty Service ¹⁷													
250GB Disk 9.5mm SATA150 (5400 rpm)	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378													
USB 2.0 Security Memory Key 4GB	ThinkPlus™ ²² 2-year LOR 9x5 NBD													
USB 2.0 Super Multi-Burner Drive	41C9175													
USB 2.0 Lenovo Enhanced Port Replicator	ThinkPlus 3-year LOR 9x5 NBD													
ThinkPad Adjustable Notebook Stand	41C9176													
ThinkPad Convertible Monitor Stand	ThinkPlus 4-year LOR 9x5 NBD													
ThinkPad Essential Port Replicator	41C9177													
ThinkPad Advanced Mini Dock	ThinkPlus 5-year LOR 9x5 NBD													
ThinkPad Advanced Dock	41C9179													
Other accessories on O-T61 sheet	ThinkPlus 4-year P&L P/U Depot													
	41C9178													
	ThinkPlus 5-year P&L P/U Depot													
	41C9180													
	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty													
	4433HB2													

See footnotes for important warranty information
US models announced May 31 or September 5, 2007
US models withdrawn effective May 2008

* Intel Centrino® with vPro™ technology

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ThinkPad® T61 (GMA Graphics) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller	Disk SATA GB ²	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date
8895-2BU	T7300	2.00	1GB	14.1" XGA	GMA	120GB	5400 DVD±RW	11a/b/g ³²	None	/54	9	K12	EasyServ	Business32	Jun 07
<p>• This model has an EasyServ™.19 depot repair service 3-year limited warranty This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>															
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ⇨ Vista Basic logo			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (K12): K-12 education software - VitalSource Library School Edition - Adobe Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)			
Diskette drive	None (use optional USB-based diskette drive)											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk (SATA150)	120GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Display	14.1" (358.1mm) XGA (1024x768) color , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models (WxDxH): 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.6 lb (2.55kg)														
Weight ²															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	9-cell: up to 8.6 hr; 9-cell plus Ultrabay battery: up to 10.1 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	/54 One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None														
Turbo Memory	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734				T60/R60 Series Li-Ion Battery 6-cell				40Y6799						
2GB PC2-5300 DDR2 SODIMM	40Y7735				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				Advanced Ultrabay Battery II 3-cell				43R9250						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad External Battery Charger				40Y7625						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				ThinkPad 90W AC Adapter				40Y7659						
200GB Disk FDE SATA150 (7200 rpm)	41N5738				90W Slim AC/DC Combo Adapter				41N8460						
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Topload Case				43R2476						
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Business Backpack				43R2482						
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Deluxe Expander Case				43R2478						
USB 2.0 Lenovo Enhanced Port Replicator	43R8770				ThinkPad Executive Leather Case				43R2480						
ThinkPad Adjustable Notebook Stand	40Y7676				ThinkVision® L174 17" LCD Monitor				9227AE1						
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L171p 17" LCD Monitor				9417HC2						
ThinkPad Essential Port Replicator	250510W				ThinkVision L190x 19" LCD Monitor				4439HB2						
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor				4431HB2						
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD				4433HB2						
Other accessories on O-T61 sheet												Other accessories at lenovo.com/accessories			

See footnotes for important warranty information
 US model announced May 31, 2007
 US model withdrawn effective May 2008

ThinkPad® T61 (GMA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller	Disk SATA GB ²	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date
8896-2BU	T7300	2.00	1GB	14.1" XGA	GMA	120GB	5400 DVD±RW	11a/b/g ³²	None	/54	9	K12	Onsite	Business32	Jun 07
<p>• This model has a limited onsite service²⁴ 3-year limited warranty</p> <p>This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>															
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ⇨ Vista Basic logo</p>			
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (K12): K-12 education software - VitalSource Library School Edition - Adobe Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)</p>			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk (SATA150)	<p>120GB⁹ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>														
Display	<p>14.1" (358.1mm) XGA (1024x768) color, 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare</p>														
Camera	None														
Graphics	<p>Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<p><i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.6 lb (2.55kg)</p>														
Weight ²															
Case material	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>														
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<p><i>9-cell:</i> up to 8.6 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.1 hr</p>														
Chipset	<p>Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None														
Turbo Memory	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time</p>														
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell				40Y6799						
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797						
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery II 3-cell				43R9250						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger				40Y7625						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter				40Y7659						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter				41N8460						
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Business Topload Case				43R2476						
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Backpack				43R2482						
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Deluxe Expander Case				43R2478						
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case				43R2480						
ThinkPad Adjustable Notebook Stand	40Y7676				ThinkVision® L174 17" LCD Monitor				9227AE1						
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L171p 17" LCD Monitor				9417HC2						
ThinkPad Essential Port Replicator	250510W				ThinkVision L190x 19" LCD Monitor				4439HB2						
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor				4431HB2						
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD				4433HB2						
Other accessories on O-T61 sheet												Other accessories at lenovo.com/accessories			
											Supports ThinkVantage® technologies				
											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
 US model announced May 31, 2007
 US model withdrawn effective May 2008

ThinkPad® T61 8889 (NVIDIA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display Size	Graphics controller memory	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Vista Global (G) preload Entry (E)	Avail date
8889-26U	T7300	2.00	1GB	14.1" SXGA+	128MB	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6 Business32	W G July 07
8889-01U	T7300	2.00	1GB	14.1" SXGA+	128MB	80GB 5400	Combo	* Intel 4965AG	None	Smart	Blue	6 XP Pro	Sep 07
8889-02U	T7500	2.20	1GB	14.1" SXGA+	128MB	100G 7200	DVD±RW	* Intel 4965AG	None	/54	Blue	9 XP Pro	Sep 07

Italic MTM: not a base model for building a custom model

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista™ Business Edition (32-bit) ◇ <i>Vista models:</i> Vista Premium logo Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW) • InterVideo WinDVD Creator (XP Pro DVD±RW models)
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim	
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel	
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Display	14.1" (358.1mm) SXGA+ (1400x1050) color , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare	
Camera	None	
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery: <i>6-cell:</i> 5.3 lb (2.4kg); <i>9-cell:</i> 5.6 lb (2.55kg)	
Weight ²	<i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Case material	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - type	<i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr	
Battery - life ¹⁰		
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	Some: [/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0	
Smart Card Read	Some: Smart Card Reader	
Multicard Reader	None	
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	
WWAN	None	
Turbo Memory	None	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available	

1GB PC2-5300 DDR2 SODIMM	40Y7734	T60/R60 Series Li-Ion Battery 6-cell	40Y6799
2GB PC2-5300 DDR2 SODIMM	40Y7735	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery II 3-cell	43R9250
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC Adapter	40Y7659
200GB Disk FDE SATA150 (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter	41N8460
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152	ThinkPad Business Topload Case	43R2476
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Backpack	43R2482
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Deluxe Expander Case	43R2478
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Executive Leather Case	43R2480
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision® L174 17" LCD	9227AE1
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L171p 17" LCD Monitor	9417HC2
ThinkPad Essential Port Replicator	250510W	ThinkVision L190x 19" LCD Monitor	4439HB2
ThinkPad Advanced Mini Dock	250410U	ThinkVision L193p 19" LCD Monitor	4431HB2
ThinkPad Advanced Dock	250310U	ThinkVision L220x Wide 22" LCD	4433HB2
Other accessories on O-T61 sheet		Other accessories at lenovo.com/accessories	

Supports ThinkVantage® technologies	90-watt (NVIDIA graphic) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
	ThinkPlus™. ²² 2-year LOR 9x5 NBD 41C9175
	ThinkPlus 3-year LOR 9x5 NBD 41C9176
	ThinkPlus 4-year LOR 9x5 NBD 41C9177
	ThinkPlus 5-year LOR 9x5 NBD 41C9179
	ThinkPlus 4-year P&L P/U Depot 41C9178
	ThinkPlus 5-year P&L P/U Depot 41C9180
	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced July 10 or September 5, 2007
US models withdrawn effective May 2008

* Intel Centrino® with vPro™ technology

ThinkPad® T61 (NVIDIA Graphics) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller memory	Disk SATA GB ² rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date
8889-24U	T7300	2.00	1GB 14.1"	128MB SXGA+	120G 5400	DVD±RW	11a/b/g ³²	None	/54	9	HE	EasyServ	Business32	July 07
<p>• This model has an EasyServ™.19 depot repair service 3-year limited warranty This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ✦ Vista Premium logo</p>		
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)</p>		
Diskette drive	None (use optional USB-based diskette drive)											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphic) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>		
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Serial ATA disk (SATA150)	<p>120GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>													
Display	<p>14.1" (358.1mm) SXGA+ (1400x1050) color, 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare</p>											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphic) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>		
Camera	None													
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<p><i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.6 lb (2.55kg)</p>													
Weight ²	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>													
Case material	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>													
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	<p><i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr</p>													
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphic) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>		
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX													
WWAN	None													
Turbo Memory	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip													
Limited warranty ¹²	<p>3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades²² available</p>											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphic) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>		
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell				40Y6799					
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797					
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery II 3-cell				43R9250					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger				40Y7625					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter				40Y7659					
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter				41N8460					
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Business Topload Case				43R2476					
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Backpack				43R2482					
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Deluxe Expander Case				43R2478					
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case				43R2480					
ThinkPad Adjustable Notebook Stand	40Y7676				ThinkVision® L174 17" LCD Monitor				9227AE1					
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L171p 17" LCD Monitor				9417HC2					
ThinkPad Essential Port Replicator	250510W				ThinkVision L190x 19" LCD Monitor				4439HB2					
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor				4431HB2					
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD				4433HB2					
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories											<p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>		

See footnotes for important warranty information
 US model announced July 10, 2007
 US model withdrawn effective May 2008

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 (DV3-5) May 2008

ThinkPad® T61 (NVIDIA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date
8890-24U	T7300	2.00	1GB 14.1"	SXGA+ 128MB	120G 5400	DVD±RW	11a/b/g ³²	None	/54	9	HE	Onsite	Business32	July 07
<p>• This model has a limited onsite service²⁴ 3-year limited warranty</p> <p>This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ⇨ Vista Premium logo</p>		
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskkeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)</p>		
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Serial ATA disk (SATA150)	<p>120GB⁹ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>													
Display	<p>14.1" (358.1mm) SXGA+ (1400x1050) color, 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare</p>													
Camera	None													
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<p><i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.6 lb (2.55kg)</p>													
Weight ²	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>													
Case material	<p><i>Battery - type</i> 9-cell / supports unique 2nd battery in Ultrabay Slim</p>													
Battery - type	<p><i>Battery - life¹⁰</i> 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr</p>													
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX													
WWAN	None													
Turbo Memory	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip													
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time</p>													
1GB PC2-5300 DDR2 SODIMM	40Y7734			T60/R60 Series Li-Ion Battery 6-cell			40Y6799							
2GB PC2-5300 DDR2 SODIMM	40Y7735			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797							
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell			43R9250			Supports ThinkVantage® technologies				
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625			90-watt (NVIDIA graphic) AC adapter				
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737			ThinkPad 90W AC Adapter			40Y7659			ThinkPad Roll Cage and Top Cover				
200GB Disk FDE SATA150 (7200 rpm)	41N5738			90W Slim AC/DC Combo Adapter			41N8460			Roll Cage (one-piece magnesium)				
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152			ThinkPad Business Topload Case			43R2476			ENERGY STAR® 4.0-compliant				
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Business Backpack			43R2482			RoHS-compliant				
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Deluxe Expander Case			43R2478			International Warranty Service ¹⁷				
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkPad Executive Leather Case			43R2480			24 hour x 7 day ¹⁸ toll-free support				
ThinkPad Adjustable Notebook Stand	40Y7676			ThinkVision® L171p 17" LCD Monitor			9417HC2			during the warranty period ¹²				
ThinkPad Convertible Monitor Stand	40Y7620			ThinkVision L190x 19" LCD Monitor			4439HB2			via 800-426-7378				
ThinkPad Essential Port Replicator	250510W			ThinkVision L193p 19" LCD Monitor			4431HB2							
ThinkPad Advanced Mini Dock	250410U			ThinkVision L197 Wide 19" LCD Monitor			4434HE1			Post-warranty annual maintenance				
ThinkPad Advanced Dock	250310U			ThinkVision L220x Wide 22" LCD			4433HB2			agreements at				
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories													
<p>See footnotes for important warranty information US model announced July 10, 2007 US model withdrawn effective May 2008</p>														

ThinkPad® T61 8892 (NVIDIA Graphics) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display	Graphics controller memory	Disk SATA GB ³	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Preload	Avail date		
8892-01U	T7100	1.80	1GB	14.1" SXGA+	128MB	100G	7200	DVD±RW	* Intel 11a/b/g ³²	None	/54	Blue	6	XP Pro	No	Sep07
8892-02U	T7500	2.20	1GB	14.1" SXGA+	128MB	100G	7200	DVD±RW	* Intel 11n ²⁸	None	/54	Blue	9	XP Pro	No	Sep07
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 3-year limited warranty¹² 																
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7100 or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; <i>T7100: 2MB shared L2 cache; T7500: 4MB shared L2 cache</i>											Preloaded operating system²⁰ - Microsoft® Windows® XP Professional Preloaded applications¹⁴ <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW) • InterVideo WinDVD Creator (DVD±RW) 				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics: standard memory in 1 socket; 1 socket available</i>															
Diskette drive	None (use optional USB-based diskette drive)															
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk (SATA150)	100GB⁸ (7200 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Display	14.1" (358.1mm) SXGA+ (1400x1050) color , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare															
Camera	None															
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	14.1" models (WxDxH): 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm															
Weight ²	with optical drive and battery: <i>6-cell: 5.3 lb (2.4kg); 9-cell: 5.6 lb (2.55kg)</i>															
Case material	<i>Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic</i>															
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	<i>6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr</i>															
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0															
Smart Card Read	None															
Multicard Reader	None															
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 11a/b/g ³²	<i>Some: 11a/b/g wireless⁴, Mini PCIe adapter, Intel PRO/Wireless 3945ABG</i>															
Intel 11n ²⁸	<i>Some: 11a/b/g/n wireless⁴, Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)</i>															
WWAN	None															
Turbo Memory	None															
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available																
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T60/R60 Series Li-Ion Battery 6-cell	40Y6799													
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797													
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery II 3-cell	43R9250													
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625													
200GB Disk FDE SATA150 (7200 rpm)	41N5738	ThinkPad 90W AC Adapter	40Y7659													
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152	90W Slim AC/DC Combo Adapter	41N8460													
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case	43R2476													
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482													
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPad Deluxe Expander Case	43R2478													
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPad Executive Leather Case	43R2480													
ThinkPad Essential Port Replicator	250510W	ThinkVision® L190x 19" LCD Monitor	4439HB2													
ThinkPad Advanced Mini Dock	250410U	ThinkVision L193p 19" LCD Monitor	4431HB2													
ThinkPad Advanced Dock	250310U	ThinkVision L220x Wide 22" LCD	4433HB2													
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories											ThinkPlus™. ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
 US models announced September 4, 2007
 US models withdrawn effective May 2008

* Intel Centrino® processor technology
 * Intel Centrino with vPro™ technology

ThinkPad® T61 8890 (NVIDIA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display Inch	Graphics controller memory	Disk SATA GB ⁵	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail date
8890-26U	T7300	2.00	1GB	14.1" SXGA+	128MB	80GB	5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6 Business32 W G July07

• This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Display	14.1" (358.1mm) SXGA+ (1400x1050) color , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare											
Camera	None											
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH): 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery: <i>6-cell:</i> 5.3 lb (2.4kg); <i>9-cell:</i> 5.6 lb (2.55kg)											
Weight ²												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	<i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr											
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Reader	Smart Card Reader											
Multicard Reader	None											
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG											
WWAN	None											
Turbo Memory	None											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (IAMT)											
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											
1GB PC2-5300 DDR2 SODIMM	40Y7734			T60/R60 Series Li-Ion Battery 6-cell				40Y6799				
2GB PC2-5300 DDR2 SODIMM	40Y7735			Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell				43R9250				
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger				40Y7625				
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737			ThinkPad 90W AC Adapter				40Y7659				
200GB Disk FDE SATA150 (7200 rpm)	41N5738			90W Slim AC/DC Combo Adapter				41N8460				
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152			ThinkPad Business Topload Case				43R2476				
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkPad Business Backpack				43R2482				
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Deluxe Expander Case				43R2478				
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Executive Leather Case				43R2480				
ThinkPad Convertible Monitor Stand	40Y7620			ThinkVision® L174 17" LCD Monitor				9227AE1				
ThinkPad Essential Port Replicator	250510W			ThinkVision L171p 17" LCD Monitor				9417HC2				
ThinkPad Advanced Mini Dock	250410U			ThinkVision L190x 19" LCD Monitor				4439HB2				
ThinkPad Advanced Dock	250310U			ThinkVision L193p 19" LCD Monitor				4431HB2				
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories											
												Supports ThinkVantage® technologies
												90-watt (NVIDIA graphic) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
												ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630
												ThinkPlus 5-year LOR 9x5 NBD 43R2162
												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US model announced July 10, 2007
 US model withdrawn effective May 2008

* Intel Centrino® with vPro™ technology

ThinkPad® T61 8897 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date
8897-01U	T7100	1.80	1GB	14.1" XGA	GMA 100G	7200	DVD±RW	* Intel 11a/b/g ³²	None	/54	None	6	XP Pro	No	Sep 07
8897-02U	T5270	1.40	512MB	14.1" XGA	GMA 80G	5400	Combo	* Intel 11a/b/g	None	/54	None	6	XP Pro	No	Oct 07
8897-03U	T5270	1.40	1GB	14.1" SXGA+	GMA 100G	7200	Combo	* Intel 11a/b/g	None	/54	None	6	XP Pro	No	Jan 08

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹²

Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T5270 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology¹, Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T7100 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Microsoft® Windows® XP Professional</p> <p>Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW models) • InterVideo WinDVD (combo, DVD±RW) • InterVideo WinDVD Creator (DVD±RW)</p>				
Memory	<p>512MB or 1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>										<p>Supports ThinkVantage® technologies</p> <p>65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p> <p>ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174</p> <p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim														
EIDE DVD±RW	Some: DVD burner, Ultrabay Burner (41N5643), dual-layer, removable from Ultrabay														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) or 100GB (7200 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Display	Some: 14.1" (358.1mm) XGA (1024x768) color , 150 nits, 4:3, 200:1, anti-glare														
Camera	Some: 14.1" (358.1mm) SXGA+ (1400x1050) color , 150 nits, 4:3, 200:1, anti-glare														
Graphics	None														
Keyboard	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
TrackPoint®	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
ThinkLight™	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1" models (WxDxH): 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm														
Weight ²	with optical drive and battery: 5.3 lb (2.4kg)														
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 5.7 hr; 9-cell: up to 8.6 hr; 9-cell plus Ultrabay battery: up to 10.1 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T60/R60 Series Li-Ion Battery 6-cell	40Y6799												
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery II 3-cell	43R9250												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659												
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	90W Slim AC/DC Combo Adapter	41N8460												
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152	ThinkPad Business Topload Case	43R2476												
200GB Disk FDE SATA150 (7200 rpm)	41N5738	ThinkPad Deluxe Expander Case	43R2478												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Executive Leather Case	43R2480												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L151 15" LCD Monitor	9165AC6												
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L193p 19" LCD Monitor	4431HB2												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L220x Wide 22" LCD	4433HB2												
ThinkPad Advanced Dock	250310U	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
 US models announced Sept 4 or Oct 3, 2007 or Jan 17, 2008
 US models withdrawn effective May 2008

* Intel Centrino® processor technology

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 (DV3-7) May 2008

ThinkPad® T61 8896 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display Display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail Preload Entry (E) date
8896-2FU T7300	2.00	1GB	14.1" XGA	GMA	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6	Business32 W G Jun 07

• This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista models: Vista Basic logo
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk (SATA150)	80GB⁸ (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Display	14.1" (358.1mm) XGA (1024x768) color , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare											
Camera	None											
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	14.1" models (WxDxH): 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.3 lb (2.4kg)											
Weight ²												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	6-cell: up to 5.7 hr; 9-cell: up to 8.6 hr; 9-cell plus Ultrabay battery: up to 10.1 hr											
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	Smart Card Reader											
Multicard Reader	None											
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG											
WWAN	None											
Turbo Memory	None											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (IAMT)											
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											Supports ThinkVantage® technologies
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell	40Y6799						
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797						
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery 3-cell	40Y6789						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger	40Y7625						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter	40Y7659						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter	41N8460						
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Business Topload Case	43R2476						
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Backpack	43R2482						
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Deluxe Expander Case	43R2478						
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case	43R2480						
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision® L174 17" LCD Monitor	9227AE1						
ThinkPad Essential Port Replicator	250510W				ThinkVision L171p 17" LCD Monitor	9417HC2						
ThinkPad Advanced Mini Dock	250410U				ThinkVision L190x 19" LCD Monitor	4439HB2						
ThinkPad Advanced Dock	250310U				ThinkVision L193p 19" LCD Monitor	4431HB2						
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
 US model announced May 31, 2007
 US model withdrawn effective May 2008

* Intel Centrino® with vPro™ technology

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 (DV3-10) May 2008

ThinkPad® T61 14W 7664 (NVIDIA®) - Linux (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Linux preload	Limited warranty ¹²	Avail date
7664-1MU	T7500	2.20	1GB	14.1" WXGA+	128MB	100G 7200	DVD±RW	* Intel 11a/b/g ³²	None	/54	Blue	6-cell	SLED10	3-yr Jan 08
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7500 with dual-core. Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock			
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 100GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive													
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None										Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera			
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.3 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim Not published													
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer			
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit /54 One ExpressCard/34 or ExpressCard/54 None None Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN Turbo Memory Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None 56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Not supported High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available										ThinkPlus 3-year LOR 9x5 NBD 41C9176			
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell	41U3196											
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell	41U3198											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	T/R 14W High Capacity Batt 9-cell	43R2499											
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	Advanced Ultrabay Battery II 3-cell	43R9250											
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad External Battery Charger	40Y7625											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	90W Slim AC/DC Combo Adapter	41N8460											
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case	43R2476											
ThinkPad Essential Port Replicator	250510W	ThinkPad Executive Leather Case	43R2480											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6											
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2											
Check Linux compatibility for other accessories		Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US models announced January 15, 2008
US models withdrawn effective November 2008

* Intel Centrino® processor technology

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(ML1-11) November 2008

ThinkPad® T61 14W 7658 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue-tooth	Finger print reader	Battery cells	Preload	Whorse (W) Gbl (G) Educ	Avail date
7658-15U	T7100	1.80	1GB	14.1"	WXGA	GMA 80G 5400	DVD±RW	* Intel 11a/b/g ³²		/54		Finger	4	Bus32		May07
7658-01U	T7100	1.80	1GB	14.1"	WXGA	GMA 80G 5400	DVD±RW	* Intel 11a/b/g		/54		Finger	4	XP Pro		July07
7658-02U	T7300	2.00	1GB	14.1"	WXGA	GMA 120G 5400	DVD±RW	* Intel 11a/b/g		/54	Blue	Finger	4	Bus32		July07
7658-03U	T7300	2.00	1GB	14.1"	WXGA	GMA 120G 5400	DVD±RW	* Intel 11a/b/g		/54	Blue	Finger	4	XP Pro		July07
7658-04U	T7250	2.00	1GB	14.1"	WXGA	GMA 100G 7200	Combo	* Intel 11a/b/g		/54	Blue	Finger	4	XP Pro		Dec07
7658-17U	T7500	2.20	1GB	14.1"	WXGA	GMA 160G 5400	DVD±RW	* Intel 11n ²⁸	1G Turbo	/54	Blue	Finger	4	Bus32		Oct 07
7658-18U	T7500	2.20	1GB	14.1"	WXGA	GMA 160G 5400	DVD±RW	* Intel 11n		/54	Blue	Finger	4	XP Pro		Oct 07
7658-RUU	T8100	2.10	1GB	14.1"	WXGA	GMA 120G 5400	DVD±RW	* Intel 11a/b/g		/54		Finger	4	XP Pro		Jan 08
7658-RVU	T8100	2.10	1GB	14.1"	WXGA	GMA 100G 7200	DVD±RW	* Intel 11n		/54	Blue	Finger	4	XP Pro		Jan 08
7658-19U	T5270	1.40	1GB	14.1"	WXGA	GMA 100G 7200	Combo	* Intel 11a/b/g		/54			4	Bus32		Apr 08
7658-NKU	T8100	2.10	2GB	14.1"	WXGA	GMA 160G 5400	DVD±RW	* Intel 11a/b/g		/54		Finger	4	Bus32		Apr 08
7658-NLU	T8100	2.10	2GB	14.1"	WXGA	GMA 100G 7200	DVD±RW	* Intel 11n		/54	Blue	Finger	4	Bus32		Apr 08
7658-05U	T8300	2.40	2GB	14.1"	WXGA	GMA 100G 7200	DVD±RW	* Intel 11n		4-in-1	Blue	Finger	6	Bus32	Educ	May08

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These models have a 1-year limited warranty²

Processor	Intel® Core™ 2 Duo processor T5270 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or Intel® Core™ 2 Duo processor T7100, T7250, T7300, T7500, T8100, or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100/T7250: 2MB L2 cache; T7300/T7500: 4MB L2; T8100/T8300: 3MB L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ♦ 02U/17U/19U: Vista Basic logo ♦ 05U/15U/NKU/NLU: Vista Premium logo
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (all OSes; only some listed) • Microsoft Office OneNote® 2007 and CD (05U model) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • ThinkPad Utilities • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Diskette drive	None (use optional USB-based diskette drive)	Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Case and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim	
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel	
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400 rpm), or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	None	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm	
Weight ²	<i>4-cell:</i> starting at 5.0 lb (2.3kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>4-cell:</i> up to 3.6 hr; <i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express ⁵ x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	Some: [/54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	None	
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	
WWAN	None	
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator	
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket	
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available	

See footnotes for important warranty information
 US models announced May 9, July 6, October 30, or December 6, 2007;
 or January 8, April 8, or May 15, 2008
 US models withdrawn effective December 2007, June 2008, or May 2009

* Intel Centrino® processor technology
 * Intel Centrino with vPro™ technology

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 (ML1-1) May 2009

ThinkPad® T61 14W 7664 (NVIDIA®) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue-tooth	Battery cells	Whorse (W) Gbl (G) Educ	Avail date
7664-16U	T7300	2.00	1GB	14.1" WXGA+		128MB	120G 5400	DVD±RW	* Intel 11n ²⁸	1G Turbo	/54	Blue	6	Bus 32	May 07
7664-17U	T7300	2.00	2GB	14.1" WXGA+		128MB	160G 5400	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	6	Ult 32	May 07
7664-04U	T7300	2.00	1GB	14.1" WXGA+		128MB	120G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro	July 07
7664-05U	T7300	2.00	1GB	14.1" WXGA+		128MB	160G 5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	6	XP Pro	July 07
7664-06U	T7500	2.20	1GB	14.1" WXGA+		128MB	100G 7200	Combo	* Intel 11n		/54	Blue	4	XP Pro	Dec 07
7664-1JU	T7500	2.20	1GB	14.1" WXGA+		128MB	160G 5400	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	6	Bus 32	Oct 07
7664-1KU	T7500	2.20	1GB	14.1" WXGA+		128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro	Oct 07
7664-1LU	T7700	2.40	2GB	14.1" WXGA+		128MB	160G 7200	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	6	Bus 32	Oct 07
7664-RYU	T8100	2.10	1GB	14.1" WXGA+		128MB	100G 7200	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro	Jan 08
7664-RWU	T8300	2.40	1GB	14.1" WXGA+		128MB	160G 5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	6	XP Pro	Jan 08
7664-R8U	T8100	2.10	2GB	14.1" WXGA+		128MB	100G 7200	DVD±RW	* Intel 11n		/54	Blue	6	Bus 32	Apr 08
7664-R7U	T8300	2.40	2GB	14.1" WXGA+		128MB	160G 5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	6	Bus 32	Apr 08
7664-01U	T5670	1.80	2GB	14.1" WXGA+	Cam	128MB	100G 7200	DVD±RW	* Intel 4965AG ³²		4-in-1	Blue	6	Bus 32 Educ	Aug 08

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹²

Processor	Intel® Core™ 2 Duo processor T5670, T7300, T7500, T7700, T8100, or T8300 with dual-core, 800MHz system bus, T5670: 2MB shared L2 cache; T7300/T7500/T7700: 4MB shared L2 cache; T8100/T8300: 3MB shared L2 cache										Preloaded operating system ²⁰				
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										- Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ Vista models: Vista Premium logo				
Diskette drive	None (use optional USB-based diskette drive)										Preloaded applications ¹⁴ (all OSes; only some listed)				
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW, 24X/24X/8X ²¹ speed, removable from Ultrabay Slim										• Some: Education software				
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay										- Microsoft Office OneNote® 2007 (and CD)				
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel										- VitalSource Library College Edition				
Serial ATA disk	100GB ⁸ (7200 rpm), 120GB ⁸ (5400 rpm), or 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										- Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4				
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio										• Rescue and Recovery™				
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0										• Access Connections™				
Graphics	NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										• Client Security Solution™				
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys										• Norton Internet Security™				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										• PC-Doctor™ (diagnostics)				
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones										• ThinkPad Utilities				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Fingerprint Software				
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm										• Microsoft Office 2007 Trial (60-day)				
Weight ²	6-cell: starting at 5.3 lb (2.4kg)										• EarthLink Trial (Vista Ultimate mod)				
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic										• Sonic RecordNow and Drive Letter Access (DVD±RW)				
Battery - type	Lithium Ion 4-cell or 6-cell, supports unique 2nd battery in Ultrabay Slim										• Corel® WinDVD® (DVD±RW)				
Battery - life ¹⁰	6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr										• Corel WinDVD Creator (XP Pro DVD±RW models)				
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										Supports ThinkVantage® technologies				
PC Card	One slot (Type I, Type II), CardBus 32-bit										90-watt (NVIDIA) AC adapter				
ExpressCard/54	<i>Some:</i> [/54] One slot (ExpressCard/34, ExpressCard/54)										ThinkPad Roll Cage and Top Cover				
Smart Card Read	None										Roll Cage (one-piece magnesium)				
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)										ENERGY STAR® 4.0-compliant				
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										RoHS-compliant				
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										International Warranty Service ¹⁷				
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Intel 4965AG ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175				
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)										ThinkPlus 3-year LOR 9x5 NBD 45K6021				
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract reqd with Verizon® Wireless										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket										ThinkPlus 4-year P&L P/U Depot 45K6023				
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										ThinkPlus 5-year P&L P/U Depot 45K6025				
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ depot repair service / service upgrades ²² available														
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000			T/R 14W High Capacity Batt 9-cell			43R2499								
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406			90W Slim AC/DC Combo Adapter			41N8460								
Other accessories on O-T61 sheet															

See footnotes for important warranty information * Intel Centrino® with vPro™ technology
 US models announced May 9, July 6, October 30, or December 6, 2007; or January 8, April 8, or August 1, 2008
 US models withdrawn effective December 2007, May 2008, June 2008, or May 2009

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ThinkPad® T61 14W 7659 (GMA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model essor	GHz Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo Card slot	Finger Bat- print ertery cells	Workhorse (W) Vista Global (G) preload Entry (E)	Avail date
7659-1QU T7100	1.80	1GB	14.1" WXGA	GMA 80G	5400	Combo	*Intel 11a/b/g ³²	None /54	4	Business32 W	Jun 07
7659-11U T7100	1.80	1GB	14.1" WXGA	GMA 80G	5400	Combo	*Intel 4965AG ³²	None Smart	4	Business32 W G	May 07
7659-12U T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400	Combo	*Intel 4965AG	None Smart	4	Business32 W G	May 07
7659-01U T7300	2.00	1GB	14.1" WXGA	GMA 100G	7200	Combo	*Intel 4965AG	None /54	6	XP Pro	Aug 07
7659-02U T7500	2.20	1GB	14.1" WXGA	GMA 100G	7200	Combo	*Intel 4965AG	None /54	6	Business32 W	Aug 07
7659-2BU T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400	Combo	*Intel 4965AG	None Smart	4	XP Pro	G Sep 07
7659-2SU T7500	2.20	1GB	14.1" WXGA	Cam GMA 120G	5400	Combo	*Intel 4965AG	None 4-in-1	6	Business32 W G	Jan 08

Italic MTM: not a base model for building a custom model

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache	Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ◇ 11U/1QU: Vista Premium logo ◇ 12U/02U/2SU: Vista Basic logo
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel	
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm <i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm <i>4-cell:</i> starting at 5.0 lb (2.3kg); <i>6-cell:</i> starting at 5.3 lb (2.4kg)	
Weight ²	<i>4-cell:</i> starting at 5.0 lb (2.3kg); <i>6-cell:</i> starting at 5.3 lb (2.4kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>4-cell:</i> up to 3.6 hr; <i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	<i>Some:</i> Smart Card Reader	
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	Supports ThinkVantage® technologies
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	
Intel 4965AG ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	
WWAN	None	
Turbo Memory	None	
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket	
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant	ThinkPlus 3-year LOR 9x5 NBD 41C9176
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip	ThinkPlus 4-year LOR 9x5 NBD 41C9177
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available	ThinkPlus 5-year LOR 9x5 NBD 41C9179
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell 41U3196
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell 41U3198
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell 43R2499
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell 43R9250
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	ThinkPad External Battery Charger 40Y7625
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter 41N8460
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case 43R2476
ThinkPad Advanced Dock	250310U	ThinkVision® L2440x Wide 24" Monitor 4421HB2
Other accessories on O-T61 sheet		Other accessories at lenovo.com/accessories

See footnotes for important warranty information
US models announced May 9, Jun 5, Aug 21,
or Sept 4, 2007 or Jan 2008
US models withdrawn effective May or November 2008

* Intel Centrino® processor technology
* Intel Centrino with vPro technology

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(ML1-3) November 2008

ThinkPad® T61 14W 7659 (GMA) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger Bat- print tery	Workhorse (W) Linux Global (G) preload Entry (E)	Avail date		
7659-2UU	T7500	2.20	1GB	14.1" WXGA	GMA	80G	5400	Combo	*Intel 11a/b/g ³²	None	/54	Blue	Finger 6	SLED10	W G	Jan 08
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system ²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ • None				
Diskette drive	None (use optional USB-based diskette drive)											Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock				
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	80GB⁹ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive											Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera				
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	None															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm															
Weight ²	6-cell: starting at 5.3 lb (2.4kg)															
Case material	Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	Not published															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	/54 One ExpressCard/34 or ExpressCard/54															
Smart Card Read	None															
Multicard Reader	None															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG															
WWAN	None															
Turbo Memory	None															
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Not supported															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available															
512MB PC2-5300 DDR2 SODIMM	40Y7733			T/R 14W Standard Battery 4-cell				41U3196								
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Enhanced Battery 6-cell				41U3198								
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W High Capacity Batt 9-cell				43R2499								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell				43R9250								
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad External Battery Charger				40Y7625								
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403			90W Slim AC/DC Combo Adapter				41N8460								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Topload Case				43R2476								
ThinkPad Essential Port Replicator	250510W			ThinkPad Business Backpack				43R2482								
ThinkPad Advanced Mini Dock	250410U			ThinkVision® L2240p Wide 22" Monitor				4422HB6								
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor				4420HB2								
Check Linux compatibility for other accessories	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
US model announced January 15, 2008
US model withdrawn effective November 2008

* Intel Centrino® processor technology

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(ML1-12) November 2008

ThinkPad® T61 14W 7661 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Camera	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date	
7661-11U	T7100	1.80	1GB	14.1" WXGA	GMA	80G	5400	Combo	*Intel 4965AG ³²	None	Smart	Blue	4	Business32	W G P	May07	
7661-12U	T7300	2.00	1GB	14.1" WXGA	GMA	80G	5400	Combo	*Intel 4965AG	None	Smart	Blue	4	Business32	W G P	May07	
7661-2BU	T7300	2.00	1GB	14.1" WXGA	GMA	80G	5400	Combo	*Intel 4965AG	None	Smart	Blue	4	XP Pro	W G P	Sep07	
7661-2SU	T7500	2.20	1GB	14.1" WXGA	GMA	120G	5400	Combo	*Intel 4965AG	None	4-in-1	Cam	Blue	6	Business32	W G P	Jan 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ♦ Vista models: Vista Premium logo</p>				
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available <i>Italics:</i> standard memory in both sockets; no sockets available</p>											<p>Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (Combo) • Corel® WinDVD® (Combo)</p>				
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Some: integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0															
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<p>4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm 6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm 4-cell: starting at 5.0 lb (2.3kg); 6-cell: starting at 5.3 lb (2.4kg)</p>															
Weight ²	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic															
Case material	Lithium Ion 4-cell or 6-cell, supports unique 2nd battery in Ultrabay Slim															
Battery - type	4-cell: up to 2.5 hr; 6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr															
Battery - life ¹⁰																
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	Some: Smart Card Reader															
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG															
WWAN	None															
Turbo Memory	None															
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (IAMT)															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											Supports ThinkVantage® technologies				
Security	Power-on password, hard disk password, supervisor password, security keyhole											90-watt (NVIDIA) AC adapter				
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											ThinkPad Roll Cage and Top Cover				
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											Roll Cage (one-piece magnesium)				
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades²² available</p>											ENERGY STAR® 4.0-compliant				
1GB PC2-5300 DDR2 SODIMM	40Y7734											RoHS-compliant				
2GB PC2-5300 DDR2 SODIMM	40Y7735											International Warranty Service ¹⁷				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643											24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725											via 800-426-7378				
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400											ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD				
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738											12X5630				
USB 2.0 Security Memory Key 4GB	41U5120											ThinkPlus 5-year LOR 9x5 NBD				
ThinkPad Convertible Monitor Stand	40Y7620											43R9250				
ThinkPad Advanced Dock	250310U											41N8460				
Other accessories on O-T61 sheet												43R2476				
												4424HB6				
												4422HB6				
												4421HB2				
												Post-warranty annual maintenance agreements at				
												lenovo.com/thinkplus/warranty				

See footnotes for important warranty information * Intel Centrino® with vPro technology
 US models announced May 9 or September 4, 2007 or January 8, 2008
 US models withdrawn effective May or November 2008

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 (ML1-15) November 2008

ThinkPad® T61 14W 7663 (NVIDIA® Graphics) - withdrawn

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Cam- era	Disk SATA GB ³	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Vista preload	Workhorse (W) Global (G) Avail Entry (E) date
7663-11U	T7100	1.80	1GB	14.1" WXGA+	128MB	80G	5400	Combo	* Intel 4965AG ³²		Smart	6-cell	Business32	W G May07
7663-12U	T7300	2.00	1GB	14.1" WXGA+	128MB	80G	5400	Combo	* Intel 4965AG		Smart	4-cell	Business32	W G May07
7663-13U	T7500	2.20	1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	* Intel 4965AG		Smart	6-cell	Business32	W G May07
7663-16U	T7300	2.00	1GB	14.1" WXGA+	128MB	80G	5400	Combo	* Intel 4965AG	1G Turbo	Smart	4-cell	Business32	W G May07
7663-01U	T7300	2.00	1GB	14.1" WXGA	128MB	100G	7200	Combo	* Intel 4965AG		/54	6-cell	XP Pro	Aug07
7663-02U	T7500	2.20	1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	* Intel 4965AG		4-in-1	6-cell	XP Pro	Aug07
7663-03U	T7500	2.20	1GB	14.1" WXGA	128MB	100G	7200	Combo	* Intel 4965AG		/54	6-cell	Business32	W Aug07
7663-04U	T7500	2.20	1GB	14.1" WXGA+	128MB	100G	7200	DVD±RW	* Intel 11n ²⁸	Verizon	4-in-1	6-cell	Business32	W Aug07
7663-2DU	T7300	2.00	1GB	14.1" WXGA+	128MB	80G	5400	Combo	* Intel 4965AG		Smart	4-cell	XP Pro	G Sep07
7663-2EU	T7500	2.20	1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	* Intel 4965AG		Smart	6-cell	XP Pro	G Sep07
7663-3FU	T7300	2.00	1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	* Intel 4965AG		4-in-1	6-cell	Business32	W Sep07
7663-3JU	T7500	2.20	1GB	14.1" WXGA+	128MB	Cam 120G	5400	Combo	* Intel 4965AG		4-in-1	6-cell	Business32	W G Jan08
7663-3SU	T7300	2.00	1GB	14.1" WXGA+	128MB	80G	5400	Combo	* Intel 11a/b/g	WWAN upg	/54	4-cell	Business32	Feb08

Italic MTM: not a base model for building a custom model

Processor	Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache											Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) ♦ <i>Vista models:</i> Vista Premium logo			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW models) • Corel WinDVD Creator (XP DVD±RW models)			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim														
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10, 300:1														
Camera	<i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1														
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm 6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm 4-cell: starting at 5.0 lb (2.3kg); 6-cell: starting at 5.3 lb (2.4kg)														
Weight ²															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	4-cell: up to 2.5 hr; 6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr														
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	<i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54														
Smart Card Read	<i>Some:</i> Smart Card Reader														
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies			
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots														
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
Intel 4965AG	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG														
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)														
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® EV-DO Rev. A Mini PCIe (43R1818)														
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract reqd with Verizon														
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator											ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175			
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket											ThinkPlus 3-year LOR 9x5 NBD 41C9176			
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											ThinkPlus 4-year LOR 9x5 NBD 41C9177			
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Intel AMT	Intel Active Management Technology (IAMT)											ThinkPlus 4-year P&L P/U Depot 41C9178			
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											ThinkPlus 5-year P&L P/U Depot 41C9180			
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														

See footnotes for important warranty information
 US models announced May 9, Aug 21, Sept 4,
 or Sept 18, 2007; or Jan 8 or Feb 12, 2008
 US models withdrawn May or November 2008

* Intel Centrino® processor technology
 * Intel Centrino® with vPro technology

ThinkPad® T61 14W 7663 (NVIDIA®) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Linux preload	Workhorse (W) Global (G) Entry (E)	Avail date	
7663-3LU	T7500	2.20	2GB	14.1" WXGA+	128MB	120G 5400 DVD±RW	*Intel 11a/b/g ³²	None	/54	Blue	6-cell	SLED10	W G	Jan 08	
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None			
Memory	2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;											Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock			
Diskette drive	None (use optional USB-based diskette drive)											Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer			
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive														
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm														
Weight ²	6-cell: starting at 5.3 lb (2.4kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	Not published														
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Not supported														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											90-watt (NVIDIA) AC adapter			
Security	Power-on password, hard disk password, supervisor password, security keyhole											ThinkPad Roll Cage and Top Cover			
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											Roll Cage (one-piece magnesium)			
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											RoHS-compliant			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											International Warranty Service ¹⁷			
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell			41U3196			ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD					
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell			41U3198			41C9175					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell			43R2499			ThinkPlus 3-year LOR 9x5 NBD					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell			43R9250			41C9176					
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad External Battery Charger			40Y7625			ThinkPlus 4-year LOR 9x5 NBD					
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403			90W Slim AC/DC Combo Adapter			41N8460			41C9177					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Backpack			43R2482			ThinkPlus 5-year LOR 9x5 NBD					
ThinkPad Essential Port Replicator	250510W			ThinkPad Executive Leather Case			43R2480			41C9179					
ThinkPad Advanced Mini Dock	250410U			ThinkVision® L2240p Wide 22" Monitor			4422HB6			ThinkPlus 4-year P&L P/U Depot					
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor			4420HB2			41C9178					
Check Linux compatibility for other accessories				Other accessories at lenovo.com/accessories						ThinkPlus 5-year P&L P/U Depot					
												41C9180			

See footnotes for important warranty information
 US model announced January 15, 2008
 US model withdrawn effective November 2008

* Intel Centrino® processor technology

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 (ML1-13) November 2008

ThinkPad® T61 14W 7665 (NVIDIA®) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model processor	GHz Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Cam- era	Bat- tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
7665-11U	T7100 1.80	1GB 14.1"	WXGA+ 128MB	80G 5400	Combo	*Intel 4965AG ³²	None	Smart	Blue 6	Business32	W G P	May07	
7665-12U	T7300 2.00	1GB 14.1"	WXGA+ 128MB	80G 5400	Combo	*Intel 4965AG	None	Smart	Blue 4	Business32	W G P	May07	
7665-13U	T7500 2.20	1GB 14.1"	WXGA+ 128MB	120G 5400	DVD±RW	*Intel 4965AG	None	Smart	Blue 6	Business32	W G P	May07	
7665-2DU	T7300 2.00	1GB 14.1"	WXGA+ 128MB	80G 5400	Combo	*Intel 4965AG	None	Smart	Blue 4	XP Pro	W G P	Sep07	
7665-2EU	T7500 2.20	1GB 14.1"	WXGA+ 128MB	120G 5400	DVD±RW	*Intel 4965AG	None	Smart	Blue 6	XP Pro	W G P	Sep07	
7665-3JU	T7500 2.20	1GB 14.1"	WXGA+ 128MB	120G 5400	Combo	*Intel 4965AG	None	4-in-1 Cam	Blue 6	Business32	W G P	Jan 08	
<p>• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty</p>													
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ♦ Vista models: Vista Premium logo</p>		
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>										<p>Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (XP Pro models) • Sonic RecordNow and Drive Letter Access (Combo, DVD±RW) • Corel® WinDVD® (Combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)</p>		
Diskette drive	None (use optional USB-based diskette drive)												
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim												
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												
Serial ATA disk	<p>80GB⁸ (5400 rpm) or 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>												
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Some: integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0												
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<p>4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm 6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm 4-cell: starting at 5.0 lb (2.3kg); 6-cell: starting at 5.3 lb (2.4kg)</p>												
Weight ²													
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 4-cell or 6-cell , supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	<p>4-cell: up to 2.5 hr; 6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr</p>												
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>												
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit												
ExpressCard slot	None												
Smart Card Read	Some: Smart Card Reader												
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
WWAN	None												
Turbo Memory	None												
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (IAMT)												
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades²² available</p>												
1GB PC2-5300 DDR2 SODIMM	40Y7734		T/R 14W Standard Battery 4-cell		41U3196								
2GB PC2-5300 DDR2 SODIMM	40Y7735		T/R 14W Enhanced Battery 6-cell		41U3198								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		T/R 14W High Capacity Batt 9-cell		43R2499								
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400		Advanced Ultrabay Battery II 3-cell		43R9250								
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738		90W Slim AC/DC Combo Adapter		41N8460								
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403		ThinkPad Business Topload Case		43R2476								
USB 2.0 Ultra Secure Memory Key 8GB	45J5918		ThinkVision® L1700p 17" Monitor		9417HE2								
USB 2.0 Lenovo Enhanced Port Replicator	43R8770		ThinkVision L1940p Wide 19" Monitor		4424HB6								
ThinkPad Convertible Monitor Stand	40Y7620		ThinkVision L2240p Wide 22" Monitor		4422HB6								
ThinkPad Advanced Dock	250310U		ThinkVision L2440x Wide 24" Monitor		4421HB2								
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories												
										<p>ThinkPlus™.22 4-year LOR²⁴ 9x5 NBD 12X5630 ThinkPlus 5-year LOR 9x5 NBD 43R2162 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>			

See footnotes for important warranty information * Intel Centrino® with vPro™ technology
 US models announced May 9 or September 4, 2007 or January 8, 2008
 US models withdrawn effective May or November 2008

ThinkPad® T61 14W (GMA Graphics) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model essor	GHz Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo Card slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Gbl (G) Avail warranty ¹² date
7659-1NU T7300	2.00 1GB	14.1" WXGA	GMA 80G	5400	Combo	11a/b/g ³²	None	4-in-1	Business32	K12	EasyServ W May07
7659-1PU T7300	2.00 1GB	14.1" WXGA	GMA 80G	5400	Combo	11a/b/g	None	4-in-1 Blue	Business32	HE	EasyServ W May07
7659-XAU T7300	2.00 1GB	14.1" WXGA+	GMA 120G	5400	DVD±RW	11a/b/g	None	4-in-1 Blue	Business32	HE	EasyServ May07

• **These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache									Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) - Vista Basic logo
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available									Preloaded applications ¹⁴ • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) <i>Some:</i> DVD-ROM/CD-RW, 24X/24X/8X ²¹ speed, removable from Ultrabay Slim <i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm) or 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™									
Widescreen display Camera	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10, 300:1 <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1 None									
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock									
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions									
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.3 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr									
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)									
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit, integrated door None None 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)									
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo Memory	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None									
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket <i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (iAMT) High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole									Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Trusted Platform Module , Atmel chip, TCG 1.2-compliant None									
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter (flat) 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 200GB Disk FDE SATA 1.5Gb/s (7200 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T61 sheet	40Y7734 40Y7735 41N5643 40Y8725 43N3400 41N5738 41U5120 41N5565 43R8770 250510W 250410U 250310U	T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Batt 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter ThinkPad Business Backpack ThinkVision® L1700p 17" Monitor ThinkVision L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440p Wide 24" Monitor Other accessories at lenovo.com/accessories	41U3196 41U3198 43R2499 43R9250 40Y7625 40Y7659 41N8460 43R2482 9417HE2 4424HB6 4422HB6 4420HB2	ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty						

See footnotes for important warranty information
US models announced on May 9, 2007
US models withdrawn effective June or November 2008

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(ML1-5) November 2008

ThinkPad® T61u 14W 7659 (GMA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model essor	GHz	Memory	Wide- screen display	Graphics controller	Cam- era	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Vista preload	Workhorse (W) Limited warranty ¹²	Gbl (G) Avail date
7659-N2U	T8300	2.40	1GB	14.1" WXGA	GMA	Cam 80G	5400 Combo	11a/b/g	None	4-in-1	Blue	Fing	Business32	EasyServ	No Feb 08
7659-N3U	T9300	2.50	1GB	14.1" WXGA	GMA	Cam 100G	7200 DVD±RW	11a/b/g	None	4-in-1	Blue	Fing	Business32	EasyServ	No Feb 08
7659-05U	T9300	2.50	2GB	14.1" WXGA	GMA	Cam 160G	7200 DVD±RW	11a/b/g	None	4-in-1	Blue	Fing	Business32	EasyServ	No Apr 08

Italic MTM: not a base model for building a custom model

• **These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T8300 or T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; <i>T8300:</i> 3MB L2 cache; <i>T9300:</i> 6MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ↕ Vista Basic logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim														
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm														
Weight ²	<i>6-cell:</i> starting at 5.3 lb (2.4kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card	One slot (Type I, Type II), CardBus 32-bit, integrated door														
ExpressCard slot	None														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ¹ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None														
Turbo Memory	None														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (IAMT)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734					T/R 14W Standard Battery 4-cell					41U3196				
2GB PC2-5300 DDR2 SODIMM	40Y7735					T/R 14W Enhanced Battery 6-cell					41U3198				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643					T/R 14W High Capacity Batt 9-cell					43R2499				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					Advanced Ultrabay Battery II 3-cell					43R9250				
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410					ThinkPad External Battery Charger					40Y7625				
USB 2.0 Security Memory Key 4GB	41U5120					ThinkPad 90W AC Adapter					40Y7659				
USB 2.0 Super Multi-Burner Drive	41N5565					90W Slim AC/DC Combo Adapter					41N8460				
ThinkPad Essential Port Replicator	250510W					ThinkPad Business Backpack					43R2482				
ThinkPad Advanced Mini Dock	250410U					ThinkVision® L2240p Wide 22" Monitor					4422HB6				
ThinkPad Advanced Dock	250310U					ThinkVision L2440x Wide 24" Monitor					4421HB2				
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories														
	Supports ThinkVantage® technologies														
	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378														
	ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175														
	ThinkPlus 3-year LOR 9x5 NBD 45K6021														
	ThinkPlus 4-year LOR 9x5 NBD 45K6022														
	ThinkPlus 5-year LOR 9x5 NBD 45K6024														
	ThinkPlus 4-year P&L P/U Depot 45K6023														
	ThinkPlus 5-year P&L P/U Depot 45K6025														
	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty														

See footnotes for important warranty information
US models announced February 19 or April 10, 2008
US models withdrawn effective May 2009

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(ML2-1) May 2009

ThinkPad® T61 14W (NVIDIA® Graphics) - Education (EasyServ) - withdrawn Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Card or Turbo slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Gbl (G) Avail warranty ¹² date
7663-1TU	T7300	2.00	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	11a/b/g ³²	None	4-in-1	Blue	Business32 HE EasyServ W May07
<p>• This model has an EasyServ™¹⁹ depot repair service 3-year limited warranty This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>												
Processor	Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	None											
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm											
Weight ²	6-cell: starting at 5.3 lb (2.4kg)											
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr											
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	None											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN	None											
Turbo Memory	None											
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² avail											
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell		41U3196	ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD							
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell		41U3198	41C9175							
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell		43R2499	ThinkPlus 3-year LOR 9x5 NBD							
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell		43R9250	41C9176							
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	ThinkPad External Battery Charger		40Y7625	ThinkPlus 4-year LOR 9x5 NBD							
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad 90W AC Adapter		40Y7659	41C9177							
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	90W Slim AC/DC Combo Adapter		41N8460	ThinkPlus 5-year LOR 9x5 NBD							
USB 2.0 Essential Memory Key 8GB	45J7905	ThinkPad Business Topload Case		43R2476	41C9179							
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Backpack		43R2482	ThinkPlus 4-year P&L P/U Depot							
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L1700p 17" Monitor		9417HE2	41C9178							
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision L1940p Wide 19" Monitor		4424HB6	ThinkPlus 5-year P&L P/U Depot							
ThinkPad Essential Port Replicator	250510W	ThinkVision L2240p Wide 22" Monitor		4422HB6	41C9180							
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2440p Wide 24" Monitor		4420HB2	Post-warranty annual maintenance							
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor		4421HB2	agreements at							
Other accessories on O-T61 sheet		Other accessories at lenovo.com/accessories			lenovo.com/thinkplus/warranty							

See footnotes for important warranty information
 US model announced on May 9, 2007
 US model withdrawn effective November 2008

ThinkPad® T61u 14W 7663 (NVIDIA®) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Cam- era	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Vista preload	Workhorse (W) Limited warranty ¹²	Avail date	
7663-N1U	T9300	2.50	1GB	14.1" WXGA+	128MB	Cam	100G 7200	DVD±RW	11a/b/g	None	4-in-1	Blue	Business32	EasyServ	No	Feb 08
7663-05U	T9300	2.50	2GB	14.1" WXGA+	128MB	Cam	160G 7200	DVD±RW	11a/b/g	None	4-in-1	Blue	Business32	EasyServ	No	Apr 08
<i>Italic MTM: not a base model for building a custom model</i>																
<p>• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty</p> <p>Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																
Processor	Intel® Core™ 2 Duo processor T9300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 6MB shared L2 cache												Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Premium logo			
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available												Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Diskette drive	None (use optional USB-based diskette drive)															
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	100GB⁸ (7200 rpm) or 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0															
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm															
Weight ²	6-cell: starting at 5.3 lb (2.4kg)															
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	6-cell: up to 3.8 hr; 6-cell plus Ultrabay battery: up to 5.3 hr															
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Richo® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card	One slot (Type I, Type II), CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick PRO, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
11a/b/g ³²	11a/b/g wireless ¹ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available															
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell										41U3196	ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD			
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell										41U3198	41C9175			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell										43R2499	ThinkPlus 3-year LOR 9x5 NBD			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell										43R9250	45K6021			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ThinkPad External Battery Charger										40Y7625	ThinkPlus 4-year LOR 9x5 NBD			
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410	ThinkPad 90W AC Adapter										40Y7659	45K6022			
USB 2.0 Security Memory Key 4GB	41U5120	90W Slim AC/DC Combo Adapter										41N8460	ThinkPlus 5-year LOR 9x5 NBD			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Business Topload Case										43R2476	45K6024			
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack										43R2482	ThinkPlus 4-year P&L P/U Depot			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Deluxe Expander Case										43R2478	45K6023			
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision® L1940p Wide 19" Monitor										4424HB6	ThinkPlus 5-year P&L P/U Depot			
ThinkPad Essential Port Replicator	250510W	ThinkVision L2240p Wide 22" Monitor										4422HB6	45K6025			
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2440p Wide 24" Monitor										4420HB2	Post-warranty annual maintenance agreements at			
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor										4421HB2	lenovo.com/thinkplus/warranty			
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
 US models announced February 19 or April 10, 2008
 US models withdrawn effective May 2009

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 (ML2-2) May 2009

ThinkPad® T61u 14W 7659 (GMA) - Education (Linux) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger Bat- print tery	Workhorse (W) Linux Global (G) Entry (E)	Avail date
7659-3AU	T8300	2.40	1GB	14.1" WXGA	GMA	80G	5400	Combo	*Intel 11a/b/g ³²	None	/54	None	6 SLED10	No Feb 08
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache											Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None		
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock		
Diskette drive	None (use optional USB-based diskette drive)											Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer		
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Serial ATA disk	80GB⁹ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive													
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Camera	None													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm													
Weight ²	<i>6-cell:</i> starting at 5.3 lb (2.4kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	Not published													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
PC Card	One slot (Type I, Type II), CardBus 32-bit													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	None													
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Not supported													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹² 3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell	41U3196									
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell	41U3198									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell	43R2499									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell	43R9250									
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406			ThinkPad External Battery Charger	40Y7625									
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411			90W Slim AC/DC Combo Adapter	41N8460									
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Topload Case	43R2476									
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkPad Business Backpack	43R2482									
ThinkPad Essential Port Replicator	250510W			ThinkVision® L1940p Wide 19" Monitor	4424HB6									
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor	4422HB6									
ThinkPad Advanced Dock	250310U			ThinkVision L2440x Wide 24" Monitor	4421HB2									
Check Linux compatibility for other accessories				Other accessories at lenovo.com/accessories										

See footnotes for important warranty information
 US model announced February 19, 2008
 US model withdrawn effective May 2009

* Intel Centrino® processor technology

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 (ML2-3) May 2009

ThinkPad® T61u 14W 7663 (NVIDIA®) - Education (Linux) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Linux preload	Workhorse (W) Global (G) Entry (E)	Avail date
7663-3MU	T8300	2.40	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	* Intel 11a/b/g ³²	None	/54	Blue	6-cell	SLED10	No	Feb 08
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache											Preloaded operating system²⁰ - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 Preloaded applications¹⁴ • None			
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock			
Diskette drive	None (use optional USB-based diskette drive)											Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera			
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive														
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1, 300:1 contrast ratio														
Camera	None														
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apps keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm														
Weight ²	<i>6-cell:</i> starting at 5.3 lb (2.4kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	Not published														
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer			
PC Card	One slot (Type I, Type II), CardBus 32-bit														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Not supported														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available															
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell				41U3196									
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell				41U3198									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell				43R2499									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell				43R9250									
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ThinkPad External Battery Charger				40Y7625									
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411	90W Slim AC/DC Combo Adapter				41N8460									
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case				43R2476									
ThinkPad Essential Port Replicator	250510W	ThinkPad Business Backpack				43R2482									
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor				4422HB6									
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor				4420HB2									
Check Linux compatibility for other accessories					Other accessories at lenovo.com/accessories										

See footnotes for important warranty information
 US model announced February 19, 2008
 US model withdrawn effective May 2009

* Intel Centrino® processor technology

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 (ML2-4) May 2009

ThinkPad® T61 14W (GMA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Gbl (G) Avail warranty ¹² date
7661-1NU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	11a/b/g ³²	None	4-in-1	Blue	Business32	K12	Onsite W May07
7661-1PU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	11a/b/g	None	4-in-1	Blue	Business32	HE	Onsite W May07
7661-XAU	T7300	2.00	1GB	14.1" WXGA+	GMA	120G 5400	DVD±RW	11a/b/g	None	4-in-1	Blue	Business32	HE	Onsite May07

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core. Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Basic logo
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim											
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, 185 nits, 16:10, 300:1											
Camera	<i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10, 300:1											
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm											
Weight ²	<i>6-cell:</i> starting at 5.3 lb (2.4kg)											
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr											
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	None											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Sec Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN	None											
Turbo Memory	None											
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket											
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	None											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time											Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

US models announced May 9, 2007

US models withdrawn effective June or November 2008

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(ML1-7) November 2008

ThinkPad® T61 14W (NVIDIA® Graphics) - Education (Onsite) - withdrawn Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Global (G) Avail warranty ¹²	date			
7665-1TU	T7300	2.00	1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	11a/b/g ³²	None	4-in-1	Blue Business32	HE	Onsite	W	May 07

• **This model has a limited onsite service²⁴ 3-year limited warranty**

This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo	
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)	
Diskette drive	None (use optional USB-based diskette drive)												
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												
Serial ATA disk	120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	None												
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm											Supports ThinkVantage® technologies	
Weight ²	<i>6-cell:</i> starting at 5.3 lb (2.4kg)												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	<i>6-cell:</i> up to 3.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 5.3 hr												
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)												
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit												
ExpressCard slot	None												
Smart Card Read	None												
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN	None												
Turbo Memory	None												
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time												

See footnotes for important warranty information
US model announced May 9, 2007
US model withdrawn effective November 2008

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(ML1-8) November 2008

ThinkPad® T61 15W 6463 (GMA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo slot	Finger Blue- print reader	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date	
6463-4JU	T7300	2.00	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	11a/b/g ³²	None	/54	Blue	Finger	9	K12 EasyServ Business32	Jun 07
<p>• This model has an EasyServ™¹⁹ depot repair service 3-year limited warranty This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>															
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Basic logo			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE DVD±RW	DVD burner, Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery; starting at 5.9 lb (2.7kg)														
Weight ²	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic														
Case material	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - type	9-cell; up to 8.3 hr; 9-cell plus Ultrabay battery: up to 9.8 hr														
Battery - life ¹⁰															
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None														
Turbo Memory	None														
UWB	None (uses Half-Mini PCI Express slot)														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (IAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734				T60/R60 Series Li-Ion Battery 6-cell				40Y6799			ThinkPlus™. ²² 2-year LOR 9x5 NBD			
2GB PC2-5300 DDR2 SODIMM	40Y7735				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797			ThinkPlus 3-year LOR 9x5 NBD			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				Advanced Ultrabay Battery II 3-cell				43R9250			ThinkPlus 4-year LOR 9x5 NBD			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad External Battery Charger				40Y7625			ThinkPlus 5-year LOR 9x5 NBD			
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400				ThinkPad 90W AC Adapter				40Y7659			ThinkPlus 4-year P&L P/U Depot			
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738				90W Slim AC/DC Combo Adapter				41N8460			ThinkPlus 5-year P&L P/U Depot			
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152				ThinkPad Business Topload Case				43R2476			ThinkPlus 4-year P&L P/U Depot			
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Business Backpack				43R2482			ThinkPlus 5-year P&L P/U Depot			
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Deluxe Expander Case				43R2478			ThinkPlus 5-year P&L P/U Depot			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770				ThinkVision® L190x 19" LCD Monitor				4439HB2			ThinkPlus 5-year P&L P/U Depot			
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L193p 19" LCD Monitor				4431HB2			Post-warranty annual maintenance agreements at			
ThinkPad Advanced Mini Dock	250410U				ThinkVision L197 Wide 19" LCD				4434HE1			lenovo.com/thinkplus/warranty			
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD				4433HB2						
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information
 US model announced on May 31, 2007
 US model withdrawn effective June 2008

ThinkPad® T61 15W (GMA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁹ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo Card slot	Bat- tery cells	Educ pre- load	Limited warranty ¹²	Vista preload	Avail date
6464-4JU	T7300	2.00 1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	11a/b/g ³²	None /54	9	K12	Onsite	Business32	Jun 07
<p>• This model has a limited onsite service²⁴ 3-year limited warranty</p> <p>This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ⇨ Vista Basic logo</p>		
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>										<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (K12): K-12 education software - VitalSource Library School Edition - Adobe Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)</p>		
Diskette drive	None (use optional USB-based diskette drive)												
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												
Serial ATA disk	120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	None												
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm												
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	<i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr												
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)												
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit												
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0												
Smart Card Reader	None												
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios												
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN	None												
Turbo Memory	None												
UWB	None (uses Half-Mini PCI Express slot)												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (IAMT)												
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time												
1GB PC2-5300 DDR2 SODIMM	40Y7734			T60/R60 Series Li-Ion Battery 6-cell			40Y6799			<p>Supports ThinkVantage® technologies</p> <p>65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p> <p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>			
2GB PC2-5300 DDR2 SODIMM	40Y7735			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell			43R9250						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625						
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad 90W AC Adapter			40Y7659						
160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)	41N5737			90W Slim AC/DC Combo Adapter			41N8460						
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738			ThinkPad Business Topload Case			43R2476						
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152			ThinkPad Business Backpack			43R2482						
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Deluxe Expander Case			43R2478						
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkVision® L174 17" LCD Monitor			9227AE1						
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkVision L171p 17" LCD Monitor			9417HC2						
ThinkPad Essential Port Replicator	250510W			ThinkVision L190x 19" LCD Monitor			4439HB2						
ThinkPad Advanced Mini Dock	250410U			ThinkVision L193p 19" LCD Monitor			4431HB2						
ThinkPad Advanced Dock	250310U			ThinkVision L220x Wide 22" LCD			4433HB2						
Other accessories on O-T61 sheet				Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
 US model announced May 31, 2007
 US model withdrawn effective June 2008

ThinkPad® T61 15W 6465 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Blue- tooth	Finger Bat- tery reader cells	Preload	Workhorse (W) Global (G) Educ	Avail date
6465-57U	T7100	1.80	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 11a/b/g ³²			Finger 6	Business32		Jun 07
6465-01U	T7100	1.80	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 11a/b/g			Finger 6	XP Pro		July 07
6465-02U	T5270	1.40	512MB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 11a/b/g				6 XP Pro		Oct 07
6465-03U	T7250	2.00	1GB	15.4" WXGA	GMA	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger 6	XP Pro		Dec 07
6465-5YU	T7250	2.00	1GB	15.4" WXGA	GMA	160G 5400	DVD±RW	* Intel 11n ²⁸		Blue	Finger 6	XP Pro		Oct 07
6465-5ZU	T7250	2.00	1GB	15.4" WXGA	GMA	160G 5400	DVD±RW	* Intel 11n		Blue	Finger 6	Business32		Oct 07
6465-62U	T7500	2.20	1GB	15.4" WXGA	GMA	160G 7200	DVD±RW	* Intel 11n		Blue	Finger 6	XP Pro		Oct 07
6465-63U	T7500	2.20	1GB	15.4" WXGA	GMA	160G 7200	DVD±RW	* Intel 11n	1G Turbo	Blue	Finger 6	Business32		Oct 07
6465-9TU	T8100	2.10	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 11a/b/g			Finger 6	XP Pro		Jan 08
6465-9UU	T8300	2.40	1GB	15.4" WXGA	GMA	100G 7200	DVD±RW	* Intel 11n		Blue	Finger 6	XP Pro		Jan 08
6465-05U	T8100	2.10	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 4965AG ³²			Finger 6	Business32	Educ	May 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These models have a 1-year limited warranty¹²

Processor	Intel® Core™ 2 Duo processor T5270 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T7100, T7250, T7500, T8100, or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; T7100/T7250: 2MB L2 cache; T7500: 4MB L2 cache; T8100/T8300: 3MB L2 cache	Preloaded operating system ²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available	Preloaded applications ¹⁴ (all OSes; only some listed) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • PC-Doctor™ (diagnostics) • Fingerprint Software (fingerprint models) • Microsoft Office OneNote® 2007 and CD (05U model) • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (XP Pro models) • Sonic RecordNow and Drive Letter Access (Combo, DVD±RW) • Corel® WinDVD® (Combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim	
EIDE DVD±RW	Some: DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel	
Serial ATA disk	80GB ⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400 rpm), or 160GB (5400 or 7200) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	None	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg)	
Weight ²		
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	6-cell: up to 5.5 hr; 9-cell: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 9.8 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	Supports ThinkVantage® technologies
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	None	
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 41C9166
Intel 4965AG ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	ThinkPlus 2-year LOR 9x5 NBD 41C9167
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	ThinkPlus 3-year LOR 9x5 NBD 41C9168
WWAN	None	ThinkPlus 4-year LOR 9x5 NBD 41C9171
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator	ThinkPlus 5-year LOR 9x5 NBD 41C9173
UWB	None (uses Half-Mini PCI Express slot)	ThinkPlus 2-year P&L P/U Depot 41C9169
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket	ThinkPlus 3-year P&L P/U Depot 41C9170
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	ThinkPlus 4-year P&L P/U Depot 41C9172
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	ThinkPlus 5-year P&L P/U Depot 41C9174
Intel AMT	Intel Active Management Technology (IAMT)	
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant	
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available	

See footnotes for important warranty information
 US models announced May 31, July 10, October 3,
 October 30, or December 6, 2007; or January 8 or May 13, 2008
 US models withdrawn effective Dec 2007, May 2008, or Nov 2008

ThinkPad® T61 15W 6465 (GMA) - TopSeller (April 2008) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Avail date
6465-9ZU	T5270	1.40	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 11a/b/g	None	/54			6	Business32	Apr 08
6465-A2U	T8100	2.10	2GB	15.4" WXGA	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	None	/54		Finger	6	Business32	Apr 08
6465-A3U	T8300	2.40	2GB	15.4" WXGA	GMA	100G 7200	DVD±RW	* Intel 11n	None	/54	Blue	Finger	6	Business32	Apr 08
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 1-year limited warranty¹² 															
Positioning	<i>Premiere performance; two spindles</i>										Preloaded operating system²⁰				
Processor	Intel® Core™ 2 Duo processor T5270 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T8100 or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache										- Microsoft Windows Vista® Business Edition (32-bit) ◇ 9ZU: Vista Basic logo ◇ A2U/A3U: Vista Premium logo Preloaded applications¹⁴ <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (Combo, DVD±RW) • Corel® WinDVD® (Combo, DVD±RW) 				
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Non-italics:</i> standard memory in 1 socket; 1 socket available														
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim														
EIDE DVD±RW	Some: DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	80GB⁹ (5400 rpm), 100GB (7200 rpm), or 160GB (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 300 nits, 16:10 aspect ratio, 200:1 contrast ratio														
Camera	None														
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm														
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>6-cell:</i> up to 5.5 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr														
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	/54 One ExpressCard/34 or ExpressCard/54														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
Intel 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)														
WWAN	None														
Turbo Memory	None														
Ultra-Wideband	None (uses Half-Mini PCI Express slot)														
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket														
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (IAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on palm rest , swipe sensor, supports the security chip														
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC2-5300 DDR2 SODIMM	40Y7734				T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799						
2GB PC2-5300 DDR2 SODIMM	40Y7735				T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				Advanced Ultrabay Battery II 3-cell				43R9250						
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400				90W Slim AC/DC Combo Adapter				41N8460						
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403				ThinkPad Business Topload Case				43R2476						
ThinkPad Advanced Dock	250310U				ThinkVision® L2440x Wide 24" Monitor				4421HB2						
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories														
					ThinkPlus™ ²² 1-year LOR ²⁴ 9x5 NBD				41C9166						
					ThinkPlus 2-year LOR 9x5 NBD				41C9167						
					ThinkPlus 3-year LOR 9x5 NBD				41C9168						
					ThinkPlus 4-year LOR 9x5 NBD				41C9171						
					ThinkPlus 5-year LOR 9x5 NBD				41C9173						
					ThinkPlus 2-year P&L P/U Depot				41C9169						
					ThinkPlus 3-year P&L P/U Depot				41C9170						
					ThinkPlus 4-year P&L P/U Depot				41C9172						
					ThinkPlus 5-year P&L P/U Depot				41C9174						

See footnotes for important warranty information
 US models announced April 15, 2008
 US models withdrawn effective November 2008

* Powered by Intel Centrino® processor technology
 * Powered by Intel Centrino with vPro™ technology

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 (CR4-3) November 2008

ThinkPad® T61 15W (GMA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery Vista preload	Workhorse (W) Global (G) Entry (E)	Avail date
6463-4YU	T7300	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6	Business32	W G Jun 07
6463-4XU	T7300	2.00	1GB	15.4" WXGA	GMA	120G 5400	Combo	* Intel 4965AG	None	Smart	Blue	6	Business32	W G Jun 07
6463-5BU	T7300	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 4965AG	None	Smart	Blue	6	XP Pro	W G Jun 07
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista™ Business Edition (32-bit) ◇ 6463-4YU/4XU: Vista Basic logo		
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day)		
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Serial ATA disk	80GB⁸ (5400 rpm) or 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	None													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm													
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	<i>6-cell:</i> up to 5.5 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card	One slot (Type I, Type II), CardBus 32-bit													
ExpressCard slot	None													
Smart Card Reader	Smart Card Reader													
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG													
WWAN	None													
Turbo Memory	None													
UWB	None (uses Half-Mini PCI Express slot)													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Intel Active Management Technology (IAMT)													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM	40Y7734		T/R/W/SL Series Li-Ion Battery 6-cell		40Y6799		ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD							
2GB PC2-5300 DDR2 SODIMM	40Y7735		T/R/W/SL Series Li-Ion Battery 9-cell		40Y6797		41C9175							
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		Advanced Ultrabay Battery II 3-cell		43R9250		ThinkPlus 3-year LOR 9x5 NBD							
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725		ThinkPad External Battery Charger		40Y7625		45K6021							
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406		ThinkPad 90W AC Adapter		40Y7659		ThinkPlus 4-year LOR 9x5 NBD							
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410		90W Slim AC/DC Combo Adapter		41N8460		45K6022							
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411		ThinkPad Business Topload Case		43R2476		ThinkPlus 5-year LOR 9x5 NBD							
USB 2.0 Ultra Secure Memory Key 8GB	45J5918		ThinkPad Business Backpack		43R2482		45K6024							
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Deluxe Expander Case		43R2478		ThinkPlus 4-year P&L P/U Depot							
USB 2.0 Lenovo Enhanced Port Replicator	43R8770		ThinkPad Executive Leather Case		43R2480		45K6023							
ThinkPad Convertible Monitor Stand	40Y7620		ThinkVision® L1700p 17" Monitor		9417HE2		ThinkPlus 5-year P&L P/U Depot							
ThinkPad Essential Port Replicator	250510W		ThinkVision L1940p Wide 19" Monitor		4424HB6		45K6025							
ThinkPad Advanced Mini Dock	250410U		ThinkVision L2240p Wide 22" Monitor		4422HB6		Post-warranty annual maintenance agreements at							
ThinkPad Advanced Dock	250310U		ThinkVision L2440x Wide 24" Monitor		4421HB2		lenovo.com/thinkplus/warranty							
Other accessories on O-T61 sheet														

See footnotes for important warranty information
US models announced May 31, 2007
US models withdrawn effective May 2007 or May 2009

* Intel Centrino® with vPro™ technology

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(CR3-2) May 2009

ThinkPad® T61 15W 6464 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Vista Global (G) preload GMP (P)	Avail date
6464-4YU	T7300	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	Blue	6	Business32 W G P Jun 07
<p>• This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty</p>													
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Basic logo</p>	
Memory	<p>1GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)</p>	
Diskette drive EIDE Combo Ultrabay Slim Serial ATA disk	<p>None (use optional USB-based diskette drive) DVD-ROM/CD-RW, 24X/24X/24X/8X²¹ speed, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>												
Widescreen display Camera	<p>15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None</p>												
Graphics	<p>Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>												
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions</p>												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery; starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.5 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr</p>												
Chipset	<p>Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>												
PC Card ExpressCard slot Smart Card Read Multicard Reader Ports	<p>One slot (Type I, Type II), CardBus 32-bit None Smart Card Reader 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>												
Wireless antenna Mini PCI Express Intel 4965AG ³² WWAN Turbo Memory UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless⁴, Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None None (uses Half-Mini PCI Express slot) 56K V.92⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack</p>												
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>												
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades²² available</p>											<p>Supports ThinkVantage® technologies</p>	
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter (flat) 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm) 250GB Disk FDE SATA 1.5Gb/s (7200 rpm) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Super Multi-Burner Drive ThinkPad Convertible Monitor Stand ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T61 sheet	40Y7734 40Y7735 41N5643 40Y8725 43N3406 41N5737 43N3410 43N3411 45J5918 41N5565 40Y7620 250510W 250410U 250310U	T/R/W/SL Series Li-Ion Battery 6-cell T/R/W/SL Series Li-Ion Battery 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack ThinkPad Deluxe Expander Case ThinkPad Executive Leather Case ThinkVision® L1700p 17" Monitor ThinkVision L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440p Wide 24" Monitor Other accessories at lenovo.com/accessories	40Y6799 40Y6797 43R9250 40Y7625 40Y7659 41N8460 43R2476 43R2482 43R2478 43R2480 9417HE2 4424HB6 4422HB6 4420HB2	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038 ThinkPlus 5-year LOR 9x5 NBD 43R2162 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									

See footnotes for important warranty information
 US model announced May 31, 2007
 US model withdrawn effective May 2009

* Intel Centrino® with vPro™ technology

ThinkPad® T61 15W 6460 (NVIDIA®) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue-tooth	Battery cells	Workhorse (W) Global (G) Avail date
6460-66U	T7300	2.00	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n ²⁸	1G Turbo	/54	Blue	6	Bus 32 July 07
6460-7EU	T7300	2.00	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro July 07
6460-01U	T7500	2.20	1GB	15.4" WSXGA+	128MB	100G 7200	Combo	* Intel 11n		/54	Blue	6	XP Pro Dec 07
6460-DWU	T8100	2.10	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Jan 08
6460-DTU	T8300	2.40	1GB	15.4" WSXGA+	128MB	100G 7200	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Jan 08
6460-DUU	T8300	2.40	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	9	XP Pro Jan 08
6460-EFU	T8100	2.10	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	Bus 32 Apr 08
6460-EGU	T8300	2.40	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n	Verizon	/54	Blue	9	Bus 32 Apr 08
6460-05U	T8100	2.10	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	Bus 32 Educ May 08
6460-06U	T5870	2.00	2GB	15.4" WXGA	128MB	160G 7200	DVD±RW	* Intel 4965AG ³²		4-in-1	Blue	9	Bus 32 Educ Aug 08
6460-07U	T8100	2.10	2GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Sep 08
6460-08U	T9300	2.50	3GB	15.4" WSXGA+	128MB	160G 7200	DVD±RW	* Intel 11n		/54	Blue	6	XP Pro Sep 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor T5870, T7300, T7500, T8100, T8300, or T9300 with dual-core , 800MHz system bus, <i>T5870</i> : 2MB L2 cache; <i>T7300/T7500</i> : 4MB L2 cache; <i>T8100/T8300</i> : 3MB L2 cache; <i>T9300</i> : 6MB L2 cache										Preloaded operating system²⁰ - <i>Some</i> : Microsoft® Windows® XP Professional with Vista® COA - <i>Some</i> : Microsoft Windows Vista Business Edition (32-bit) ♦ <i>Vista models</i> : Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Microsoft Office OneNote® 2007 and CD (66U, 05U, 06U models) • <i>Some</i> : Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Windows Live™ Toolbar • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (XP Pro DVD±RW models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Memory	1GB, 2GB, or 3GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available <i>Non-italics</i> : standard memory in 1 socket; 1 socket available										
Diskette drive	None (use optional USB-based diskette drive)										
EIDE Combo	<i>Some</i> : DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim										
Ultrabay Slim	<i>Some</i> : DVD burner, Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim										
Serial ATA disk	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 100GB⁸ (7200 rpm), 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	<i>Some</i> : 15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio										
Camera	<i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0										
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>15.4" models (WxDxH)</i> : 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm										
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)										
Case material	<i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic										
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim										
Battery - life ¹⁰	<i>6-cell</i> : up to 3.9 hr; <i>9-cell</i> : up to 5.9 hr; <i>9-cell plus Ultrabay battery</i> : up to 7.9 hr										
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit										
ExpressCard slot	<i>Some</i> : [/54] One ExpressCard/34 or ExpressCard/54										
Smart Card Reader	None										
Multicard Reader	<i>Some</i> : 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)										
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable										
Intel 4965AG ³²	<i>Some</i> : 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG										
Intel 11n ²⁸	<i>Some</i> : 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)										
Verizon ¹⁶	<i>Some</i> : Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract reqd with Verizon® Wireless										
1G Turbo	<i>Some</i> : Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator										
Ultra-Wideband	None (uses Half-Mini PCI Express slot)										
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket										
Bluetooth™	<i>Some</i> : Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE										
Intel AMT	Intel Active Management Technology (IAMT)										
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available 2GB PC2-5300 DDR2 SODIMM (TopSeller) 43R2000 90W Slim AC/DC Combo Adapter 41N8460 250GB Disk FDE SATA 1.5Gb/s (7200 rpm) 43N3410 Other accessories at lenovo.com/accessories										
	Supports ThinkVantage® technologies 90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty										

See footnotes for important warranty information

* Intel Centrino® with vPro™ technology

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US models announced Jul 10, Dec 6, 2007, Jan 8, Apr 15, May 13, Aug 1, or August 28, 2008

(CR3-9) May 2009

US models withdrawn effective December 2007, May 2008 or May 2009

ThinkPad® T61 15W (NVIDIA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date
6457-4UU	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB 5400	Combo	* Intel 4965AG ³²	None	Smart	6	Business32	W G	July 07
6457-6NU	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB 5400	Combo	* Intel 4965AG	None	Smart	6	XP Pro	G	July 07
6457-6PU	T7500	2.20	1GB	15.4" WSXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG	None	Smart	9	XP Pro	G	July 07
6457-4XU	T7500	2.20	1GB	15.4" WSXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG	None	Smart	9	Business32	G	July 07
6457-6DU	T7500	2.20	2GB	15.4" WSXGA+	128MB	100G 7200	DVD±RW	* Intel 11a/b/g ³²	None	Smart	9	Ultimate 32	G	July 07
6457-98U	T7500	2.20	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	* Intel 11n	None	/54	9	Business64		Mar 08
Processor	Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ◇ <i>Vista models:</i> Vista Premium logo		
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • DiskKeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate models) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)		
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim											◇ <i>Vista models:</i> Vista Premium logo		
EIDE DVD±RW	<i>Some:</i> DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable Ultrabay One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Ultrabay Slim	80GB⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400 rpm), or 160GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Serial ATA disk														
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	None													
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg)													
Weight ²	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	<i>6-cell:</i> up to 3.9 hr; <i>9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.9 hr													
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card	One slot (Type I, Type II), CardBus 32-bit													
ExpressCard/54	<i>Some:</i> [/54] One slot (ExpressCard/34, ExpressCard/54)													
Smart Card Read	<i>Some:</i> Smart Card Reader													
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Three Mini PCI Express slots													
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
Intel 4965AG ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG													
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)													
WWAN upg	None													
Turbo Memory	None													
UWB	None (uses Half-Mini PCI Express slot)													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Intel Active Management Technology (IAMT)													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
1GB PC2-5300 DDR2 SODIMM	40Y7734				T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799					
2GB PC2-5300 DDR2 SODIMM	40Y7735				T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				Advanced Ultrabay Battery II 3-cell				43R9250					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter				40Y7659					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406				90W Slim AC/DC Combo Adapter				41N8460					
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410				ThinkPad Deluxe Expander Case				43R2478					
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case				43R2480					
USB 2.0 Lenovo Enhanced Port Replicator	43R8770				ThinkVision® L1940p Wide 19" Monitor				4424HB6					
ThinkPad Advanced Mini Dock	250410U				ThinkVision L2240p Wide 22" Monitor				4422HB6					
ThinkPad Advanced Dock	250310U				ThinkVision L2440p Wide 24" Monitor				4420HB2					
Other accessories on O-T61 sheet					Other accessories at lenovo.com/accessories									
											Supports ThinkVantage® technologies			
											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
											ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175			
											ThinkPlus 3-year LOR 9x5 NBD 45K6021			
											ThinkPlus 4-year LOR 9x5 NBD 45K6022			
											ThinkPlus 5-year LOR 9x5 NBD 45K6024			
											ThinkPlus 4-year P&L P/U Depot 45K6023			
											ThinkPlus 5-year P&L P/U Depot 45K6025			
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced July 10, 2007 or March 25, 2008
US models withdrawn effective May 2008 or May 2009

* Intel Centrino® processor technology
* Intel Centrino with vPro™ technology

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(CR3-5) May 2009

ThinkPad® T61 15W 6458 (NVIDIA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Battery Blue-tooth cells	Preload	Workhorse (W) Global (G) Avail date
6458-4UU	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB 5400	Combo	*Intel 4965AG ³²	None	Smart	Blue 6	Business32	W G P July 07
6458-6QU	T7500	2.20	1GB	15.4" WSXGA+	128MB	120GB 5400	DVD±RW	*Intel 4965AG	None	Smart	Blue 9	Business32	W G P July 07
<p>• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty</p>													
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo</p>	
Memory	<p>1GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate models) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)</p>	
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk	<p>None (use optional USB-based diskette drive) <i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X²¹ speed, removable from Ultrabay Slim <i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm) or 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>												
Widescreen display Camera	<p>15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio None</p>												
Graphics	<p>NVIDIA® Quadro® NVS 140M, PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>												
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions</p>												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p>15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery; starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 3.9 hr; 9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr</p>												
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>												
PC Card ExpressCard slot Smart Card Reader Multicard Reader Ports	<p>One slot (Type I, Type II), CardBus 32-bit None Smart Card Reader 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>												
Wireless antenna Mini PCI Express Intel 4965AG ³² WWAN Turbo Memory UWB	<p>UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless⁴, Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None None (uses Half-Mini PCI Express slot)</p>												
Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>56K V.92⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack</p>												
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>											<p>Supports ThinkVantage® technologies</p>	
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades²² available</p>												
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Convertible Monitor Stand ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T61 sheet	40Y7734 40Y7735 41N5643 43N3406 43N3411 41U5120 41N5565 43R8770 40Y7620 250510W 250410U 250310U	T/R/W/SL Series Li-Ion Battery 6-cell T/R/W/SL Series Li-Ion Battery 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack ThinkPad Deluxe Expander Case ThinkPad Executive Leather Case ThinkVision® L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor Other accessories at lenovo.com/accessories	40Y6799 40Y6797 43R9250 40Y7659 41N8460 43R2476 43R2482 43R2478 43R2480 4424HB6 4422HB6 4421HB2										

See footnotes for important warranty information
 US models announced July 10, 2007
 US models withdrawn effective May 2009

* Intel Centrino® with vPro™ technology

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 (CR3-12) May 2009

ThinkPad® T61 15W 6457 (NVIDIA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB ⁸	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Battery cells	Educ pre-load	Limited warranty ¹²	Vista preload	Avail date
6457-4JU	T7300	2.00	1GB	15.4" WSXGA+	128MB	100G	7200	DVD±RW	11a/b/g ³²	None	/54	9	HE	EasyServ	Business32	July 07	
<p>• This model has an EasyServ™¹⁹ depot repair service 3-year limited warranty</p> <p>Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																	
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; and 4MB shared L2 cache</p>												<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Premium logo</p>				
Memory	<p>1GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>												<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)</p>				
Diskette drive	None (use optional USB-based diskette drive)																
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim																
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel																
Serial ATA disk	<p>100GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>																
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio																
Camera	None																
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock																
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys																
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass																
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones																
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg)																
Weight ²	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic																
Case material	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim																
Battery - type	<i>9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.9 hr																
Battery - life ¹⁰																	
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)																
PC Card	One slot (Type I, Type II), CardBus 32-bit																
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)																
Smart Card Read	None																
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)																
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)																
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios																
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable																
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX																
WWAN	None																
Turbo Memory	None																
UWB	None (uses Half-Mini PCI Express slot)																
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket																
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator																
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE																
Intel AMT	Intel Active Management Technology (IAMT)																
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack																
Security	Power-on password, hard disk password, supervisor password, security keyhole																
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant																
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip																
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available																
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799												
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell	43R9250												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger	40Y7625												
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406			ThinkPad 90W AC Adapter	40Y7659												
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410			90W Slim AC/DC Combo Adapter	41N8460												
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152			ThinkPad Business Topload Case	43R2476												
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411			ThinkPad Business Backpack	43R2482												
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Deluxe Expander Case	43R2478												
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkVision® L1700p 17" Monitor	9417HE2												
ThinkPad Essential Port Replicator	250510W			ThinkVision L1940p Wide 19" Monitor	4424HB6												
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor	4422HB6												
ThinkPad Advanced Dock	250310U			ThinkVision L2440x Wide 24" Monitor	4421HB2												
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories																
												Supports ThinkVantage® technologies					
												90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
												ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175					
												ThinkPlus 3-year LOR 9x5 NBD 45K6021					
												ThinkPlus 4-year LOR 9x5 NBD 45K6022					
												ThinkPlus 5-year LOR 9x5 NBD 45K6024					
												ThinkPlus 4-year P&L P/U Depot 45K6023					
												ThinkPlus 5-year P&L P/U Depot 45K6025					
												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					

See footnotes for important warranty information
 US model announced July 10, 2007
 US model withdrawn effective May 2009

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 (CR3-7) May 2009

ThinkPad® T61 15W (NVIDIA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Battery cells	Educ pre-load	Limited warranty ¹²	Vista preload	Avail date	
6458-4JU	T7300	2.00	1GB	15.4" WSXGA+	128MB	100G 7200	DVD±RW	11a/b/g ³²	None	/54	9	HE	Onsite	Business32	July 07	
<p>• This model has a limited onsite service²⁴ 3-year limited warranty</p> <p>Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ♦ Vista Premium logo</p> <p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)</p>				
Memory	<p>1GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>															
Diskette drive	None (use optional USB-based diskette drive)															
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	100GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio															
Camera	None															
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm															
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	<i>9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.9 hr															
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card	One slot (Type I, Type II), CardBus 32-bit															
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable															
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
UWB	None (uses Half-Mini PCI Express slot)															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (IAMT)															
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip															
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time</p>															
1GB PC2-5300 DDR2 SODIMM	40Y7734				T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799				Supports ThinkVantage® technologies			
2GB PC2-5300 DDR2 SODIMM	40Y7735				T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797				<p>90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p> <p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				Advanced Ultrabay Battery II 3-cell				43R9250							
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406				ThinkPad External Battery Charger				40Y7625							
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410				ThinkPad 90W AC Adapter				40Y7659							
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152				90W Slim AC/DC Combo Adapter				41N8460							
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411				ThinkPad Business Topload Case				43R2476							
USB 2.0 Ultra Secure Memory Key 8GB	45J5918				ThinkPad Business Backpack				43R2482							
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Deluxe Expander Case				43R2478							
USB 2.0 Lenovo Enhanced Port Replicator	43R8770				ThinkVision® L1700p 17" Monitor				9417HE2							
ThinkPad Essential Port Replicator	250510W				ThinkVision L1940p Wide 19" Monitor				4424HB6							
ThinkPad Advanced Mini Dock	250410U				ThinkVision L2240p Wide 22" Monitor				4422HB6							
ThinkPad Advanced Dock	250310U				ThinkVision L2440x Wide 24" Monitor				4421HB2							
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
 US model announced July 10, 2007
 US model withdrawn effective May 2009

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 (CR3-8) May 2009

ThinkPad® T61u 15W 6463 (GMA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	Processor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB ⁵ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Limited warranty ¹²	Vista preload	Avail date
6463-9RU	T8300 2.40	1GB	15.4" WXGA	GMA 80G	5400	Combo	11a/b/g ³²	None	/54		9	EasyServ	Business32	Feb 08	
6463-9SU	T9300 2.50	1GB	15.4" WXGA	GMA 100G	7200	DVD±RW	11a/b/g	None	/54	Blue	Finger	9	EasyServ	Business32	Feb 08
6463-05U	T9300 2.50	2GB	15.4" WXGA	GMA 160G	7200	DVD±RW	11a/b/g	None	/54	Blue	Finger	9	EasyServ	Business32	Apr 08

Italic MTM: not a base model for building a custom model

• **These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty**
 Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T8300 or T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; T8300: 3MB L2 cache; T9300: 6MB L2 cache	Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (Combo, DVD±RW) • Corel® WinDVD® (Combo, DVD±RW)
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) <i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from Ultrabay Slim <i>Some:</i> DVD burner, Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 100GB (7200 rpm), or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery; starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	
PC Card ExpressCard/54 Smart Card Read Multicard Reader Ports	One slot (Type I, Type II), CardBus 32-bit One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo Memory UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None None (uses Half-Mini PCI Express slot) 56K V.92 ⁵ modem in Communications Daughter Card socket <i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole	Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip	ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 250GB Disk FDE SATA 1.5Gb/s (7200 rpm) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Advanced Dock Other accessories on O-T61 sheet	40Y7734 40Y7735 41N5643 43N3406 43N3410 43N3411 41U5120 43R8770 250310U	T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799 Advanced Ultrabay Battery II 3-cell 43R9250 ThinkPad External Battery Charger 40Y7625 ThinkPad 90W AC Adapter 40Y7659 90W Slim AC/DC Combo Adapter 41N8460 ThinkPad Business Topload Case 43R2476 ThinkPad Business Backpack 43R2482 ThinkVision® L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440p Wide 24" Monitor 4420HB2 Other accessories at lenovo.com/accessories

See footnotes for important warranty information
 US models announced February 19, or April 10, 2008
 US models withdrawn effective May 2009

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 (CR4-2) May 2009

ThinkPad® T61u 15W 6457 (NVIDIA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ² rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo slot	Blue- tooth	Finger print reader	Bat- tery cells	Limited warranty ¹²	Vista preload	Avail date	
6457-DSU	T9300	2.50	1GB	15.4"	WSXGA+	128MB	100G	7200	DVD±RW	11a/b/g ³²	None	/54	Blue	Fing 9	EasyServ Business32	Feb 08
6457-05U	T9300	2.50	2GB	15.4"	WSXGA+	128MB	160G	7200	DVD±RW	11a/b/g	None	/54	Blue	Fing 9	EasyServ Business32	Apr 08
<i>Italic MTM: not a base model for building a custom model</i>																
<p>• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty</p> <p>Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 6MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Premium logo				
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 100GB⁸ (7200 rpm) or 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display Camera	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio None															
Graphics	NVIDIA® Quadro® NVS 140M , PCI Express® x16, 128MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.9 hr															
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card ExpressCard/54 Smart Card Read Multicard Reader Ports	One slot (Type I, Type II), CardBus 32-bit One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo Memory UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None None (uses Half-Mini PCI Express slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole											Supports ThinkVantage® technologies				
Security Security chip Fingerprint reader	Trusted Platform Module , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest , swipe sensor, supports the security chip											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available											ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175				
1GB PC2-5300 DDR2 SODIMM	40Y7734					T/R/W/SL Series Li-Ion Battery 6-cell					40Y6799					
2GB PC2-5300 DDR2 SODIMM	40Y7735					T/R/W/SL Series Li-Ion Battery 9-cell					40Y6797					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643					Advanced Ultrabay Battery II 3-cell					43R9250					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725					ThinkPad External Battery Charger					40Y7625					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					ThinkPad 90W AC Adapter					40Y7659					
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410					90W Slim AC/DC Combo Adapter					41N8460					
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152					ThinkPad Business Topload Case					43R2476					
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411					ThinkPad Business Backpack					43R2482					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918					ThinkPad Deluxe Expander Case					43R2478					
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkVision® L1940p Wide 19" Monitor					4424HB6					
ThinkPad Advanced Mini Dock	250410U					ThinkVision L2240p Wide 22" Monitor					4422HB6					
ThinkPad Advanced Dock	250310U					ThinkVision L2440p Wide 24" Monitor					4420HB2					
Other accessories on O-T61 sheet											Other accessories at lenovo.com/accessories					
											ThinkPlus 3-year LOR 9x5 NBD 45K6021					
											ThinkPlus 4-year LOR 9x5 NBD 45K6022					
											ThinkPlus 5-year LOR 9x5 NBD 45K6024					
											ThinkPlus 4-year P&L P/U Depot 45K6023					
											ThinkPlus 5-year P&L P/U Depot 45K6025					
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					

See footnotes for important warranty information
US models announced February 19, or April 10, 2008
US models withdrawn effective May 2009

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(CR4-1) May 2009

ThinkPad® T61p 15W 6460 (NVIDIA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ^s rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date
6460-67U	T7500	2.20	2GB	15.4" WUXGA	256MB	100G 7200	DVD±RW	* Intel 11n ²⁸		/54	Blue	9	Ultimate	32 No	July 07
6460-8VU	T7700	2.40	2GB	15.4" WUXGA	256MB	160G 7200	DVD±RW	* Intel 11n		/54	Blue	9	XP Pro	No	Oct 07
6460-8WU	T7700	2.40	2GB	15.4" WUXGA	256MB	160G 7200	DVD±RW	* Intel 11n	1G Turbo	/54	Blue	9	Business32	No	Oct 07
6460-8XU	T7700	2.40	4GB	15.4" WUXGA	256MB	200G FDE	DVD±RW	* Intel 11n		/54	Blue	9	Business64	No	Oct 07
6460-DVU	T9300	2.50	2GB	15.4" WSXGA+	256MB	160G 7200	DVD±RW	* Intel 11n		/54	Blue	9	XP Pro	No	Jan 08
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a 3-year limited warranty¹² 															
Positioning	<i>Premiere performance; two spindles</i>										Preloaded operating system²⁰				
Processor	Intel® Core™ 2 Duo processor T7500, T7700, or T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, T7500/T7700: 4MB shared L2 cache; T9300: 6MB shared L2 cache										<ul style="list-style-type: none"> - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Ultimate Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) 				
Memory	2GB or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										<ul style="list-style-type: none"> ◇ <i>Vista models:</i> Vista Premium logo 				
Diskette drive	None (use optional USB-based diskette drive)										Preloaded applications¹⁴ (all OSes)				
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim										<ul style="list-style-type: none"> • Microsoft Office OneNote® 2007 and CD (Vista models) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (XP Pro DVD±RW models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models) 				
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	100GB⁸ (7200 rpm), 160GB (7200 rpm), or 200GB Full Disk Encryption [FDE] (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10, 500:1														
Camera	<i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, 175 nits, 16:10, 500:1														
Graphics	NVIDIA® Quadro® FX 570M , PCI Express® x16, 256MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm														
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.9 hr														
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card	One slot (Type I, Type II), CardBus 32-bit														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)										Supports ThinkVantage® technologies				
WWAN	None														
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator														
UWB	None (uses Half-Mini PCI Express slot)										90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (IAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										ThinkPlus 3-year LOR 9x5 NBD 45K6021				
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999			T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799			ThinkPlus 4-year LOR 9x5 NBD 45K6022					
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000			T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell			43R9250			ThinkPlus 5-year LOR 9x5 NBD 45K6024					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406			ThinkPad 90W AC Adapter			40Y7659								
250GB Disk FDE SATA 1.5Gb/s (7200 rpm)	43N3410			90W Slim AC/DC Combo Adapter			41N8460			ThinkPlus 4-year P&L P/U Depot 45K6023					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Deluxe Expander Case			43R2478								
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkPad Executive Leather Case			43R2480			ThinkPlus 5-year P&L P/U Depot 45K6025					
ThinkPad Essential Port Replicator	250510W			ThinkVision® L1940p Wide 19" Monitor			4424HB6								
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor			4422HB6			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
ThinkPad Advanced Dock	250310U			ThinkVision L2440x Wide 24" Monitor			4421HB2								
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information * Intel Centrino® with vPro™ technology
US models announced July 10, October 30, 2007 or January 8, 2008
US models withdrawn effective May 2009

ThinkPad® T61p 15W (NVIDIA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Preload	Avail date
6457-5KU	T7700	2.40	2GB	15.4" WUXGA	256MB	100G 7200	DVD±RW*	Intel 4965AG ³²	None	Smart	Blue	9	Ultimate 32 G	July 07
6457-7WU	T7700	2.40	2GB	15.4" WUXGA	256MB	160G 7200	DVD±RW*	Intel 4965AG	None	/54	Blue	9	Ultimate 32 G	Sep 07
6457-8LU	T7700	2.40	2GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW*	Intel 4965AG	None	Smart	Blue	9	Ultimate 32 G	Sep 07
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7700 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system ²⁰ - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ◇ Vista Premium logo		
Memory	2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Serial ATA disk	100GB (7200 rpm) or 160GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, 200 nits, 16:10, 500:1 <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, 175 nits, 16:10, 500:1													
Camera	None													
Graphics	NVIDIA® Quadro® FX 570M , PCI Express® x16, 256MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm													
Weight ²	with optical drive and battery: starting at 5.9 lb (2.7kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr													
Chipset	Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	<i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54													
Smart Card Reader	<i>Some:</i> Smart Card Reader													
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG													
WWAN	None													
Turbo Memory	None													
UWB	None (uses Half-Mini PCI Express slot)													
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket											Supports ThinkVantage® technologies		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Intel Active Management Technology (AMT)													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175		
1GB PC2-5300 DDR2 SODIMM	40Y7734				T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799				ThinkPlus 3-year LOR 9x5 NBD	41C9176			
2GB PC2-5300 DDR2 SODIMM	40Y7735				T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797				ThinkPlus 4-year LOR 9x5 NBD	41C9177			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				Advanced Ultrabay Battery II 3-cell	43R9250				ThinkPlus 5-year LOR 9x5 NBD	41C9179			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad External Battery Charger	40Y7625				ThinkPlus 4-year P&L P/U Depot	41C9178			
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400				ThinkPad 90W AC Adapter	40Y7659				ThinkPlus 5-year P&L P/U Depot	41C9180			
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738				90W Slim AC/DC Combo Adapter	41N8460				Post-warranty annual maintenance agreements at				
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152				ThinkPad Business Topload Case	43R2476				lenovo.com/thinkplus/warranty				
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403				ThinkPad Business Backpack	43R2482								
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Deluxe Expander Case	43R2478								
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case	43R2480								
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision® L1940p Wide 19" Monitor	4424HB6								
ThinkPad Advanced Mini Dock	250410U				ThinkVision L2240p Wide 22" Monitor	4422HB6								
ThinkPad Advanced Dock	250310U				ThinkVision L2440p Wide 24" Monitor	4420HB2								
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced July 10 or September 18, 2007
US models withdrawn effective November 2008

* Intel Centrino® with vPro™ technology

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(CR3-6) November 2008

ThinkPad® T61p 15W 6458 (NVIDIA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail date
6458-5KU T7700	2.40	2GB	15.4" WUXGA	256MB	100G 7200	DVD±RW*	Intel 4965AG ³²	None	Smart	Blue	9	Ultimate 32 G P July 07
<p>• This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty</p>												
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T7700 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ⇨ Vista Premium logo</p>	
Memory	<p>2GB std / 4GB max³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>										<p>Preloaded applications¹⁴ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • DiskKeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)</p>	
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	<p>100GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>											
Widescreen display	<p>15.4" (391mm) WUXGA (1920x1200) color, anti-glare, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio</p>											
Camera	None											
Graphics	<p>NVIDIA® Quadro® FX 570M, PCI Express® x16, 256MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<p><i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery; starting at 5.9 lb (2.7kg)</p>											
Weight ²	with optical drive and battery; starting at 5.9 lb (2.7kg)											
Case material	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>											
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	<p><i>9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.9 hr</p>											
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	<p><i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54</p>											
Smart Card Reader	<p><i>Some:</i> Smart Card Reader</p>											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	<p>Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 4965AG ³²	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG											
WWAN	None											
Turbo Memory	None											
UWB	None (uses Half-Mini PCI Express slot)											
Modem	56K ⁶ V.92 ²⁹ modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (IAMT)											
Audio support	<p>High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack</p>											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<p>Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>										Supports ThinkVantage® technologies	
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades²² available</p>										<p>90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>	
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799					
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell			43R9250					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625					
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad 90W AC Adapter			40Y7659					
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738			90W Slim AC/DC Combo Adapter			41N8460					
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403			ThinkPad Business Topload Case			43R2476					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Backpack			43R2482					
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Deluxe Expander Case			43R2478					
ThinkPad Convertible Monitor Stand	40Y7620			ThinkPad Executive Leather Case			43R2480					
ThinkPad Essential Port Replicator	250510W			ThinkVision® L1940p Wide 19" Monitor			4424HB6					
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor			4422HB6					
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor			4420HB2					
Other accessories on O-T61 sheet	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
 US model announced July 10, 2007
 US model withdrawn effective November 2008

* Intel Centrino® with vPro™ technology

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 (CR3-13) November 2008

ThinkPad® T61p 15W 6457 (NVIDIA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller memory	Disk SATA GB ³ rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless slot	Blue-tooth	Finger-print reader	Bat-tery cells	Vista preload	Avail date	
6457-06U	T9300	2.50	2GB	15.4" WSXGA+	256MB	250G 5400	DVD±RW	11a/b/g ³²	None	UWB	/54	Blue	Fing	9	Business32	Apr 08
<i>Italic MTM: not a base model for building a custom model</i>																
<p>• This model has an EasyServ™.19 depot repair service 3-year limited warranty</p> <p>Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 6MB shared L2 cache</p>											<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ Vista Premium logo</p>				
Memory	<p>2GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p>Preloaded applications¹⁴ • Microsoft Office OneNote® 2007 (and CD) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)</p>				
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	<p>None (use optional USB-based diskette drive) DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>															
Widescreen display Camera	<p>15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio None</p>															
Graphics	<p>NVIDIA® Quadro® FX 570M, PCI Express® x16, 256MB memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>															
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions</p>															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<p><i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Slim 9-cell: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr</p>															
Chipset	<p>Mobile Intel PM965 Express Chipset (Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>															
PC Card ExpressCard/54 Smart Card Read Multicard Reader Ports	<p>One slot (Type I, Type II), CardBus 32-bit One slot (ExpressCard/34, ExpressCard/54) None 4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>															
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo Memory UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>UltraConnect™ II antenna / on-off switch for all wireless radios Three Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92⁶ modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole</p>											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>				
Security Security chip Fingerprint reader	<p>Trusted Platform Module, Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>															
Limited warranty ¹²	<p>3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades²² available</p>															
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter (flat) 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 250GB Disk FDE SATA 1.5Gb/s (7200 rpm) 250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm) 320GB Disk SATA 1.5Gb/s (7200 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T61 sheet	40Y7734 40Y7735 41N5643 40Y8725 43N3406 43N3410 43R8152 43N3411 41U5120 41N5565 250410U 250310U	T/R/W/SL Series Li-Ion Battery 6-cell T/R/W/SL Series Li-Ion Battery 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack ThinkPad Deluxe Expander Case ThinkVision® L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor Other accessories at lenovo.com/accessories	40Y6799 40Y6797 43R9250 40Y7625 40Y7659 41N8460 43R2476 43R2482 43R2478 4424HB6 4422HB6 4421HB2	ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty												

See footnotes for important warranty information
 US model announced April 10, 2008
 US model withdrawn effective May 2009

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 (CR4-4) May 2009

Partial list of accessories supported on:

- ThinkPad T61 originally announced on May 31, 2007
- ThinkPad T61 14W originally announced on May 9, 2007
- ThinkPad T61 15W originally announced on May 31, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mm (best to use flat bezel options)

Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ann	01/31/06
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ann	09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann	05/31/07

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09

⁴¹ Can be used as the main HDD or with ThinkPadSerial ATA Hard Drive Ultrabay Slim Adapter 40Y8725
in the Ultrabay or in the ThinkPad Advanced Dock 250310U.**Only 14W (14.1" widescreen) and 15W (15.4" widescreen) models:**

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
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USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08

USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad Essential Port Replicator	250510W	ann	09/20/05
ThinkPad Advanced Mini Dock	250410U	ann	09/20/05
ThinkPad Advanced Dock	250310U	ann	09/20/05

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries**Only 14W models (14.1" widescreen):**

T/R 14W Standard Battery 4-cell	41U3196	ann	05/09/07
T/R 14W Enhanced Battery 6-cell	41U3198	ann	05/09/07
T/R 14W High Capacity Battery 9-cell	43R2499	ann	03/04/08

Only 14 standard (14.1") and 15W models (15.4" widescreen):

T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799	ann	01/05/06
T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797	ann	09/20/05

All models:

Advanced Ultrabay Battery II 3-cell ⁴³	43R9250	ann	04/22/08
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⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
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⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter ⁴⁵	40Y7696		
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⁴⁵ Only compatible with the 945GM and GM965 chipset models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
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ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07
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Carrying Cases**Up to 14.1" widescreen models:**

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Women's Leather Trim Tote	22P8856		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance BackPack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann	08/12/08
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Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

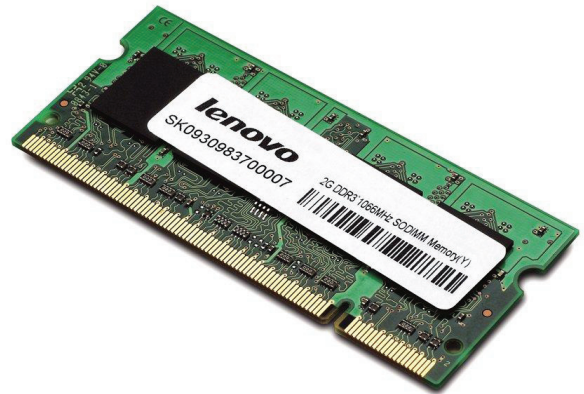
Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessoriesOther accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad T400



PC3-8500 DDR3 Low-Halogen SODIMM
1GB 55Y3706
2GB 55Y3707
4GB 55Y3708



Lenovo ThinkPad T400 with
ThinkPad T400/T410/R400 Privacy Filter
43R2472



Lenovo ThinkPad T400



Lenovo ThinkPad T400



Lenovo ThinkPad T400

ThinkPad® T400 6473 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Card slot	Whorse (W) Global (G) Avail date
6473-P1U	P8400	2.26	2GB	14.1" WXGA			GMA 160G 5400	DVD±RW	⇧ Intel 5100 ²⁸	None	None	None	Finger	PC	XP Pro	Sep 08
6473-E1U	P8700	2.53	2GB	14.1" WXGA		Cam	GMA 250G 5400	DVD±RW	⇧ Intel 5100	None	None	None	Finger	Blue 7-in-1	Ult 32	Mar 09
6473-PVU	P8700	2.53	2GB	14.1" WXGA	LED	Cam	GMA 320G 7200	DVD±RW	⇧ Intel 5100	None	None	None	Finger	Blue PC	XP Pro	Jul 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Ultimate 32 ⇧ Vista models: Vista Premium logo					
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Slim	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable										Supports ThinkVantage® technologies					
SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 rpm), 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr										Limited warranty ¹² 3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available					
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)															
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit None <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										1GB PC3-8500 DDR3 L-H SODIMM 55Y3706 T/R 14W Standard Battery 4-cell 41U3196 2GB PC3-8500 DDR3 L-H SODIMM 55Y3707 T/R 14W Enhanced Battery 6-cell 41U3198 4GB PC3-8500 DDR3 L-H SODIMM 55Y3708 T/R 14W High Capacity Battery 9-cell 43R2499 ThinkPad Advanced Dock 250310U Advanced Ultrabay Battery III 57Y4536 Other accessories on O-T400 sheet Other accessories at lenovo.com/accessories					
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										Other accessories on O-T400 sheet					
Other accessories on O-T400 sheet																

See footnotes for important warranty information
 US model announced September 2, 2008, March 24, 2009, or July 7, 2009
 US models withdrawn effective June or December 2009

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ThinkPad® T400 6473 (GMA) - TopSeller (XP with Win 7 COA) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print readerto	Blue- tooth	Card slot	Preload	Avail date
6473-41U	P8700	2.53	2GB	14.1" WXGA	LED	Cam	GMA	320G 7200	DVD±RW	Intel 5100 ²⁸	None	None	Finger	Blue	PC XP Pro	Oct 09	
6473-43U	P8700	2.53	2GB	14.1" WXGA	LED	Cam	GMA	128G SSD	DVD±RW	Intel 5100	None	None	Finger	Blue	PC XP Pro	Oct 09	

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 				
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies				
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express	Three Mini PCI Express slots Intel 5100 ²⁸ 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective August 2010

Intel Centrino® 2 processor technology

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ThinkPad® T400 6473 (GMA) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸	SATA rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
6473-4FU	P8700	2.53	2GB	14.1"	WXGA	LED	Cam	GMA	320G	7200	DVD±RW	Intel 5100 ²⁸	Verizon ¹⁶	None	Finger	Blue	PC Pro 32	Oct 09
6473-5BU	P8700	2.53	2GB	14.1"	WXGA	LED	Cam	GMA	320G	7200	DVD±RW	Intel 5100	Verizon ¹⁶	None	Finger	Blue	PC Pro 32	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32					
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™																
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus																
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution: 2048x1536@75Hz</i>																
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr																
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit											Supports ThinkVantage® technologies					
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Mini PCI Express Intel 5100 ²⁸ Verizon ¹⁶	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon®											ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021					
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack											ThinkPlus 4-year LOR 9x5 NBD 45K6022					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole <i>4FU model:</i> Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											ThinkPlus 5-year LOR 9x5 NBD 45K6024					
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available											ThinkPlus 4-year P&L P/U Depot 45K6023					
												ThinkPlus 5-year P&L P/U Depot 45K6025					
												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					

See footnotes for important warranty information
US models announced October 22 or November 3, 2009
US models withdrawn effective August 2010

⚡ Intel Centrino® 2 processor technology

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(ML3-18) August 2010

ThinkPad® T400 7417 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- Card tooth slot	Whorse (W) Pre- load	(G)Avail Educ date
7417-T1U	P8400	2.26	2GB	14.1" WXGA		GMA 160G	5400	DVD±RW	⇄ Intel 5100 ²⁸	AT&T ²³		Fing	PC	B32	Aug 08
7417-T2U	P8400	2.26	2GB	14.1" WXGA		GMA 160G	7200	DVD±RW	⇄ Intel 5100	AT&T		Fing Blue	PC	B32	Aug 08
7417-TNU	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G	7200	DVD±RW	⇄ Intel 5100	AT&T	2G Turbo	Fing Blue	PC	XP	Aug 08
7417-TPU	P8400	2.26	2GB	14.1" WXGA		GMA 160G	5400	DVD±RW	⇄ Intel 5100			Fing	PC	XP	Aug 08
7417-TRU	P8400	2.26	2GB	14.1" WXGA		GMA 160G	7200	DVD±RW	⇄ Intel 5100			Fing Blue	PC	XP	Aug 08
7417-TSU	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G	7200	DVD±RW	⇄ Intel 5100		2G Turbo	Fing Blue	PC	B32	Aug 08
7417-TTU	P8400	2.26	1GB	14.1" WXGA		GMA 160G	5400	Combo	⇄ Intel 5100	AT&T			PC	B32	Aug 08
7417-TUU	P8400	2.26	1GB	14.1" WXGA		GMA 160G	5400	Combo	⇄ Intel 5100				PC	XP	Aug 08
7417-P5U	T9400	2.53	2GB	14.1" WXGA	Cam	GMA 160G	7200	DVD±RW	⇄ Intel 5100			Fing Blue	PC	XP	Sep 08
7417-11U	P8400	2.26	1GB	14.1" WXGA		GMA 160G	5400	DVD±RW	⇄ Intel 5100				PC	XP	Oct 08
7417-P9U	P8600	2.40	2GB	14.1" WXGA		GMA 160G	7200	DVD±RW	⇄ WiMAX			Fing Blue	PC	B32	Jan 09
7417-PAU	P8600	2.40	2GB	14.1" WXGA	Cam	GMA 128G	SSD	DVD±RW	⇄ Intel 5100			Fing Blue	PC	XP	Jan 09
7417-E1U	P8700	2.53	2GB	14.1" WXGA	Cam	GMA 250G	5400	DVD±RW	⇄ Intel 5100			Fing Blue	7-in-1 U32	Edu	Mar 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core, 1066MHz system bus; P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2 cache	Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Ultimate 32 ♦ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) <i>Some:</i> DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA DB-15)	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit None <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)	
WWAN upg AT&T ²³	None <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T	
2G Turbo UWB	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None	
Modem	56K V.92 ⁶ modem	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	None	
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available	
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM 4GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-T400 sheet	55Y3706 55Y3707 55Y3708 T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Battery 9-cell Other accessories at lenovo.com/accessories	41U3196 41U3198 43R2499

Supports ThinkVantage® technologies

65-watt (GMA graphics) AC adapter
ThinkPad Roll Cage and Top Cover
Roll Cage (one-piece magnesium)
Climate Savers® certified
EPEAT™ Silver rating
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
via 800-426-7378

ThinkPlus™.22 1-year LOR²⁴ 9x5 NBD
45K5968
ThinkPlus 2-year LOR 9x5 NBD
45K5969
ThinkPlus 3-year LOR 9x5 NBD
45K5970
ThinkPlus 4-year LOR 9x5 NBD
45K5973
ThinkPlus 5-year LOR 9x5 NBD
45K5975
ThinkPlus 2-year P&L P/U Depot
45K5971
ThinkPlus 3-year P&L P/U Depot
45K5972
ThinkPlus 4-year P&L P/U Depot
45K5974
ThinkPlus 5-year P&L P/U Depot
45K5976
Post-warranty annual maintenance agreements at
lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced August 5, September 2, or October 7, 2008, January 6, 2009, or March 17, 2009
 US models withdrawn effective June, August, September, or December 2009

ThinkPad® T400 7417 (GMA) - TopSeller (XP with Win 7 COA) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- Card tooth slot	Pre- load	Avail date
7417-21U	P8600	2.40	2GB	14.1" WXGA	LED	GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Fing	PC XP Pro	Oct 09	
7417-23U	P8600	2.40	2GB	14.1" WXGA	LED Cam	GMA	320G 5400	DVD±RW	Intel 5100	None	None	Fing	Blue PC XP Pro	Oct 09	

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB⁸ (5400 rpm) or 320GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW)
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA DB-15)											Supports ThinkVantage® technologies
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective August 2010

• Intel Centrino® 2 processor technology

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(ML3-19) August 2010

ThinkPad® T400 7417 (GMA) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-Card tooth slot	Pre- load	Avail date
7417-22U	P8600	2.40	2GB	14.1" WXGA	LED		GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Fing	None	PC Pro 32	Oct 09
7417-31U	P8700	2.53	2GB	14.1" WXGA	LED	Cam	GMA	250G 5400	DVD±RW	WiMAX	None	None	None	None	PC Pro 32	Nov 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8600 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 				
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus										Supports ThinkVantage® technologies				
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA DB-15)														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976				
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Mini PCI Express	Three Mini PCI Express slots Intel 5100 ²⁸ WiMAX <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)										ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976				
WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None None 56K V.92 ⁶ modem None Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole <i>22U model:</i> Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced October 22 or November 3, 2009
US models withdrawn effective August 2010

Intel Centrino® 2 processor technology

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(ML3-20) August 2010

ThinkPad® T400 7417 (GMA) - TopSeller (April 2009) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Pre- load	Avail date	
7417-PBU	P8600	2.40	1GB	14.1"	WXGA	LED	GMA	160G 5400	DVD±RW	⇄ Intel 5100 ²⁸	None	None	None	None	PC	XP Pro	Apr 09	
7417-PCU	P8600	2.40	2GB	14.1"	WXGA	LED	GMA	160G 7200	DVD±RW	⇄ Intel 5100	None	None	Fing	None	PC	XP Pro	Apr 09	
7417-PDU	P8600	2.40	2GB	14.1"	WXGA	LED	GMA	160G 7200	DVD±RW	⇄ Intel 5100	None	None	Fing	None	PC	Bus 32	Apr 09	
7417-PEU	P8600	2.40	3GB	14.1"	WXGA	LED	Cam	GMA	160G 7200	DVD±RW	⇄ Intel 5100	None	None	Fing	Blue	PC	XP Pro	Apr 09
7417-PFU	P8600	2.40	3GB	14.1"	WXGA	LED	Cam	GMA	160G 5400	DVD±RW	⇄ WiMAX	None	None	Fing	Blue	PC	Bus 32	Apr 09
7417-PGU	T9400	2.53	3GB	14.1"	WXGA	LED	Cam	GMA	160G 7200	DVD±RW	⇄ Intel 5100	None	None	Fing	Blue	PC	XP Pro	Apr 09
7417-PHU	T9400	2.53	3GB	14.1"	WXGA	LED	Cam	GMA	128G SSD	DVD±RW	⇄ Intel 5100	None	None	Fing	Blue	PC	XP Pro	Apr 09
7417-PJU	P8700	2.53	2GB	14.1"	WXGA	LED	Cam	GMA	80G SSD	DVD±RW	⇄ Intel 5100	None	None	Fing	Blue	PC	XP Pro	Jun 09
7417-PKU	P8400	2.26	2GB	14.1"	WXGA	LED	GMA	250G 5400	DVD±RW	⇄ Intel 5100	None	None	Fing	None	PC	XP Pro	Jul 09	
7417-PLU	P8400	2.26	2GB	14.1"	WXGA	LED	Cam	GMA	320G 5400	DVD±RW	⇄ Intel 5100	None	None	Fing	Blue	PC	XP Pro	Jul 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8400, P8600, P8700 or T9400 with dual-core, 1066MHz system bus; P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2 cache											Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo				
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultra Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (5400 or 7200 rpm), 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive															
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536 @75Hz (VGA DB-15)															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express Intel 5100 ²⁸ WiMAX	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975				
WWAN upg 2G Turbo UWB Modem	None None None 56K V.92 ⁶ modem											ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976				
Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available											ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
	1GB PC3-8500 DDR3 L-H SODIMM		55Y3706		T/R 14W Standard Battery 4-cell			41U3196								
	2GB PC3-8500 DDR3 L-H SODIMM		55Y3707		T/R 14W Enhanced Battery 6-cell			41U3198								
	4GB PC3-8500 DDR3 L-H SODIMM		55Y3708		T/R 14W High Capacity Battery 9-cell			43R2499								
	ThinkPad Advanced Dock		250310U		Advanced Ultrabay Battery III			57Y4536								
	Other accessories on O-T400 sheet											Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced April 21, June 2, or July 7, 2009
US models withdrawn effective September or December 2009

⇄ Intel Centrino® 2 processor technology

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(ML3-13) January 2010

ThinkPad® T400 2764 (Switchable) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	Mem-ory	Wide-screen display	Cam-era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery cells	Whorse (W) Global (G) Avail date
2764-EAU T9400	2.53	3GB	14.1" WXGA+	Cam	GMA, HD	3470	160G 7200 DVD±RW	⇄ Intel 5100 ²⁸	WWAN upg	None	9	Ult 32 Educ Mar 09

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache							Preloaded operating system ²⁰ - Genuine Windows® Vista® Ultimate 32 ⇄ Vista Premium logo																		
Memory	3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;							Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)																		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™							Supports ThinkVantage® technologies																		
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus																									
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz							90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378																		
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions																									
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>9-cell:</i> starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr; 9-cell plus Ultrabay battery: up to 11.3 hr</i>							ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty																		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)																									
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)							1GB PC3-8500 DDR3 L-H SODIMM 55Y3706 T/R 14W Standard Battery 4-cell 41U3196 2GB PC3-8500 DDR3 L-H SODIMM 55Y3707 T/R 14W Enhanced Battery 6-cell 41U3198 4GB PC3-8500 DDR3 L-H SODIMM 55Y3708 T/R 14W High Capacity Battery 9-cell 43R2499 ThinkPad Advanced Dock 250310U 57Y4536 Other accessories on O-T400 sheet Other accessories at lenovo.com/accessories																		
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack																									
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip							Limited warranty ¹² 1-years - EasyServ™. ¹⁹ depot repair service / service upgrades ²² available																		
<table border="1"> <tbody> <tr> <td>1GB PC3-8500 DDR3 L-H SODIMM</td> <td>55Y3706</td> <td>T/R 14W Standard Battery 4-cell</td> <td>41U3196</td> </tr> <tr> <td>2GB PC3-8500 DDR3 L-H SODIMM</td> <td>55Y3707</td> <td>T/R 14W Enhanced Battery 6-cell</td> <td>41U3198</td> </tr> <tr> <td>4GB PC3-8500 DDR3 L-H SODIMM</td> <td>55Y3708</td> <td>T/R 14W High Capacity Battery 9-cell</td> <td>43R2499</td> </tr> <tr> <td>ThinkPad Advanced Dock</td> <td>250310U</td> <td>Advanced Ultrabay Battery III</td> <td>57Y4536</td> </tr> <tr> <td colspan="2">Other accessories on O-T400 sheet</td> <td colspan="2">Other accessories at lenovo.com/accessories</td> </tr> </tbody> </table>							1GB PC3-8500 DDR3 L-H SODIMM						55Y3706	T/R 14W Standard Battery 4-cell	41U3196	2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	T/R 14W Enhanced Battery 6-cell	41U3198	4GB PC3-8500 DDR3 L-H SODIMM	55Y3708	T/R 14W High Capacity Battery 9-cell	43R2499	ThinkPad Advanced Dock	250310U	Advanced Ultrabay Battery III
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	T/R 14W Standard Battery 4-cell	41U3196																							
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	T/R 14W Enhanced Battery 6-cell	41U3198																							
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ThinkPad Advanced Dock	250310U	Advanced Ultrabay Battery III	57Y4536																							
Other accessories on O-T400 sheet		Other accessories at lenovo.com/accessories																								

See footnotes for important warranty information
US model announced March 17, 2009
US model withdrawn effective December 2009

⇄ Intel Centrino® 2 processor technology

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(ML3-12) January 2010

ThinkPad® T400 2765 (Switchable) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	CCFL or LED	Camera	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Mini PCIe Card slot load	Whorse (W) Global (G) Avail date
2765-T1U	P8400	2.26	2GB	14.1" WXGA+			GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100 ²⁸	AT&T ²³	2G Turbo	PC B32	Aug 08
2765-T2U	T9400	2.53	2GB	14.1" WXGA+		Cam	GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100	AT&T	2G Turbo	PC XP	Aug 08
2765-T6U	P8400	2.26	2GB	14.1" WXGA+			GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100		2G Turbo	PC XP	Aug 08
2765-T7U	T9400	2.53	2GB	14.1" WXGA+		Cam	GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100		2G Turbo	PC B32	Aug 08
2765-P3U	T9400	2.53	2GB	14.1" WXGA+		Cam	GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100			PC XP	Sep 08
2765-33U	P8400	2.26	2GB	14.1" WXGA+	LED		GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100			PC XP	Oct 08
2765-PAU	P8600	2.40	3GB	14.1" WXGA+			GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100			PC XP	Mar 09
2765-PBU	P8600	2.40	3GB	14.1" WXGA+			GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100		2G Turbo	PC B32	Mar 09
2765-PCU	T9400	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100			PC XP	Mar 09
2765-PDU	T9400	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100		2G Turbo	PC B32	Mar 09
2765-PEU	T9400	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100	AT&T		PC XP	Mar 09
2765-EAU	T9400	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	160G 7200	DVD±RW	⇄Intel 5100			7-in-1 U32 Edu	Mar 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	Premiere performance; two spindles Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache										Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Ultimate 32 ◇ Vista models: Vista Premium logo			
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 9-cell: starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 11.3 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit													
ExpressCard/54 PC Card Smart Card Read Multicard Reader Ports	None <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM 4GB PC3-8500 DDR3 L-H SODIMM ThinkPad Advanced Dock Other accessories on O-T400 sheet	55Y3706 55Y3707 55Y3708 250310U										T/R 14W Standard Battery 4-cell 41U3196 T/R 14W Enhanced Battery 6-cell 41U3198 T/R 14W High Capacity Battery 9-cell 43R2499 Advanced Ultrabay Battery III 57Y4536 Other accessories at lenovo.com/accessories			

See footnotes for important warranty information
US models announced Aug 5, Sep 2, or October 7, 2008 or March 24, 2009
US models withdrawn effective September 2008, June 2009, or December 2009

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ThinkPad® T400 2765 (Switchable) - TS (XP with Win 7 COA) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	CCFL or LED	Camera	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Card slot	Pre-load	Avail date
2765-81U	P8700	2.53	3GB	14.1" WXGA+	LED	Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100 ²⁸		None	PC	XP Pro	Oct 09
2765-82U	P8700	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100	AT&T ²³	None	PC	XP Pro	Oct 09
2765-83U	T9600	2.80	4GB	14.1" WXGA+	LED	Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100		None	PC	XP Pro	Oct 09
2765-94U	P8700	2.53	3GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100	WWAN upg	None	PC	XP Pro	Nov 09
2765-95U	T9600	2.80	4GB	14.1" WXGA+		Cam	GMA, HD 3470	320G 7200	DVD±RW	⇄Intel 5100	WWAN upg	None	PC	XP Pro	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8700 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8700:</i> 3MB L2 cache; <i>T9600:</i> 6MB L2 cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>9-cell:</i> starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 11.3 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										Supports ThinkVantage® technologies				
ExpressCard/54 PC Card Smart Card Reader Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader Limited warranty ¹²	None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced October 22 or November 3, 2009
US models withdrawn effective August 2010

⇄ Intel Centrino® 2 processor technology

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(ML3-16) August 2010

ThinkPad® T400 6474 (GMA) - withdrawn

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Inte- grated graphics	Disk SATA GB ⁵	SATA rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/Card Fing slot	Whorse (W) Pre- Gbl (G) Avail load date	
6474-11U	P8400	2.26	1GB	14.1"	WXGA	GMA 80G	5400	Combo	✦ Intel 5100 ²⁸	WWAN upg		6	Yes	PC B32 G Aug 08	
6474-R1U	P8400	2.26	2GB	14.1"	WXGA	Cam GMA	160G	5400	Combo	✦ Intel 5100	WWAN upg	6	Yes	7-in-1 B32 WG Aug 08	
6474-R2U	T9400	2.53	2GB	14.1"	WXGA	Cam GMA	160G	7200	DVD±RW	✦ Intel 5100	WWAN upg	2G Turbo	9	Yes	PC B32 WG Aug 08
6474-R3U	T9400	2.53	2GB	14.1"	WXGA	Cam GMA	160G	5400	DVD±RW	✦ Intel 5100	Verizon ¹⁶		6	Yes	7-in-1 B32 W Aug 08
6474-P1U	T9400	2.53	2GB	14.1"	WXGA	GMA	160G	5400	DVD±RW	✦ Intel 5100	WWAN upg		6	Yes	PC XP G Sep 08
6474-P2U	P8400	2.26	1GB	14.1"	WXGA	GMA	80G	5400	Combo	✦ Intel 5100	WWAN upg		6	Yes	PC XP G Sep 08
6474-T1U	P8600	2.40	1GB	14.1"	WXGA	GMA	160G	5400	DVD±RW	✦ Intel 5100	WWAN upg		6	Smart	B32 TAA Oct 08
6474-44U	P8400	2.26	3GB	14.1"	WXGA	Cam GMA	160G	5400	DVD±RW	✦ Intel 5100	WWAN upg		6	Yes	7-in-1 B32 WG Nov 08
6474-45U	T9400	2.53	3GB	14.1"	WXGA	Cam GMA	160G	5400	DVD±RW	✦ Intel 5100	WWAN upg		6	Yes	PC B32 WG Nov 08
6474-P8U	P8600	2.40	2GB	14.1"	WXGA	GMA	160G	5400	DVD±RW	✦ Intel 5100	WWAN upg		6	Yes	PC B32 WG Dec 08
6474-P9U	P8600	2.40	2GB	14.1"	WXGA+ LED	GMA	160G	7200	DVD±RW	✦ Intel 5100	WWAN upg		9	Yes	PC B32 WG Dec 08
6474-R8U	P8600	2.40	3GB	14.1"	WXGA	LED GMA	160G	7200	DVD±RW	✦ Intel 5100	WWAN upg		6	Yes	PC B32 Feb 09
6474-R9U	P8600	2.40	2GB	14.1"	WXGA	LED GMA	160G	5400	DVD±RW	✦ Intel 5100	WWAN upg		6	Yes	PC B32 Feb 09
US Govt (TAA) ⁵ Processor	T1U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ✦ Vista models: Vista Premium logo			
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											- Some: Genuine Windows Vista Business 32 ✦ Vista models: Vista Premium logo			
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)			
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , high brightness 680 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus <i>Ultrabay battery:</i> up to 8.0 hr; 9-cell: up to 9.8 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports												65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Mini PCI Express Intel 5100 ²⁸ WWAN upg Verizon ¹⁶ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon® <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip											ThinkPlus 5-year P&L P/U Depot 45K6025			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information ✦ Intel Centrino® 2 with vPro™ technology
US models announced Aug 5, Sep 2, Oct 7, Nov 4, or Dec 2, 2008 or February 3, 2009
US models withdrawn effective August 2009, or February, March, or August 2010

ThinkPad® T400 6474 (GMA) - June 2009 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Inte- grated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/ Card Fing slot	Pre- load	Whorse (W) Gbl (G) Avail date
6474-56U	P8700	2.53 3GB	14.1" WXGA	LED		GMA	80G SSD	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	6 Yes	PC B32	No Jun 09
6474-57U	P8700	2.53 2GB	14.1" WXGA	LED		GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Yes	PC B32	No Jun 09
6474-58U	P8400	2.26 2GB	14.1" WXGA	LED	Cam	GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Yes	PC B32	No Jul 09
6474-59U	P8700	2.53 2GB	14.1" WXGA	LED	Cam	GMA	160G 5400	DVD±RW	11n ²⁸	WWAN upg	None	6 Yes	PC B32	No Jul 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8400 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ◇ Vista Premium logo		
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ (only some listed)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 		
Widescreen display Camera	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											Supports ThinkVantage® technologies		
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (Type I, Type II), CardBus 32-bit None None Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant		
Mini PCI Express Intel 5100 ²⁸ 11n ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1											International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025		
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Power-on password, hard disk password, supervisor password, security keyhole Fingerprint reader on palm rest, swipe sensor, supports the security chip											ThinkPlus 5-year P&L P/U Depot 45K6025		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information

◇ Intel Centrino® 2 with vPro™ technology

US models announced June 2 or July 7, 2009

US models withdrawn effective March or August 2010

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(ML3-14) August 2010

ThinkPad® T400 2767 (Switchable) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	14.1" wide Mem- ory	14.1" wide screen or Cam- LED era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Fing cells	Whorse (W) Gbl (G) Avail date
2767-11U	P8600	2.40	1GB WXGA+	GMA, 3470	80G 5400	Combo	Intel 5100 ²⁸	WWAN upg		Yes 6 PC	B32 G Aug08
2767-12U	T9400	2.53	2GB WXGA+	GMA, 3470	160G 5400	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9 7-in-1	B32 W G Aug08
2767-13U	T9400	2.53	2GB WXGA+	GMA, 3470	160G 7200	DVD±RW	Intel 5100	Verizon ¹⁶	2G Turbo	Yes 9 7-in-1	B32 W Aug08
2767-14U	T9600	2.80	2GB WXGA+	Cam GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9 7-in-1	B32 W Aug08
2767-R2U	T9600	2.80	2GB WXGA+	Cam GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9 7-in-1	B64 Aug08
2767-R9U	T9600	2.80	2GB WXGA+ LED	Cam GMA, 3470	160G 7200	DVD±RW	Intel 5100	Verizon	2G Turbo	Yes 9 7-in-1	B32 W Aug08
2767-2GU	P8600	2.40	1GB WXGA	GMA, 3470	160G 7200	Combo	Intel 5100	WWAN upg		6 Smart	B32 TAA Aug08
2767-2HU	P8600	2.40	2GB WXGA+	GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg		6 Smart	B32 TAA Aug08
2767-2JU	T9400	2.53	2GB WXGA	Cam GMA, 3470	250G 5400	DVD±RW	Intel 5100	WWAN upg		Yes 9 7-in-1	B32 W G Aug08
2767-2NU	T9600	2.80	2GB WXGA+ LED	Cam GMA, 3470	64G SSD	DVD±RW	Intel 5300 ²⁸	WWAN upg		Yes 9 PC	B32 Sep08
2767-P1U	T9400	2.53	2GB WXGA+	GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9 PC	XP G Sep08
2767-P6U	P8600	2.40	1GB WXGA+	GMA, 3470	80G 5400	Combo	Intel 5100	WWAN upg		Yes 6 PC	XP G Sep08
2767-P7U	T9400	2.53	2GB WXGA+	GMA, 3470	160G 5400	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes 9 7-in-1	XP G Sep08
US Govt (TAA) ⁵ Processor	2GU/2HU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400/T9600: 6MB L2 cache									Preloaded operating system ²⁰	
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available									- Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Business 64 ◇ Vista models: Vista Premium logo	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 64GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high; <i>Some:</i> 80GB ⁸ (5400 rpm), 160GB ⁸ (5400 or 7200 rpm), or 250GB ⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, shock mounted storage									Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)	
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus										
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3470, PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; Maximum external resolution: 2048x1536@75Hz (VGA)										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1-1.3"; 335.5 x 270mm x 28-32mm 6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr										
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)									Supports ThinkVantage® technologies	
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 <i>Some:</i> One Type I or Type II slot, CardBus 32-bit <i>Some:</i> Smart Card Reader <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)									90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED model) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Mini PCI Express	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wi-Fi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N Wi-Fi Link 5300, 3x3 <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon									ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021	
2G Turbo UWB	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None									ThinkPlus 4-year LOR 9x5 NBD 45K6022	
Modem	56K V.92 ⁶ modem									ThinkPlus 5-year LOR 9x5 NBD 45K6024	
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator									ThinkPlus 4-year P&L P/U Depot 45K6023	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1									ThinkPlus 5-year P&L P/U Depot 45K6025	
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip									Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available										

See footnotes for important warranty information

◆ Intel Centrino® 2 with vPro™ technology

US models announced August 5 or September 2, 2008

US models withdrawn effective August 2009, February 2010, or August 2010

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(ML3-4) August 2010

ThinkPad® T400 2767 (Switchable) - October 2008 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- GHz	14.1" wide CCFL screen or Cam- era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Card slot	Whorse (W) Pre- load	(G) Avail date
2767-31U	P8600	2.40	2GB WXGA	Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN upg	Yes	6 7-in-1	Bus32	WG Oct 08
2767-R1U	T9400	2.53	2GB WXGA	Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	UWB Yes	9 7-in-1	Bus32	Oct 08
2767-R3U	T9400	2.53	2GB WXGA+	Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5300	WWAN upg	UWB Yes	9 7-in-1	Bus32	W Oct 08
2767-T1U	P8600	2.40	1GB WXGA		GMA, 3470	160G 7200	Combo	Intel 5100	WWAN upg		6 Smart	Bus32	TAA Oct 08
2767-T2U	P8600	2.40	2GB WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg		6 Smart	Bus32	TAA Oct 08
2767-4AU	T9400	2.53	3GB WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	Yes	6 PC	Bus32	WG Nov 08
2767-P8U	P8600	2.40	2GB WXGA+		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	Yes	9 PC	Bus32	WG Dec 08
2767-P9U	P8600	2.40	2GB WXGA+ LED		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	Yes	9 PC	Bus32	WG Dec 08
2767-H7U	P8700	2.53	2GB WXGA LED		GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN upg	Yes	6 PC	Bus32	Jun 09
2767-H8U	P8700	2.53	3GB WXGA LED		GMA, 3470	80G SSD	DVD±RW	Intel 5100	WWAN upg	Yes	6 PC	Bus32	Jun 09
2767-H9U	P8700	2.53	3GB WXGA LED	Cam	GMA, 3470	128G SSD	DVD±RW	Intel 5100	WWAN upg	Yes	6 PC	Bus32	Jun 09
US Govt (TAA) ⁵ Processor	T1U/T2U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8600/P8700</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2												
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive												
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg); <i>9-cell:</i> starting at 5.4 lb (2.4kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit												
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None <i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												
Other accessories on O-T400 sheet	Other accessories at lenovo.com/accessories												
										Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ↳ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)			
										Supports ThinkVantage® technologies			
										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
 US models announced October 7, November 4, or December 2, 2008 or June 2, 2009
 US models withdrawn effective August 2009 or August 2010

ThinkPad® T400 2767 (Switchable) - July 2009 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery Card slot	Pre-load	Avail date
2767-HAU	P8400	2.26	2GB	14.1"	WXGA LED Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN	upg None	Yes 6 PC	Bus32	Jul 09
2767-HBU	P8700	2.53	2GB	14.1"	WXGA LED	GMA, 3470	160G 7200	DVD±RW	11n ²⁸	WWAN	upg None	Yes 6 PC	Bus32	Jul 09
2767-HCU	T9400	2.53	2GB	14.1"	WXGA LED Cam	GMA, 3470	160G 7200	DVD±RW	Intel 5100	WWAN	upg None	Yes 6 7-in-1	Bus32	Jul 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8400, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8700: 3MB L2 cache; T9400: 6MB L2	Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ↳ Vista Premium logo	
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214)		
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel		
SATA disk	160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive		
Widescreen display	14.1" (358.1mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio		
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus		
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3470, PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	6-cell 14.1W" (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm		
Weight ²	6-cell: starting at 5.0 lb (2.3kg); 9-cell: starting at 5.4 lb (2.4kg)		
Case color	Black		
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic		
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim		
Battery - life ¹⁰	6-cell: up to 6.5 hr; 6-cell plus Ultrabay battery: up to 8.0 hr; 9-cell: up to 9.8 hr		
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	Supports ThinkVantage® technologies	
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)	90-watt (ATI graphics) AC adapter	
PC Card	<i>Some:</i> One slot (Type I, Type II), CardBus 32-bit	ThinkPad Roll Cage and Top Cover	
Smart Card read	None	Roll Cage (one-piece magnesium)	
Multicard reader	<i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)	Climate Savers® certified	
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	EPEAT™ Gold rating	
Mini PCI Express	Three Mini PCI Express slots	ENERGY STAR® 5.0-compliant	
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	RoHS-compliant	
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II	International Warranty Service ¹⁷	
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
2G Turbo	None	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD	
UWB	None	45K6021	
Modem	56K V.92 ⁶ modem	ThinkPlus 4-year LOR 9x5 NBD	
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	45K6022	
Ethernet	Non-vPro model: Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 vPro model: Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	ThinkPlus 5-year LOR 9x5 NBD	
Intel AMT	Intel Active Management Technology (iAMT)	45K6024	
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	ThinkPlus 4-year P&L P/U Depot	
Security	Power-on password, hard disk password, supervisor password, security keyhole	45K6023	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	ThinkPlus 5-year P&L P/U Depot	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	45K6025	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information

↳ Intel Centrino® 2 with vPro™ technology

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US models announced July 7, 2009

(ML3-15) August 2010

US models withdrawn effective March or August 2010

ThinkPad® T400 6475 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or Cam- LED era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Card Fing slot	Whorse (W) Pre- load Gbl (G) Avail GMP (P) date
6475-11U	P8400	2.26 1GB	14.1" WXGA		GMA 80G	5400 Combo		Intel 5100 ²⁸	WWAN upg		6 Yes PC	B32 GP Aug08
6475-R1U	P8400	2.26 2GB	14.1" WXGA		Cam GMA 160G	5400 Combo		Intel 5100	WWAN upg		6 Yes 7-in-1	B32 WGP Aug08
6475-R2U	T9400	2.53 2GB	14.1" WXGA		Cam GMA 160G	5400 DVD±RW		Intel 5100	WWAN upg	2G Turbo	9 Yes PC	B32 WGP Aug08
6475-P1U	T9400	2.53 2GB	14.1" WXGA		GMA 160G	5400 DVD±RW		Intel 5100	WWAN upg		6 Yes PC	XP GP Sep08
6475-44U	P8400	2.26 3GB	14.1" WXGA		Cam GMA 160G	5400 Combo		Intel 5100	WWAN upg		6 Yes 7-in-1	B32 WGP Nov08
6475-45U	T9400	2.53 3GB	14.1" WXGA		Cam GMA 160G	5400 DVD±RW		Intel 5100	WWAN upg		6 Yes PC	B32 WGP Nov08
6475-P8U	P8600	2.40 2GB	14.1" WXGA		GMA 160G	5400 DVD±RW		Intel 5100	WWAN upg		6 Yes PC	B32 WGP Dec08
6475-P9U	P8600	2.40 2GB	14.1" WXGA+ LED		GMA 160G	7200 DVD±RW		Intel 5100	WWAN upg		9 Yes PC	B32 WGP Dec08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400 or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ <i>Vista models</i> : Vista Premium logo
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some</i> : CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some</i> : DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 rpm or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	<i>Some</i> : 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	<i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus										
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell</i> : starting at 5.0 lb (2.3kg); <i>9-cell</i> : starting at 5.4 lb (2.4kg) Black <i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell</i> : up to 6.5 hr; <i>6-cell plus Ultrabay battery</i> : up to 8.0 hr; <i>9-cell</i> : up to 9.8 hr										
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some</i> : One slot (Type I, Type II), CardBus 32-bit										
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	<i>Some</i> : 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some</i> : Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some</i> : Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information ◇ Intel Centrino® 2 with vPro™ technology
US models announced August 5, September 2, November 4, or December 2, 2008
US models withdrawn effective March or August 2010

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(ML3-5) August 2010

ThinkPad® T400 2768 (Switchable) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	14.1" wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo cells	Bat- tery Card slot	Pre- load	Whorse (W) GMP (P) Gbl (G)	Avail date
2768-11U	P8600	2.40	1GB	WXGA+			GMA, 3470	80G 5400	Combo	❖ Intel 5100 ²⁸	WWAN upg		6 PC	Bus32	GP	Aug 08
2768-12U	T9400	2.53	2GB	WXGA+			GMA, 3470	160G 5400	DVD±RW	❖ Intel 5100	WWAN upg	Turbo	9 7-in-1	Bus32	WGP	Aug 08
2768-2JU	T9400	2.53	2GB	WXGA		Cam	GMA, 3470	250G 5400	DVD±RW	❖ Intel 5100	WWAN upg		9 7-in-1	Bus32	WGP	Aug 08
2768-P1U	T9400	2.53	2GB	WXGA+			GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg	Turbo	9 PC	XP Pro	GP	Aug 08
2768-31U	P8600	2.40	2GB	WXGA		Cam	GMA, 3470	160G 7200	DVD±RW	❖ Intel 5300 ²⁸	WWAN upg		6 7-in-1	Bus32	WGP	Oct 08
2768-4AU	T9400	2.53	3GB	WXGA+			GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		6 PC	Bus32	WGP	Nov 08
2768-P8U	P8600	2.40	2GB	WXGA+			GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		9 PC	Bus32	WGP	Dec 08
2768-P9U	P8600	2.40	2GB	WXGA+ LED			GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg		9 PC	Bus32	WGP	Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8600 or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8600</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache											Preloaded operating system²⁰ - <i>Some</i> : Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some</i> : Genuine Windows Vista Business 32 ❖ <i>Vista models</i> : Vista Premium logo				
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)				
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some</i> : CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some</i> : DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some</i> : 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	<i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus															
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution</i> : 2048x1536 @ 75Hz (VGA)															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH)</i> : 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell</i> : starting at 5.0 lb (2.3kg); <i>9-cell</i> : starting at 5.4 lb (2.4kg) Black <i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell</i> : up to 6.5 hr; <i>6-cell plus Ultrabay battery</i> : up to 8.0 hr; <i>9-cell</i> : up to 9.8 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) <i>Some</i> : One slot (Type I, Type II), CardBus 32-bit															
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some</i> : One slot (Type I, Type II), CardBus 32-bit None <i>Some</i> : 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies				
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some</i> : 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some</i> : 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some</i> : Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some</i> : Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack											90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038				
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
US models announced August 5, September 2, October 7, November 4, or December 2, 2008
US models withdrawn effective August 2010

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(ML3-6) August 2010

ThinkPad® T400 6474 (GMA) - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/ Fing	Card slot	Workhorse (W) Global (G) Avail date
6474-E1U	P8400	2.26 1GB	14.1" WXGA	Cam	GMA	80G 5400	Combo	❖Intel 5100	WWAN upg	2G Turbo	6	Yes PC Card	W Aug 08
6474-E2U	T9400	2.53 2GB	14.1" WXGA	Cam	GMA	160G 7200	DVD±RW	❖Intel 5100	WWAN upg	2G Turbo	9	Yes 7-in-1	W Aug 08
6474-E3U	T9400	2.53 2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	❖Intel 5100	WWAN upg	2G Turbo	9	Yes 7-in-1	W Aug 08
6474-E8U	P8700	2.53 2GB	14.1" WXGA	Cam	GMA	250G 5400	DVD±RW	❖Intel 5100	WWAN upg		6	Yes 7-in-1	Mar 09
6474-E9U	T9600	2.80 3GB	14.1" WXGA+	Cam	GMA	160G 7200	DVD±RW	❖Intel 5100	WWAN upg		9	Yes 7-in-1	Mar 09

• **These models have a depot repair service 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8700, T9400, or T9600 with dual-core, 1066MHz system bus; <i>P8400/P8700:</i> 3MB L2 cache; <i>T9400/T9600:</i> 6MB L2 cache											Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> 14.1" (358.1mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	Camera on top of screen, 1.3-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536 @75Hz											
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>6-cell:</i> starting at 5.0 lb (2.3kg); <i>9-cell:</i> starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One ExpressCard/34 or ExpressCard/54											Supports ThinkVantage® technologies
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	<i>Some:</i> One Type I or Type II slot, CardBus 32-bit None <i>Some:</i> 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available											

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
US models announced August 5, 2008 or March 24, 2009
US models withdrawn effective August 2009 or August 2010

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(ML3-7) August 2010

ThinkPad® T400 2767 (Switchable) - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	Mem-ory	Wide-screen display	Cam-era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery Card	Whorse (W) Global (G) Avail date
2767-E1U T9400	2.53	2GB	14.1" WXGA+Cam	GMA, HD 3470	160G 5400 DVD±RW	✦ Intel 5100 ²⁸	WWAN upg	2G Turbo	9	7-in-1	B32	W Aug 08
2767-E2U T9400	2.53	2GB	14.1" WXGA+Cam	GMA, HD 3470	160G 7200 DVD±RW	✦ Intel 5100	WWAN upg	2G Turbo	9	7-in-1	B32	W Aug 08
2767-E7U T9400	2.53	2GB	14.1" WXGA+Cam	GMA, HD 3470	160G 7200 DVD±RW	✦ Intel 5100	WWAN upg	2G Turbo	6	7-in-1	U32	W Feb 09
2767-E8U T9600	2.80	3GB	14.1" WXGA+Cam	GMA, HD 3470	160G 7200 DVD±RW	✦ Intel 5100	WWAN upg		9	7-in-1	B32	Mar 09

- **These models have a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, and 6MB L2 cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Ultimate 32 ✦ Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution: 2048x1536@75Hz</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm <i>9-cell:</i> starting at 5.4 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 11.3 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	Supports ThinkVantage® technologies
ExpressCard slot PC Card Std slot Smart Card Read Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information ✦ Intel Centrino® 2 with vPro™ technology
US models announced August 5, 2008, February 17, 2009, or March 24, 2009
US models withdrawn effective February or August 2010

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ThinkPad® T400 2768 (Switchable) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	14.1" wide- Mem-ory GHz	CCFL screen display	or Cam- LED era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat-tery UWB or Turbo cells	Pre-load	Whorse (W) GMP (P) Avail date
2768-E7U	T9400	2.53	2GB	WXGA+	Cam	GMA, 3470	160G 7200	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	6 7-in-1 Ult32 W Feb 09
<ul style="list-style-type: none"> • This model has a limited onsite service²⁴ 3-year limited warranty • Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. • Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States. 												
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® Vista® Ultimate 32 ❖ Vista Premium logo	
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 	
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	Camera on top of screen, 1.3-megapixel, fixed focus											
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3470 , PCI Express x16, 256MB memory, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.6" x 1.1–1.3"; 335.5 x 270mm x 28–32mm											
Weight ²	<i>6-cell:</i> starting at 5.0 lb (2.3kg); <i>9-cell:</i> starting at 5.4 lb (2.4kg)											
Case color	Black											
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	<i>6-cell:</i> up to 6.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.0 hr; <i>9-cell:</i> up to 9.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 11.3 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)											
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)											
PC Card	None											
Smart Card read	None											
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)											
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Mini PCI Express	Three Mini PCI Express slots											
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)											
Intel 5300 ²⁸	None											
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)											
2G Turbo	None											
UWB	None											
Modem	56K V.92 ⁶ modem											
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 33 (4-cell)	41U3196									
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 33+ (6-cell)	41U3198									
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708	ThinkPad Battery 33++ (9-cell)	43R2499									
ThinkPad Advanced Mini Dock	250410U	ThinkPad Battery 43 (4-cell)	57Y4536									
Other accessories on O-T400 sheet	Other accessories at lenovo.com/accessories											
										ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038		
										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US model announced February 17, 2009
US model withdrawn effective February 2010

❖ Intel Centrino® 2 with vPro™ technology

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(ML3-11) February 2010

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
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Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann	06/23/09
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ThinkPad T400/T410/R400 Privacy Filter	43R2472	ann	08/05/08
Note: ThinkPad T400/T410/R400 Privacy Filter (43R2472) is not supported on T400s or T410s.			
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 33 (4-cell)	41U3196	ann	05/09/07
ThinkPad Battery 33+ (6-cell)	41U3198	ann	05/09/07
ThinkPad Battery 33++ (9-cell)	43R2499	ann	03/04/08
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

- BlackBerry charge tip (L8a) 41R4478 ann 12/18/07
- iPod and iPhone Charge Tip (L10a) 41R4481 ann 12/18/07
- Generic Micro USB charge tip (L18) 41R4490 ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann	05/05/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann	01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann	01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann	01/07/10

More information at www.lenovo.com/support/cases

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:
www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

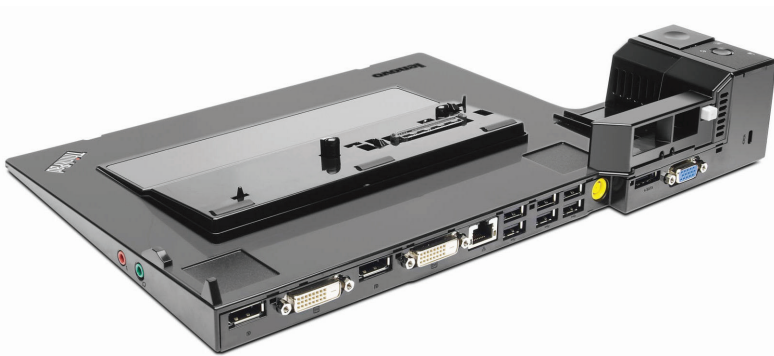
Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad T400s



Lenovo ThinkPad T400s with
ThinkPad Mini Dock Series 3
433710U



ThinkPad Mini Dock Plus Series 3
433810U



ThinkPad Battery 59+ (6-cell)
51J0497



Lenovo ThinkPad T400s



Lenovo ThinkPad T400s

ThinkPad® T400s 2808 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date	
2808-C4U	SP9400	2.40	2GB	14.1" WXGA+		GMA	120G 5400	DVD±RW	Intel 5100 ²⁸	WWAN	upg	None	Fing	Express	XP Pro	Jun 09	
2808-C5U	SP9600	2.53	2GB	14.1" WXGA+	Cam	GMA	128G SSD	DVD±RW	Intel 5100	AT&T ²³	None	Fing	Blue	Express	Bus 32	Jun 09	
2808-CZU	SP9400	2.40	2GB	14.1" WXGA+	Cam	GMA	80G SSD	DVD±RW	Intel 5100	WWAN	upg	None	Fing	Blue	Express	XP Pro	Jul 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning	<i>Premiere performance and ultraportability; two spindles</i>										Preloaded operating system²⁰				
Processor	Intel® Core™ 2 Duo processor SP9400 or SP9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										- Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										- Some: Genuine Windows Vista Business 32				
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable										◇ <i>Vista models:</i> Vista Premium logo				
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high										Preloaded applications¹⁴ (all OSes; only some listed)				
SATA disk	<i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive										• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm														
Weight ²	<i>6-cell:</i> starting at 3.9 lb (1.77kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>6-cell:</i> up to 5.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card Read	None														
Multicard Reader	None														
Ports	Two USB 2.0, one eSATA/USB combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies				
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)														
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T														
2G Turbo	None														
UWB	None														
Modem	None														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										65-watt (GMA graphics) AC adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available										ThinkPlus 4-year P&L P/U Depot 45K6023				
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706			T400s Series Li-Ion Battery 6-cell			51J0497			ThinkPlus 5-year P&L P/U Depot 45K6025					
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707			Advanced Ultrabay Battery III			57Y4536			Post-warranty annual maintenance agreements at					
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708			ThinkPad Mini Dock Plus Series 3			433810U			lenovo.com/thinkplus/warranty					
Other accessories on O-T400-S sheet															

See footnotes for important warranty information
US models announced June 23 or July 7, 2009
US models withdrawn effective December 2009

❖ Intel Centrino® 2 with vPro™ technology

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(SN1-1) January 2010

ThinkPad® T400s 2808 (GMA) - TS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ³	SATA rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print Blue- tooth	Card slot	Preload	Avail date
2808-DHUSP9400	2.40	2GB	14.1"	WXGA+		GMA	120G	5400	DVD±RW	❖Intel 5100 ²⁸	WWAN upg	None	Fing	Express	XPP	Oct 09
2808-DJU SP9400	2.40	2GB	14.1"	WXGA+		GMA	250G	5400	DVD±RW	❖Intel 5100	WWAN upg	None	Fing	Express	XPP	Oct 09
2808-DKUSP9400	2.40	2GB	14.1"	WXGA+	Cam	GMA	128G	SSD	DVD±RW	❖Intel 5100	WWAN upg	None	Fing	Express	XPP	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ 2 Duo processor SP9400 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Camera															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm														
Weight ²	6-cell: starting at 3.9 lb (1.77kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 8.5 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											Supports ThinkVantage® technologies			
ExpressCard/34	One slot (ExpressCard/34)											65-watt (GMA graphics) AC adapter			
Smart Card Read	None											ThinkPad Roll Cage (one-piece magnesium frame)			
Multicard Reader	None											EPEAT™ Gold rating			
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											ENERGY STAR® 5.0-compliant			
Mini PCI Express	Three Mini PCI Express slots											RoHS-compliant			
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)											International Warranty Service ¹⁷			
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)											24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
2G Turbo	None														
UWB	None														
Modem	None														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021			
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1											ThinkPlus 4-year LOR 9x5 NBD 45K6022			
Intel AMT	Intel Active Management Technology (iAMT)											ThinkPlus 5-year LOR 9x5 NBD 45K6024			
Audio support	High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus 4-year P&L P/U Depot 45K6023			
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus 5-year P&L P/U Depot 45K6025			
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

US model announced October 22 or November 3, 2009

US models withdrawn effective July 2010

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ThinkPad® T400s 2808 (GMA) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
2808-DLU SP9600	2.53	4GB	14.1"	WXGA+	Cam	GMA	128G SSD	DVD±RW	Intel 5100 ²⁸	AT&T ²³	None	Fing	Blue	Express	Pro 64	Nov 09

• This small and medium business (SMB) model is part of the US TopSeller™ Program

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ 2 Duo processor SP9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touch pad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™ wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
ThinkLight™															
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.9 lb (1.77kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											Supports ThinkVantage® technologies			
ExpressCard/34 Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Mini PCI Express Intel 5100 ²⁸ AT&T ²³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®														
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None None Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US model announced November 3, 2009
US model withdrawn effective July 2010

✦ Intel Centrino® 2 with vPro™ technology

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(SN1-6) July 2010

ThinkPad® T400s 2815 (GMA) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print Blue- tooth	Card slot	Whorse (W) Gbl (G) Avail date
2815-22U	SP9400	2.40	2GB	14.1" WXGA+		GMA 120G	5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	Fing	Blue Express XP	G Jun 09
2815-23U	SP9600	2.53	3GB	14.1" WXGA+	Cam	GMA 250G	5400	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue Express B32	G Jun 09
2815-24U	SP9600	2.53	4GB	14.1" WXGA+	Cam	GMA 128G	SSD	DVD±RW	Intel 5300 ²⁸	WWAN upg	None	Fing	Blue Express B32	G Jun 09
2815-25U	SP9600	2.53	2GB	14.1" WXGA+	Cam	GMA 80G	SSD	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue Express B32	G Jul 09
2815-2YU	SP9400	2.40	3GB	14.1" WXGA+	Cam	GMA 120G	5400	DVD±RW	Intel 5100	Verizon ¹⁶	None	Fing	Blue Express B32	Jun 09
2815-2ZU	SP9400	2.40	3GB	14.1" WXGA+	Cam	GMA 128G	SSD	DVD±RW	Intel 5100	AT&T ²³	None	Fing	Blue Express B32	Jun 09
2815-30U	SP9600	2.53	3GB	14.1" WXGA+	Cam	GMA 128G	SSD	DVD±RW	Intel 5300	Verizon	None	Fing	Blue Express B32	Jun 09
2815-3YU	SP9400	2.40	3GB	14.1" WXGA+	Cam	GMA 120G	5400	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue Express B32	Jun 09
2815-62U	SP9400	2.40	2GB	14.1" WXGA+		GMA 120G	5400	DVD±RW	Intel 5100	WWAN upg	None		Express B32 TAA	Jun 09
2815-63U	SP9400	2.40	3GB	14.1" WXGA+		GMA 128G	SSD	DVD±RW	Intel 5100	WWAN upg	None		Express B32	Jun 09
2815-64U	SP9600	2.53	3GB	14.1" WXGA+		GMA 128G	SSD	DVD±RW	Intel 5100	WWAN upg	None		Express B32 TAA	Jun 09
US Govt (TAA) ⁵ Processor	62U/63U/64U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor SP9400 or SP9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ♦ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access Some: 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high Some: 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touch pad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm 6-cell: starting at 3.9 lb (1.77kg) Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 8.5 hr													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
ExpressCard/34 Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T													
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None None Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole													
Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
 US models announced June 23, 2009
 US models withdrawn effective July 2010

♦ Intel Centrino® 2 with vPro™ technology

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 (SN1-4) July 2010

ThinkPad® T400s 2815 (GMA) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Inte- grated era graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Card Fing slot	Preload	Avail date
2815-5XU	SP9400	2.40	2GB	14.1" WXGA+	MultiTouch Cam	GMA 120G	5400 DVD±RW	Intel 5100 ²⁸	WWAN upg	No	Yes	Express Pro 32	Dec 09
2815-5YU	SP9400	2.40	4GB	14.1" WXGA+	MultiTouch Cam	GMA 128G	SSD DVD±RW	Intel 5100	WWAN upg	No	Yes	Express Pro 64	Dec 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor SP9400 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive											
Widescreen display	14.1" (358.1mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, MultiTouch (touchscreen support two-finger touch)											
Camera	Camera on top of screen, 2.0-megapixel, fixed focus											
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)											
Keyboard TrackPoint® Touch pad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm 6-cell: starting at 4.51 lb (2.05kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy											
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 5.5 hr; 6-cell plus Ultrabay battery: up to 8.5 hr											
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											
ExpressCard/34 Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											
Mini PCI Express	Three Mini PCI Express slots											
Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None None None											
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											

Preloaded operating system ²⁰	- <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64
Preloaded applications ¹⁴ (all OSes; only some listed)	<ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Password Manager ThinkVantage Power Manager ThinkVantage System Update Fingerprint Software (fingerprint models) ThinkVantage Toolbox Lenovo Online Data Backup Norton™ Internet Security 2009 (30 days of virus definitions) Adobe® Reader® Adobe Flash® Player Skype™ for Windows Microsoft® Office 2007 Trial (60-day) Microsoft Research AutoCollage Touch Roxio® Creator® Business Edition (DVD±RW) Roxio MyDVD® (DVD±RW) Corel® WinDVD® (DVD±RW)
Supports ThinkVantage® technologies	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ThinkPlus™.22	3-year LOR ²⁴ 9x5 NBD 45K6021
ThinkPlus	4-year LOR 9x5 NBD 45K6022
ThinkPlus	5-year LOR 9x5 NBD 45K6024
ThinkPlus	4-year P&L P/U Depot 45K6023
ThinkPlus	5-year P&L P/U Depot 45K6025
Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced December 1, 2009
US models withdrawn effective July 2010

❖ Intel Centrino® 2 with vPro™ technology

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(SN1-7) July 2010

ThinkPad® T400s 2823 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Mini PCIe Finger print reader	Blue- tooth	Card slot	Whorse (W) Pre-GMP (P) load Gbl (G)	Avail date
2823-22U SP9400	2.40	2GB	14.1"	WXGA+		GMA	120G 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	Fing	Blue	Express	XP	G P Jun 09
2823-23U SP9600	2.53	3GB	14.1"	WXGA+	Cam	GMA	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	Express	B32	G P Jun 09
2823-24U SP9600	2.53	4GB	14.1"	WXGA+	Cam	GMA	128G SSD	DVD±RW	Intel 5300 ²⁸	WWAN upg	None	Fing	Blue	Express	B32	G P Jun 09
2823-25U SP9600	2.53	2GB	14.1"	WXGA+	Cam	GMA	80G SSD	DVD±RW	Intel 5100	WWAN upg	None	Fing	Blue	Express	B32	G P Jul 09

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ 2 Duo processor SP9400 or SP9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ <i>Vista models:</i> Vista Premium logo				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive															
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus															
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)															
Keyboard TrackPoint® Touch pad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.9 lb (1.77kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy															
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr															
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)															
ExpressCard/34 Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)															
Mini PCI Express	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)											Supports ThinkVantage® technologies				
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	None None None Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security Security chip Fingerprint reader	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											ThinkPlus™. ²² 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															

See footnotes for important warranty information
US models announced June 23, 2009
US models withdrawn effective July 2010

◇ Intel Centrino® 2 with vPro™ technology

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(SN1-2) July 2010

ThinkPad® T400s 2815 (GMA) - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Card slot	Preload	Avail date
2815-52U	SP9400	2.40	2GB	14.1" WXGA+	Cam	GMA	120G 5400 DVD±RW	❖Intel 5100 ²⁸	WWAN upg	None	Fing	Blue	Express	Bus 32	Jun 09	
2815-53U	SP9400	2.40	2GB	14.1" WXGA+	Cam	GMA	128G SSD DVD±RW	❖Intel 5100	WWAN upg	None	Fing	Blue	Express	Bus 32	Jun 09	

• **These models have a depot repair service 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ 2 Duo processor SP9400 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 8mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display Camera	14.1" (358.1mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touch pad	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
ThinkLight™															
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.9 lb (1.77kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 5.5 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											Supports ThinkVantage® technologies			
ExpressCard/34 Smart Card Read Multicard Reader Ports	One slot (ExpressCard/34) None None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None None Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20585 codec / stereo speakers, 1 watt / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced June 23, 2009
US models withdrawn effective July 2010

❖ Intel Centrino® 2 with vPro™ technology

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(SN1-3) July 2010

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09
Ultrabay Slim Blu-ray Burner II (SATA)	43N3230	ann 06/23/09

Storage and removable storage

1.8" 250GB Disk SATA 3.0Gb/s (5400 rpm)	43N3418	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁵¹	43N3423	ann 01/07/10

⁵¹ Can be used with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8"(2.5" cover) ⁴⁹	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover) ⁴⁹	43N3417	ann 06/23/09

⁴⁹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III* 43N3412 in Ultrabay via the removable adaptive cover provided with the drive

USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann 08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann 08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3	433810U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 (Mobile WS)	433820U	ann 01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Batteries

ThinkPad Battery 59+ (6-cell)	51J0497	ann 06/23/09
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann 08/25/09
⁴³ Used in Ultrabay Slim bay.		
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter</i> 40Y7659 or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•BlackBerry charge tip (L8a)	41R4478	ann 12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:		
ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 15.6" widescreen models:

Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4272	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4273	ann 01/07/10

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad T410



Lenovo ThinkPad T410



Lenovo ThinkPad T410



Lenovo ThinkPad T410



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



ThinkPad Mini Dock Series 3 - 90W
433710U

ThinkPad® T410 2516 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat- tery Intel vPro Preload	Avail date
2516-ADU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 250G 5400	11b/g/n		None	None	6 No	Pro 32 Jan 10
2516-DCU	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA	2.0M 320G 7200	11b/g/n		None	None	6 No	Pro 64 Sep 10
2516-F9U	i5-480M	2.66	2.93	4GBx1 1333	14.1" WXGA	2.0M 320G 7200	Intel 1000	WWAN upg	None	None	6 No	Pro 64 Jan 11

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-480M, i5-520M, or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradeable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	Camera on top of screen, 2.0-megapixel, fixed focus										
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint®	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
ThinkLight™	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm										
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)										
Case color	Black										
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom										
Battery - life ¹⁰	6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr										
Chipset	Mobile Intel QM57 Express Chipset										
ExpressCard/34	One slot (ExpressCard/34)										
Smart Card read	None										
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)										
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
PCIe Mini Card 11b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card										
Intel 1000	<i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2										
WWAN upg	<i>Some:</i> Wireless WAN upgradeable										
Modem	56K V.92 ⁶ modem										
Bluetooth™	None										
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	None										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										
	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty										

See footnotes for important warranty information

US models announced January 7 or September 28, 2010, or January 11, 2011
US models withdrawn effective June 2011

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(NZ1-1) June 2011

ThinkPad® T410 2518 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger-print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
2518-C3U	i5-540M	2.53	3.06	2GB	14.1" WXGA	LED	2.0M	320G 7200	11b/g/n	WWAN upg	Finger	Blue	6	XP Pro	Jan 10
2518-F4U	i5-540M	2.53	3.06	3GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	6 vPro	XP Pro	Jan 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	
	Supports ThinkVantage® technologies	
	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021	
	ThinkPlus 4-year LOR 9x5 NBD 45K6022	
	ThinkPlus 5-year LOR 9x5 NBD 45K6023	
	ThinkPlus 4-year P&L P/U Depot 45K6024	
	ThinkPlus 5-year P&L P/U Depot 45K6025	
	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective October 2010

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(NZ1-2) October 2010

ThinkPad® T410 2518 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Bat- tery Intel vPro Preload	Avail date
2518-C2U	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	250G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger Blue 6 vPro Pro 32 Jan 10	
2518-F3U	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	250G 5400	11b/g/n	WWAN upg		Blue 6 Pro 32 Jan 10	
2518-F6U	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	80G SSD	Intel 6200	WWAN upg	Finger Blue 9 vPro Pro 32 Jan 10		
2518-4HU	i5-520M	2.40	2.93	2GB	14.1" WXGA	2.0M	320G 7200	Intel 6200	WWAN upg	Finger Blue 6 vPro Pro 32 Mar 10		
2518-QBU	i5-540M	2.53	3.06	4GB	14.1" WXGA	2.0M	160G SSD	Intel 6200	WWAN upg	Finger Blue 6 vPro Pro 64 Jul 10		
2518-AHU	i5-560M	2.66	3.20	2GB	14.1" WXGA	2.0M	320G 7200	Intel 6200	WWAN upg	Blue 6 vPro Pro 64 Sep 10		

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive										
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	Camera on top of screen, 2.0-megapixel, fixed focus										
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr										
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Carrier Modem Bluetooth™ Ethernet	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁵ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT)										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021
Intel AMT Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus 4-year LOR 9x5 NBD 45K6022
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced January 7, March 2, July 6, or September 28, 2010
US models withdrawn effective February or June 2011

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(NZ1-3) June 2011

ThinkPad® T410 2518 (TopSeller) - Windows 7 (January 2011) - withdrawn *Personal Systems Reference (PSREF)*

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Bat-tery cells	Power Adapter (watt)	Intel vPro	Preload	Avail date
2518-BGU	i7-620M	2.66	3.33	4GBx1 1333	14.1" WXGA+	500G 7200	Intel 1000	WWAN upg		9	90W		Pro 64	Jan 11
2518-BJU	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA+	320G 7200	WiMAX	Gobi 2000	selectable	6	65W	vPro	Pro 64	Jan 11

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*
- *These models have a depot repair service 3-year limited warranty*
- *These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)*

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-560M: 3MB cache; i7-620M: 4MB cache</i>	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) or 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	<ul style="list-style-type: none"> • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 1000 WiMAX WWAN Gobi™ 2000 Carrier	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	Supports ThinkVantage® technologies
Modem Bluetooth™ Ethernet	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced January 11, 2011
US models withdrawn effective June 2011

ThinkPad® T410 2518 (Optimus) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCle Mini Card 802.11	PCle Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
2518-AJU	i5-560M	2.66	3.20	2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	vPro	Pro 64	Sep 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 10.9 hr; <i>9-cell plus Slice battery:</i> up to 21.9 hr										Supports ThinkVantage® technologies			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
PCle Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCle Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerpring reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US model announced September 28, 2010
US model withdrawn effective June 2011

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ThinkPad® T410 2516 (Discrete) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date	
2516-AEU	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	320G 7200	11b/g/n	None	None	Blue	9	No	Pro 32	Jan 10

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr														
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US model announced January 7, 2010
US model withdrawn effective June 2011

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(NZ1-4) June 2011

ThinkPad® T410 2518 (Discrete) - TS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat-tery Intel vPro	Preload	Avail date
2518-C5U	i5-540M	2.53	3.06	2GB	14.1"	WXGA+ LED	2.0M	128G SSD DVD±RW	Intel 6200 ²⁸	WWAN upg	Fing 9	vPro	XP Pro	Jan 10
2518-4JU	i5-520M	2.40	2.93	2GB	14.1"	WXGA+ LED	2.0M	320G 7200 DVD±RW	Intel 6200	WWAN upg	9	vPro	XP Pro	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr	Supports ThinkVantage® technologies
Chipset ExpressCard/34 Smart Card reader Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced January 7 or March 2, 2010
US models withdrawn effective October 2010

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(NZ1-5) October 2010

ThinkPad® T410 2518 (Discrete) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
2518-C4U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	320G 7200	11b/g/n	Gobi 2000	Verizon ¹⁶	Fing	Blue	Pro	32	Jan 10
2518-F5U	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	500G 7200	WiMAX	WWAN upg		Fing	Blue	vPro	Pro 32	Jan 10
2518-4KU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon	Fing	Blue	vPro	Pro 64	Mar 10
2518-4LU	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	320G 7200	WiMAX	WWAN upg		Fing	Blue	vPro	Pro 64	Mar 10
2518-QCU	i5-540M	2.53	3.06	4GB	14.1" WXGA+	2.0M	160G SSD	Intel 6200	WWAN upg			Blue	vPro	Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm														
Weight ²	6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg)														
Case color	Black														
Case material	<i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom														
Battery - life ¹⁰	6-cell: up to 5.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Slice battery: up to 16.6 hr														
Chipset	Mobile Intel QM57 Express Chipset														
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card read	None														
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)														
Ports	Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
11b/g/n															
Intel 6200 ²⁸															
WiMAX															
WWAN upg	<i>Some:</i> Wireless WAN upgradable														
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier	<i>Some:</i> Verizon®, contract required with service provider														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Intel AMT	Intel Active Management Technology (iAMT)										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus 4-year P&L P/U Depot 45K6023				
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 5-year P&L P/U Depot 45K6025				
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced January 7, March 2, or July 6, 2010
US models withdrawn effective February or June 2011

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(NZ1-6) June 2011

ThinkPad® T410 2519 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue-tooth	Intel vPro	Preload	Avail date
2519-8AU	i5-520M	2.40	2.93	2GB	14.1"	WXGA LED	250G 5400	DVD±RW	Intel 6200 ²⁸	WWAN upg	Blue	vPro	Pro 32	Jan 10

• **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm 6-cell: starting at 5.0 lb (2.27kg); 9-cell: starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom 6-cell: up to 6.6 hr; 9-cell: up to 11 hr; 9-cell plus Slice battery: up to 22 hr	
Chipset ExpressCard/34 Smart Card reader Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US model announced January 7, 2010
US model withdrawn effective June 2011

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ThinkPad® T410 2522 (Windows 7) - withdrawn

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger-print reader	Bat-tery Intel vPro	Workhorse (W) Global (G) Avail date
2522-60U	i5-540M	2.53	3.06	2GBx1 1066	14.1" WXGA+	2.0M 320G 7200	Intel 6200 ²⁸	Gobi AT&T ²³	Fing Blue	6 vPro Pro 32	Jan 10
2522-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	320G 7200	Intel 6200 upg		Fing Blue	6 vPro Pro 32	G Jan 10
2522-2AU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 250G 5400	Intel 6200 upg		Fing Blue	6 vPro Pro 32	Jan 10
2522-25U	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA+	320G 7200	Intel 6200 upg		Fing Blue	6 vPro Pro 32	W G Jan 10
2522-48U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 320G 7200	Intel 6200 upg	Gobi AT&T	Fing	6 vPro Pro 32	Jan 10
2522-49U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA	2.0M 80G SSD	Intel 6300 ²⁸ upg		Fing Blue	6 vPro Pro 32	Jan 10
2522-27U	i5-540M	2.53	3.06	4GBx1 1333	14.1" WXGA	250G FDE	Intel 6200 upg		Fing Blue	6 vPro Pro 64	G Mar 10
2522-28U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	250G 5400	Intel 6200 upg		Blue	9 vPro Pro 64	G Mar 10
2522-4CU	i5-540M	2.53	3.06	2GBx1 1066	14.1" WXGA	2.0M 320G 7200	WiMAX upg		Blue	6 vPro Pro 32	Mar 10
2522-4DU	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA	2.0M 320G 7200	Intel 6200 upg		Blue	6 vPro Pro 64	Mar 10
2522-29U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M 160G 7200	Intel 6200 upg		Blue	6 vPro Pro 32	G Apr 10
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache									Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64	
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets									Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive <i>All:</i>										
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr										
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)									Supports ThinkVantage® technologies	
PCIe Mini Card Intel 6200 ²⁸ WiMAX Intel 6300 ²⁸ WWAN upg Gobi™ 2000 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider <i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack									65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip									ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										

See footnotes for important warranty information
US models announced January 7, March 2, or April 6, 2010
US models withdrawn effective June 2011

ThinkPad® T410 2522 (Windows 7) - July 2010 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- Blue- tery Intel vPro	Preload	Avail date
2522-KGU	i5-520M	2.40	2.93	2GBx2 1066	14.1" WXGA	2.0M	160G 7200	Intel 6200 ²⁸	WWAN upg	Fing	Blue	9 vPro	Pro 64 Jul 10
2522-KHU	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA	2.0M	160G SSD	Intel 6200	WWAN upg	Fing	Blue	9 vPro	Pro 64 Jul 10
2522-57U	i5-560M	2.66	3.20	2GBx2 1066	14.1" WXGA	2.0M	320G 7200	Intel 6200	WWAN upg	Fing	Blue	6 vPro	Pro 64 Jan 11

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	Supports ThinkVantage® technologies
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced July 6, 2010 or January 11, 2011
US models withdrawn effective February or June 2011

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ThinkPad® T410 2522 (Optimus) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Graphics controller memory	Disk SATA GB ⁵ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Preload	Avail date
2522-88U	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA	512MB	320G 7200	Intel 6200 ²⁸	WWAN upg	None	vPro	Pro 64	Sep 10

- **This model has a depot repair service 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultraplay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 10.9 hr; <i>9-cell plus Slice battery:</i> up to 21.9 hr	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced September 28, 2010
US model withdrawn effective June 2011

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ThinkPad® T410 2519 (Discrete) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card Blue/WWAN	Bat-tery Intel vPro	Preload	Avail date
2519-8BU	i5-520M	2.40 2.93	2GB	14.1" WXGA+	LED 2.0M	320G 7200	DVD±RW	Intel 6200 ²⁸	None	Yes 6 vPro	Pro 32	Jan 10

• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr										
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US model announced January 7, 2010
US model withdrawn effective June 2011

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(NZ1-9) June 2011

ThinkPad® T410 2522 (Discrete) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Battery cells	Intel vPro	Workhorse (W) Global (G) Preload	Avail date
2522-23U	i5-520M	2.40	2.93 2GB	14.1" WXGA		320G 7200	Intel 6200 ²⁸	WWAN upg		Finger	9	vPro	Pro 32	G Jan 10
2522-24U	i5-540M	2.53	3.06 2GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200	WWAN upg		Finger	9	vPro	Pro 32	G Jan 10
2522-2BU	i5-520M	2.40	2.93 2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200	Gobi 2000	Verizon ¹⁶	Finger	9	vPro	Pro 32	Jan 10
2522-26U	i5-520M	2.40	2.93 2GB	14.1" WXGA+	2.0M	80G SSD	Intel 6200	WWAN upg		Finger	6	vPro	Pro 32	G Jan 10
2522-4AU	i5-520M	2.40	2.93 2GB	14.1" WXGA		250G 5400	Intel 6200	WWAN upg		Finger	9	vPro	Pro 32	Jan 10
2522-4BU	i5-520M	2.40	2.93 2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200	WWAN upg		Finger	6	vPro	Pro 32	Jan 10
2522-4EU	i5-540M	2.53	3.06 4GB	14.1" WXGA		320G 7200	Intel 6200	WWAN upg		Finger	6	vPro	Pro 64	Mar 10
2522-4FU	i5-540M	2.53	3.06 2GB	14.1" WXGA+	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T ²³		6	vPro	Pro 32	Mar 10
2522-4TU	i5-520M	2.40	2.93 2GB	14.1" WXGA		160G 7200	Intel 6200	WWAN upg		Finger	6	vPro	Pro 32	Apr 10
2522-KJU	i5-540M	2.53	3.06 4GB	14.1" WXGA	2.0M	160G SSD	Intel 6200	WWAN upg		Finger	9	vPro	Pro 64	Jul 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸, 128GB, or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T® or Verizon®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced January 7, March 2, April 6, or July 6, 2010
US models withdrawn effective February or June 2011

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(NZ1-10) June 2011

ThinkPad® T410 2522 (Discrete) - Windows 7 (May 2010) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Graphics controller memory	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Workhorse (W) Global (G) Preload	Avail date
2522-K2U	i5-520M	2.40	2.93	2GBx1	1066	14.1" WXGA	512MB	160G 7200	Intel 6200 ²⁸	WWAN upg	vPro	Pro 64 G May 10
2522-K3U	i5-540M	2.53	3.06	4GBx1	1333	14.1" WXGA+	512MB	320G 7200	Intel 6200	WWAN upg	Finger vPro	Pro 64 G May 10
2522-K4U	i7-620M	2.66	3.33	4GBx1	1333	14.1" WXGA+	512MB	320G 7200	Intel 6200	WWAN upg	Finger vPro	Pro 64 G May 10
2522-K5U	i5-540M	2.53	3.06	2GBx1	1066	14.1" WXGA+	512MB	160G 7200	Intel 6200	WWAN upg	Finger vPro	Pro 64 May 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M: 3MB cache; i7-620M: 4MB cache</i>	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed)
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 160GB⁸ (7200 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr	Supports ThinkVantage® technologies
Chipset ExpressCard/34 Smart Card reader Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced May 4, 2010
US models withdrawn effective June 2011

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(NZ1-15) June 2011

ThinkPad® T410 2537 (Onsite) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Battery cells	Intel vPro	Workhorse (W) Global (G) Preload GMP (P)	Avail date
2537-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA		320G 7200	Intel 6200 ²⁸	WWAN upg	Finger 6	vPro	Pro 32	G P Jan 10	
2537-25U	i5-540M	2.53	3.06	2GBx2 1066	14.1" WXGA+		320G 7200	Intel 6200	WWAN upg	Finger 6	vPro	Pro 32	W G P Jan 10	
2537-27U	i5-540M	2.53	3.06	4GBx1 1333	14.1" WXGA		250G FDE	Intel 6200	WWAN upg	Finger 6	vPro	Pro 64	G P Mar 10	
2537-28U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA		250G 5400	Intel 6200	WWAN upg	9	vPro	Pro 64	G P Mar 10	
2537-29U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA	2.0M	160G 7200	Intel 6200	WWAN upg	6	vPro	Pro 32	G P Apr 10	

- **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 160GB⁸ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced January 7, March 2, or April 6, 2010
US models withdrawn effective June 2011

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(NZ1-11) June 2011

ThinkPad® T410 2537 (Discrete) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	CCFL or LED Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Battery cells	Intel vPro	Pre-load	Workhorse (W) Global (G) GMP (P)	Avail date
2537-23U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	320G 7200	Intel 6200 ²⁸	WWAN upg	9	vPro	Pro 32	G P	Jan 10
2537-24U	i5-540M	2.53	3.06	2GB	14.1" WXGA+	LED 2.0M	128G SSD	Intel 6200	WWAN upg	9	vPro	Pro 32	G P	Jan 10
2537-26U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	LED 2.0M	80G SSD	Intel 6200	WWAN upg	6	vPro	Pro 32	G P	Jan 10

- **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁵ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	
	Supports ThinkVantage® technologies	
	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
	ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective June 2011

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ThinkPad® T410 2522 (Education) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat-Blue- toot cells	Intel vPro	Preload	Avail date
2522-52U	i5-520M	2.40	2.93 2GB	14.1" WXGA	LED 2.0M	250G 5400	Intel 6200 ²⁸			6	vPro	Pro 32	Jan 10
2522-53U	i5-520M	2.40	2.93 2GB	14.1" WXGA	LED 2.0M	320G 5400	Intel 6200		Finger	6	vPro	Pro 32	Jan 10
2522-54U	i5-520M	2.40	2.93 3GB	14.1" WXGA+	LED 2.0M	320G 7200	Intel 6200	WWAN upg	Finger	6	vPro	Pro 32	Jan 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**
- **Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • <i>54U model:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	• Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	• ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Dimensions ³ Weight ² Case color Case material	<i>14.1W" (WxDxH):</i> 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable 56K V.92 ⁵ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective June 2011

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ThinkPad® T410 2522 (Discrete) - Education (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Preload	Avail date
2522-55U	i5-520M	2.40	2.93	2GB	14.1" WXGA	LED	2.0M	320G 5400	Intel 6200 ²⁸	Finger	Blue	6	vPro Pro 32 Jan 10
2522-56U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 WWAN upg	Finger	Blue	9	vPro Pro 32 Jan 10

- **These models have an depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**
- **Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • <i>56U model:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	• Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display	<i>Some:</i> 14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio	• ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @ 60Hz; 2048x1536 (VGA) @ 85Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915)	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective June 2011

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ThinkPad® T410i 2516 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date	
2516-APU	i3-330M	2.13	2GB	14.1" WXGA	LED 2.0M	250G 5400	Intel 1000					6	No	XP Pro	Feb 10
2516-ARU	i3-330M	2.13	2GB	14.1" WXGA	LED 2.0M	320G 7200	Intel 1000			Finger	Blue	6	No	XP Pro	Feb 10
2516-BQU	i3-330M	2.13	2GB	14.1" WXGA	LED 2.0M	250G 5400	Intel 1000	Gobi 2000	AT&T ²³			6	No	XP Pro	Apr 10

• **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Adobe® Reader® • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr													
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
PCIe Mini Card Intel 1000 Gobi™ 2000	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced February 2 or April 6, 2010
US models withdrawn effective July 31, 2010

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(NZ1i-1) August 2010

ThinkPad® T410i 2516 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Battery Intel vPro	Preload	Avail date
2516-AQU	i3-330M	2.13	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000			None	None	6	No	Pro 32 Feb 10
2516-72U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000			None	None	6	No	Pro 64 Jul 10
2516-73U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000			None	None	6	No	Pro 64 Jul 10
2516-74U	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000	Gobi 2000	selectable	None	None	6	No	Pro 64 Jul 10
2516-FBU	i3-390M	2.66	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000	WWAN upg		None	None	6	No	Pro 64 Jan 11

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M, i3-370M, or i3-390M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
PCIe Mini Card Intel 1000 WWAN upg Gobi™ 2000 Carrier	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁵ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced February 2 or July 6, 2010, or January 11, 2011
US models withdrawn effective July 2010 or June 2011

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ThinkPad® T410i 2518 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
2518-JWU	i3-370M	2.40	2GB	14.1" WXGA	2.0M	320G 7200	Intel 1000	Gobi 2000	selectable		Blue	9	No Pro 64	Jul 10
2518-JXU	i3-370M	2.40	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000	WWAN upg		Finger		9	No Pro 64	Jul 10
2518-MHU	i3-370M	2.40	2GB	14.1" WXGA	2.0M	250G 5400	Intel 1000			Finger		9	No Pro 64	Jul 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	14.1" (358mm) WXGA (1280x800) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 6.6 hr; <i>9-cell:</i> up to 11 hr; <i>9-cell plus Slice battery:</i> up to 22 hr													
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
PCIe Mini Card Intel 1000 WWAN upg Gobi™ 2000 Carrier	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced July 6, 2010
US models withdrawn effective June 2011

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ThinkPad® T410i 2518 (Discrete) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Blue/Fing	Intel vPro	Preload	Avail date
2518-JYU	i3-370M	2.40	2GB	14.1" WXGA+	LED	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Yes	No	Pro 64	Jul 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a depot repair service 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 220 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 256MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material	14.1W" (WxDxH): 13.2" x 9.4" x 1.1–1.3"; 335.5 x 239mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.0 lb (2.27kg); <i>9-cell:</i> starting at 5.35 lb (2.43kg) Black <i>Top:</i> High Elasticity PolyCarbonate (HEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Slice battery:</i> up to 16.6 hr										Supports ThinkVantage® technologies			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), eSATA port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced July 6, 2010
US model withdrawn effective June 2011

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09

Storage and removable storage

500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10
⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay		
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T™ Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11
ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 - 90W	433810U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 - 135W	433820U	ann 01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann 03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann 03/30/10
ThinkPad Battery 27++ (9-cell, slice) ⁴³	57Y4545	ann 01/07/10
⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using Series 3 Port Replicator or Docks).		

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
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Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4273	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4272	ann 01/07/10

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad T420



Lenovo ThinkPad T420



Lenovo ThinkPad T420



Lenovo ThinkPad T420



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



ThinkPad Mini Dock Series 3 - 90W
433710U

ThinkPad® T420 4177 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/ mSATA	Modem	IEEE 1394	Smart Card Reader	Finger print reader	Blue-tooth	Battery cells	Intel AMT	Intel vPro	Preload
4177-Q8U	i5-2520M	4GBx1	14.0" HD+	720p	160G SSD	Intel 6300 ²⁸	upg	None	1394	Smart	Finger	Blue	6	iAMT	vPro	Pro 64
4177-Q5U	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205 ²⁸	upg	None					6	iAMT	vPro	Pro 64
4177-Q2U	i5-2540M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	upg	None			Finger	Blue	6	iAMT	vPro	Pro 64
4177-QKU	i5-2410M	4GBx1	14.0" HD+	720p	320G 7200	Intel 1000	upg	None					6			Pro 64
4177-QJU	i5-2410M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	upg	None				Blue	6			Prem 64
4177-QLU	i5-2540M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	upg	None					6			Pro 64
4177-R3U	i5-2430M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	upg	None				Blue	6			Pro 64
4177-RVU	i5-2450M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	upg	None				Blue	6			Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2430M processor (dual-core, 2.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology Intel Core i5-2450M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5mm x 233.0mm x 30.1–30.5mm <i>4-cell:</i> from 4.60 lb (2.09kg); <i>6-cell:</i> from 4.79 lb (2.17kg); <i>9-cell:</i> from 5.17 lb (2.35kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery <i>6-cell (57Whr):</i> up to 9.0 hr; <i>9-cell (94Whr):</i> up to 15.0 hr; <i>9-cell plus Slice battery:</i> up to 30 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3	Supports ThinkVantage® technologies
WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None <i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced February 22, April 5, May 3, or October 4, 2011, or January 17, 2012
US model(s) withdrawn effective December 2012

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(NZ3-7) February 2013

ThinkPad® T420 4178 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Modem	IEEE 1394	Finger-print reader	Bat-tery cells	Intel AMT	Intel vPro	Preload
4178-6UU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		None	1394	Finger	6	iAMT	vPro	Pro 64
4178-9RU	i5-2410M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg		None			6			Pro 64
4178-59U	i5-2540M	2GBx2	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg		None			6	iAMT	vPro	Pro 64
4178-57U	i5-2540M	2GBx2	14.0" HD	720p	500G 7200	Intel 6205	WWAN upg		None			6	iAMT	vPro	Pro 64
4178-56U	i5-2520M	2GBx1	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg		None			6	iAMT	vPro	Pro 64
4178-AFU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 1000	WWAN upg		None	1394	Finger	6			Pro 64
4178-ACU	i5-2520M	4GBx1	14.0" HD		320G 7200	Intel 1000	WWAN upg		None			6			Pro 32
4178-APU	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Intel 6205	Gobi 3000	selectable	None		Finger	6	iAMT	vPro	Pro 64
4178-AWU	i7-2620M	4GBx1	14.0" HD	720p	160G SSD	Intel 6205	WWAN upg		None	1394	Finger	6	iAMT	vPro	Pro 64
4178-ATU	i5-2540M	4GBx1	14.0" HD	720p	128G SSD	Intel 6205	WWAN upg		None	1394	Finger	6	iAMT	vPro	Pro 64
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Optical	DVD burner, 12.7mm Ultrabay Enhanced, removable														
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access														
SATA disk	<i>Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high</i> <i>Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive</i>														
mSATA™ SSD	None														
Widescreen display	<i>Some: 14.0" (355mm) HD (1366x768) color</i> , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some: 14.0" (355mm) HD+ (1600x900) color</i> , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some: HD720p resolution, wider view angle, low light sensitive, fixed focus</i>														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 (DVI-D) (single-link DVI-D via cable 45J7915)</i>														
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm														
Weight ²	4-cell: from 4.60 lb (2.09kg); 6-cell: from 4.79 lb (2.17kg); 9-cell: from 5.17 lb (2.35kg)														
Case material	<i>Display cover: Carbon-fiber / Glass-fiber hybrid;</i> <i>Bottom: Carbon-Fiber Reinforced Plastic</i>														
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery														
Battery - life ¹⁰	6-cell (57Whr): up to 9.0 hr; 9-cell (94Whr): up to 15.0 hr; 9-cell plus Slice battery: up to 30 hr														
Chipset	Mobile Intel QM67 Express Chipset														
ExpressCard	One slot (ExpressCard/34)														
Smart Card read	None														
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some: 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2</i> <i>Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2</i>														
WWAN	<i>Some: Wireless WAN upgradable</i> <i>Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS</i> <i>Some: User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider</i>														
Modem	None														
IEEE 1394	<i>Some: IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</i>														
Bluetooth™	Bluetooth 3.0 wireless, LED indicator														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	<i>Some: Intel Active Management Technology (iAMT)</i>														
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														
											Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
 US model(s) announced February 22, April 5, May 3, or May 31, 2011
 US model(s) withdrawn effective January or December 2012

ThinkPad® T420 4178 (TopSeller) - October 2011 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Pre-load	Ann Date (mm/yy)
4178-B7U	i5-2430M	4GBx1	14.0" HD	720p	128G SSD	Intel 1000	WWAN upg	None		Finger	Blue	6	No	Pro 64	10/11
4178-C9U	i7-2640M	4GBx1	14.0" HD+	720p	500G 7200	Intel 1000	WWAN upg	None	1394	Finger	Blue	6	No	Pro 64	10/11
4178-CUU	i5-2450M	4GBx1	14.0" HD	720p	128G SSD	Intel 1000	WWAN upg	None		Finger	Blue	6	No	Pro 64	01/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2430M processor (dual-core, 2.40GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology Intel Core i5-2450M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										
mSATA™ SSD	None										
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio										
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus										
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm 4-cell: from 4.60 lb (2.09kg); 6-cell: from 4.79 lb (2.17kg); 9-cell: from 5.17 lb (2.35kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery 6-cell (57Whr): up to 9.0 hr; 9-cell (94Whr): up to 15.0 hr; 9-cell plus Slice battery: up to 30 hr										
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None <i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										

See footnotes for more detailed information
 US model(s) announced October 4 or October 11, 2011, or January 17, 2012
 US model(s) withdrawn effective December 2012

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ThinkPad® T420 4178 (Optimus) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4178-6WU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	1394	Finger	Blue	9	vPro	Pro 64
4178-6VU	i5-2520M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	1394	Finger	Blue	9	vPro	Pro 64
4178-58U	i5-2520M	2GBx2	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	None			Blue	9	vPro	Pro 64
4178-CAU	i7-2640M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	1394	Finger	Blue	9	vPro	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display Camera	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio HD720p resolution, wider view angle, low light sensitive, fixed focus	Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm 4-cell: from 4.65 lb (2.11kg); 6-cell: from 4.84 lb (2.20kg); 9-cell: from 5.22 lb (2.37kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery 6-cell (57Whr): up to 8.8 hr; 9-cell (94Whr): up to 14.7 hr; 9-cell plus Slice battery: up to 29.5 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None <i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available	

See footnotes for more detailed information
US model(s) announced February 22 or October 11, 2011
US model(s) withdrawn effective January or December 2012

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ThinkPad® T420 4180 - withdrawn

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WWAN/mSATA	Carrier	Modem	IEEE 1394	Smart Card Reader	Finger print reader	Blue-tooth	Bat-tery cells	Intel AMT	Intel vPro	Global (G) Educ	Preload
4180-MNU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	WWAN upg			1394		Fing	Blue	6	iAMT	vPro	G	Pro 64
4180-MBU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	WWAN upg		Modem			Fing	Blue	6	iAMT	vPro	G	Pro 64
4180-63U	i5-2540M	2GBx2	14.0" HD+	720p	320G 7200	WWAN upg			1394		Fing	Blue	6	iAMT	vPro	G	Pro 64
4180-62U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	WWAN upg			1394			Blue	6	iAMT	vPro	G	Pro 64
4180-KHU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	WWAN upg		Modem			Fing	Blue	6	iAMT	vPro		Pro 64
4180-NDU	i5-2540M	4GBx1	14.0" HD		320G 7200	WWAN upg			1394	Smart			6	iAMT	vPro		Pro 64
4180-NCU	i5-2410M	4GBx1	14.0" HD	720p	320G 7200	WWAN upg		Modem					6			Edu	Prem 64
4180-N2U	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	WWAN upg		Modem		Smart	Fing	Blue	6	iAMT	vPro		Pro 64
4180-PAU	i5-2520M	4GBx1	14.0" HD	720p	128G SSD	WWAN upg					Fing	Blue	6	iAMT	vPro	G	Pro 64
4180-PFU	i5-2520M	4GBx1	14.0" HD	720p	320G 7200	Gobi 3000	selectable				Fing	Blue	6	iAMT	vPro		Pro 64

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm <i>4-cell:</i> from 4.60 lb (2.09kg); <i>6-cell:</i> from 4.79 lb (2.17kg); <i>9-cell:</i> from 5.17 lb (2.35kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery <i>6-cell (57Whr):</i> up to 9.0 hr; <i>9-cell (94Whr):</i> up to 15.0 hr; <i>9-cell plus Slice battery:</i> up to 30 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	Supports ThinkVantage® technologies
Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> 56K V.92® modem <i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹² 3-years /1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information
US model(s) announced February 22, March 1, April 5, or May 3, 2011
US model(s) withdrawn effective January or December 2012

ThinkPad® T420 4180 (November 2011) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Smart Card Reader	Finger print reader	Bat-tery cells	Global (G) Intel vPro	GMP (P)	Pre-load	Ann Date (mm/yy)
4180-Q3U	i7-2640M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Smart	Finger	6	vPro		Pro 64	11/11
4180-QCU	i5-2520M	4GBx1	14.0" HD	720p	500G 5400	Intel 6205	WWAN upg			Finger	6	vPro		Pro 64	01/12
4180-QFU	i5-2520M	4GBx1	14.0" HD	720p	160G SSD	Intel 6205	WWAN upg			Finger	6	vPro	G	Pro 64	01/12
4180-QAU	i5-2520M	4GBx1	14.0" HD	720p	320G 5400	Intel 6205	WWAN upg			Finger	6	vPro		Pro 64	01/12

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	Preloaded applications¹⁴ (only some listed)
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm <i>4-cell:</i> from 4.60 lb (2.09kg); <i>6-cell:</i> from 4.79 lb (2.17kg); <i>9-cell:</i> from 5.17 lb (2.35kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery <i>6-cell (57Whr):</i> up to 9.0 hr; <i>9-cell (94Whr):</i> up to 15.0 hr; <i>9-cell plus Slice battery:</i> up to 30 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	Supports ThinkVantage® technologies
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced November 1, 2011 or January 3, 2012
US model(s) withdrawn effective December 2012

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ThinkPad® T420 4180 (Optimus) - withdrawn

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	IEEE 1394	Smart Card Reader	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4180-MMU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	1394		Finger	Blue	9	vPro	G	Pro 64
4180-65U	i5-2540M	2GBx2	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	1394		Finger	Blue	9	vPro	G	Pro 64
4180-64U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	1394			Blue	6	vPro	G	Pro 64
4180-NEU	i5-2540M	4GBx1	14.0" HD		320G 7200	Intel 6205	WWAN upg	1394	Smart			6	vPro		Pro 64
4180-PRU	i7-2640M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	1394		Finger	Blue	9	vPro		Pro 64

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap <p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets														
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<p><i>Some:</i> 14.0" (355mm) HD (1366x768) color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio</p> <p><i>Some:</i> 14.0" (355mm) HD+ (1600x900) color, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio</p>														
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	<p><i>14.0W" (WxDxH):</i> 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm</p> <p><i>4-cell:</i> from 4.65 lb (2.11kg); <i>6-cell:</i> from 4.84 lb (2.20kg); <i>9-cell:</i> from 5.22 lb (2.37kg)</p> <p><i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>														
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery <i>6-cell (57Whr):</i> up to 8.8 hr; <i>9-cell (94Whr):</i> up to 14.7 hr; <i>9-cell plus Slice battery:</i> up to 29.5 hr														
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
 US model(s) announced February 22 or November 1, 2011
 US model(s) withdrawn effective January or December 2012

ThinkPad® T420 4236 (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload
4236-NUU	i5-2520M	4GBx1	14.0" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		1394	Finger	Blue	6	vPro	G P	Pro 64
4236-MBU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	Modem		Finger	Blue	6	vPro	G P	Pro 64
4236-NHU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg	Modem		Finger	Blue	6	vPro	G P	Pro 64
4236-63U	i5-2540M	2GBx2	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg		1394	Finger	Blue	6	vPro	G P	Pro 64
4236-62U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg		1394		Blue	6	vPro	G P	Pro 64
4236-PAU	i5-2520M	4GBx1	14.0" HD	720p	128G SSD	Intel 6205	WWAN upg			Finger	Blue	6	vPro	G P	Pro 64
4236-QFU	i5-2520M	4GBx1	14.0" HD	720p	160G SSD	Intel 6205	WWAN upg			Finger	Blue	6	vPro	G P	Pro 64

- Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
mSATA™ SSD	None	Preloaded applications¹⁴ (only some listed)
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm 4-cell: from 4.60 lb (2.09kg); 6-cell: from 4.79 lb (2.17kg); 9-cell: from 5.17 lb (2.35kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery 6-cell (57Whr): up to 9.0 hr; 9-cell (94Whr): up to 15.0 hr; 9-cell plus Slice battery: up to 30 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem <i>Some:</i> IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)	Supports ThinkVantage® technologies
Security Security chip Fingerprint reader	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available	For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

US model(s) announced February 22 or April 5, 2011, or January 3, 2012

US model(s) withdrawn effective March or December 2012

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ThinkPad® T420 4236 (Optimus) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Preload
4236-NVU	i7-2620M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	1394	Finger	Blue	9	vPro	G P	Pro 64
4236-65U	i5-2540M	2GBx2	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	1394		Blue	9	vPro	G P	Pro 64
4236-64U	i5-2520M	2GBx2	14.0" HD	720p	320G 7200	Intel 6205	WWAN upg	None	1394		Blue	6	vPro	G P	Pro 64
4236-PRU	i7-2640M	4GBx1	14.0" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	1394	Finger	Blue	9	vPro	G P	Pro 64

- Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> 14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>14.0W" (WxDxH):</i> 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm <i>4-cell:</i> from 4.65 lb (2.11kg); <i>6-cell:</i> from 4.84 lb (2.20kg); <i>9-cell:</i> from 5.22 lb (2.37kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery <i>6-cell (57Whr):</i> up to 8.8 hr; <i>9-cell (94Whr):</i> up to 14.7 hr; <i>9-cell plus Slice battery:</i> up to 29.5 hr	
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced February 22 or November 1, 2011
US model(s) withdrawn effective January or December 2012

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ThinkPad® T420i 4177 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	IEEE 1394	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4177-QGU	i3-2310M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None	None		6	None	Pro 64
4177-R2U	i3-2350M	4GBx1	14.0" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None	None	Blue	6	None	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2350M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed)			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap 			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
mSATA™ SSD	None													
Widescreen display Camera	14.0" (355mm) HD (1366x768) color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio HD720p resolution, wider view angle, low light sensitive, fixed focus										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case material	14.0W" (WxDxH): 13.4" x 9.17" x 1.18–1.20"; 340.5 x 233.0mm x 30.1–30.5mm <i>4-cell:</i> from 4.60 lb (2.09kg); <i>6-cell:</i> from 4.79 lb (2.17kg); <i>9-cell:</i> from 5.17 lb (2.35kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional Slice battery (0A36304) as 2nd battery <i>6-cell (57Whr):</i> up to 9.0 hr; <i>9-cell (94Whr):</i> up to 15.0 hr; <i>9-cell plus Slice battery:</i> up to 30 hr										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Chipset ExpressCard Smart Card read Multicard reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN ⁴ WWAN Modem IEEE 1394 Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										For compatible accessories, please go to O-T420 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
 US model(s) announced March 1 or October 4, 2011
 US model(s) withdrawn effective December 2012

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ThinkPad® T420 Accessories - withdrawn

Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann	03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann	03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann	03/02/10

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann	06/23/09
Serial ATA Hard Drive 12.7mm Bay Adapter III	0A65623	ann	02/28/12
DVD Burner Ultrabay Enhanced Drive III	0A65625	ann	06/05/12

Storage and removable storage

500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann	06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann	06/05/12
1TB 5400rpm SATA 3.0Gb/s 9.5mm 4K HDD ⁴¹	0A65633	ann	06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann	06/05/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann	06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann	06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann	05/15/12

250GB 7200rpm SATA 3.0Gb/s OPAL-capable FDE HDD II ⁴¹	0A33985	ann	02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann	02/22/11

⁴¹ Can be used as the main HDD or with
Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 or
Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann	11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann	11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann	08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann	06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann	04/12/11
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ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann	06/05/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann	06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann	06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann	06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann	06/05/12

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
Ultralim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann	04/05/11
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann	12/20/11

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann	01/07/10
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Security

3M 14.0W Privacy Filter from Lenovo	0A61769	ann	04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann	06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann	06/05/12
ThinkPad Battery 28++ (9 cell, slice) ⁴³	0A36304	ann	06/05/12

⁴³ To be used along with system battery for all-day computing;
attaches under ThinkPad using docking connector
(not supported when using Series 3 Port Replicator or Docks).

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
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⁴⁴ Requires the *ThinkPad 90W AC Adapter*
40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
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⁴⁵ Only compatible with the integrated graphics models.

ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann	03/16/10
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Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance BackPack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08
Lenovo Sport Backpack - Red	0A33896	ann	02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann	02/28/12
Lenovo Sport Messenger - Red	0A33898	ann	02/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann	10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included; use optional
DisplayPort to DisplayPort Monitor Cable 0A36537.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann	08/16/11
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More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann	09/13/11
Lenovo USB Soundbar	0A36190	ann	05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad T410s



Lenovo ThinkPad T410s



ThinkPad Battery 42 (3-cell, bay)
57Y4536



ThinkPad Battery 59+ (6-cell)
51J0497



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T410s

ThinkPad® T410s 2901 (TS) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Fing/Blue	Card slot	Intel vPro	Preload	Avail date
2901-A3U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	250G 5400	DVD±RW	11b/g/n	WWAN upg	Express	XP Pro	Feb 10	
2901-A4U	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	80G SSD	DVD±RW	Intel 6200 ²⁸	WWAN upg	Express	vPro	XP Pro	Feb 10

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective October 2010

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(SN2-1) October 2010

ThinkPad® T410s 2901 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (GHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro Preload	Avail date
2901-ATU	i5-560M	2.66	3.20	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	None	Blue Express	No Pro 64	Sep 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	Supports ThinkVantage® technologies
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	Post-warranty annual maintenance agreements at 45K5976
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US model announced September 28, 2010
US model withdrawn effective June 2011

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(SN2-11) June 2011

ThinkPad® T410s 2904 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2904-CFU	i5-520M	2.40	2.93 2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg		Finger		Exp	XP Pro	Feb 10	
2904-CGU	i5-520M	2.40	2.93 2GB	14.1" WXGA+	2.0M	128G SSD	11b/g/n	WWAN upg		Finger	Blue	Exp	XP Pro	Feb 10	
2904-FPU	i5-520M	2.40	2.93 4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue	Exp	vPro XP Pro	Feb 10	

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a depot repair service 3-year limited warranty**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm														
Weight ²	<i>6-cell:</i> starting at 3.94 lb (1.79kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr														
Chipset	Mobile Intel QS57 Express Chipset										Supports ThinkVantage® technologies				
ExpressCard/34	One slot (ExpressCard/34)														
Multicard Reader	None										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
11b/g/n	<i>Some:</i> Wireless WAN upgradable														
Intel 6200 ²⁸	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
WWAN upg	<i>Some:</i> AT&T®, contract required with service provider										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Gobi™ 2000	None										ThinkPlus 4-year P&L P/U Depot 45K6023				
Carrier	None										ThinkPlus 5-year P&L P/U Depot 45K6025				
Modem	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Bluetooth™	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Ethernet	Intel Active Management Technology (iAMT)														
Intel AMT	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Audio support	Power-on password, hard disk password, supervisor password, security keyhole														
Security	Trusted Platform Module, TCG 1.2-compliant														
Security chip	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Fingerprint reader	Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced January 7 or February 2, 2010
US models withdrawn effective October 2010

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(SN2-2) October 2010

ThinkPad® T410s 2904 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Card slot	Power Adapter (watt)	Intel vPro	Preload	Avail date
2904-FZU	i5-520M	2.40	2.93	4GB	14.1" WXGA+	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Express	65W	vPro	Pro 64	Mar 10
2904-GGU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	250G 5400	Intel 6200	WWAN upg		Express	90W	vPro	Pro 64	May 10
2904-HCU	i5-560M	2.66	3.20	4GB	14.1" WXGA+	128G SSD	Intel 6200	WWAN upg		Express	65W	vPro	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										Supports ThinkVantage® technologies			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr										65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced March 2, May 4, or September 28, 2010
US models withdrawn effective June 2011

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(SN2-7) June 2011

ThinkPad® T410s 2904 (Switchable) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2904-G2U	i5-520M	2.40	2.93	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	3-in-1	vPro	Pro 64	Mar 10
2904-GEU	i5-520M	2.40	2.93	2GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200	WWAN upg		Blue	3-in-1	vPro	Pro 64	May 10
2904-GFU	i5-540M	2.53	3.06	2GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200	WWAN upg		Blue	3-in-1	vPro	Pro 64	May 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and VIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @60Hz														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm														
Weight ²	6-cell: starting at 3.94 lb (1.79kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										Supports ThinkVantage® technologies				
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim										90-watt AC adapter				
Battery - life ¹⁰	6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr										ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Chipset	Mobile Intel QS57 Express Chipset										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
ExpressCard/34	None										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 4-year P&L P/U Depot 45K6023				
PCIe Mini Card	Two PCI Express Mini Card slots										ThinkPlus 5-year P&L P/U Depot 45K6025				
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2														
WWAN upg	Wireless WAN upgradable														
Modem	None														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced March 30 or May 4, 2010
US models withdrawn effective June 2011

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ThinkPad® T410s 2904 (Optimus) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2904-HDU	i5-560M	2.66	3.20	4GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	3-in-1	vPro	Pro 64	Sep 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a depot repair service 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @ 60Hz														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm														
Weight ²	6-cell: starting at 3.94 lb (1.79kg)														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										Supports ThinkVantage® technologies				
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim										90-watt AC adapter				
Battery - life ¹⁰	6-cell: up to 4.7 hr; 6-cell plus Ultrabay battery: up to 7.8 hr										ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Chipset	Mobile Intel QS57 Express Chipset										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021				
ExpressCard/34	None										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Multicard Reader	3-in-1 reader (MMC, SD, SDHC)										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus 4-year P&L P/U Depot 45K6023				
PCIe Mini Card	Two PCI Express Mini Card slots										ThinkPlus 5-year P&L P/U Depot 45K6025				
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2										Post-warranty annual maintenance agreements at				
WWAN upg	Wireless WAN upgradable										lenovo.com/thinkplus/warranty				
Modem	None														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty¹² 3-years/1-yr battery - depot repair service / service upgrades²² available															

See footnotes for important warranty information
US model announced September 28, 2010
US model withdrawn effective June 2011

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ThinkPad® T410s 2912 (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2912-2AU	i5-520M	2.40	2.93	3GB	14.1" WXGA+		120G 5400	11b/g/n	WWAN upg	Finger		Express	No	XP Pro	Feb 10
2912-2BU	i5-520M	2.40	2.93	3GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	XP Pro	Feb 10

• These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available											Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 120GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy											Supports ThinkVantage® technologies			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr											65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card Wireless WAN upgradable None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information

US models announced January 7, 2010

US models withdrawn effective August or October 2010

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ThinkPad® T410s 2912 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory (MHz)	Wide- screen display	Multi- Touch Screen	Cam- era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue- tooth	Card slot	Intel vPro	Workhorse (W) Gbl (G) Avail date
2912-A0U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		120G 5400	11b/g/n	upg		Exp		Pro 32	Feb 10
2912-21U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	2.0M	128G SSD	WiMAX	Gobi	Fing	Blue 5-in-1	vPro	Pro 32	Feb 10
2912-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	Multi 2.0M	128G SSD	Intel 6200 ²⁸	upg	Fing	Blue Exp	vPro	Pro 32 G	Feb 10
2912-23U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		120G 5400	11b/g/n	upg	Fing	Blue Exp		Pro 32 G	Feb 10
2912-25U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA+		128G SSD	Intel 6200	upg	Fing	Blue Exp	vPro	Pro 32 G	Feb 10
2912-2DU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	2.0M	128G SSD	Intel 6200	Gobi	Fing	Blue Exp	vPro	Pro 32	Feb 10
2912-3PU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	2.0M	250G 5400	Intel 6200	upg	Fing	Blue Exp	vPro	Pro 32	Mar 10
2912-3RU	i5-520M	2.40	2.93	4GBx1 1333	14.1" WXGA+	2.0M	250G 5400	Intel 6200	upg	Fing	Blue Exp	vPro	Pro 64 G	Mar 10
2912-3UU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		250G 5400	Intel 6200	upg		Blue Exp	vPro	Pro 64 G	May 10
2912-3VU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	2.0M	80G SSD	Intel 6200	upg		Blue Exp	vPro	Pro 64 G	May 10
2912-42U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	2.0M	160G SSD	Intel 6200	upg		Blue Exp	vPro	Pro 64	Aug 10
<ul style="list-style-type: none"> • These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR) 														
Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸, 128GB, or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch)													
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm 6-cell: starting at 3.94 lb (1.79kg); 6-cell (MultiTouch): starting at 4.51lb (2.05kg)													
Weight ²														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim 6-cell: up to 4.8 hr; 6-cell plus Ultrabay battery: up to 7.9 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset <i>Some:</i> One slot (ExpressCard/34) <i>Some:</i> 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies			
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WiMAX WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Carrier Modem Bluetooth™ Ethernet	21U/2DU models: Verizon®, contract required with service provider None <i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021			
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024			
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 4-year P&L P/U Depot 45K6023			
Security chip	Trusted Platform Module, TCG 1.2-compliant										ThinkPlus 5-year P&L P/U Depot 45K6025			
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty¹² 3-years/1-yr battery - depot repair service / service upgrades²² available														

See footnotes for important warranty information

US models announced January 7, March 2, March 30, May 4, or August 3, 2010

US models withdrawn effective August 2010 or June 2011

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ThinkPad® T410s 2912 (Windows 7) - January 2011 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz) (GHz)	Memory (MHz)	Wide- screen display	Cam- era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue- tooth	Card slot	Intel vPro	Preload	Avail date
2912-4NU	i5-560M	2.66	3.20	4GBx1 1333	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Fing	Blue	Exp	vPro Pro 64	Jan 11

- This model has a depot repair service 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	4GB std / 8GB max ⁷ / PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>14.1W" (WxDxH):</i> 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm <i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg)													
Weight ²														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										Supports ThinkVantage® technologies			
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim										65-watt AC adapter			
Battery - life ¹⁰	<i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr										ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Chipset	Mobile Intel QS57 Express Chipset													
ExpressCard/34	One slot (ExpressCard/34)													
Multicard Reader	None													
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2													
WWAN upg	Wireless WAN upgradable													
Modem	None													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021			
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus 4-year LOR 9x5 NBD 45K6022			
Intel AMT	Intel Active Management Technology (iAMT)										ThinkPlus 5-year LOR 9x5 NBD 45K6024			
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus 4-year P&L P/U Depot 45K6023			
Security	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 5-year P&L P/U Depot 45K6025			
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US model announced January 11, 2011
US model withdrawn effective June 2011

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ThinkPad® T410s 2912 (Switchable) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Intel vPro	Workhorse (W) Gbl (G)	Avail date
2912-24U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA+		250G 5400	Intel 6200 ²⁸	upg			vPro	Pro 32 G	Mar 10
2912-2CU	i5-540M	2.53	3.06	2+1GB 1066	14.1" WXGA+		80G SSD	Intel 6200	Gobi	AT&T ²³	Finger	vPro	Pro 32	Mar 10
2912-30U	i5-540M	2.53	3.06	2+1GB 1066	14.1" WXGA+		128G SSD	Intel 6300 ²⁸	Gobi	AT&T	Finger	vPro	Pro 32	Mar 10
2912-40U	i5-540M	2.53	3.06	4GBx1 1333	14.1" WXGA+	Multi	250G 5400	WiMAX	upg		Finger	vPro	Pro 32	Mar 10
2912-3WU	i5-540M	2.53	3.06	2GBx1 1066	14.1" WXGA+		250G 5400	Intel 6200	upg			vPro	Pro 64 G	May 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64			
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch) Camera on top of screen, 2.0-megapixel, fixed focus													
Camera	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @60Hz													
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @60Hz													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm <i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg)													
Weight ²														
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr													
Battery - type Battery - life ¹⁰														
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset None 3-in-1 reader (MMC, SD, SDHC) Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies			
PCIe Mini Card Intel 6200 ²⁸ WiMAX Intel 6300 ²⁸ WWAN upg Gobi™ 2000 Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider <i>Some:</i> AT&T®, contract required with service provider None Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced March 30 or May 4, 2010
US models withdrawn effective June 2011

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ThinkPad® T410s 2912 (Optimus) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
2912-47U	i5-560M	2.66	3.20	2GBx1 1066	14.1" WXGA+	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	vPro	Pro 64	Sep 10

- This model has a depot repair service 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache								Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets								Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive								Supports ThinkVantage® technologies				
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color, anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus												
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2048x1536 (VGA) @ 75Hz; 1920x1200 @ 60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @ 60Hz								90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material	<i>14.1W" (WxDxH):</i> 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy								ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Battery - type Battery - life ¹⁰ Chipset ExpressCard/34 Multicard Reader Ports	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr Mobile Intel QS57 Express Chipset None 3-in-1 reader (MMC, SD, SDHC) Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁹ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack								ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Security Security chip Fingerprint reader	Hardware Password Manager (HPM), Intel AntiTheft (AT), Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced September 28, 2010
US model withdrawn effective June 2011

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ThinkPad® T410s 2924 (Onsite) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	Finger print reader	Card slot	Intel vPro	Preload	Workhorse (W) Gbl (G) GMP(P)	Avail date
2924-22U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	Multi 2.0M	128G SSD	Intel 6200 ²⁸	Finger	Exp	vPro	Pro 32	G P Feb 10
2924-23U	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		120G 5400	11b/g/n	Finger	Exp		Pro 32	G P Feb 10
2924-25U	i5-520M	2.40	2.93	2+1GB 1066	14.1" WXGA+		128G SSD	Intel 6200	Finger	Exp	vPro	Pro 32	G P Feb 10
2924-3UU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+		250G 5400	Intel 6200		Exp	vPro	Pro 64	G P May 10
2924-3VU	i5-520M	2.40	2.93	2GBx1 1066	14.1" WXGA+	2.0M	80G SSD	Intel 6200		Exp	vPro	Pro 64	G P May 10
2924-4NU	i5-560M	2.66	3.20	4GBx1 1333	14.1" WXGA+	2.0M	128G SSD	Intel 6200	Finger	Exp	vPro	Pro 64	G P Jan 11

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 120GB (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 		
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch)												
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus												
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm <i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg)												
Weight ²													
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	<i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr												
Chipset	Mobile Intel QS57 Express Chipset												
ExpressCard/34	One slot (ExpressCard/34)												
Multicard Reader	None												
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable										Supports ThinkVantage® technologies		
Modem	None										65-watt AC adapter		
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										ThinkPad Roll Cage (one-piece magnesium frame)		
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										EPEAT™ Gold rating		
Intel AMT	Intel Active Management Technology (iAMT)										ENERGY STAR® 5.0-compliant		
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										RoHS-compliant		
Security	Power-on password, hard disk password, supervisor password, security keyhole										International Warranty Service ¹⁷		
Security chip	Trusted Platform Module, TCG 1.2-compliant										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038		
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US models announced January 7 or May 4, 2010, or January 11, 2011
US models withdrawn effective August 2010 or June 2011

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ThinkPad® T410s 2924 (Switchable) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Workhorse (W) Gbl (G) Avail date
2924-24U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200 ²⁸	WWAN upg	None	Blue 3-in-1	vPro	Pro 32 G P Mar 10
2924-3WU	i5-540M	2.53	3.06	2GB	14.1" WXGA+	2.0M	250G 5400	Intel 6200	WWAN upg	None	Blue 3-in-1	vPro	Pro 64 G P May 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™											
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus											
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel HD Graphics in processor, and NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @75Hz(integrated) or 85Hz(discrete); 1920x1200@60Hz (single-link DVI-D via cable 45J7915); 2560x1600 (DP) @60Hz											
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy											
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr											
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset None 3-in-1 reader (MMC, SD, SDHC) Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											Supports ThinkVantage® technologies
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None											ThinkPlus™. ²² 4-year LOR ²⁴ 9x5 NBD 45K6038
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced March 30 or May 4, 2010
US models withdrawn effective June 2011

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(SN2-10) June 2011

ThinkPad® T410s 2912 (Education) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Wide-screen display	Multi-Touch Screen	Cam-era	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2912-52U	i5-520M	2.40	2.93	2GB	14.1" WXGA+		2.0M	250G 5400	Intel 6200 ²⁸	WWAN upg	Finger	None	Exp vPro	Pro 32	Feb 10
2912-53U	i5-520M	2.40	2.93	3GB	14.1" WXGA+	<i>Multi</i>	2.0M	128G SSD	Intel 6200	WWAN upg	Finger	None	Exp vPro	Pro 32	Feb 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**
- **Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch)														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm <i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg)														
Weight ² Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr										Supports ThinkVantage® technologies				
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card Intel 6200 ²⁸ WWAN upg	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable														
Modem Bluetooth™ Ethernet Intel AMT Audio support	None None Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available														

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective June 2011

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ThinkPad® T410si 2901 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸	rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2901-AKU	i3-330M	2.13	2GB	14.1" WXGA+	2.0M	250G	5400	DVD±RW	Intel 1000	WWAN upg	None	Blue	Express	No	Pro 32	Mar 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive, Active Protection System™	
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr	
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US model announced March 2, 2010
 US model withdrawn effective July 31, 2010

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 (SN2i-2) August 2010

ThinkPad® T410si 2901 (TopSeller) - Windows 7 (August 2010) - withdrawn Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2901-ARU	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10
2901-ASU	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	128G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These system are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies			
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr													
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976			
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced August 3, 2010
US models withdrawn effective June 2011

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(SN2i-3) June 2011

ThinkPad® T410si 2904 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Multi-Touch Screen	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Blue/Fing	Card slot	Intel vPro	Preload	Avail date
2904-CUU	i3-330M	2.13	2GB	14.1" WXGA+	Multi	2.0M	250G 5400	Intel 1000	WWAN upg		Yes	Express	No	Pro 32	Feb 10
2904-CVU	i3-330M	2.13	2GB	14.1" WXGA+		2.0M	250G 5400	Intel 1000	Gobi 2000	Verizon ¹⁶	Yes	Express	No	Pro 32	Feb 10
2904-CWU	i3-330M	2.13	3GB	14.1" WXGA+		2.0M	80G SSD	Intel 1000	WWAN upg		Yes	Express	No	Pro 32	Feb 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive														
Widescreen display	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, <i>Some:</i> MultiTouch (touchscreen supports two-finger touch)														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>MultiTouch models:</i> 13.3" x 9.5" x 0.95–1.14"; 337 x 241.5mm x 24.2mm–29.0mm <i>6-cell:</i> starting at 3.94 lb (1.79kg); <i>6-cell (MultiTouch):</i> starting at 4.51lb (2.05kg)														
Weight ²															
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr										Supports ThinkVantage® technologies				
Chipset	Mobile Intel QS57 Express Chipset										65-watt AC adapter				
ExpressCard/34	One slot (ExpressCard/34)										ThinkPad Roll Cage (one-piece magnesium frame)				
Multicard Reader	None										EPEAT™ Gold rating				
Ports	Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										ENERGY STAR® 5.0-compliant RoHS-compliant				
PCIe Mini Card	Two PCI Express Mini Card slots										International Warranty Service ¹⁷				
Intel 1000	11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
WWAN upg	<i>Some:</i> Wireless WAN upgradable														
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider														
Carrier	<i>Some:</i> Verizon®, contract required with service provider										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD				
Modem	None										45K6021				
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										ThinkPlus 4-year LOR 9x5 NBD				
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1										45K6022				
Intel AMT	None										ThinkPlus 5-year LOR 9x5 NBD				
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										45K6024				
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 4-year P&L P/U Depot				
Security chip	Trusted Platform Module, TCG 1.2-compliant										45K6023				
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 5-year P&L P/U Depot				
											45K6025				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced February 2, 2010
US models withdrawn effective July 31, 2010

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(SN2i-1) August 2010

ThinkPad® T410si 2904 (TopSeller) - Windows 7 (August 2010) - withdrawn Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Card slot	Intel vPro	Preload	Avail date
2904-H6U	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	250G 5400	11b/g/n	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10
2904-H7U	i3-370M	2.40	2GB	14.1" WXGA+	2.0M	160G SSD	Intel 1000	WWAN upg	Finger	Blue	Express	No	Pro 64	Aug 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 5mm high <i>Some:</i> 250GB (5400 rpm) / SATA 3.0Gb/s, 1.8" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive										• Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display Camera	14.1" (358mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 300:1 contrast ratio, Camera on top of screen, 2.0-megapixel, fixed focus										
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material	14.1W" (WxDxH): 13.3" x 9.5" x 0.83–1.02"; 337 x 241.5mm x 21.1–25.9mm <i>6-cell:</i> starting at 3.94 lb (1.79kg) <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 4.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.9 hr										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Chipset ExpressCard/34 Multicard Reader Ports	Mobile Intel QS57 Express Chipset One slot (ExpressCard/34) None Two USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
PCIe Mini Card 11b/g/n Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										

See footnotes for important warranty information
US models announced August 3, 2010
US models withdrawn effective June 2011

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09

Storage and removable storage

1.8" 250GB Disk SATA 3.0Gb/s (5400 rpm)	43N3418	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁵¹	43N3423	ann 01/07/10
⁵¹ Can be used with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay		
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover) ⁴⁹	43N3417	ann 06/23/09
⁴⁹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in Ultrabay via the removable adaptive cover provided with the drive		

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11
ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 - 90W	433810U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 - 135W	433820U	ann 01/07/10

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 59+ (6-cell)	51J0497	ann 06/23/09
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann 08/25/09
⁴³ Used in Ultrabay Slim bay.		
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

- iPod and iPhone Charge Tip (L10a) 41R4481 ann 12/18/07
- Generic Micro USB charge tip (L18) 41R4490 ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
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Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Wenger Backpack for Lenovo	57Y4271	ann 01/07/10
Wenger Slim Case for Lenovo	57Y4273	ann 01/07/10
Wenger Deluxe Slim Case for Lenovo	57Y4272	ann 01/07/10

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.		

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:
www.lenovo.com/accessories
 Purchase Lenovo accessories

www.lenovo.com/support/accessories
 Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide
 Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com
 An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad T420s



Lenovo ThinkPad T420s



ThinkPad Battery 43 (3-cell, bay)
0A36310



ThinkPad Battery 81+ (6-cell)
0A36309



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T420s

ThinkPad® T420s 4170 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload
4170-33U	i5-2540M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205 ²⁸	WWAN upg			Blue	iAMT	vPro	Pro 64
4170-32U	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	TP 11b/g/n	WWAN upg			Blue			Pro 64
4170-27U	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg				iAMT	vPro	Pro 64
4170-3DU	i5-2540M	2GBx2	14.0" HD+	720p	160G SSD	DVD±RW	Intel 6205	WWAN upg	Smart		Blue	iAMT		Pro 32
4170-3BU	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	Bay battery	Intel 6205	WWAN upg		Finger	Blue	iAMT	vPro	Pro 64

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox
Optical Bay battery Ultrabay SATA disk mSATA™ SSD	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable <i>Some:</i> ThinkPad Battery 43 (3-cell, bay) (0A36310) in Option Bay One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive None	Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Widescreen display Camera	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W"</i> (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343mm x 230.1mm x 21.2–26.0mm <i>6-cell:</i> starting at 3.68 lb (1.67kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim <i>6-cell (43.2Whr):</i> up to 6.1 hr; <i>6-cell plus Ultrabay battery:</i> up to 10.3 hr	
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad 11b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced February 22 or May 3, 2011
US model(s) withdrawn effective December 2012

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ThinkPad® T420s 4171 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Finger print reader	Blue-tooth	Intel AMT	Intel vPro	Preload
4171-53U	i5-2540M	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205 ²⁸	WWAN upg			Blue	iAMT	vPro	Pro 64
4171-52U	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	Intel 6205	WWAN upg			Blue	iAMT	vPro	Pro 64
4171-6WU	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	Intel 6205	Gobi 3000	selectable	Finger	Blue	iAMT	vPro	Pro 64
4171-6ZU	i5-2540M	4GBx1	14.0" HD+	720p	160G SSD	Intel 6205	WWAN upg		Finger	Blue	iAMT	vPro	Pro 64
4171-74U	i5-2520M	4GBx1	14.0" HD+	720p	160G SSD	Intel 1000	WWAN upg		Finger	Blue			Pro 64
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR) 													
Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology								Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets								<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 				
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable								Preloaded applications¹⁴ (only some listed)				
Ultrabay SATA disk	None												
mSATA™ SSD	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive												
Widescreen display	14.0" (355mm) HD+ (1600x900) color, anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio								<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus												
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys								Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions								For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm												
Weight ²	6-cell: starting at 3.68 lb (1.67kg)												
Case material	Display cover: Hybrid Carbon-fiber reinforced plastic; Bottom: Magnesium alloy								Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available				
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell (43.2Whr): up to 6.1 hr; 6-cell plus Ultrabay battery: up to 10.3 hr												
Chipset	Mobile Intel QM67 Express Chipset								See footnotes for more detailed information US model(s) announced February 22, May 3, May 31, or August 2, 2011 US model(s) withdrawn effective December 2012				
ExpressCard	One slot (ExpressCard/34)												
Smart Card Read	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)								© Lenovo (SN3-2) February 2013				
Ports	Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2												
WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider												
Modem	None												
Bluetooth™	Bluetooth 3.0 wireless, LED indicator												
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1												
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												

See footnotes for more detailed information

US model(s) announced February 22, May 3, May 31, or August 2, 2011

US model(s) withdrawn effective December 2012

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ThinkPad® T420s 4171 (Optimus) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload
4171-6JU	i7-2620M	4GBx1	14.0" HD+	720p	160G SSD	DVD±RW	Intel 6205 ²⁸	WWAN upg	None	Finger	Blue	vPro	Pro 64
4171-7FU	i7-2640M	4GBx1	14.0" HD+	720p	160G SSD	DVD±RW	Intel 6205	WWAN upg	None	Finger	Blue	vPro	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox		
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None										Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)		
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive												
mSATA™ SSD	None												
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio												
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus												
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm <i>6-cell:</i> starting at 3.68 lb (1.67kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim <i>6-cell (43.2Whr):</i> up to 6.1 hr; <i>6-cell plus Ultrabay battery:</i> up to 10.3 hr												
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies		
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet		

See footnotes for more detailed information
US model(s) announced May 31 or October 11, 2011
US model(s) withdrawn effective January or December 2012

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ThinkPad® T420s 4173 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Smart Card Reader	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Pre-load
4173-KUU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	Bay battery	Intel 6205 ²⁸	WWAN upg				Blue	vPro		Pro 64
4173-KTU	i5-2540M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg				Blue	vPro		Pro 64
4173-KSU	i5-2540M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg				Blue	vPro		Pro 64
4173-29U	i5-2520M	4GBx1	14.0" HD+		320G 7200	DVD±RW	Intel 6205	WWAN upg			Fing	Blue	vPro	G	Pro 64
4173-2AU	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg				Blue	vPro	G	Pro 64
4173-2BU	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg				Blue	vPro	G	Pro 64
4173-L5U	i5-2520M	4GBx1	14.0" HD+		320G 7200	DVD±RW	Intel 6205	WWAN upg		Smart			vPro		Pro 64
4173-L6U	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg			Fing	Blue	vPro		Pro 64
4173-LBU	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	Gobi 3000	selectable		Fing	Blue	vPro		Pro 64
4173-L8U	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg			Fing	Blue	vPro	G	Pro 64
4173-LVU	i5-2520M	4GBx1	14.0" HD+	720p	160G SSD	DVD±RW	Intel 6205	WWAN upg			Fing	Blue	vPro	G	Pro 64

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 				
Optical Bay battery Ultrabay SATA disk	<i>Some:</i> DVD burner, 9.5mm Ultrabay slim, removable <i>Some:</i> ThinkPad Battery 43 (3-cell, bay) (0A36310) in Option Bay One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display Camera	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus										Preloaded applications¹⁴ (only some listed)				
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.0W" (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm <i>6-cell:</i> starting at 3.68 lb (1.67kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim <i>6-cell (43.2Whr):</i> up to 6.1 hr; <i>6-cell plus Ultrabay battery:</i> up to 10.3 hr														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider										Supports ThinkVantage® technologies				
Modem Bluetooth™ Ethernet Intel AMT Audio support	None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for more detailed information
US model(s) announced February 22, March 1, April 5, or May 3, 2011, or January 3, 2012
US model(s) withdrawn effective December 2012

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ThinkPad® T420s 4173 (Optimus) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Pre-load
4173-28U	i7-2620M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205 ²⁸	WWAN upg	None	None	Blue	vPro	G	Pro 64
4173-LUU	i7-2640M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg	None	None	Blue	vPro	G	Pro 64

- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox			
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive													
mSATA™ SSD	None													
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio													
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>14.0W" (WxDxH):</i> 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm <i>6-cell:</i> starting at 3.68 lb (1.67kg) <i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim <i>6-cell (43.2Whr):</i> up to 6.1 hr; <i>6-cell plus Ultrabay battery:</i> up to 10.3 hr													
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet			

See footnotes for more detailed information
US model(s) announced March 15 or November 1, 2011
US model(s) withdrawn effective January or December 2012

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ThinkPad® T420s 4174 (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload
4174-29U	i5-2520M	4GBx1	14.0" HD+		320G 7200	DVD±RW	Intel 6205 ²⁸	WWAN upg	Finger	Blue	vPro	G P	Pro 64
4174-2AU	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg		Blue	vPro	G P	Pro 64
4174-2BU	i5-2520M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg		Blue	vPro	G P	Pro 64
4174-L8U	i5-2520M	4GBx1	14.0" HD+	720p	128G SSD	DVD±RW	Intel 6205	WWAN upg	Finger	Blue	vPro	G P	Pro 64
4174-LVU	i5-2520M	4GBx1	14.0" HD+	720p	160G SSD	DVD±RW	Intel 6205	WWAN upg	Finger	Blue	vPro	G P	Pro 64

- A limited onsite service²⁴ 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed)		
Optical Bay battery	DVD burner, 9.5mm Ultrabay slim, removable None										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 		
Ultrabay SATA disk	One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive												
mSATA™ SSD	None												
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio												
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus										Preloaded applications¹⁴ (only some listed)		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 		
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	14.0W" (WxDxH): 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm												
Weight ²	6-cell: starting at 3.68 lb (1.67kg)												
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy												
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	6-cell (43.2Whr): up to 6.1 hr; 6-cell plus Ultrabay battery: up to 10.3 hr												
Chipset	Mobile Intel QM67 Express Chipset												
ExpressCard	One slot (ExpressCard/34)												
Smart Card Read	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet		
WWAN	Wireless WAN upgradable												
Modem	None												
Bluetooth™	Bluetooth 3.0 wireless, LED indicator												
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												

See footnotes for more detailed information
 US model(s) announced February 22 or May 3, 2011, or January 3, 2012
 US model(s) withdrawn effective December 2012

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ThinkPad® T420s 4174 (Optimus) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical or battery	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Intel vPro	Global (G) GMP (P)	Preload
4174-28U	i7-2620M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205 ²⁸	WWAN upg	None	Blue	vPro	G P	Pro 64
4174-PPU	i7-2640M	4GBx1	14.0" HD+	720p	320G 7200	DVD±RW	Intel 6205	WWAN upg	None	Blue	vPro	G	Pro 64

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance and ultraportability; two spindles</i> Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed)	
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 	
Optical Bay battery Ultrabay SATA disk	DVD burner, 9.5mm Ultrabay slim, removable None One modular bay for interchangeable devices (right side), 9.5mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 	
mSATA™ SSD	None											
Widescreen display	14.0" (355mm) HD+ (1600x900) color , anti-glare, LED backlight, 250 nits, 16:9 aspect ratio, 300:1 contrast ratio											
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus											
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² For compatible accessories, please go to O-T420-S sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ²	<i>14.0W" (WxDxH):</i> 13.5" x 9.1" x 0.83–1.02"; 343 x 230.1mm x 21.2–26.0mm <i>6-cell:</i> starting at 3.68 lb (1.67kg)											
Case material	<i>Display cover:</i> Hybrid Carbon-fiber reinforced plastic; <i>Bottom:</i> Magnesium alloy											
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim											
Battery - life ¹⁰	<i>6-cell (43.2Whr):</i> up to 6.1 hr; <i>6-cell plus Ultrabay battery:</i> up to 10.3 hr											
Chipset	Mobile Intel QM67 Express Chipset											
ExpressCard Smart Card Read	One slot (ExpressCard/34) None											
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)											
Ports	Two USB 2.0 (one powered), one USB 3.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)											
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable											
Modem	None											
Bluetooth™	Bluetooth 3.0 wireless, LED indicator											
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	None											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available											

See footnotes for more detailed information
 US model(s) announced March 15 or November 1, 2011
 US model(s) withdrawn effective January or December 2012

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 (SN3-6) February 2013

ThinkPad® T420s Accessories - withdrawn

Personal Systems Reference (PSREF)

Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Slim 9.5mm

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann 06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann 06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann 06/05/12

Storage and removable storage

500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
1TB 5400rpm SATA 3.0Gb/s 9.5mm 4K HDD ⁴¹	0A65633	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12
250GB 7200rpm SATA 3.0Gb/s OPAL-capable FDE HDD II ⁴¹	0A33985	ann 02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann 02/22/11

⁴¹ Can be used as the main HDD or with
Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 in the Ultrabay.

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann 06/05/12
ThinkPad USB 3.0 Dock	0A33970	ann 05/15/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann 06/05/12

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultralim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB SmartCard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Security

3M 14.0W Privacy Filter from Lenovo	0A61769	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 81+ (6-cell)	0A36309	ann 06/05/12
ThinkPad Battery 43 (3-cell, bay) ⁴²	0A36310	ann 06/05/12
⁴² Used in Ultrabay Slim bay.		
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter 40Y7659</i> or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 14" widescreen models:

ThinkPad 14W Case Sleeve	57Y4294	ann 03/16/10
ThinkPad Ultralight Backpack	0B47306	ann 12/11/12
ThinkPad Ultralight Topload	0B47307	ann 12/11/12

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included; use optional
DisplayPort to DisplayPort Monitor Cable 0A36537.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann 09/13/11
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad T500



ThinkPad Business Topload Case
43R2476



Lenovo ThinkPad T500 with
T500/R500/W500 Series 15W Privacy Filter
43R2474



Lenovo ThinkPad T500



Lenovo ThinkPad T500



ThinkPad Battery 42 (3-cell, bay)
57Y4536

ThinkPad® T500 2242 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or Cam-Integrated LED era	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-22U	P8400	2.26	2GB	15.4" WXGA		GMA 160G 5400	DVD±RW	⇄ Intel 5100 ²⁸	AT&T ²³		Fing		Bus 32	Aug 08
2242-23U	T9400	2.53	2GB	15.4" WXGA	Cam	GMA 160G 7200	DVD±RW	⇄ Intel 5100	AT&T		Fing	Blue	XP Pro	Aug 08
2242-32U	P8400	2.26	2GB	15.4" WXGA		GMA 160G 7200	DVD±RW	⇄ Intel 5100	AT&T		Fing	Blue	Bus 32	Aug 08
2242-33U	P8400	2.26	2GB	15.4" WXGA		GMA 160G 5400	DVD±RW	⇄ Intel 5100			Fing		XP Pro	Aug 08
2242-34U	T9400	2.53	2GB	15.4" WXGA	Cam	GMA 160G 7200	DVD±RW	⇄ Intel 5100		2G Turbo	Fing	Blue	Bus 32	Aug 08
2242-35U	P8400	2.26	2GB	15.4" WXGA		GMA 160G 7200	DVD±RW	⇄ Intel 5100			Fing	Blue	XP Pro	Aug 08
2242-4EU	P8400	2.26	1GB	15.4" WXGA		GMA 160G 5400	Combo	⇄ Intel 5100	AT&T				Bus 32	Aug 08
2242-4FU	P8400	2.26	1GB	15.4" WXGA		GMA 160G 5400	Combo	⇄ Intel 5100					XP Pro	Aug 08
2242-55U	T9400	2.53	2GB	15.4" WXGA	Cam	GMA 160G 7200	DVD±RW	⇄ Intel 5100			Fing	Blue	XP Pro	Sep 08
2242-5FU	P8400	2.26	1GB	15.4" WXGA		GMA 160G 5400	DVD±RW	⇄ Intel 5100					XP Pro	Sep 08
2242-5GU	P8400	2.26	2GB	15.4" WXGA LED		GMA 160G 5400	DVD±RW	⇄ Intel 5100			Fing		XP Pro	Sep 08
2242-5HU	P8400	2.26	2GB	15.4" WXGA LED		GMA 160G 7200	DVD±RW	⇄ Intel 5100			Fing	Blue	XP Pro	Sep 08
2242-6BU	P8600	2.40	2GB	15.4" WXGA LED		GMA 160G 5400	DVD±RW	⇄ WiMAX			Fing		Bus 32	Jan 09
2242-6CU	P8600	2.40	2GB	15.4" WXGA LED	Cam	GMA 128G SSD	DVD±RW	⇄ Intel 5100			Fing	Blue	XP Pro	Jan 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600: 3MB L2 cache; T9400: 6MB L2 cache	Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable (43N3213) Some: DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel Some: 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, supports second disk, Shock Mounted Hard Drive	
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536 @75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 6-cell: starting at 5.9 lb (2.7kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ WiMAX	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)	
WWAN upg AT&T ²³	None Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T	
2G Turbo UWB	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - EasyServ™-19 depot repair service / service upgrades ²² available	
Other accessories on O-T500 sheet	Other accessories at lenovo.com/accessories	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced August 5, 2008, September 23, 2008, or January 6, 2009
 US models withdrawn effective September 2008 or June, August, or December 2009

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ThinkPad® T500 2242 (GMA) - TopSeller (March 2009) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Cam era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-6YU	P8600	2.40	1GB	15.4" WXGA	LED		GMA	160G 5400	DVD±RW	✦ Intel 5100 ²⁸	None	None			XP Pro	Mar 09
2242-6ZU	P8600	2.40	2GB	15.4" WXGA	LED		GMA	160G 7200	DVD±RW	✦ Intel 5100	None	None	Fing		XP Pro	Mar 09
2242-72U	P8600	2.40	2GB	15.4" WXGA	LED		GMA	160G 7200	DVD±RW	✦ WiMAX	None	None	Fing		Bus 32	Mar 09
2242-73U	P8600	2.40	3GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	✦ Intel 5100	None	None	Fing	Blue	XP Pro	Mar 09
2242-74U	T9400	2.53	3GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	✦ Intel 5100	None	None	Fing	Blue	XP Pro	Mar 09
2242-75U	T9400	2.53	3GB	15.4" WXGA	LED	Cam	GMA	128G SSD	DVD±RW	✦ Intel 5100	None	None	Fing	Blue	XP Pro	Mar 09
2242-7LU	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	80G SSD	DVD±RW	✦ Intel 5100	None	None	Fing	Blue	XP Pro	Jun 09
2242-7UU	P8400	2.26	2GB	15.4" WXGA	LED		GMA	250G 5400	DVD±RW	✦ Intel 5100	None	None	Fing		XP Pro	Jul 09
2242-7VU	P8400	2.26	2GB	15.4" WXGA	LED	Cam	GMA	320G 5400	DVD±RW	✦ Intel 5100	None	None	Fing	Blue	XP Pro	Jul 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™¹⁹ depot repair service 1-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8400, P8600, P8700 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2										Preloaded operating system ²⁰				
Memory	1GB, 2GB, or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										- Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ✦ Vista models: Vista Premium logo				
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (5400 or 7200 rpm), 250GB (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports second disk, Shock Mounted Hard Drive										Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Widescreen display	15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio										Supports ThinkVantage® technologies				
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968				
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										ThinkPlus 2-year LOR 9x5 NBD 45K5969				
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm														
Weight ²	6-cell: starting at 5.9 lb (2.7kg)										ThinkPlus 3-year LOR 9x5 NBD 45K5970				
Case color	Black														
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic										ThinkPlus 4-year LOR 9x5 NBD 45K5973				
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr										ThinkPlus 5-year LOR 9x5 NBD 45K5975				
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										ThinkPlus 2-year P&L P/U Depot 45K5971				
PC Card	One slot (Type I, Type II), CardBus 32-bit														
Smart Card read	None										ThinkPlus 3-year P&L P/U Depot 45K5972				
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)														
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus 4-year P&L P/U Depot 45K5974				
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										ThinkPlus 5-year P&L P/U Depot 45K5976				
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)														
WWAN upg	None										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
2G Turbo	None														
UWB	None										See footnotes for important warranty information US models announced March 24, June 2, or July 7, 2009 US models withdrawn effective August or December 2009				
Modem	56K V.92 ⁶ modem														
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator										© Lenovo (CR5-12) January 2010				
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	None										✦ Intel Centrino® 2 processor technology				
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole										✦ Intel Centrino® 2 processor technology				
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip										✦ Intel Centrino® 2 processor technology				
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM					55Y3706		T/R/W/SL Series Li-Ion Battery 6-cell		40Y6799						
2GB PC3-8500 DDR3 L-H SODIMM					55Y3707		T/R/W/SL Series Li-Ion Battery 9-cell		40Y6797						
4GB PC3-8500 DDR3 L-H SODIMM					55Y3708		Advanced Ultrabay Battery III		57Y4536						
Other accessories on O-T500 sheet											Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced March 24, June 2, or July 7, 2009
US models withdrawn effective August or December 2009

✦ Intel Centrino® 2 processor technology

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ThinkPad® T500 2242 (GMA) - TopS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-8QU	P8600	2.40	2GB	15.4" WXGA	LED		GMA	250G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Fing	Blue	XP Pro	Oct 09
2242-8RU	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	320G 5400	DVD±RW	Intel 5100	None	None	Fing	Blue	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 1-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 250GB⁸ (5400 rpm) or 320GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software • Lenovo System Toolbox • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio														
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies				
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968				
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus 2-year LOR 9x5 NBD 45K5969				
Mini PCI Express	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										ThinkPlus 3-year LOR 9x5 NBD 45K5970				
Intel 5100 ²⁸ WWAN upg 2G Turbo UWB	None None None										ThinkPlus 4-year LOR 9x5 NBD 45K5973				
Modem Bluetooth™ Ethernet Intel AMT	56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None										ThinkPlus 5-year LOR 9x5 NBD 45K5975				
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus 2-year P&L P/U Depot 45K5971				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus 3-year P&L P/U Depot 45K5972				
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										ThinkPlus 4-year P&L P/U Depot 45K5974				
											ThinkPlus 5-year P&L P/U Depot 45K5976				
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective September 2010

✦ Intel Centrino® 2 processor technology

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(CR5-15) September 2010

ThinkPad® T500 2242 (GMA) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Cam era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Pre-load	Avail date
2242-8SU	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	320G 5400	DVD±RW	❖ Intel 5100 ²⁸	None	None	Fing	Blue	Pro 32	Oct 09

• **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Processor	Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54)	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	
		Supports ThinkVantage® technologies 65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US model announced October 22, 2009
 US model withdrawn effective September 2010

❖ Intel Centrino® 2 processor technology

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 (CR5-16) September 2010

ThinkPad® T500 2243 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue- tooth	Preload	Avail date
2243-56U	P8400	2.26	2GB	15.4"	WXGA		GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	None	None	Finger		XP Pro	Sep 08
2243-7WU	P8700	2.53	2GB	15.4"	WXGA	LED Cam	GMA	320G 7200	DVD±RW	Intel 5100	None	None	Finger	Blue	XP Pro	Jul 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8400 or P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system ²⁰				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business ◇ Vista logo: None				
SATA DVD±RW Ultra Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications ¹⁴ (only some listed)				
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio										<ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Client Security Solution™ ThinkVantage Productivity Center ThinkVantage System Update Fingerprint Software (fingerprint models) 				
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus										<ul style="list-style-type: none"> McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) Lenovo System Toolbox ThinkPad Utilities (Power Manager and Presentation Director) Adobe® Reader® Windows Live™ Toolbar Microsoft® Office 2007 Trial (60-day) Roxio® Creator® Business Edition (DVD±RW) Roxio MyDVD® (DVD±RW) Corel® WinDVD® (DVD±RW) 				
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm 6-cell: starting at 5.9 lb (2.7kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54)										Supports ThinkVantage® technologies				
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706		T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799									
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707		T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797									
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708		Advanced Ultrabay Battery III			57Y4536									
Other accessories on O-T500 sheet	Other accessories at lenovo.com/accessories														

See footnotes for important warranty information
US models announced September 23, 2008 or July 7, 2009
US models withdrawn effective June or December 2009

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(CR5-11) January 2010

ThinkPad® T500 2243 (GMA) - TopS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	CCFL or LED	Cam-era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Preload	Avail date
2243-93U	P8700	2.53	2GB	15.4"	WXGA	LED	Cam	GMA 320G	7200	DVD±RW	✧ Intel 5100 ²⁸	None	None	Finger	Blue	XP Pro Oct 09
2243-95U	P8700	2.53	2GB	15.4"	WXGA	LED	Cam	GMA 80G	SSD	DVD±RW	✧ Intel 5100	None	None	Finger	Blue	XP Pro Oct 09

- *These small and medium business (SMB) models are part of the US TopSeller™ Program*

Processor	Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available														
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive,										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr														
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										Supports ThinkVantage® technologies				
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective September 2010

✧ Intel Centrino® 2 processor technology

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(CR5-17) September 2010

ThinkPad® T500 2243 (GMA) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Blue-tooth	Preload	Avail date
2243-94U	P8700	2.53	2GB	15.4"	WXGA LED	Cam	GMA	320G 7200	DVD±RW	❖ Intel 5100 ²⁸		None	Finger	Blue	Pro 32	Oct 09
2243-9MU	P8700	2.53	2GB	15.4"	WXGA LED	Cam	GMA	320G 7200	DVD±RW	❖ Intel 5100	Verizon ¹⁶	None	Finger	Blue	Pro 32	Nov 09
2243-9PU	P8700	2.53	2GB	15.4"	WXGA LED	Cam	GMA	128G SSD	DVD±RW	❖ Intel 5100		None	Finger	Blue	Pro 32	Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ (only some listed)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, 9.5mm Ultrabay slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display Camera	15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm 6-cell: starting at 5.9 lb (2.7kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit	Supports ThinkVantage® technologies
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Mini PCI Express Intel 5100 ²⁸ Verizon ¹⁶ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon® None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced October 22, 2009 or November 3, 2009
US models withdrawn effective September 2010

❖ Intel Centrino® 2 processor technology

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(CR5-18) September 2010

ThinkPad® T500 2082 (Switchable) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Mini PCIe Battery cells	Preload	Avail date
2082-26U	P8400	2.26	2GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100 ²⁸	AT&T ²³		9	Bus 32	Aug 08
2082-27U	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100	AT&T		9	XP Pro	Aug 08
2082-3GU	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100		2G Turbo	9	Bus 32	Aug 08
2082-3HU	P8400	2.26	2GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100			9	XP Pro	Aug 08
2082-5XU	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100			9	XP Pro	Sep 08
2082-7YU	P8600	2.40	2GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100		2G Turbo	9	Bus 32	Jan 09
2082-8ZU	P8600	2.40	3GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100			9	XP Pro	Mar 09
2082-92U	P8600	2.40	3GB	15.4" WSXGA+		GMA, HD 3650	160G 7200	DVD±RW	⇄ Intel 5100		2G Turbo	9	Bus 32	Mar 09
2082-93U	T9400	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	⇄ Intel 5100			9	XP Pro	Mar 09
2082-94U	T9400	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	⇄ Intel 5100		2G Turbo	9	Bus 32	Mar 09
2082-95U	T9400	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	⇄ Intel 5100	AT&T		9	XP Pro	Mar 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™,19 depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo			
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available										- Some: Genuine Windows Vista Business 32			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										◇ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Widescreen display Camera	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution</i> : 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH)</i> : 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell</i> : starting at 6.2 lb (2.8kg) Black <i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell</i> : up to 9.4 hr; <i>9-cell plus Ultrabay battery</i> : up to 10.9 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)													
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34 or ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None <i>Some</i> : Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T <i>Some</i> : Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM 4GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-T500 sheet	55Y3706 55Y3707 55Y3708		T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799 T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery III 57Y4536		Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
 US models announced August 5, September 23, 2008, January 6, 2009 or March 24, 2009
 US models withdrawn effective September 2008, June 2009, or December 2009

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ThinkPad® T500 2082 (Switch) - TS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Cam-era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery cells	Preload	Avail date
2082-BKU P8700	2.53	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	⇄Intel 5100 ²⁸		None	9	XP Pro	Oct 09
2082-BMU P8700	2.53	2.53	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	⇄Intel 5100	AT&T ²³	None	9	XP Pro	Oct 09
2082-BNU T9600	2.80	2.80	4GB	15.4" WSXGA+	Cam	GMA, HD 3650	320G 7200	DVD±RW	⇄Intel 5100		None	9	XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8700 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8700</i> : 3MB L2 cache; <i>T9600</i> : 6MB L2 cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm													
Weight ²	<i>9-cell:</i> starting at 6.2 lb (2.8kg)													
Case color	Black													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	<i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										Supports ThinkVantage® technologies			
ExpressCard/54	One slot (ExpressCard/34 or ExpressCard/54)										90-watt (ATI graphics) AC adapter			
PC Card	One slot (Type I, Type II), CardBus 32-bit										ThinkPad Roll Cage and Top Cover			
Smart Card read	None										Roll Cage (one-piece magnesium)			
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)										Climate Savers® certified			
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										EPEAT™ Silver rating			
Mini PCI Express	Three Mini PCI Express slots										ENERGY STAR® 5.0-compliant			
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										RoHS-compliant			
WWAN upg	None										International Warranty Service ¹⁷			
AT&T ²³	<i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
2G Turbo	None										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD			
UWB	None										45K6021			
Modem	56K V.92 ⁶ modem										ThinkPlus 4-year LOR 9x5 NBD			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										45K6022			
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1										ThinkPlus 5-year LOR 9x5 NBD			
Intel AMT	None										45K6024			
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus 4-year P&L P/U Depot			
Security	Power-on password, hard disk password, supervisor password, security keyhole										45K6023			
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										ThinkPlus 5-year P&L P/U Depot			
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										45K6025			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective September 2010

⇄ Intel Centrino® 2 processor technology

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Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB or Turbo	Blue/Card Fing slot	Whorse (W) Gbl (G) Avail date
2089-2JU	P8400	2.26	1GB	15.4"	WXGA		GMA 80G 5400 Combo	✦ Intel 5100 ²⁸	WWAN	upg	6	Yes PC	B32 G Aug 08
2089-2KU	T9400	2.53	2GB	15.4"	WXGA	Cam	GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	2G Turbo	6	Yes PC B32 WG Aug 08
2089-2LU	T9400	2.53	2GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	✦ Intel 5100	Verizon ¹⁶	2G Turbo	9	Yes PC	B32 W Aug 08
2089-2MU	T9400	2.53	2GB	15.4"	WXGA	Cam	GMA 160G 7200 DVD±RW	✦ Intel 5100	WWAN	upg	6	Yes PC	B32 W Aug 08
2089-3HU	T9400	2.53	2GB	15.4"	WXGA	Cam	GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	6	Yes PC	B32 G Aug 08
2089-3JU	T9400	2.53	2GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	✦ Intel 5100	AT&T ²³	2G Turbo	9	Yes PC	B32 W Aug 08
2089-4XU	T9400	2.53	2GB	15.4"	WXGA	LED Cam	GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	6	Yes PC	B32 WG Sep 08
2089-58U	T9400	2.53	2GB	15.4"	WXGA		GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	6	Yes PC	XP G Sep 08
2089-59U	P8400	2.26	1GB	15.4"	WXGA		GMA 80G 5400 Combo	✦ Intel 5100	WWAN	upg	6	Yes PC	XP Sep 08
2089-5WU	P8600	2.40	2GB	15.4"	WSXGA+		GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	6	Smart	B32 TAA Oct 08
2089-5ZU	P8600	2.40	2GB	15.4"	WXGA	LED	GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	6	Yes PC	B32 WG Dec 08
2089-7QU	P8700	2.53	2GB	15.4"	WXGA	LED	GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	6	Yes PC	B32 Jun 09
2089-82U	P8400	2.26	2GB	15.4"	WXGA	LED	GMA 160G 5400 DVD±RW	✦ Intel 5100	WWAN	upg	6	Yes PC	B32 Jul 09
2089-83U	P8700	2.53	3GB	15.4"	WXGA	LED Cam	GMA 250G 5400 DVD±RW	11n ²⁸	WWAN	upg	6	Yes PC	B32 Jul 09
US Govt (TAA) ⁵ Processor	5WU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8400, P8600, P8700 or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; P8400/P8600/P8700: 3MB L2 cache; T9400: 6MB L2												
Memory	1GB, 2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some:</i> DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio												
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @75Hz (VGA, DisplayPort)												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 6-cell: starting at 5.9 lb (2.7kg); 9-cell: starting at 6.2 lbs (2.8kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)												
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express Intel 5100 ²⁸ 11n ²⁸ WWAN upg Verizon ¹⁶ AT&T ²³ 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available												
											Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 ✦ <i>Vista models:</i> Vista Premium logo		
											Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)		
											Supports ThinkVantage® technologies		
											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021		
											ThinkPlus 4-year LOR 9x5 NBD 45K6022		
											ThinkPlus 5-year LOR 9x5 NBD 45K6024		
											ThinkPlus 4-year P&L P/U Depot 45K6023		
											ThinkPlus 5-year P&L P/U Depot 45K6025		
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
 US models announced Aug 5, Sep 23, October 7, December 2, 2008 or June 2, July 7, 2009
 US models withdrawn effective August 2009, March 2010 or September 2010

ThinkPad® T500 2055 (Switchable) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Mem- ory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing	Workhorse (W) Global (G) Avail Preload date
2055-2BU	T9400	2.53 2GB	15.4" WSXGA+			GMA, 3650	80G 5400	Combo	Intel 5100 ²⁸	WWAN	upg	PC 6	Yes B32 G Aug 08
2055-2CU	T9400	2.53 2GB	15.4" WSXGA+			GMA, 3650	160G 5400	DVD±RW	Intel 5100	WWAN	upg	PC 6	Yes B32 W G Aug 08
2055-2EU	T9400	2.53 2GB	15.4" WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5100	Verizon ¹⁶	2G PC	9	Yes B32 W Aug 08
2055-3AU	T9600	2.80 4GB	15.4" WSXGA+		Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN	upg 2G	PC 9	Yes B32 W G Aug 08
2055-45U	T9400	2.53 2GB	15.4" WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN	upg	PC 9	Yes B32 G Aug 08
2055-2DU	T9400	2.53 2GB	15.4" WSXGA+		Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN	upg UWB	BPC 6	Yes B32 W Sep 08
2055-2VU	T9400	2.53 2GB	15.4" WSXGA+		Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN	upg UWB	Smart 9	B32 Sep 08
2055-5TU	T9400	2.53 2GB	15.4" WXGA	LED	Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5300	WWAN	upg	PC 9	Yes B32 W G Sep 08
2055-5UU	T9400	2.53 2GB	15.4" WXGA	LED	Cam	GMA, 3650	64G SSD	DVD±RW	Intel 5300	WWAN	upg	PC 9	Yes B32 Sep 08
2055-63U	T9400	2.53 2GB	15.4" WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN	upg	PC 9	Yes XP G Sep 08
2055-7GU	T9400	2.53 2GB	15.4" WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5300	WWAN	upg	Smart 9	B32 TAA Oct 08
2055-7LU	P8600	2.40 2GB	15.4" WSXGA+			GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN	upg	PC 9	Yes B32 W G Dec 08
2055-9KU	P8700	2.53 3GB	15.4" WXGA	LED	Cam	GMA, 3650	80G SSD	DVD±RW	Intel 5100	WWAN	upg	PC 6	Yes B32 Jun 09
2055-9LU	P8700	2.53 3GB	15.4" WXGA	LED		GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN	upg	PC 6	Yes B32 Jun 09
US Govt (TAA) ⁵ Processor	7GU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600, P8700, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600/P8700: 3MB L2 cache; T9400/T9600: 6MB L2												
Memory	2GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 64GB ⁸ or 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 80GB (5400 rpm), 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, shock mounted storage												
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio												
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3650, PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536 @75Hz (VGA, DisplayPort)												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 6-cell: starting at 5.9 lb (2.7kg); 9-cell: starting at 6.2 lbs (2.8kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr												
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) <i>Some:</i> One slot (Type I, Type II), CardBus 32-bit <i>Some:</i> Smart Card reader												
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon												
2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator <i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												

Preloaded operating system²⁰
- *Some:* Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business
- *Some:* Genuine Windows Vista Business 32
◇ *Vista models:* Vista Premium logo

Preloaded applications¹⁴ (all OSes; only some listed)
• Rescue and Recovery™
• Access Connections™
• Client Security Solution™
• ThinkVantage Productivity Center
• ThinkVantage System Update
• Fingerprint Software (fingerprint models)
• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)
• Lenovo System Toolbox
• ThinkPad Utilities (Power Manager and Presentation Director)
• Adobe® Reader®
• Windows Live™ Toolbar
• Microsoft® Office 2007 Trial (60-day)
• Roxio® Creator® Business Edition (combo, DVD±RW)
• Roxio MyDVD® (DVD±RW)
• Corel® WinDVD® (combo, DVD±RW)

Supports ThinkVantage® technologies

90-watt (ATI graphics) AC adapter
ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium)
Climate Savers® certified
EPEAT™ Gold rating (LED models)
EPEAT Silver rating (other models)
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

ThinkPlus™.²² 3-year LOR²⁴ 9x5 NBD 45K6021
ThinkPlus 4-year LOR 9x5 NBD 45K6022
ThinkPlus 5-year LOR 9x5 NBD 45K6024
ThinkPlus 4-year P&L P/U Depot 45K6023
ThinkPlus 5-year P&L P/U Depot 45K6025
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced Aug 5, Sep 23, October 7, December 2, 2008, or June 2, 2009
US models withdrawn effective August 2009 or September 2010

ThinkPad® T500 2055 (Switchable) - July 2009 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo slot	Bat- tery Blue/ FingPreload	Avail date
2055-9RU	P8400	2.26	2GB	15.4"	WXGA	LED Cam	GMA, 3650	160G 7200	DVD±RW	❖Intel 5100 ²⁸	WWAN upg	None	PC 6	Yes B32 Jul 09
2055-9SU	P8700	2.53	2GB	15.4"	WXGA	LED Cam	GMA, 3650	250G FDE	DVD±RW	11n ²⁸	WWAN upg	None	PC 6	Yes B32 Jul 09
2055-9TU	T9400	2.53	2GB	15.4"	WSXGA+	Cam	GMA, 3650	250G FDE	DVD±RW	❖Intel 5100	WWAN upg	None	PC 6	Yes B32 Jul 09

• These models have a depot repair service 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8400, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8400/P8700:</i> 3MB L2 cache; <i>T9400:</i> 6MB L2										Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 250GB⁸ (7200 rpm) Full Disk Encryption [FDE] / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr										Supports ThinkVantage® technologies			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express Intel 5100 ²⁸ 11n ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Intel AMT Audio support Security Security chip Fingerprint reader	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

US models announced July 7, 2009

US models withdrawn effective March or September 2010

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(CR5-13) September 2010

ThinkPad® T500 2241 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Whorse (W) GMP (P) Avail Preload Gbl (G) date
2241-3WUP	P8400	2.26 1GB	15.4" WXGA			GMA 80G	5400 Combo	↔ Intel 5100 ²⁸	WWAN upg		6	Blue Bus 32	GP Aug 08
2241-3XU	T9400	2.53 2GB	15.4" WXGA		Cam	GMA 160G	5400 DVD±RW	↔ Intel 5100	WWAN upg	2G Turbo	6	Blue Bus 32	WGP Aug 08
2241-3YU	T9400	2.53 2GB	15.4" WXGA		Cam	GMA 160G	5400 DVD±RW	↔ Intel 5100	WWAN upg		6	Blue Bus 32	GP Aug 08
2241-4XU	T9400	2.53 2GB	15.4" WXGA	LED	Cam	GMA 160G	5400 DVD±RW	↔ Intel 5100	WWAN upg		6	Blue Bus 32	WGP Sep 08
2241-58U	T9400	2.53 2GB	15.4" WXGA			GMA 160G	5400 DVD±RW	↔ Intel 5100	WWAN upg		6	Blue XP Pro	GP Sep 08
2241-5ZU	P8600	2.40 2GB	15.4" WXGA	LED		GMA 160G	5400 DVD±RW	↔ Intel 5100	WWAN upg		6	Blue Bus 32	WGP Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache	Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ♦ <i>Vista models</i> : Vista Premium logo Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Memory	1GB or 2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in one socket; one socket available	
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	<i>Some</i> : CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable <i>Some</i> : DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB⁸ (5400 rpm), 160GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some</i> : 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some</i> : 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	<i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution</i> : 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH)</i> : 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell</i> : starting at 5.9 lb (2.7kg) Black <i>Top</i> : Super-Elastic PolyCarbonate (SEPC); <i>Bottom</i> : Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell</i> : up to 6.3 hr; <i>6-cell plus Ultrabay battery</i> : up to 7.8 hr; <i>9-cell</i> : up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some</i> : Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	
	Supports ThinkVantage® technologies	
	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
	ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
 US models announced August 5, September 23, 2008, or December 2, 2008
 US models withdrawn effective March 2010

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ThinkPad® T500 2056 (Switchable) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Mem- ory	Wide- screen display	CCFL or LED	Cam- era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Preload	Whorse (W) GMP (P) Avail Gbl (G) date
2056-4PU	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	80G 5400	Combo	Intel 5100 ²⁸	WWAN upg		6	B32 GP Aug 08
2056-4QU	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 5400	DVD±RW	Intel 5100	WWAN upg		6	B32 WGP Aug 08
2056-4RU	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg		9	B32 GP Aug 08
2056-4SU	T9600	2.80	4GB	15.4"	WSXGA+	Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	9	B32 WGP Aug 08
2056-5TU	T9400	2.53	2GB	15.4"	WXGA	LED Cam	GMA, 3650	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN upg		9	B32 WGP Sep 08
2056-63U	T9400	2.53	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg		9	XP GP Sep 08
2056-7LU	P8600	2.40	2GB	15.4"	WSXGA+		GMA, 3650	160G 7200	DVD±RW	Intel 5100	WWAN upg		9	B32 WGP Dec 08

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor P8600, T9400, or T9600 with dual-core, Intel HD Boost, 1066MHz system bus; P8600: 3MB L2 cache; T9400/T9600: 6MB L2 cache	Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ✦ Vista models: Vista Premium logo
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (combo, DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
SATA Combo SATA DVD±RW Ultrabay Slim SATA disk	Some: CD-RW/DVD-ROM, SATA 1.5Gb/s, 9.5mm Ultrabay Slim, removable Some: DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 80GB ⁸ (5400 rpm), 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	Some: 15.4" (391mm) WXGA (1280x800) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio	
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Dynamic switching between discrete and integrated graphics (user selectable), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility Radeon™ HD 3650, PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 6-cell: starting at 5.9 lb (2.7kg); 9-cell: starting at 6.2 lbs (2.8kg) Black Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim 6-cell: up to 6.3 hr; 6-cell plus Ultrabay battery: up to 7.8 hr; 9-cell: up to 9.4 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 ✦ Intel Centrino® 2 with vPro™ technology
 US model announced August 5, September 23, 2008, or December 2, 2008
 US models withdrawn effective August 2009 or September 2010

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 (CR5-6) September 2010

ThinkPad® T500 2089 (GMA) - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery UWB	Blue- tooth	Workhorse (W) Global (G) Avail date
2089-E1U	P8400	2.26	2GB	15.4" WXGA		Cam	GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2089-E2U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Aug 08
2089-E3U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	9 Blue	Bus 32 No Aug 08
2089-E4U	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Dec 08
2089-E5U	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue	Bus 32 No Mar 09

• **These models have a depot repair service 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core, Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/8700: 3MB L2 cache; T9400: 6MB L2 cache</i>											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ◇ Vista Premium logo			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 or 7200 rpm), or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr											Supports ThinkVantage® technologies			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
ExpressCard/54 PC Card Smart Card read Multicard reader Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Mini PCI Express	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) WWAN upg Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) 2G Turbo None UWB None Modem 56K V.92 ⁶ modem Bluetooth™ Bluetooth 2.1 wireless, LED indicator Ethernet Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel AMT Intel Active Management Technology (iAMT) Audio support High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available														

See footnotes for important warranty information ◇ Intel Centrino® 2 with vPro™ technology
US models announced August 5, December 2, 2008, or March 24, 2009
US models withdrawn effective March or September 2010

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(CR5-7) September 2010

ThinkPad® T500 2055 (Switchable) - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Mem-ory	Wide-screen display	Cam-era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat-tery or Turbo cells	Workhorse (W) Global (G) Avail date
2055-E1U T9400	2.53 2GB	15.4" WSXGA+	Cam GMA, HD 3650 160G 7200	DVD±RW	❖Intel 5100 ²⁸	WWAN upg	None	9	Bus32	No Aug 08	
2055-E2U T9400	2.53 2GB	15.4" WSXGA+	Cam GMA, HD 3650 250G 5400	DVD±RW	❖Intel 5100	WWAN upg	None	9	Bus32	No Aug 08	
2055-E3U T9600	2.80 3GB	15.4" WSXGA+	Cam GMA, HD 3650 160G 7200	DVD±RW	❖Intel 5100	WWAN upg	None	9	Bus32	No Mar 09	

• **These models have a depot repair service 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB ⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell:</i> starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr	Supports ThinkVantage® technologies
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
ExpressCard slot PC Card Std slot Smart Card Reader Multicard Reader Ports	One ExpressCard/34 or ExpressCard/54 One Type I or Type II slot, CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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US models announced August 5, 2008 or March 24, 2009

(CR5-8) September 2010

US models withdrawn effective September 2010

ThinkPad® T500 2241 (GMA) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Integrated graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue- tooth	Workhorse (W) Global (G) Avail date
2241-E1U	P8400	2.26	2GB	15.4" WXGA		Cam	GMA	160G 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	6 Blue Bus 32	No Aug 08
2241-E2U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	250G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue Bus 32	No Aug 08
2241-E3U	T9400	2.53	2GB	15.4" WXGA		Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	9 Blue Bus 32	No Aug 08
2241-E4U	P8600	2.40	2GB	15.4" WXGA	LED	Cam	GMA	160G 7200	DVD±RW	Intel 5100	WWAN upg	None	6 Blue Bus 32	No Dec 08
2241-E5U	P8700	2.53	2GB	15.4" WXGA	LED	Cam	GMA	160G 5400	DVD±RW	Intel 5100	WWAN upg	None	6 Blue Bus 32	No Mar 09

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor P8400, P8600, P8700, or T9400 with dual-core , Intel HD Boost, 1066MHz system bus; <i>P8400/P8600/P8700</i> : 3MB L2 cache; <i>T9400</i> : 6MB L2 cache	Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ⇨ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> 15.4" (391mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 400:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>6-cell:</i> starting at 5.9 lb (2.7kg); <i>9-cell:</i> starting at 6.2 lbs (2.8kg) Black <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>6-cell:</i> up to 6.3 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.8 hr; <i>9-cell:</i> up to 9.4 hr	
Chipset ExpressCard/54 PC Card Smart Card read Multicard reader Ports	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O) One slot (ExpressCard/34, ExpressCard/54) One slot (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick PRO™, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, Displayport), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader Limited warranty ¹²	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	
	Supports ThinkVantage® technologies	
	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
	ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information ⇨ Intel Centrino® 2 with vPro™ technology
US models announced August 5, December 2, 2008, or March 24, 2009
US models withdrawn effective March or September 2010

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(CR5-9) September 2010

ThinkPad® T500 2056 (Switchable) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Mem-ory	Wide-screen display	Cam-era	Switchable graphics	Disk SATA GB ³ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo cells	Bat-tery	Workhorse (W) Global (G) Avail date
2056-E1U	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	9	No Aug 08
2056-E2U	T9400	2.53	2GB	15.4" WSXGA+	Cam	GMA, HD 3650	250G 5400	DVD±RW	❖ Intel 5100	WWAN upg	None	9	No Aug 08
2056-E3U	T9600	2.80	3GB	15.4" WSXGA+	Cam	GMA, HD 3650	160G 7200	DVD±RW	❖ Intel 5100	WWAN upg	None	9	No Mar 09

• **These models have a limited onsite service²⁴ 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo		
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 160GB⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										• McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Widescreen display	15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus												
Camera	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility Radeon™ HD 3650 , PCI Express x16, 256MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>												
Switchable graphics	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Keyboard	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm 9-cell: starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr												
TrackPoint®	One ExpressCard/34 or ExpressCard/54 One Type I or Type II slot, CardBus 32-bit												
Touch pad	None												
ThinkLight™	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies		
Dimensions ³	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Weight ²	None										ThinkPlus™.22 4-year LOR 9x5 NBD 45K6038		
Case material	None										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Battery - type	None												
Battery - life ¹⁰	None												
Chipset	None												
ExpressCard slot	None												
PC Card Std slot	None												
Smart Card Read	None												
Multicard Reader	None												
Ports	None												
Mini PCI Express	None												
Intel 5100 ²⁸	None												
WWAN upg	None												
2G Turbo	None												
UWB	None												
Modem	None												
Bluetooth™	None												
Ethernet	None												
Intel AMT	None												
Audio support	None												
Security	None												
Security chip	None												
Fingerprint reader	None												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

US models announced August 5, 2008 or March 24, 2009

US models withdrawn effective September 2010

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(CR5-10) September 2010

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
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Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann	06/23/09

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultrabay Slim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
T500/R500/W500 Series 15W Privacy Filter	43R2474	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 41+ (6-cell)	40Y6799	ann	01/05/06
ThinkPad Battery 41++ (9-cell)	40Y6797	ann	09/20/05
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

More information at www.lenovo.com/support/cases

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.			

More information at www.lenovo.com/support/monitoraccessories

More infoFor more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

More infoOther accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad T510



Lenovo ThinkPad T510



ThinkPad Mini Dock Plus Series 3 - 90W
433810U



ThinkPad Battery 27+++ (9-cell, slice)
57Y4545



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T510

ThinkPad® T510 4313 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸	SATA rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
4313-28U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G	5400	DVD±RW	11b/g/n	None	None	None	6	No	Pro 32 Jan 10
4313-CTU	i5-560M	2.66	3.20	2GB	15.6" HD	2.0M	320G	7200	DVD±RW	11b/g/n	None	None	None	6	No	Pro 64 Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 				
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus											Supports ThinkVantage® technologies				
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968				
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr											ThinkPlus 2-year LOR 9x5 NBD 45K5969				
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ThinkPlus 3-year LOR 9x5 NBD 45K5970				
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus 4-year LOR 9x5 NBD 45K5973				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None											ThinkPlus 5-year LOR 9x5 NBD 45K5975				
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced January 7 or September 28, 2010
US models withdrawn effective June 2011

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(KN1-1) June 2011

ThinkPad® T510 4313 (TopSeller) - Windows 7 (January 2011) - withdrawn *Personal Systems Reference (PSREF)*

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Battery Intel cells vPro	Preload	Avail date
4313-J6U	i5-480M	2.66	2.93	2GBx1 1066	15.6" HD	2.0M	320G 7200	DVD±RW	Intel 1000	WWAN upg	6	No Pro 64	Jan 11
4313-J8U	i5-480M	2.66	2.93	4GBx1 1333	15.6" HD+	2.0M	320G 7200	DVD±RW	Intel 1000	WWAN upg	6	No Home P 64	Jan 11

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-480M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 64		
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed)		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 		
Widescreen display	Some: 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Some: 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio										<ul style="list-style-type: none"> • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr										ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable 56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None												
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced January 11, 2011
US models withdrawn effective June 2011

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ThinkPad® T510 4314 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸	rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Bat-Blue tooth	tery Intel vPro	Preload	Avail date	
4314-2LU	i5-540M	2.53	3.06	3GB	15.6" HD	2.0M	320G	7200	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue	6	vPro	XP Pro	Jan 10
4314-2KU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G	7200	Intel 1000	WWAN upg		Finger	Blue	6	vPro	XP Pro	Jan 10
4314-7NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G	7200	Intel 6200	WWAN upg		Finger	Blue	6	vPro	XP Pro	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus															
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)															
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr															
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies				
PCIe Mini Card Intel 1000 Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider											65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Carrier Modem Bluetooth™ Ethernet	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades ²² available											ThinkPlus 4-year P&L P/U Depot 45K6023				
												ThinkPlus 5-year P&L P/U Depot 45K6025				
												Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced January 7 or March 2, 2010
US models withdrawn effective October 2010

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ThinkPad® T510 4314 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ⁵ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery cells	Power Adapter (watt)	Intel vPro	Preload	Avail date
4314-36U	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	320G 7200	WiMAX	WWAN upg	Finger	6	65W	vPro	Pro 32	Jan 10
4314-2JU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	250G 5400	11b/g/n	WWAN upg		6	65W		Pro 32	Jan 10
4314-9BU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	160G 7200	Intel 6200 ²⁸	WWAN upg		9	90W	vPro	Pro 64	May 10
4314-C5U	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD	160G SSD	Intel 6200	WWAN upg	Finger	9	65W	vPro	Pro 64	Jul 10
4314-DDU	i5-560M	2.66	3.20	2GBx1 1066	15.6" HD	320G 7200	Intel 6200	WWAN upg		6	65W	vPro	Pro 64	Sep 10
4314-DPU	i7-620M	2.66	3.33	4GBx1 1333	15.6" HD+	500G 7200	Intel 1000	WWAN upg		6	65W		Pro 64	Jan 11

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M/i5-560M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i> All:													
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i>													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</i>													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm 6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg) Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery 6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr													
Chipset ExpressCard/34 Smart Card reader Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
PCIe Mini Card 11b/g/n Intel 1000 Intel 6200 ²⁸ WiMAX WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card</i> <i>Some: 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i> <i>Some: 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX</i> Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										65-watt or 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery depot repair service / service upgrades²² available													

See footnotes for important warranty information
 US models announced January 7, May 4, July 6, September 28, 2010, or January 11, 2011
 US models withdrawn effective June 2011

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 (KN1-3) June 2011

ThinkPad® T510 4314 (Optimus) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Blue- tooth	Preload	Avail date
4314-DEU	i5-560M	2.66	3.20	2GB	15.6" HD+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue 9	vPro	Pro 64	Sep 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a depot repair service 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display Camera	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.1 hr; <i>9-cell:</i> up to 10.3 hr; <i>9-cell plus Slice battery:</i> up to 20.7 hr										Supports ThinkVantage® technologies			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery depot repair service / service upgrades²² available													

See footnotes for important warranty information
US model announced September 28, 2010
US model withdrawn effective June 2011

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ThinkPad® T510 4313 (Discrete) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Avail date
4313-29U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	11b/g/n	None	None	Blue	9	No Pro 32	Feb 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											Supports ThinkVantage® technologies		
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr											ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card 11b/g/n WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													

See footnotes for important warranty information
US model announced January 7, 2010
US model withdrawn effective June 2011

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(KN1-4) June 2011

ThinkPad® T510 4314 (Discrete) - TS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
4314-2NU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 7200	Intel 6200 ²⁸	Gobi 2000	Verizon ¹⁶	Finger	Blue	vPro	XP Pro	Feb 10
4314-7PU	i5-520M	2.40	2.93	2GB	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg			Blue	vPro	XP Pro	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 				
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio														
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® NVS3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr														
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies				
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Verizon®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹² 3-years/1-yr - battery depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced January 7 or March 2, 2010
US models withdrawn effective October 2010

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(KN1-5) October 2010

ThinkPad® T510 4314 (Discrete) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat-tery Intel vPro	Preload	Avail date
4314-2MU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	Intel 1000	WWAN upg		9	Pro 32	Feb 10
4314-2PU	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	500G 7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue 9	vPro Pro 32	Feb 10
4314-7QU	i5-520M	2.40	2.93	4GB	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue 9	vPro Pro 64	Mar 10
4314-7RU	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	128G SSD	Intel 6200	WWAN upg	Finger	Blue 9	vPro Pro 64	Mar 10
4314-9CU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg		Blue 9	vPro Pro 64	May 10
4314-9DU	i5-540M	2.53	3.06	2GB	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg		Blue 9	vPro Pro 64	May 10
4314-C4U	i5-540M	2.53	3.06	2GB	15.6" HD	2.0M	160G SSD	Intel 6200	WWAN upg	Finger	Blue 9	vPro Pro 64	Jul 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> 128GB ⁹ or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive <i>All:</i>											
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio											
Camera	Camera on top of screen, 2.0-megapixel, fixed focus											
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr											
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies
PCIe Mini Card Intel 1000 Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-yr battery depot repair service / service upgrades²² available											

See footnotes for important warranty information
US models announced January 7, March 2, May 4, or July 6, 2010
US models withdrawn effective June 2011

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ThinkPad® T510 4349 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Power Adapter (watt)	Intel vPro	Pre-load	Workhorse (W) Gbl (G) GMP (P)	Avail date
4349-3JU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	250G 5400	6200 ²⁸	Gobi AT&T ²³	Finger	Blue	90W vPro	Pro 32		Jan 10	
4349-3KU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	320G 7200	6200	Gobi Verizon ¹⁶	Finger	Blue	90W vPro	Pro 32		Jan 10	
4349-2LU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD		320G 5400	11b/g/n upg				65W	Pro 32		Jan 10	
4349-2NU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	320G 7200	6200	Gobi AT&T	Finger	Blue	65W vPro	Pro 32		Feb 10	
4349-2PU	i7-620M	2.66	3.33	4GBx1 1333	15.6" HD+	2.0M	500G 7200	6200	upg	Finger	Blue	65W vPro	Pro 32		Jan 10	
4349-2MU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	500G 7200	11b/g/n upg		Finger	Blue	65W	Pro 32	W G	Jan 10	
4349-3AU	i5-520M	2.40	2.93	2+1GB 1066	15.6" HD	2.0M	320G 5400	6200	upg	Finger	Blue	65W vPro	Pro 32	W G	Jan 10	
4349-4BU	i5-520M	2.40	2.93	2+1GB 1066	15.6" HD	2.0M	80G SSD	6200	upg	Finger	Blue	65W vPro	Pro 32	G	Feb 10	
4349-4VU	i5-520M	2.40	2.93	2GBx2 1066	15.6" HD	2.0M	320G 5400	6200	upg			65W vPro	Pro 64	G	Mar 10	
4349-57U	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	320G 7200	6200	Gobi AT&T	Finger	Blue	65W vPro	Pro 32		Apr 10	
4349-4XU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	160G 7200	6200	upg		Blue	65W vPro	Pro 32	G	Apr 10	
4349-5CU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	160G 7200	6200	upg		Blue	65W vPro	Pro 64	G	May 10	
4349-5EU	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	160G 7200	6200	upg		Blue	65W vPro	Pro 64	G	May 10	
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/ i5-540M: 3MB cache; i7-620M: 4MB cache</i>											Preloaded operating system²⁰ - Some: Genuine Windows [®] 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery [™] • Access Connections [™] • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton [™] Internet Security 2011 (30 days of virus definitions) • Adobe [®] Reader [®] • Adobe Flash [™] Player • Windows Live [™] Toolbar • Skype [™] for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio [®] Creator [®] Business Edition (DVD±RW) • Roxio MyDVD [®] (DVD±RW) • Corel [®] WinDVD [®] (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm), 250GB (5400 rpm), 320GB (5400 or 7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System[™]</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>															
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i>															
Camera	<i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>															
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</i>															
Keyboard TrackPoint [®] Touchpad ThinkLight [™]	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint [®] pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav [™] , wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i> <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i> Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell: up to 6.2 hr; 9-cell: up to 10.4 hr; 9-cell plus Slice battery: up to 20.8 hr</i>															
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage [®] technologies				
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Gobi [™] 2000 Carrier Modem Bluetooth [™] Ethernet	Two PCI Express Mini Card slots <i>Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino[®] Advanced-N 6200, 2x2</i> <i>Some: Wireless WAN upgradable</i> <i>Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider</i> <i>Some: AT&T[®] or Verizon[®], contract required with service provider</i> 56K V.92 ⁶ modem <i>Some: Bluetooth 2.1 wireless, LED indicator</i> <i>Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1</i> <i>vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1</i>											ENERGY STAR [®] 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											ThinkPlus [™] . ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Limited warranty ¹² 3-years/1-yr battery depot repair service / service upgrades²² available																

See footnotes for important warranty information
US models announced January 7, March 2, April 6, or May 4, 2010
US models withdrawn effective June 2011

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(KN1-7) June 2011

ThinkPad® T510 4349 (Windows 7) - July 2010 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
4349-G3U	i5-540M	2.53	3.06	2GBx2 1066	15.6" HD+	2.0M	160G SSD	Intel 6200 ²⁸	WWAN upg	Finger	Blue	vPro	Pro 64	Jul 10
4349-GJU	i5-560M	2.66	3.20	4GBx1 1333	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg	Finger	Blue	vPro	Pro 64	Jan 11

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-540M or i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive													
Widescreen display Camera	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr										Supports ThinkVantage® technologies			
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Limited warranty ¹²	3-years/1-yr battery depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced on July 6, 2010 or January 11, 2011
US models withdrawn effective June 2011

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(KN1-13) June 2011

ThinkPad® T510 4349 (Optimus) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
4349-GDU	i5-560M	2.66	3.20	2GBx1 1066	15.6" HD+	2.0M	320G 7200	Intel 6200 ²⁸	WWAN upg	None	Blue	vPro	Pro 64	Sep 10

- This model has a depot repair service 3-year limited warranty
- This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio										<ul style="list-style-type: none"> • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Optimus graphics ³⁷	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics in processor, and NVIDIA NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>										Supports ThinkVantage® technologies			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Dimensions ³	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i>													
Weight ²	<i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i>										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Case material	<i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i>													
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Battery - life ¹⁰	<i>6-cell: up to 6.1 hr; 9-cell: up to 10.3 hr; 9-cell plus Slice battery: up to 20.7 hr</i>													
Chipset	Mobile Intel QM57 Express Chipset										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
ExpressCard/34	One slot (ExpressCard/34)													
Smart Card read	None										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)													
Ports	Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
PCIe Mini Card	Two PCI Express Mini Card slots													
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
WWAN upg	Wireless WAN upgradable													
Modem	56K V.92 ⁶ modem										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant										ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Fingerprint reader	None													
Limited warranty ¹²	3-years/1-yr battery depot repair service / service upgrades²² available													

See footnotes for important warranty information
US model announced September 28, 2010
US model withdrawn effective June 2011

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(KN1-15) June 2011

ThinkPad® T510 4349 (Discrete) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Bat- tery Intel vPro	Workhorse (W) Pre-load GMP (P)	Avail date
4349-2QU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	500G 7200	11b/g/n	WWAN upg	6	Pro 32	Feb 10
4349-3HU	i5-540M	2.53	3.06	2+1GB	1066	15.6" HD	2.0M 128G SSD	Intel 6200 ²⁸	WWAN upg	Finger Blue	9 vPro Pro 32	Feb 10
4349-2RU	i7-620M	2.66	3.33	2GBx1	1066	15.6" HD+	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue	9 vPro Pro 32 W G	Feb 10
4349-3BU	i5-520M	2.40	2.93	2+1GB	1066	15.6" HD	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue	6 vPro Pro 32 W G	Feb 10
4349-4WU	i5-540M	2.53	3.06	2GBx2	1066	15.6" HD+	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue	9 vPro Pro 64	G Mar 10
4349-5AU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	2.0M 160G 7200	Intel 6200	WWAN upg	Blue	9 vPro Pro 32	Apr 10
4349-5BU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD+	2.0M 320G 7200	Intel 6200	WWAN upg	Finger Blue	6 vPro Pro 32	Apr 10
4349-5DU	i5-520M	2.40	2.93	2GBx1	1066	15.6" HD	2.0M 160G 7200	Intel 6200	WWAN upg	Blue	6 vPro Pro 64	G May 10
4349-G2U	i5-540M	2.53	3.06	2GBx2	1066	15.6" HD	2.0M 160G SSD	Intel 6200	WWAN upg	Finger Blue	6 vPro Pro 64	Jul 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M: 3MB cache; i7-620M: 4MB cache</i>	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 128GB⁸ or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>	
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i>	
Camera	<i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>	
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i> <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i> Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: up to 15.6 hr</i>	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet	Two PCI Express Mini Card slots <i>Some: 11b/g/n wireless⁴, ThinkPad 11b/g/n, PCIe Half Mini Card</i> <i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i> Wireless WAN upgradable 56K V.92 ⁶ modem <i>Some: Bluetooth 2.1 wireless, LED indicator</i> <i>Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1</i> <i>vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1</i>	90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹² 3-years/1-yr battery depot repair service / service upgrades²² available		

See footnotes for important warranty information
US models announced January 7, March 2, April 6, May 4, or July 6, 2010
US models withdrawn effective June 2011

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(KN1-8) June 2011

ThinkPad® T510 4349 (Education) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Intel vPro	Preload	Avail date
4349-E2U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	11b/g/n				Blue		Pro 32	Jan 10
4349-E3U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	320G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Finger	Blue	vPro	Pro 32	Jan 10
4349-E4U	i5-540M	2.53	3.06	3GB	15.6" HD+	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T	Finger	Blue	vPro	Pro 32	Jan 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**
- **Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • <i>E3U/E4U models:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr	
Chipset ExpressCard/34 Smart Card reader Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Carrier Modem Bluetooth™ Ethernet	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021 ThinkPlus 4-year LOR 9x5 NBD 45K6022 ThinkPlus 5-year LOR 9x5 NBD 45K6024 ThinkPlus 4-year P&L P/U Depot 45K6023 ThinkPlus 5-year P&L P/U Depot 45K6025
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹² 3-years/1-yr - battery depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective April 2011

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ThinkPad® T510 4349 (Discrete) - Education (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁶ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Blue-tooth	Finger-print reader	Bat-tery Intel vPro	Preload	Avail date
4349-E5U	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	250G 5400	Intel 6200 ²⁸	Gobi 2000	AT&T ²³	Blue	Finger	6 vPro	Pro 32	Feb 10
4349-E6U	i5-520M	2.40	2.93	3GB	15.6" HD+	2.0M	320G 7200	Intel 6200	Gobi 2000	AT&T	Blue	Finger	9 vPro	Pro 32	Feb 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**
- **Microsoft Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32				
Memory	2GB or 3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • <i>E6U model:</i> Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Education software - Microsoft® Office OneNote® 2007 (and CD) - Adobe Digital School Collection - Instructor Resources (and DVD) - Learning Creative Suite 4 (DVD) - Photoshop Elements 7 (DVD) - Premiere Elements 7 (and DVD) - Acrobat 9 Professional (DVD) - Contribute CS4 (and DVD) - Soundbooth CS4 (and DVD)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁶ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										• Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio										Supports ThinkVantage® technologies				
Camera	Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W"</i> (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 4.7 hr; <i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Slice battery:</i> up to 15.6 hr														
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
PCIe Mini Card Intel 6200 ²⁸ Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 45K6021				
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										ThinkPlus 4-year LOR 9x5 NBD 45K6022				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 5-year LOR 9x5 NBD 45K6024				
Limited warranty ¹²	3-years/1-yr - battery depot repair service / service upgrades²² available										ThinkPlus 4-year P&L P/U Depot 45K6023				
											ThinkPlus 5-year P&L P/U Depot 45K6025				
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced January 7, 2010
US models withdrawn effective April 2011

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(KN1-12) April 2011

ThinkPad® T510 4384 (Onsite) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Intel vPro	Preload	Workhorse (W) Gbl (G) GMP (P)	Avail date
4384-2MU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	500G 7200	11b/g/n	WWAN upg	Fing	Pro 32	W G P	Jan 10	
4384-3AU	i5-520M	2.40	2.93	2GB+1 1066	15.6" HD	2.0M	320G 5400	Intel 6200 ²⁸	WWAN upg	Fing vPro	Pro 32	W G P	Jan 10	
4384-4BU	i5-520M	2.40	2.93	2GB+1 1066	15.6" HD	2.0M	80G SSD	Intel 6200	WWAN upg	Fing vPro	Pro 32	G P	Feb 10	
4384-4XU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD	2.0M	160G 7200	Intel 6200	WWAN upg	vPro	Pro 32	G P	Apr 10	
4384-5CU	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg	vPro	Pro 64	G P	May 10	
4384-5EU	i5-540M	2.53	3.06	2GBx1 1066	15.6" HD+	2.0M	160G 7200	Intel 6200	WWAN upg	vPro	Pro 64	G P	May 10	
4384-H3U	i5-540M	2.53	3.06	2GBx2 1066	15.6" HD	2.0M	160G SSD	Intel 6200	WWAN upg	Fing vPro	Pro 64		Jul 10	
4384-GJU	i5-560M	2.66	3.20	4GBx1 1333	15.6" HD+	2.0M	320G 7200	Intel 6200	WWAN upg	Fing vPro	Pro 64		Jan 11	

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> 80GB or 160GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 320GB (5400 or 7200rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W"</i> (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card 11b/g/n Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card <i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information
US models announced January 7, April 6, May 4, July 6, 2010, or January 11, 2011
US models withdrawn effective June 2011

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ThinkPad® T510 4384 (Discrete) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁸	rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery Intel vPro	Preload	Workhorse (W) Gbl (G) GMP (P)	Avail date
4384-2RU	i7-620M	2.66	3.33	2GB	15.6" HD+	2.0M	320G	7200	Intel 6200 ²⁸	WWAN upg	Finger	Blue	9 vPro	Pro 32	W G P	Feb 10
4384-3BU	i5-520M	2.40	2.93	3GB	15.6" HD	2.0M	320G	7200	Intel 6200	WWAN upg	Finger	Blue	6 vPro	Pro 32	W G P	Feb 10
4384-5DU	i5-520M	2.40	2.93	2GB	15.6" HD	2.0M	160G	7200	Intel 6200	WWAN upg		Blue	6 vPro	Pro 64	G P	May 10
4384-H2U	i5-540M	2.53	3.06	4GB	15.6" HD+	2.0M	160G	SSD	Intel 6200	WWAN upg	Finger	Blue	6 vPro	Pro 64		Jul 10

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , or Intel Core i7 processor i7-620M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-540M: 3MB cache; i7-620M: 4MB cache</i>											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some: 160GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high</i> <i>Some: 160GB (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™</i> <i>All: removable, upgradable, supports 2nd disk, Shock Mounted Hard Drive</i>															
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio</i>															
Camera	Camera on top of screen, 2.0-megapixel, fixed focus															
Discrete graphics	NVIDIA® NVS™ 3100M , PCI Express® x16, 512MB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>															
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i> <i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i> <i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i> Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell: up to 4.7 hr; 9-cell: up to 7.8 hr; 9-cell plus Slice battery: up to 15.6 hr</i>															
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											Supports ThinkVantage® technologies				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>											90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Limited warranty ¹²	3-years¹/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											ThinkPlus™, 22 4-year LOR ²⁴ 9x5 NBD 45K6038 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced January 7, May 4, or July 6, 2010
US models withdrawn effective June 2011

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ThinkPad® T510i 4313 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Preload	Avail date
4313-7DU	i3-330M	2.13	2GB	15.6" HD	2.0M	250G 5400	DVD±RW	Intel 1000	None			6	XP Pro	Feb 10
4313-7FU	i3-330M	2.13	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	Intel 1000	None	Finger	Blue	6	XP Pro	Feb 10

• *These small and medium business (SMB) models are part of the US TopSeller™ Program*

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32	
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • ThinkVantage Productivity Center • Roxio® Creator® Business Edition (DVD±RW) 	
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus											Supports ThinkVantage® technologies	
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr												
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
US models announced February 2, 2010
US models withdrawn effective March 2010

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(KN1i-1) March 2010

ThinkPad® T510i 4313 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Preload	Avail date
4313-7EU	i3-330M	2.13	2GB	15.6" HD	2.0M	250G 5400	DVD±RW	Intel 1000	None	None	None	6	Pro 32	Feb 10

• **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-330M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Skype™ for Windows • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	Supports ThinkVantage® technologies
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus	65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	ThinkPlus™, 22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr	
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 None 56K V.92 ⁶ modem None Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	
Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US model announced February 2, 2010
US model withdrawn effective March 2010

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(KN1i-2) March 2010

ThinkPad® T510i 4313 (TopSeller) - Windows 7 (July 2010) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload	Avail date
4313-C2U	i3-370M	2.40	2GB	15.6" HD	2.0M	250G 5400	DVD±RW	Intel 1000	None	Finger	Blue	6	No	Pro 64	Jul 10
4313-C3U	i3-370M	2.40	2GB	15.6" HD	2.0M	320G 7200	DVD±RW	Intel 1000	None	Finger	Blue	6	No	Pro 64	Jul 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3 processor i3-370M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Microsoft Office 2010 preloaded; purchase product key to activate • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)				
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus														
Integrated graphics	Intel HD Graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies				
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>15.6W" (WxDxH):</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 6-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell:</i> up to 6.2 hr; <i>9-cell:</i> up to 10.4 hr; <i>9-cell plus Slice battery:</i> up to 20.8 hr														
Chipset ExpressCard/34 Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Four USB 2.0, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968 ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 5-year LOR 9x5 NBD 45K5975 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976				
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 3-year P&L P/U Depot 45K5972 ThinkPlus 4-year P&L P/U Depot 45K5974 ThinkPlus 5-year P&L P/U Depot 45K5976				
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information
US models announced July 6, 2010
US models withdrawn effective June 2011

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(KN1i-3) June 2011

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09
1GB PC3-10600 DDR3 L-H SODIMM	55Y3709	ann 03/02/10
1GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4415	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412	ann 06/23/09
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Ultrabay Enhanced 12.7mm

DVD Burner Ultrabay Enhanced II SATA	43N3294	ann 01/07/10
Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295	ann 01/07/10

Storage and removable storage

500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10
⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay		
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

T510:

ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 - 90W	433810U	ann 06/23/09

W510:

ThinkPad Mini Dock Plus Series 3 - 170W	433830U	ann 02/22/11
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All:

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

W510:

3M 15.6W Privacy Filter from Lenovo	0A61771	ann 04/05/11
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Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann 03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann 03/30/10
ThinkPad Battery 27++ (9-cell, slice) ⁴³	57Y4545	ann 01/07/10
⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using Series 3 Port Replicator or Docks).		
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

T510:

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

- iPod and iPhone Charge Tip (L10a) 41R4481 ann 12/18/07
- Generic Micro USB charge tip (L18) 41R4490 ann 01/06/09

More information at www.lenovopowertips.com

W510:

ThinkPad 135W AC Adapter	55Y9317	ann 01/07/10
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More info at www.lenovo.com/support/poweradapters

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Backpack	43R2482	ann 05/13/08

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:
www.lenovo.com/accessories
 Purchase Lenovo accessories

www.lenovo.com/support/accessories
 Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide
 Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com
 An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad T520



Lenovo ThinkPad T520



ThinkPad Mini Dock Plus Series 3 with USB 3.0 - 90W
433815U



ThinkPad Battery 28++ (9-cell, slice)
0A36304



ThinkPad triple external monitor configuration
using NVIDIA's Optimus technology



Lenovo ThinkPad T520

ThinkPad® T520 4239 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Modem	Smart Card Reader	Finger print reader	Blue-tooth	Battery cells	Intel AMT	Intel vPro	Global (G) Educ	Preload
4239-46U	i5-2520M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	None	None	None	Blue	6	iAMT	vPro		Pro 64
4239-4CU	i5-2410M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None	Smart	None	Blue	6			Edu	Prem 64
4239-4DU	i5-2410M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None	None	Blue	6				Prem 64
4239-4EU	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None	None	Blue	6				Pro 32
4239-4MU	i5-2430M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None	None	Blue	6				Pro 64
4239-5CU	i5-2450M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None	None	Blue	6				Pro 64
<ul style="list-style-type: none"> • Small and medium business (SMB) model(s), part of the US TopSeller™ Program • Microsoft® Office 2010 Product Key Ready (O10PKR) 																
Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i5-2430M processor (dual-core, 2.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology Intel Core i5-2450M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</p>										<p>Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap</p>					
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets															
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive															
mSATA™ SSD	None															
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut															
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus															
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										<p>Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</p>					
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm															
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)															
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint															
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom															
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr															
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2										<p>65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>					
WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Wireless WAN upgradable None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT)															
Security Security chip Fingerprint reader	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										<p>For compatible accessories, please go to O-T520 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet</p>					
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available															

See footnotes for more detailed information

US model(s) announced February 22, March 1, April 5, June 21, or October 4, 2011, or January 17, 2012

US model(s) withdrawn effective January or December 2012

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ThinkPad® T520 4240 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/msATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel AMT	Intel vPro	Preload
4240-4AU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	Blue	6	iAMT	vPro	Pro 64
4240-2GU	i5-2540M	2GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	None		Blue	6	iAMT	vPro	Pro 64
4240-2FU	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	None			6	iAMT	vPro	Pro 64
4240-4EU	i7-2620M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	Blue	6	iAMT	vPro	Pro 64
4240-4RU	i5-2520M	4GBx1	15.6" HD		320G 7200	Intel 1000	WWAN upg	None		Blue	6			Pro 32
4240-53U	i5-2540M	4GBx1	15.6" HD	720p	128G SSD	Intel 6205	WWAN upg	None	Finger	Blue	6	iAMT	vPro	Pro 64
4240-66U	i7-2640M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	Blue	6	iAMT	vPro	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap</p>
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<p>Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</p>
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										
mSATA™ SSD	None										
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut										
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus										
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm										
Weight ²	6-cell: starting at 5.54 lb (2.51kg); 9-cell: starting at 5.89 lb (2.67kg)										
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint										
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom										
Battery - life ¹⁰	6-cell (57Whr): up to 7.7 hr; 9-cell (94Whr): up to 12.8 hr; 9-cell plus slice battery: up to 25.6 hr										
Chipset	Mobile Intel QM67 Express Chipset										
ExpressCard	One slot (ExpressCard/34)										
Smart Card Read	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2										Supports ThinkVantage® technologies
WWAN	Wireless WAN upgradable										
Modem	None										
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator										
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1										
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										For compatible accessories, please go to O-T520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
 US model(s) announced February 22, March 1, April 5, May 31, or October 11, 2011
 US model(s) withdrawn effective January or December 2012

ThinkPad® T520 4239 (Optimus) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload (mm/yy)	Ann Date
4239-26U	i7-2620M	4GBx2	15.6" FHD	720p	128G SSD	Intel 6300 ²⁸	WWAN upg	None	Finger	Blue	9	vPro	Pro 64	02/11
4239-23U	i5-2540M	2GBx2	15.6" HD+	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	Blue	9	vPro	Pro 64	02/11
4239-24U	i5-2540M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	None	Finger	Blue	9	vPro	Pro 64	02/11
4239-5GU	i7-2640M	4GBx2	15.6" FHD	720p	128G SSD	Intel 6300	WWAN upg	None	Finger	Blue	9	vPro	Pro 64	11/11

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Genuine Windows[®] 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap</p>
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<p>Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</p>
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										
mSATA™ SSD	None										
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut										
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus										
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm										
Weight ²	6-cell: starting at 5.67 lb (2.57kg); 9-cell: starting at 6.02 lb (2.73kg)										
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint										
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom										
Battery - life ¹⁰	6-cell (57Whr): up to 7.6 hr; 9-cell (94Whr): up to 12.6 hr; 9-cell plus slice battery: up to 25.3 hr										
Chipset	Mobile Intel QM67 Express Chipset										
ExpressCard	One slot (ExpressCard/34)										
Smart Card Read	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	Integrated model: Four USB 2.0 (one powered), Optimus model: Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3										Supports ThinkVantage® technologies
WWAN Modem	Wireless WAN upgradable										90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Bluetooth™	Bluetooth 3.0 wireless, LED indicator										
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										For compatible accessories, please go to O-T520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										

See footnotes for more detailed information
 US model(s) announced February 22 or November 29, 2011
 US model(s) withdrawn effective January or December 2012

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 (KN3-3) February 2013

ThinkPad® T520 4240 (Optimus) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Bat-tery Adapter (watt)	Intel AMT	Intel vPro	Preload
4240-48U	i7-2620M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		Finger	Blue	9	90W	iAMT vPro	Pro 64
4240-49U	i5-2520M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue	9	90W	iAMT vPro	Pro 64
4240-2HU	i5-2540M	2GBx2	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg			Blue	9	90W	iAMT vPro	Pro 64
4240-57U	i7-2630QM	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue	9	135W		Pro 64
4240-6NU	i7-2640M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg		Finger	Blue	9	90W	iAMT vPro	Pro 64
4240-6MU	i7-2670QM	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	9	135W		Pro 64

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Premiere performance; two spindles</i></p> <p>Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p> <p>Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</p> <p>Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology</p> <p>Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p> <p>Intel Core i7-2630QM processor (quad-core, 2.00GHz, 6MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology</p> <p>Intel Core i7-2670QM processor (quad-core, 2.20GHz, 6MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.10GHz), HT technology</p>										<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Genuine Windows® 7 Professional 64 <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										
mSATA™ SSD	None										
Widescreen display Camera	<p>15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</p> <p>HD720p resolution, wider view angle, low light sensitive, fixed focus</p>										
Graphics	<p>NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M, PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays;</p> <p><i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>										
Keyboard TrackPoint® Touchpad ThinkLight™	<p>7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys</p> <p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch</p> <p>Illuminates the keyboard to improve visibility in low-light conditions</p>										
Dimensions (WxDxH) ³	<p><i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm</p> <p><i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm</p>										
Weight ²	6-cell: starting at 5.67 lb (2.57kg); 9-cell: starting at 6.02 lb (2.73kg)										
Case material	<p><i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid;</p> <p><i>Bottom:</i> Glass-fiber reinforced plastic without paint</p>										
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom <i>6-cell (57Whr):</i> up to 7.6 hr; <i>9-cell (94Whr):</i> up to 12.6 hr; <i>9-cell plus slice battery:</i> up to 25.3 hr										
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	<p>Mobile Intel QM67 Express Chipset</p> <p>One slot (ExpressCard/34)</p> <p>None</p> <p>4-in-1 reader (MMC, SD, SDHC, SDXC)</p> <p><i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>										Supports ThinkVantage® technologies
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots</p> <p>11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2</p> <p>Wireless WAN upgradable</p> <p><i>Some:</i> 56K V.92⁶ modem</p> <p>Bluetooth 3.0 wireless, LED indicator</p> <p>Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1</p> <p><i>Some:</i> Intel Active Management Technology (iAMT)</p> <p>High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack</p>										<p>90-watt or 135-watt AC adapter</p> <p>ThinkPad Roll Cage (one-piece magnesium frame)</p> <p>EPEAT™ Gold rating</p> <p>ENERGY STAR® 5.0-compliant</p> <p>RoHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Trusted Platform Module, TCG 1.2-compliant</p> <p><i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>										<p>For compatible accessories, please go to O-T520 sheet;</p> <p>For Lenovo service²² upgrade options, please go to S-TA sheet</p>
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										

See footnotes for more detailed information
 US model(s) announced February 22, May 31, or November 29, 2011
 US model(s) withdrawn effective November 2011, January 2012, or December 2012

ThinkPad® T520 4241 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload
4241-26U	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	Blue	6	vPro	Pro 64

• This system is Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology								Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets								Ready to install applications¹⁴ (only some listed)				
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive								<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap 				
mSATA™ SSD	None												
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut								Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus												
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm												
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)												
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint												
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom												
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr												
Chipset	Mobile Intel QM67 Express Chipset												
ExpressCard	One slot (ExpressCard/34)												
Smart Card Read	None												
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)												
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)								Supports ThinkVantage® technologies				
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable								65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Modem	None												
Bluetooth™	Bluetooth 3.0 wireless, LED indicator								For compatible accessories, please go to O-T520 sheet;				
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)								For Lenovo service ²² upgrade options, please go to S-TA sheet				
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

See footnotes for more detailed information
US model announced February 22, 2011
US model(s) withdrawn effective December 2012

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ThinkPad® T520 4242 - withdrawn

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Smart Card Reader	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4242-4WU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem		Finger	Blue	6	vPro	G	Pro 64
4242-39U	i5-2540M	2GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg				Blue	6	vPro	G	Pro 64
4242-29U	i5-2520M	2GBx2	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg				Blue	6	vPro	G	Pro 64
4242-58U	i5-2540M	4GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg	Modem	Smart			9	vPro	G	Pro 64
4242-62U	i5-2520M	4GBx1	15.6" HD	720p	500G 5400	Intel 6205	WWAN upg			Finger	Blue	6	vPro	G	Pro 64
4242-5ZU	i5-2520M	4GBx1	15.6" HD	720p	160G SSD	Intel 6205	WWAN upg			Finger	Blue	6	vPro	G	Pro 64
4242-5YU	i5-2520M	4GBx1	15.6" HD	720p	320G 5400	Intel 6205	WWAN upg			Finger	Blue	6	vPro	G	Pro 64

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap 				
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
mSATA™ SSD	None										Preloaded applications¹⁴ (only some listed)				
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										For compatible accessories, please go to O-T520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				

See footnotes for more detailed information
US model(s) announced February 22, or April 5, 2011, or January 3, 2012
US model(s) withdrawn effective December 2012

ThinkPad® T520 4242 (Optimus) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Smart Card Reader	Finger print reader	Blue-tooth	Battery Intel vPro	Global (G) GMP (P)	Pre-load
4242-4UU	i7-2620M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem		Finger	Blue	9 vPro	G	Pro 64
4242-4VU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Modem		Finger	Blue	9 vPro	G	Pro 64
4242-27U	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg					9 vPro	G	Pro 64
4242-28U	i5-2540M	2GBx2	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg			Finger	Blue	9 vPro	G	Pro 64
4242-59U	i5-2540M	4GBx1	15.6" HD		320G 7200	Intel 6205	WWAN upg	Modem	Smart			9 vPro		Pro 64
4242-5UU	i7-2640M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Modem		Finger	Blue	9 vPro	G	Pro 64
<ul style="list-style-type: none"> • A depot repair service 3-year limited warranty • Microsoft® Office 2010 Product Key Ready (O10PKR) 														
Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows [®] 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap 			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										Preloaded applications¹⁴ (only some listed)			
mSATA™ SSD	None													
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus													
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm													
Weight ²	<i>6-cell:</i> starting at 5.67 lb (2.57kg); <i>9-cell:</i> starting at 6.02 lb (2.73kg)													
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint													
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom													
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.6 hr; <i>9-cell (94Whr):</i> up to 12.6 hr; <i>9-cell plus slice battery:</i> up to 25.3 hr													
Chipset	Mobile Intel QM67 Express Chipset													
ExpressCard	One slot (ExpressCard/34)													
Smart Card Read	<i>Some:</i> Smart Card reader													
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)													
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										Supports ThinkVantage® technologies			
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots										90-watt AC adapter			
WWAN	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2										ThinkPad Roll Cage (one-piece magnesium frame)			
Modem	Wireless WAN upgradable										EPEAT™ Gold rating			
Bluetooth™	<i>Some:</i> 56K V.92 ⁶ modem										ENERGY STAR® 5.0-compliant			
Ethernet	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator										RoHS-compliant			
Intel AMT	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1										International Warranty Service ¹⁷			
Audio support	Intel Active Management Technology (iAMT)										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Security	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack													
Security chip	Power-on password, hard disk password, supervisor password, security keyhole													
Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant										For compatible accessories, please go to O-T520 sheet;			
	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For Lenovo service ²² upgrade options, please go to S-TA sheet			
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
 US model(s) announced February 22, April 5, or October 11, 2011
 US model(s) withdrawn effective January or December 2012

ThinkPad® T520 4243 (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load	Ann Date (mm/yy)
4243-4WU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	6	vPro	G P	Pro 64	02/11
4243-29U	i5-2520M	2GBx2	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg			Blue	6	vPro	G P	Pro 64	02/11
4243-5ZU	i5-2520M	4GBx1	15.6" HD	720p	160G SSD	Intel 6205	WWAN upg		Finger	Blue	6	vPro	G P	Pro 64	01/12

- Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows [®] 7 Professional 64				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap				
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut														
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Keyboard TrackPoint®	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys														
Touchpad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
ThinkLight™	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm														
Weight ²	<i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint														
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom														
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr														
Chipset	Mobile Intel QM67 Express Chipset														
ExpressCard	One slot (ExpressCard/34)														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots										Supports ThinkVantage® technologies				
WWAN	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable										65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Modem	<i>Some:</i> 56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 3.0 wireless, LED indicator														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced February 22, 2011 or January 3, 2012
US model(s) withdrawn effective December 2012

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ThinkPad® T520 4243 (Optimus) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4243-4UU	i7-2620M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	Modem	Finger	Blue	9	vPro	G P	Pro 64
4243-4VU	i5-2520M	4GBx1	15.6" HD	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	9	vPro	G P	Pro 64
4243-28U	i5-2540M	2GBx2	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg			Blue	9	vPro	G P	Pro 64
4243-27U	i5-2520M	2GBx1	15.6" HD	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G P	Pro 64
4243-5UU	i7-2640M	4GBx1	15.6" HD+	720p	500G 7200	Intel 6205	WWAN upg	Modem	Finger	Blue	9	vPro	G P	Pro 64

- Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Premiere performance; two spindles</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Genuine Windows[®] 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap <p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										
mSATA™ SSD	None										
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut										
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus										
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA NVS™ 4200M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm										
Weight ²	6-cell: starting at 5.67 lb (2.57kg); 9-cell: starting at 6.02 lb (2.73kg)										
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint										
Battery - type	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom										
Battery - life ¹⁰	6-cell (57Whr): up to 7.6 hr; 9-cell (94Whr): up to 12.6 hr; 9-cell plus slice battery: up to 25.3 hr										
Chipset	Mobile Intel QM67 Express Chipset										
ExpressCard	One slot (ExpressCard/34)										
Smart Card Read	None										
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)										
Ports	<i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots										Supports ThinkVantage® technologies
WWAN	11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2										
Modem	Wireless WAN upgradable <i>Some:</i> 56K V.92 ⁶ modem										
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless, LED indicator										
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										For compatible accessories, please go to O-T520 sheet;
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
 US model(s) announced February 22 or October 11, 2011
 US model(s) withdrawn effective January or December 2012

ThinkPad® T520i 4239 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Modem	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4239-47U	i3-2310M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None		6	None	Pro 64
4239-4LU	i3-2350M	4GBx1	15.6" HD	720p	320G 7200	Intel 1000	WWAN upg	None	None	Blue	6	None	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere performance; two spindles</i> Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i3-2350M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64	
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap	
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)	
mSATA™ SSD	None											
Widescreen display Camera	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut HD720p resolution, wider view angle, low light sensitive, fixed focus											
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions (WxDxH) ³ Weight ² Case material	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>6-cell:</i> starting at 5.54 lb (2.51kg); <i>9-cell:</i> starting at 5.89 lb (2.67kg) <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint											
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, support optional Slice battery (0A36304) as 2nd battery at bottom <i>6-cell (57Whr):</i> up to 7.7 hr; <i>9-cell (94Whr):</i> up to 12.8 hr; <i>9-cell plus slice battery:</i> up to 25.6 hr											
Chipset ExpressCard Smart Card Read Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) <i>Integrated model:</i> Four USB 2.0 (one powered), <i>Optimus model:</i> Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack											65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None											For compatible accessories, please go to O-T520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for more detailed information
US model(s) announced March 1 or October 4, 2011
US model(s) withdrawn effective January or December 2012

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Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann 06/23/09
Serial ATA Hard Drive 12.7mm Bay Adapter III	0A65623	ann 02/28/12
DVD Burner Ultrabay Enhanced Drive III	0A65625	ann 06/05/12

Storage and removable storage

500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
1TB 5400rpm SATA 3.0Gb/s 9.5mm 4K HDD ⁴¹	0A65633	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12
250GB 7200rpm SATA 3.0Gb/s OPAL-capable FDE HDD II ⁴¹	0A33985	ann 02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann 02/22/11

⁴¹ Can be used as the main HDD or with
Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 or
Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann 06/05/12
ThinkPad Mini Dock Series 3 - 90W ⁶²	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann 06/05/12
Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09

⁶² Compatible only with dual core models.

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
UltraSlim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Security

3M 15.6W Privacy Filter from Lenovo	0A61771	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann 06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann 06/05/12
ThinkPad Battery 28+++ (9 cell, slice) ⁴³	0A36304	ann 06/05/12

⁴³ To be used along with system battery for all-day computing;
attaches under ThinkPad using docking connector
(not supported when using Series 3 Port Replicator or Docks).

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the *ThinkPad 90W AC Adapter*
40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ^{45, 62}	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter ⁶²	40Y7659	ann 09/20/05
ThinkPad 135W AC Adapter	55Y9317	ann 01/07/10
90W Ultralim AC/DC Combo Adapter ⁶²	41R4493	ann 09/22/09

⁴⁵ Only compatible with the integrated graphics models.

⁶² Compatible only with dual core models.

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12
Lenovo Sport Backpack - Blue	0B47298	ann 08/28/12
Lenovo Sport Slimcase - Blue	0B47300	ann 08/28/12
Lenovo Sport Messenger - Blue	0B47299	ann 08/28/12
Lenovo Sport Backpack - Grey	0B47301	ann 08/28/12
Lenovo Sport Slimcase - Grey	0B47303	ann 08/28/12
Lenovo Sport Messenger - Grey	0B47302	ann 08/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included; use optional

DisplayPort to DisplayPort Monitor Cable 0A36537.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimummonitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann 09/13/11
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500



Lenovo ThinkPad W500

ThinkPad® W500 4062 (Switchable) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat-tery or Turbo cells	Preload	Avail date
4062-24U	T9600	2.80	2GB	15.4" WUXGA	GMA, V5700	160G 7200	DVD±RW	Intel 5100 ²⁸	AT&T ²³	2G Turbo	9 Bus 32	Aug 08
4062-25U	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	200G 7200 FDE	DVD±RW	Intel 5100	AT&T		9 Bus 64	Aug 08
4062-26U	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	200G 7200 FDE	DVD±RW	Intel 5100	WWAN upg		9 Bus 32	Aug 08
4062-27U	T9600	2.80	2GB	15.4" WUXGA	GMA, V5700	160G 7200	DVD±RW	Intel 5100	WWAN upg	2G Turbo	9 XP Pro	Aug 08
4062-35U	T9600	2.80	2GB	15.4" WUXGA	GMA, V5700	160G 7200	DVD±RW	Intel 5100	WWAN upg		9 XP Pro	Sep 08
4062-36U	T9400	2.53	2GB	15.4" WSXGA+	GMA, V5700	160G 7200	DVD±RW	Intel 5100	WWAN upg		9 XP Pro	Sep 08
4062-4FU	T9400	2.53	3GB	15.4" WSXGA+	GMA, V5700	320G 7200	DVD±RW	Intel 5100	WWAN upg		9 XP Pro	Mar 09
4062-4GU	T9600	2.80	3GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100	WWAN upg		9 XP Pro	Mar 09
4062-4HU	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100	AT&T	2G Turbo	9 Bus 64	Mar 09
4062-4JU	T9600	2.80	4GB	15.4" WUXGA	GMA, V5700	250G 7200 FDE	DVD±RW	Intel 5100	WWAN upg		9 Bus 32	Mar 09
4062-4LU	T9600	2.80	3GB	15.4" WUXGA	GMA, V5700	80G SSD	DVD±RW	Intel 5100	WWAN upg		9 XP Pro	Jun 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	Mobile workstation; two spindles Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Business 64 ⇨ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <i>Some:</i> 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 200GB (7200 rpm) Full Disk Encryption [FDE] , 250GB (7200 rpm) Full Disk Encryption [FDE] , or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports second disk, Shock Mounted Hard Drive	
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio	
Camera	Camera on top of screen, 1.3-megapixel, fixed focus	
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell:</i> starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)	
ExpressCard/54 PC Card Smart Card Reader Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5100 ²⁸ WWAN upg AT&T ²³ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available	
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM 4GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-T500 sheet	55Y3706 55Y3707 55Y3708 T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799 T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery III 57Y4536 Other accessories at lenovo.com/accessories	

Supports ThinkVantage® technologies

90-watt (ATI graphics) AC adapter
ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium)
Climate Savers® certified
EPEAT™ Silver rating
ENERGY STAR® 5.0-compliant
RoHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

ThinkPlus™.22 3-year LOR²⁴ 9x5 NBD 41C9176
ThinkPlus 4-year LOR 9x5 NBD 41C9177
ThinkPlus 5-year LOR 9x5 NBD 41C9179
ThinkPlus 4-year P&L P/U Depot 41C9178
ThinkPlus 5-year P&L P/U Depot 41C9180

Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced August 5 or September 23, 2008, March 24, 2009, or June 2, 2009
 US models withdrawn effective September 2008, June 2009 or December 2009

ThinkPad® W500 4062 (Switch) - TS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Preload	Avail date
4062-5DU	T9600	2.80	3GB	15.4" WSXGA+	GMA, V5700	320G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	9 XP Pro	Oct 09
4062-5EU	T9900	3.06	3GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100	WWAN upg	None	9 XP Pro	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ 2 Duo processor T9600 or T9900 with dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	3GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;										
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio										
Camera	Camera on top of screen, 1.3-megapixel, fixed focus										
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536@75Hz</i>										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm <i>9-cell:</i> starting at 6.2 lb (2.8kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr										
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										
ExpressCard/54 PC Card Smart Card Reader Multicard Reader Ports	One slot (ExpressCard/34, ExpressCard/54) One (Type I, Type II), CardBus 32-bit None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										
									Supports ThinkVantage® technologies		
									90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
									ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176		
									ThinkPlus 4-year LOR 9x5 NBD 41C9177		
									ThinkPlus 5-year LOR 9x5 NBD 41C9179		
									ThinkPlus 4-year P&L P/U Depot 41C9178		
									ThinkPlus 5-year P&L P/U Depot 41C9180		
									Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective September 2010

• Intel Centrino® 2 processor technology

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(CR5W-4) September 2010

ThinkPad® W500 4062 (Switchable) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery or cells	Preload	Avail date
4062-5FU	T9900	3.06	4GB	15.4" WUXGA	GMA, V5700	320G 7200	DVD±RW	Intel 5100 ²⁸	AT&T ²³	None	9	Pro 64	Oct 09
4062-5GU	T9900	3.06	4GB	15.4" WUXGA	GMA, V5700	250G FDE	DVD±RW	Intel 5100	WWAN upg	None	9	Pro 64	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications

Positioning	<i>Mobile workstation; two spindles</i>										Preloaded operating system ²⁰
Processor	Intel® Core™ 2 Duo processor T9900 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										- Genuine Windows® 7 Professional 64
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;										Preloaded applications ¹⁴ (only some listed)
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214) One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel 320GB⁸ (7200 rpm) or 250GB (7200 rpm) Full Disk Encryption [FDE] / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display	15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio										
Camera	Camera on top of screen, 1.3-megapixel, fixed focus										
Switchable graphics	Switches between discrete and integrated graphics (Windows 7 only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution: 2048x1536 @ 75Hz</i>										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm										
Weight ²	<i>9-cell:</i> starting at 6.2 lb (2.8kg)										
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type	Lithium Ion 9-cell , supports unique 2nd battery in Ultrabay Slim										
Battery - life ¹⁰	<i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr										
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										Supports ThinkVantage® technologies
ExpressCard/54 PC Card	One slot (ExpressCard/34, ExpressCard/54)										90-watt (ATI graphics) AC adapter
Smart Card Read	One (Type I, Type II), CardBus 32-bit										ThinkPad Roll Cage and Top Cover
Multicard Reader	None										Roll Cage (one-piece magnesium)
Ports	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)										Climate Savers® certified
	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										EPEAT™ Silver rating
Mini PCI Express	Three Mini PCI Express slots										ENERGY STAR® 5.0-compliant
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										RoHS-compliant
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										International Warranty Service ¹⁷
AT&T ²³	<i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adapter, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
2G Turbo	None										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD
UWB	None										41C9176
Modem	56K V.92 ⁶ modem										ThinkPlus 4-year LOR 9x5 NBD
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										41C9177
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1										ThinkPlus 5-year LOR 9x5 NBD
Intel AMT	None										41C9179
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus 4-year P&L P/U Depot
Security	Power-on password, hard disk password, supervisor password, security keyhole										41C9178
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										ThinkPlus 5-year P&L P/U Depot
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										41C9180
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective September 2010

✦ Intel Centrino® 2 processor technology

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ThinkPad® W500 4061 (Switchable) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Cam-era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery cells	Whorse (W) Gbl (G)	Avail date
4061-2HU	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN upg		9	Bus 32	Aug 08
4061-2KU	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	200G FDE	DVD±RW	Intel 5300	WWAN upg		9	Bus 32	Aug 08
4061-2ZU	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg		9	Bus 32 W G	Sep 08
4061-32U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200	DVD±RW	Intel 5300	WWAN upg	2GB Turbo	9	Bus 64 W	Sep 08
4061-38U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200	DVD±RW	Intel 5300	WWAN upg		9	XP Pro	Sep 08
4061-3FU	T9400	2.53	2GB	15.4" WUXGA		GMA, V5700	160G 7200	DVD±RW	Intel 5300	WWAN upg	2GB Turbo	6	Bus 32 G	Sep 08
4061-4PU	T9600	2.80	3GB	15.4" WUXGA	Cam	GMA, V5700	80G SSD	DVD±RW	Intel 5100	WWAN upg		9	Bus 32	Jun 09

- **Power-packed engineering with Open GL graphics and ISV certifications**

Positioning	<i>Mobile workstation; two spindles</i>										Preloaded operating system²⁰			
Processor	Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										- <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business			
Memory	2GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										- <i>Some:</i> Genuine Windows Vista Business 32			
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214)										- <i>Some:</i> Genuine Windows Vista Business 64			
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel										◇ <i>Vista models:</i> Vista Premium logo			
SATA disk	<i>Some:</i> 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm) or 200GB (7200 rpm) Full Disk Encryption [FDE] / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports second disk, Shock Mounted Hard Drive										Preloaded applications¹⁴ (all OSes; only some listed)			
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio; <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus										Supports ThinkVantage® technologies			
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45, and ATI™ Mobility FireGL™ V5700 , PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz										90-watt (ATI graphics) AC adapter			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										ThinkPad Roll Cage and Top Cover			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										Roll Cage (one-piece magnesium)			
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label										Climate Savers® certified			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										EPEAT™ Silver rating			
Dimensions ³	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10" x 1.2–1.3"; 357.5mm x 255mm x 30–34mm										ENERGY STAR® 5.0-compliant			
Weight ²	<i>9-cell:</i> starting at 6.2 lb (2.8kg)										RoHS-compliant			
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										International Warranty Service ¹⁷			
Battery - type	Lithium Ion 6-cell or 9-cell , supports unique 2nd battery in Ultrabay Slim										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Battery - life ¹⁰	<i>9-cell:</i> up to 9.4 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.9 hr										via 800-426-7378			
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54										41C9176			
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit										ThinkPlus 4-year LOR 9x5 NBD			
Smart Card Read	None										41C9177			
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)										ThinkPlus 5-year LOR 9x5 NBD			
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ThinkPlus 4-year P&L P/U Depot			
Mini PCI Express	Three Mini PCI Express slots										ThinkPlus 5-year P&L P/U Depot			
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										41C9178			
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3										ThinkPlus 4-year P&L P/U Depot			
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										41C9179			
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator										ThinkPlus 5-year P&L P/U Depot			
UWB	None										41C9180			
Modem	56K V92 ⁶ modem										Post-warranty annual maintenance agreements at			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										lenovo.com/thinkplus/warranty			
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information ◇ Intel Centrino® 2 with vPro™ technology
 US models announced August 5, September 23, 2008 or June 2, 2009
 US models withdrawn effective August 2009, February 2010 or September 2010

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 (CR5W-2) September 2010

ThinkPad® W500 4063 (Switchable) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Cam-era	Switchable graphics	Disk SATA GB ⁸ rpm	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery cells	Whorse (W) GMP(P) Avail	date
4063-33U	T9400	2.53	4GB	15.4" WSXGA+		GMA, V5700	160G 7200	DVD±RW	Intel 5100 ²⁸	WWAN upg		9	Bus 32	WGP Sep 08
4063-34U	T9600	2.80	4GB	15.4" WUXGA	Cam	GMA, V5700	160G 7200	DVD±RW	Intel 5300 ²⁸	WWAN upg	2GB Turbo	9	Bus 64	W Sep 08
4063-3FU	T9400	2.53	2GB	15.4" WUXGA		GMA, V5700	160G 7200	DVD±RW	Intel 5300	WWAN upg	2GB Turbo	6	Bus 32	GP Sep 08

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Power-packed engineering with Open GL Graphics and ISV certifications

Positioning	<i>Mobile workstation; two spindles</i>										
Processor	Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, Ultrabay Slim, removable (43N3214)										
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel										
SATA disk	160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	<i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio; <i>Some:</i> 15.4" (391mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio										
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus										
Switchable graphics	Switches between discrete and integrated graphics (Vista only), Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45, and ATI™ Mobility FireGL™ V5700, PCI Express x16, 512MB memory, digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	6-cell 15.4W" (WxDxH): 14.1" x 10" x 1.2-1.3"; 357.5mm x 255mm x 30-34mm										
Weight ²	9-cell: starting at 6.2 lb (2.8kg)										
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type	Lithium Ion 6-cell or 9-cell, supports unique 2nd battery in Ultrabay Slim										
Battery - life ¹⁰	9-cell: up to 9.4 hr; 9-cell plus Ultrabay battery: up to 10.9 hr										
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus (WPCN385 Super I/O)										
ExpressCard slot	One ExpressCard/34 or ExpressCard/54										
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit										
Smart Card Read	None										
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)										
Ports	Three USB 2.0, external monitor ¹¹ (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Mini PCI Express	Three Mini PCI Express slots										
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3										
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator										
UWB	None										
Modem	56K V.92 ⁶ modem										
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant 20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										
	Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Business 64 ◇ Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)										
	Supports ThinkVantage® technologies										
	90-watt (ATI graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378										
	ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty										

See footnotes for important warranty information

◆ Intel Centrino® 2 with vPro™ technology

US models announced September 23, 2008

US models withdrawn effective February or September 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III	43N3412	ann	06/23/09
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Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8" (2.5" cover)	43N3417	ann	06/23/09

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultrabay Slim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
T500/R500/W500 Series 15W Privacy Filter	43R2474	ann	08/05/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

Batteries

ThinkPad Battery 41+ (6-cell)	40Y6799	ann	01/05/06
ThinkPad Battery 41++ (9-cell)	40Y6797	ann	09/20/05
ThinkPad Battery 42 (3-cell, bay) ⁴³	57Y4536	ann	08/25/09
⁴³ Used in Ultrabay Slim bay.			
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05
⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.			

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann	01/05/06
⁴⁵ Only compatible with the integrated graphics models.			
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

More information at www.lenovo.com/support/cases

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.			

More information at www.lenovo.com/support/monitoraccessories

More infoFor more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

More infoOther accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad W510



Lenovo ThinkPad W510



ThinkPad Mini Dock Plus Series 3 - 135W
433820U



ThinkPad 135W AC Adapter
55Y9317



Lenovo ThinkPad W510



Lenovo ThinkPad W510

ThinkPad® W510 4319 (TopSeller) - XP with Win 7 License - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	RAID	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Color calib	Intel vPro	Preload	Avail date
4319-4CU	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+	2.0M	320G 7200	None	Intel 6300 ²⁸	WWAN upg	None	vPro	XP Pro	Feb 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **Power-packed engineering with Open GL graphics and ISV certifications**

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7 processor i7-720QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 6MB cache	Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32
Memory	2GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Widescreen display	15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut	
Color calibration	None	
Camera	Camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>15.6W" (WxDxH): 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm</i>	
Weight ²	<i>6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)</i>	
Case material	<i>Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic</i>	
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom	
Battery - life ¹⁰	<i>6-cell: up to 3.0 hr; 9-cell: up to 5.1 hr; 9-cell plus slice battery: up to 10.5 hr</i>	Supports ThinkVantage® technologies
Chipset	Mobile Intel QM57 Express Chipset	
ExpressCard/34	One slot (ExpressCard/34)	
Smart Card Read	None	
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)	
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card	Two PCI Express Mini Card slots	
Intel 6300 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3	
WWAN upg	Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176
Bluetooth™	Bluetooth 2.1 wireless, LED indicator	ThinkPlus 4-year LOR 9x5 NBD 41C9177
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	ThinkPlus 5-year LOR 9x5 NBD 41C9179
Intel AMT	Intel Active Management Technology (iAMT)	ThinkPlus 4-year P&L P/U Depot 41C9178
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus 5-year P&L P/U Depot 41C9180
Security	Power-on password, hard disk password, supervisor password, security keyhole	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security chip	Trusted Platform Module, TCG 1.2-compliant	
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US model announced February 2, 2010
US model withdrawn effective October 2010

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(KN1W-4) October 2010

ThinkPad® W510 4319 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Disk SATA GB ³ rpm	RAID	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Color calib	Intel vPro	Preload	Avail date
4319-2NU	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+		320G 7200	None	Intel 6300 ²⁸	WWAN upg			vPro	Pro 32	Jan 10
4319-2PU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	WWAN upg			vPro	Pro 64	Jan 10
4319-2QU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	Gobi 2000			vPro	Pro 64	Jan 10
4319-2RU	i7-820QM	1.73	3.06	2GBx2 1066	15.6" FHD	Multi	320G 7200	None	Intel 6300	WWAN upg		X-Rite	vPro	Pro 64	Jan 10
4319-4BU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" FHD		320G 7200	None	Intel 6300	Gobi 2000	AT&T ²³		vPro	Pro 64	Feb 10
4319-4MU	i7-720QM	1.60	2.80	2GBx2 1066	15.6" HD+		320G 7200	None	Intel 6300	Gobi 2000	AT&T		vPro	Pro 64	Mar 10
4319-64U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD+		320G 7200	None	Intel 6300	WWAN upg			vPro	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 6MB cache; i7-820QM: 8MB cache</i>											Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 242 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut, MultiTouch (touchscreen supports two-finger touch)														
Color calibration Camera	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus														
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions (WxDxH) ³	<i>HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>FHD MultiTouch:</i> 14.68" x 9.65" x 1.35-1.57"; 372.8mm x 245.1mm x 34.3-39.8mm														
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)														
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic														
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery at bottom														
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr														
Chipset	Mobile Intel QM57 Express Chipset											Supports ThinkVantage® technologies			
ExpressCard/34	One slot (ExpressCard/34)														
Smart Card Read	None											135-watt AC adapter			
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)											ThinkPad Roll Cage (one-piece magnesium frame)			
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											EPEAT™ Gold rating			
PCIe Mini Card	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider											ENERGY STAR® 5.0-compliant			
Intel 6300 ²⁸												RoHS-compliant			
WWAN upg												International Warranty Service ¹⁷			
Gobi™ 2000												24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Carrier	<i>Some:</i> AT&T®, contract required with service provider											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176			
Modem	56K V.92 ⁶ modem											ThinkPlus 4-year LOR 9x5 NBD 41C9177			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											ThinkPlus 4-year P&L P/U Depot 41C9178			
Intel AMT	Intel Active Management Technology (iAMT)											ThinkPlus 5-year P&L P/U Depot 41C9180			
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for important warranty information
US models announced January 7, February 2, March 2, or September 28, 2010
US models withdrawn effective February 2010 or June 2011

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(KN1W-1) June 2011

ThinkPad® W510 4319 (TopSeller) - Windows 7 (July 2010) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Disk SATA GB ³ rpm	RAID	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Color calib	Bat-tery cells	Intel vPro	Preload	Avail date
4319-5RU	i5-520M	2.40	2.93	2GBx1	1066 15.6" HD+	320G 7200	None	Intel 6300 ²⁸	WWAN upg	None	9		Pro 64	Jul 10
4319-5SU	i7-620M	2.66	3.33	2GBx2	1066 15.6" FHD	320G 7200	None	Intel 6300	WWAN upg	None	9		Pro 64	Jul 10
4319-5XU	i5-560M	2.66	3.20	4GBx1	1333 15.6" HD+	320G 7200	None	Intel 6200 ²⁸	WWAN upg	None	6	vPro	Pro 64	Sep 10
4319-65U	i5-560M	2.66	3.20	2GBx1	1066 15.6" HD+	320G 7200	None	Intel 6300	WWAN upg	None	9	vPro	Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i5 processor i5-520M or i5-560M with dual-core, or Intel Core i7 processor i7-620M with dual-core. DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M/i5-560M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed)			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<i>Some: 15.6"</i> (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some: 15.6"</i> (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut													
Color calibration	None													
Camera	Camera on top of screen, 2.0-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</i>													
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	<i>HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm													
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)													
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic													
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery													
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr													
Chipset	Mobile Intel QM57 Express Chipset										Supports ThinkVantage® technologies			
ExpressCard/34	One slot (ExpressCard/34)										135-watt AC adapter			
Smart Card Read	None										ThinkPad Roll Cage (one-piece magnesium frame)			
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)										EPEAT™ Gold rating			
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										ENERGY STAR® 5.0-compliant			
PCIe Mini Card	Two PCI Express Mini Card slots										RoHS-compliant			
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2										International Warranty Service ¹⁷			
Intel 6300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
WWAN upg	Wireless WAN upgradable										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176			
Modem	56K V.92 ⁵ modem										ThinkPlus 4-year LOR 9x5 NBD 41C9177			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus 4-year P&L P/U Depot 41C9178			
Intel AMT	Intel Active Management Technology (iAMT)										ThinkPlus 5-year P&L P/U Depot 41C9180			
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack										Post-warranty annual maintenance agreements at			
Security	Power-on password, hard disk password, supervisor password, security keyhole										lenovo.com/thinkplus/warranty			
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced July 13 or September 28, 2010
US models withdrawn effective February or June 2011

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ThinkPad® W510 4389 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Wide-screen display	Multi-Touch Screen	Cam-era	Disk SATA GB ⁸	rpm	RAID	SATA optical	PCIe Mini Card 802.11	Blue/Color Fing calib	Bat-tery Intel vPro	Pre-load	GMP (P) Gbl (G)	Avail (date)	
4389-22U	i7-720QM	1.60	2.80	2GBx1 1066	15.6"	HD	250G	5400		DVD±RW	Intel 6200 ²⁸		6	vPro	Pro 32	G Jan 10	
4389-23U	i7-820QM	1.73	3.06	2GBx2 1066	15.6"	HD+	320G	7200		DVD±RW	Intel 6200	Yes	9	vPro	Pro 32	G Jan 10	
4389-24U	i7-820QM	1.73	3.06	4GBx1 1333	15.6"	HD+	500G	7200	1		Intel 6300 ²⁸	Yes	9	vPro	Pro 64	Jan 10	
4389-2SU	i7-920XM	2.00	3.20	4GBx1 1333	15.6"	HD+	320G	7200	1		Intel 6300	Yes	9		Pro 64	Jan 10	
4389-2TU	i7-720QM	1.60	2.80	2GBx2 1066	15.6"	HD+	320G	7200		DVD±RW	Intel 6200	Yes	9	vPro	Pro 32	Jan 10	
4389-2UU	i7-820QM	1.73	3.06	2GBx2 1066	15.6"	FHD Multi	500G	7200		DVD±RW	Intel 6300	Yes	X-Rite	9	vPro	Pro 32	Jan 10
4389-N9U	i7-820QM	1.73	3.06	4GBx1 1333	15.6"	FHD	320G	7200		DVD±RW	Intel 6300	Yes	X-Rite	6	vPro	Pro 64	G Aug 10

- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7 processor i7-720QM, i7-820QM, or i7-920XM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 6MB cache; i7-820QM/i7-920XM: 8MB cache</i>											Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets											Preloaded applications ¹⁴ (only some listed)				
SATA DVD±RW Ultrabay Enhanced SATA disk	<i>Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable</i> One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 250GB ⁸ (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models) 				
Widescreen display	<i>Some: 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</i> <i>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</i> <i>Some: 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut</i> <i>Some: 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 242 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut, MultiTouch (touchscreen supports two-finger touch)</i>															
Color calibration Camera	<i>Some: huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest</i> <i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>															
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>															
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>FHD MultiTouch:</i> 14.68" x 9.65" x 1.35-1.57"; 372.8mm x 245.1mm x 34.3-39.8mm															
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)															
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic															
Battery - type	Lithium Ion 6-cell or 9-cell , supports optional Slice battery (57Y4545) as 2nd battery															
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr															
Chipset	Mobile Intel QM57 Express Chipset											Supports ThinkVantage® technologies				
ExpressCard/34	One slot (ExpressCard/34)											135-watt AC adapter				
Smart Card Read	None											ThinkPad Roll Cage (one-piece magnesium frame)				
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)											EPEAT™ Gold rating				
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											ENERGY STAR® 5.0-compliant				
PCIe Mini Card	Two PCI Express Mini Card slots											RoHS-compliant				
Intel 6200 ²⁸	<i>Some: 11a/b/g/n wireless⁴, PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2</i>											International Warranty Service ¹⁷				
Intel 6300 ²⁸	<i>Some: 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3</i>											24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
WWAN upg	Wireless WAN upgradable											ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD				
Modem	56K V.92 ⁵ modem											41C9176				
Bluetooth™	<i>Some: Bluetooth 2.1 wireless, LED indicator</i>											ThinkPlus 4-year LOR 9x5 NBD				
Ethernet	<i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											41C9177				
Intel AMT	Intel Active Management Technology (iAMT)											ThinkPlus 5-year LOR 9x5 NBD				
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											41C9179				
Security	Power-on password, hard disk password, supervisor password, security keyhole											ThinkPlus 4-year P&L P/U Depot				
Security chip	Trusted Platform Module, TCG 1.2-compliant											41C9178				
Fingerprint reader	<i>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</i>											ThinkPlus 5-year P&L P/U Depot				
												41C9180				
												Post-warranty annual maintenance agreements at				
												lenovo.com/thinkplus/warranty				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced January 7 or August 3, 2010
US models withdrawn effective February or June 2011

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ThinkPad® W510 4389 (Windows 7) - July 2010 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	RAID	PCIe Mini Card 802.11	Smart Card Reader	Finger print reader	Blue-tooth	Intel vPro	Preload Gbl (G)	Workhorse (W) GMP (P) Avail date
4389-P2U	i7-620M	2.66	3.33	4GBx2 1333	15.6" FHD	2.0M	500G 7200	No	Intel 6200 ²⁸		Finger	Blue	No	Pro 64	G Jul 10
4389-P3U	i7-620M	2.66	3.33	2GBx2 1066	15.6" HD+		160G 7200	No	Intel 6200	Smart		Blue	No	Pro 64	G Jul 10
4389-P9U	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD		250G 5400	No	Intel 6200				No	Pro 32	G Jul 10
4389-PAU	i7-620M	2.66	3.33	2GBx2 1066	15.6" HD+		320G 7200	No	Intel 6200		Finger	Blue	No	Pro 32	G Jul 10

- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, or Intel Core i7 processor i7-620M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M: 3MB cache; i7-620M: 4MB cache</i>	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB, 4GB, or 8GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 160GB⁶ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut	
Color calibration	None	
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions (WxDxH) ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>HD & HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg) <i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery <i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr	Supports ThinkVantage® technologies
Chipset ExpressCard/34 Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁵ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for important warranty information
US models announced July 13, 2010
US models withdrawn effective February or June 2011

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Type-model	Processor	Max Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁸ rpm	RAID	PCIe Mini Card 802.11	Blue/ Fing	Color calib	Bat- tery Intel vPro	Workhorse (W) GMP (P) Avail date
4391-22U	i7-720QM	1.60	2.80	2GBx1 1066	15.6" HD		250G 5400	None	Intel 6200 ²⁸			6 vPro	Pro 32 G P Jan 10
4391-23U	i7-820QM	1.73	3.06	2GBx2 1066	15.6" HD+		320G 7200	None	Intel 6200	Yes		9 vPro	Pro 32 G P Jan 10
4391-N9U	i7-820QM	1.73	3.06	4GBx1 1333	15.6" FHD	2.0M	320G 7200	None	Intel 6300 ²⁸	Yes	X-Rite	6 vPro	Pro 64 G P Aug 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning	<i>Mobile workstation; two spindles</i>											
Processor	Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; i7-720QM: 6MB cache; i7-820QM: 8MB cache											Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, four 204-pin SO-DIMM sockets											Preloaded applications ¹⁴ (only some listed)
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access											
SATA disk	250GB ⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut											
Color calibration	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest											
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus											
Discrete graphics	NVIDIA® Quadro® FX880M, PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touchpad	UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions (WxDxH) ³	HD & HD+: 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm FHD: 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm											
Weight ²	6-cell: starting at 5.66 lb (2.57kg); 9-cell: starting at 6.01 lb (2.72kg)											
Case material	Display cover: Glass-fiber reinforced plastic; Base: Carbon-fiber reinforced plastic											
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery											
Battery - life ¹⁰	6-cell: up to 3.0 hr; 9-cell: up to 5.1 hr; 9-cell plus slice battery: up to 10.5 hr											
Chipset	Mobile Intel QM57 Express Chipset											
ExpressCard/34	One slot (ExpressCard/34)											
Smart Card Read	None											
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)											
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
PCIe Mini Card	Two PCI Express Mini Card slots											Supports ThinkVantage® technologies
Intel 6200 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2											135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Intel 6300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3											
WWAN upg	Wireless WAN upgradable											
Modem	56K V.92 ⁶ modem											
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											ThinkPlus™. ²² 4-year LOR 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced on January 7 or August 3, 2010
 US models withdrawn effective June 2011

Type-model	Processor	Max Base (GHz)	Max turbo (GHz)	Memory (MHz)	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	RAID	PCIe Mini Card 802.11	Smart Card Reader	Finger print reader	Blue-tooth	Intel vPro	Preload	Workhorse (W) GMP (P) Gbl (G)	Avail date
4391-P2U	i7-620M	2.66	3.33	4GBx2 1333	15.6" FHD	2.0M	500G 7200	No	Intel 6200 ²⁸		Finger	Blue	No	Pro 64	G P	Jul 10
4391-P3U	i7-620M	2.66	3.33	2GBx2 1066	15.6" HD+		160G 7200	No	Intel 6200	Smart		Blue	No	Pro 64	G P	Jul 10
4391-P9U	i5-520M	2.40	2.93	2GBx1 1066	15.6" HD		250G 5400	No	Intel 6200				No	Pro 32	G P	Jul 10
4391-PAU	i7-620M	2.66	3.33	2GBx2 1066	15.6" HD+		320G 7200	No	Intel 6200		Finger	Blue	No	Pro 32	G P	Jul 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Power-packed engineering with Open GL graphics and ISV certifications
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i5 processor i5-520M with dual-core, or Intel Core i7 processor i7-620M with dual-core. DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i5-520M: 3MB cache; i7-620M: 4MB cache</i>										Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Professional 32 - <i>Some:</i> Genuine Windows 7 Professional 64					
Memory	2GB, 4GB, or 8GB std / 8GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)					
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access 160GB⁸ (7200 rpm), 250GB (5400 rpm), 320GB (7200 rpm), or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports second disk, Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> 15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight , 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight , 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut															
Color calibration	None															
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus															
Discrete graphics	NVIDIA® Quadro® FX880M , PCI Express® x16, 1GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)															
Keyboard TrackPoint® Touchpad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keybrd, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.26-1.41"; 372.8mm x 245.1mm x 32-35.8mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm															
Weight ²	<i>6-cell:</i> starting at 5.66 lb (2.57kg); <i>9-cell:</i> starting at 6.01 lb (2.72kg)															
Case material	<i>Display cover:</i> Glass-fiber reinforced plastic; <i>Base:</i> Carbon-fiber reinforced plastic															
Battery - type	Lithium Ion 9-cell , supports optional Slice battery (57Y4545) as 2nd battery															
Battery - life ¹⁰	<i>6-cell:</i> up to 3.0 hr; <i>9-cell:</i> up to 5.1 hr; <i>9-cell plus slice battery:</i> up to 10.5 hr															
Chipset	Mobile Intel QM57 Express Chipset															
ExpressCard/34	One slot (ExpressCard/34)															
Smart Card Read	<i>Some:</i> Smart Card reader															
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)															
Ports	Two USB 3.0, one Powered USB 2.0, one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
PCIe Mini Card	Two PCI Express Mini Card slots															
Intel 6200 ²⁸	11a/b/g/n wireless ⁴ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6200, 2x2															
WWAN upg	Wireless WAN upgradable															
Modem	56K V.92 ⁶ modem															
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / speaker volume up, down and mute buttons / dual array microphone, mic mute button, combo audio/mic jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available															
											Supports ThinkVantage® technologies					
											135-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
											ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					

See footnotes for important warranty information
US models announced July 13, 2010
US models withdrawn effective February or June 2011

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09
1GB PC3-10600 DDR3 L-H SODIMM	55Y3709	ann 03/02/10
1GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4415	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412	ann 06/23/09
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Ultrabay Enhanced 12.7mm

DVD Burner Ultrabay Enhanced II SATA	43N3294	ann 01/07/10
Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295	ann 01/07/10

Storage and removable storage

500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10
⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay		
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

T510:

ThinkPad Port Replicator Series 3	433610W	ann 06/23/09
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Plus Series 3 - 90W	433810U	ann 06/23/09

W510:

ThinkPad Mini Dock Plus Series 3 - 170W	433830U	ann 02/22/11
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All:

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

W510:

3M 15.6W Privacy Filter from Lenovo	0A61771	ann 04/05/11
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Batteries

ThinkPad Battery 55+ (6-cell)	57Y4185	ann 03/30/10
ThinkPad Battery 55++ (9-cell)	57Y4186	ann 03/30/10
ThinkPad Battery 27++ (9-cell, slice) ⁴³	57Y4545	ann 01/07/10
⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using Series 3 Port Replicator or Docks).		

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter 40Y7659</i> or the adapter provided with the system.		

More information at www.lenovo.com/alldaycomputing

T510:

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	ann 01/05/06
⁴⁵ Only compatible with the integrated graphics models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

W510:

ThinkPad 135W AC Adapter	55Y9317	ann 01/07/10
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More info at www.lenovo.com/support/poweradapters

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Backpack	43R2482	ann 05/13/08

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10

More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad W520



Lenovo ThinkPad W520



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Lenovo ThinkPad W520

ThinkPad® W520 4270 (Optimus) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ² rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Finger print reader	Blue-tooth	Color calib	Bat-tery cells	Intel vPro	Preload
4270-26U	i7-2620M	4GBx1	15.6" HD	1000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg	None	Blue	None	9	vPro	Pro 64

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **Power-packed engineering with Open GL graphics and ISV certifications**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Mobile workstation; two spindles Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable										Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox			
Optical Ultrabay SATA disk	DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive										Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)			
mSATA™ SSD	None													
Widescreen display	15.6" (396mm) HD (1366x768) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut										Supports ThinkVantage® technologies			
Color calibration Camera	None HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M , PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm										For compatible accessories, please go to O-W520 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet			
Weight ²	<i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)													
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint										Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell (57Whr):</i> up to 6.6 hr; <i>9-cell (94Whr):</i> up to 10.9 hr; <i>9-cell plus slice battery:</i> up to 21.9 hr													
Chipset ExpressCard Smart Card Reader Multicard Reader Ports	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) None 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													

See footnotes for more detailed information
US model announced February 22, 2011
US model withdrawn effective January 2012

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(KN3W-1) January 2012

ThinkPad® W520 4276 (Optimus) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Color calib	Battery cells	Intel AMT	Intel vPro	Preload
4276-2QU	i7-2720QM	4GBx1	15.6" FHD	2000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg				9	iAMT	vPro	Pro 64
4276-2PU	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg				9	iAMT	vPro	Pro 64
4276-23U	i7-2920XM	4GBx4	15.6" FHD	2000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Finger	X-Rite	9	iAMT		Pro 64
4276-39U	i7-2820QM	4GBx2	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger		9	iAMT	vPro	Pro 64
4276-38U	i7-2720QM	4GBx1	15.6" HD+	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger		9	iAMT	vPro	Pro 64
4276-37U	i7-2720QM	4GBx2	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger		9	iAMT	vPro	Pro 64
4276-3AU	i7-2630QM	4GBx2	15.6" HD+	1000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Finger		9			Pro 64

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty

Positioning Processor	<p><i>Mobile workstation; two spindles</i> Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2630QM processor (quad-core, 2.00GHz, 6MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-2720QM processor (quad-core, 2.20GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2820QM processor (quad-core, 2.30GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2920XM processor (quad-core, 2.50GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox</p>				
Memory	<p><i>dual-core model:</i> 16GB max⁷, two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable</p>										<p>Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)</p>				
Optical Ultrabay SATA disk	<p>DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive</p>														
mSATA™ SSD	<p>None</p>														
Widescreen display	<p><i>Some:</i> 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut</p>														
Color calibration Camera	<p><i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest HD720p resolution, wider view angle, low light sensitive, fixed focus</p>														
Graphics	<p>NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M, PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>														
Keyboard TrackPoint® Touchpad ThinkLight™	<p>7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions</p>														
Dimensions (WxDxH) ³	<p><i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm</p>														
Weight ²	<p><i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)</p>														
Case material	<p><i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint</p>														
Battery - type Battery - life ¹⁰	<p>Lithium Ion 6-cell or 9-cell, supports optional Slice battery (57Y4545) as 2nd battery at bottom <i>6-cell (57Whr):</i> up to 6.6 hr; <i>9-cell (94Whr):</i> up to 10.9 hr; <i>9-cell plus slice battery:</i> up to 21.9 hr</p>														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	<p>Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>										<p>Supports ThinkVantage® technologies</p>				
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable 56K V.92⁶ modem Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack</p>										<p>170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>				
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>										<p>For compatible accessories, please go to O-W520 sheet; For ThinkPlus™, ²² service upgrade options, please go to S-TA sheet</p>				
Limited warranty ¹²	<p>3-years/1-yr battery - depot repair service / service upgrades²² available</p>														

See footnotes for more detailed information
 US models announced February 22, March 1, or June 21, 2011
 US models withdrawn effective November 2011 or January 2012

ThinkPad® W520 4276 (Optimus) - TopSeller (October 2011) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Color calib	Bat-tery cells	Intel AMT	Intel vPro	Preload
4276-3LU	i7-2860QM	4GBx2	15.6" FHD	1000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		Finger		9	iAMT	vPro	Pro 64
4276-3KU	i7-2760QM	4GBx1	15.6" HD+	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger		9	iAMT	vPro	Pro 64
4276-3JU	i7-2760QM	4GBx2	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Finger		9	iAMT	vPro	Pro 64
4276-3NU	i7-2960XM	4GBx4	15.6" FHD	2000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Finger	X-Rite	9	iAMT	vPro	Pro 64
4276-3MU	i7-2760QM	4GBx1	15.6" FHD	2000M	720p	500G 7200	Intel 6205	WWAN upg		Finger		9	iAMT	vPro	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**

Positioning Processor	<p><i>Mobile workstation; two spindles</i> Intel® Core™ i7-2760QM processor (quad-core, 2.40GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-2860QM processor (quad-core, 2.50GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-2960XM processor (quad-core, 2.70GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.70GHz), HT technology</p>										<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox</p> <p>Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)</p>				
Memory	<p><i>dual-core model:</i> 16GB max⁷, two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets All: PC3-10600 1333MHz DDR3, non-parity, dual-channel capable</p>														
Optical Ultrabay SATA disk	<p>DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ All: removable, upgradable, supports the second disk, Shock Mounted Hard Drive</p>														
mSATA™ SSD	None														
Widescreen display	<p>Some: 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut Some: 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut</p>														
Color calibration Camera	<p>Some: huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest HD720p resolution, wider view angle, low light sensitive, fixed focus</p>														
Graphics	<p>NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M, PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>														
Keyboard TrackPoint® Touchpad ThinkLight™	<p>7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch Illuminates the keyboard to improve visibility in low-light conditions</p>														
Dimensions (WxDxH) ³	<p><i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm</p>														
Weight ²	<p><i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)</p>														
Case material	<p><i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint</p>														
Battery - type Battery - life ¹⁰	<p>Lithium Ion 6-cell or 9-cell, supports optional Slice battery (0A36304) as 2nd battery at bottom <i>6-cell (57Whr):</i> up to 6.6 hr; <i>9-cell (94Whr):</i> up to 10.9 hr; <i>9-cell plus slice battery:</i> up to 21.9 hr</p>														
Chipset ExpressCard Smart Card Read Multicard Reader Ports	<p>Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) Some: Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>										<p>Supports ThinkVantage® technologies</p>				
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable 56K V.92⁶ modem Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack</p>										<p>170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>				
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>										<p>For compatible accessories, please go to O-W520 sheet; For Lenovo service²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV</p>				
Limited warranty ¹²	<p>3-years/1-yr battery - depot repair service / service upgrades²² available</p>														

See footnotes for more detailed information
 US model(s) announced October 11 or November 1, 2011
 US model(s) withdrawn effective December 2012

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ThinkPad® W520 4282 (Optimus) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Color calib	Battery cells	Global Intel vPro (G) GMP (P)	Pre-load
4282-3SU	i7-2720QM	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		Fing		9	vPro	Pro 64
4282-3RU	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Fing		9	vPro	Pro 64
4282-26U	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg		Fing	X-Rite	9	vPro	G Pro 64
4282-23U	i7-2820QM	4GBx2	15.6" FHD	2000M	720p	500G 7200	Intel 6300 ²⁸	WWAN upg		Fing		9	vPro	G Pro 64
4282-24U	i7-2720QM	4GBx1	15.6" FHD	2000M	720p	500G 7200	Intel 6300	WWAN upg				9	vPro	G Pro 64
4282-25U	i5-2540M	2GBx2	15.6" HD+	1000M	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G Pro 64
4282-4CU	i7-2720QM	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Fing		9	vPro	G Pro 64
4282-4BU	i7-2620M	4GBx1	15.6" HD+	1000M		320G 7200	Intel 6205	WWAN upg	Smart			9	vPro	G Pro 64

• Power-packed engineering with Open GL graphics and ISV certifications

Positioning Processor	<p><i>Mobile workstation; two spindles</i></p> <p>Intel® Core™ i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</p> <p>Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology</p> <p>Intel Core i7-2720QM processor (quad-core, 2.20GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</p> <p>Intel Core i7-2820QM processor (quad-core, 2.30GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> Genuine Windows® 7 Professional 64 <p>Ready to install applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Fingerprint Software (fingerprint models) Password Manager (fingerprint models) ThinkVantage System Update ThinkVantage Power Manager ThinkVantage Toolbox <p>Preloaded applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> Norton™ Internet Security 2011 (30 days of virus definitions) Adobe® Reader® Skype™ for Windows Windows Live™ Essentials Microsoft Office 2010 preloaded; purchase product key to activate Corel® WinDVD® (DVD±RW) Corel Burn.Now™ Lenovo Edition (DVD±RW) Corel DVD MovieFactory® Lenovo Edition (DVD±RW) huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)
Memory	<p><i>dual-core model:</i> 16GB max⁷, two 204-pin SO-DIMM sockets</p> <p><i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets</p> <p><i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable</p>	
Optical	DVD burner, 12.7mm Ultrabay Enhanced, removable	
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access	
SATA disk	<p><i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high</p> <p><i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™</p> <p><i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive</p>	
mSATA™ SSD	None	
Widescreen display	<p><i>Some:</i> 15.6" (396mm) HD+ (1600x900) color, anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut</p> <p><i>Some:</i> 15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut</p>	
Color calibration	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest	
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	<p>NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M, PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays;</p> <p><i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@85Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)</p>	
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions (WxDxH) ³	<p><i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm</p> <p><i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm</p>	
Weight ²	<i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)	
Case material	<p><i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid;</p> <p><i>Bottom:</i> Glass-fiber reinforced plastic without paint</p>	
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (0A36304) as 2nd battery at bottom	
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 6.6 hr; <i>9-cell (94Whr):</i> up to 10.9 hr; <i>9-cell plus slice battery:</i> up to 21.9 hr	
Chipset	Mobile Intel QM67 Express Chipset	
ExpressCard	One slot (ExpressCard/34)	
Smart Card Read	<i>Some:</i> Smart Card reader	
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
Ports	Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	Supports ThinkVantage® technologies
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots	
	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2	
	<i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3	
WWAN	Wireless WAN upgradable	
Modem	56K V.92 ⁶ modem	
Bluetooth™	Bluetooth 3.0 wireless, LED indicator	
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack	170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security	Power-on password, hard disk password, supervisor password, security keyhole	For compatible accessories, please go to O-W520 sheet;
Security chip	Trusted Platform Module, TCG 1.2-compliant	For Lenovo service ²² upgrade options, please go to S-TA sheet;
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For ISV certifications, please visit www.lenovo.com/support/ISV
Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available		

See footnotes for more detailed information

US model(s) announced February 22 or March 1, 2011

US model(s) withdrawn effective November 2011, January 2012, or December 2012

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ThinkPad® W520 4282 (Optimus) - April 2011 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk(s) SATA GB ¹ rpm RAID	SATA optical	PCIe Mini Card WLAN	PCIe Mini Card /mSATA	Smart Card Reader	Finger print reader	Color calib	Bat-tery cells	Intel AMT	Intel vPro	Global (G) GMP (P)	Pre-load
4282-4EU	i7-2630QM	4GBx2	15.6" FHD	2000M	2x500G 7200 0		Intel 6300 ²⁸	upg		Fing	X-Rite	9			G	Pro 64
4282-45U	i7-2820QM	4GBx1	15.6" FHD	1000M	1x500G 7200	DVD±RW	Intel 6300	upg	Smart		X-Rite	9	iAMT	vPro		Pro 64
4282-4GU	i7-2920XM	4GBx2	15.6" FHD	2000M	2x500G 7200 1		Intel 6300	upg	Smart	Fing	X-Rite	9	iAMT	vPro	G	Pro 64
4282-4ZU	i7-2760QM	4GBx1	15.6" FHD	2000M	1x500G 7200	DVD±RW	Intel 6300	upg				9	iAMT	vPro	G	Pro 64
4282-4YU	i7-2860QM	4GBx2	15.6" FHD	2000M	1x500G 7200	DVD±RW	Intel 6300	upg		Fing		9	iAMT	vPro	G	Pro 64
4282-4UU	i7-2760QM	4GBx1	15.6" FHD	1000M	1x500G 7200	DVD±RW	Intel 6205 ²⁸	upg		Fing		9	iAMT	vPro		Pro 64
4282-5CU	i7-2760QM	4GBx1	15.6" FHD	1000M	2x500G 7200 1		Intel 6205	upg		Fing		9	iAMT	vPro	G	Pro 64
4282-5BU	i7-2760QM	4GBx1	15.6" FHD	1000M	2x500G 7200 0		Intel 6205	upg		Fing		9	iAMT	vPro	G	Pro 64
<ul style="list-style-type: none"> • A depot repair service 3-year limited warranty • Power-packed engineering with Open GL graphics and ISV certifications • Microsoft® Office 2010 Product Key Ready (O10PKR) 																
Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-2630QM processor (quad-core, 2.00GHz, 6MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-2760QM processor (quad-core, 2.40GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-2820QM processor (quad-core, 2.30GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2860QM processor (quad-core, 2.50GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology Intel Core i7-2920XM processor (quad-core, 2.50GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 				
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable											Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models) 				
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive															
mSATA™ SSD	None															
Widescreen display	15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut <i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest HD720p resolution, wider view angle, low light sensitive, fixed focus											Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Color calibration Camera	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M , PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Graphics	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass Touchpad UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch ThinkLight™ illuminates the keyboard to improve visibility in low-light conditions															
Keyboard	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm <i>Weight²</i> 6-cell: starting at 5.40 lb (2.45kg); 9-cell: starting at 5.75 lb (2.61kg) <i>Case material</i> <i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint											For compatible accessories, please go to O-W520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV				
Dimensions (WxDxH) ³	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (0A36304) as 2nd battery at bottom <i>6-cell (57Whr):</i> up to 6.6 hr; <i>9-cell (94Whr):</i> up to 10.9 hr; <i>9-cell plus slice battery:</i> up to 21.9 hr															
Weight ²	Mobile Intel QM67 Express Chipset One slot (ExpressCard/34) <i>Some:</i> Smart Card reader 4-in-1 reader (MMC, SD, SDHC, SDXC) Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Case material	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth™ 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 <i>Some:</i> Intel Active Management Technology (iAMT)											Security Power-on password, hard disk password, supervisor password, security keyhole Security chip Trusted Platform Module, TCG 1.2-compliant Fingerprint reader <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip				
Battery - type	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack															
Battery - life ¹⁰	Limited warranty ¹² 3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for more detailed information

US model(s) announced April 5, June 21, or November 1, 2011, or May 1, 2012

US model(s) withdrawn effective November 2011, January 2012, or December 2012

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(KN3W-5) February 2013

ThinkPad® W520 4284 (Optimus) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Smart Card Reader	Finger print reader	Color calib	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4284-26U	i7-2620M	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205 ²⁸	WWAN upg		Finger	X-Rite	9	vPro	G P	Pro 64
4284-23U	i7-2820QM	4GBx2	15.6" FHD	2000M	720p	500G 7200	Intel 6300 ²⁸	WWAN upg				9	vPro	G P	Pro 64
4284-24U	i7-2720QM	4GBx1	15.6" FHD	2000M	720p	500G 7200	Intel 6300	WWAN upg				9	vPro	G P	Pro 64
4284-25U	i5-2540M	2GBx2	15.6" HD+	1000M	720p	320G 7200	Intel 6205	WWAN upg				9	vPro	G P	Pro 64
4284-4CU	i7-2720QM	4GBx1	15.6" FHD	1000M	720p	500G 7200	Intel 6205	WWAN upg	Smart	Finger		9	vPro	G P	Pro 64
4284-4BU	i7-2620M	4GBx1	15.6" HD+	1000M		320G 7200	Intel 6205	WWAN upg	Smart			9	vPro	G P	Pro 64
<ul style="list-style-type: none"> • These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty • Power-packed engineering with Open GL graphics and ISV certifications 															
Positioning	<i>Mobile workstation; two spindles</i>										Preloaded operating system²⁰				
Processor	Intel® Core™ i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2720QM processor (quad-core, 2.20GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2820QM processor (quad-core, 2.30GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										- Genuine Windows [®] 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 				
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models) 				
Optical	DVD burner, 12.7mm Ultrabay Enhanced, removable										Preloaded applications¹⁴ (all OSes; only some listed)				
Ultrabay	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access														
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive														
mSATA™ SSD	None														
Widescreen display	<i>Some:</i> 15.6" (396mm) HD+ (1600x900) color , anti-glare, LED backlight, 220 nits, 16:9 aspect ratio, 500:1 contrast ratio, 60% Gamut <i>Some:</i> 15.6" (396mm) FHD (1920x1080) color , anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut										• Corel DVD MovieFactory® Lenovo Edition (DVD±RW)				
Color calibration	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest														
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M , PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)														
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										Supports ThinkVantage® technologies 170-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm														
Weight ²	<i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)														
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint														
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (0A36304) as 2nd battery at bottom														
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 6.6 hr; <i>9-cell (94Whr):</i> up to 10.9 hr; <i>9-cell plus slice battery:</i> up to 21.9 hr														
Chipset	Mobile Intel QM67 Express Chipset														
ExpressCard	One slot (ExpressCard/34)														
Smart Card Read	<i>Some:</i> Smart Card reader														
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
Ports	Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3										For compatible accessories, please go to O-W520 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet; For ISV certifications, please visit www.lenovo.com/support/ISV				
WWAN	Wireless WAN upgradable														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 3.0 wireless, LED indicator														
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available														

See footnotes for more detailed information

US model(s) announced February 22 or March 1, 2011

US model(s) withdrawn effective November 2011, January 2012, or December 2012

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(KN3W-4) February 2013

ThinkPad® W520 4284 (Optimus) - Onsite (April 2011) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Discrete graphics	Disk SATA GB ⁸ rpm	RAID	SATA optical	PCIe Mini Card WLAN	PCIe Mini Card WWAN /mSATA	Finger print reader	Color calib	Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load	
4284-4EU	i7-2630QM	4GBx2	15.6" FHD	2000M	2x500G 7200	0		Intel 6300 ²⁸	upg	Finger	X-Rite	9	iAMT	vPro	G P	Pro 64
4284-4YU	i7-2860QM	4GBx2	15.6" FHD	2000M	1x500G 7200		DVD±RW	Intel 6300	upg			9	iAMT	vPro	G P	Pro 64
4284-4ZU	i7-2760QM	4GBx1	15.6" FHD	2000M	1x500G 7200		DVD±RW	Intel 6300	upg			9	iAMT	vPro	G P	Pro 64
4284-5DU	i7-2760QM	4GBx1	15.6" FHD	1000M	2x500G 7200	1		Intel 6205 ²⁸	upg	Fing		9	iAMT	vPro	G P	Pro 64
4284-5CU	i7-2760QM	4GBx1	15.6" FHD	1000M	2x500G 7200	0		Intel 6205	upg	Fing		9	iAMT	vPro	G P	Pro 64
<ul style="list-style-type: none"> • Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty • Power-packed engineering with Open GL graphics and ISV certifications • Microsoft® Office 2010 Product Key Ready (O10PKR) 																
Positioning Processor	<i>Mobile workstation; two spindles</i> Intel® Core™ i7-2630QM processor (quad-core, 2.00GHz, 6MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology Intel Core i7-2760QM processor (quad-core, 2.40GHz, 6MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology Intel Core i7-2860QM processor (quad-core, 2.50GHz, 8MB Cache), DDR3 memory controller (up to 1600MHz), Intel Turbo Boost 2.0 (3.60GHz), HT technology											Preloaded operating system²⁰ - Genuine Windows [®] 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)				
Memory	<i>dual-core model:</i> 16GB max ⁷ , two 204-pin SO-DIMM sockets <i>quad-core model:</i> 32GB max, four 204-pin SO-DIMM sockets <i>All:</i> PC3-10600 1333MHz DDR3, non-parity, dual-channel capable															
Optical	<i>Some:</i> DVD burner, 12.7mm Ultrabay Enhanced, removable <i>One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, bottom access</i> <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> HDD / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports the second disk, Shock Mounted Hard Drive															
Ultrabay																
SATA disk																
mSATA™ SSD	None															
Widescreen display	15.6" (396mm) FHD (1920x1080) color, anti-glare, LED backlight, 270 nits, 16:9 aspect ratio, 500:1 contrast ratio, 95% Gamut <i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest HD720p resolution, wider view angle, low light sensitive, fixed focus															
Color calibration																
Camera																
Graphics	NVIDIA® Optimus™ technology, auto-switch between discrete and integrated graphics, Intel HD Graphics 3000 in processor, and NVIDIA Quadro® 1000M or 2000M, PCI Express® x16, 2GB memory, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports three independent displays; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @85Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)															
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touchpad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions label, multi-touch															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions (WxDxH) ³	<i>HD & HD+:</i> 14.68" x 9.65" x 1.25-1.40"; 372.8mm x 245.1mm x 31.8-35.6mm <i>FHD:</i> 14.68" x 9.65" x 1.29-1.44"; 372.8mm x 245.1mm x 32.8-36.6mm															
Weight ²	<i>6-cell:</i> starting at 5.40 lb (2.45kg); <i>9-cell:</i> starting at 5.75 lb (2.61kg)															
Case material	<i>Display cover:</i> Carbon-fiber / Glass-fiber hybrid; <i>Bottom:</i> Glass-fiber reinforced plastic without paint															
Battery - type	Lithium Ion 6-cell or 9-cell, supports optional Slice battery (0A36304) as 2nd battery at bottom															
Battery - life ¹⁰	<i>6-cell (57Whr):</i> up to 6.6 hr; <i>9-cell (94Whr):</i> up to 10.9 hr; <i>9-cell plus slice battery:</i> up to 21.9 hr															
Chipset	Mobile Intel QM67 Express Chipset															
ExpressCard	One slot (ExpressCard/34)															
Smart Card Read	None															
Multicard Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)															
Ports	Two USB 3.0 (blue), one Powered USB 2.0 (yellow), one USB 2.0/eSATA combo port, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											Supports ThinkVantage® technologies				
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3											170-watt AC adapter				
WWAN	Wireless WAN upgradable											ThinkPad Roll Cage (one-piece magnesium frame)				
Modem	56K V.92 ⁶ modem											EPEAT™ Gold rating				
Bluetooth™	Bluetooth 3.0 wireless, LED indicator											ENERGY STAR® 5.0-compliant				
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1											RoHS-compliant				
Intel AMT	<i>Some:</i> Intel Active Management Technology (iAMT)											International Warranty Service ¹⁷				
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack											24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Security	Power-on password, hard disk password, supervisor password, security keyhole											For compatible accessories, please go to O-W520 sheet;				
Security chip	Trusted Platform Module, TCG 1.2-compliant											For Lenovo service ²² upgrade options, please go to S-TA sheet;				
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											For ISV certifications, please visit www.lenovo.com/support/ISV				
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available															

See footnotes for more detailed information

US model(s) announced April 5 or November 1, 2011, or May 1, 2012

US model(s) withdrawn effective November 2011 or December 2012

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(KN3W-6) February 2013

ThinkPad® W520 Accessories - withdrawn

Personal Systems Reference (PSREF)

Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Enhanced 12.7mm

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann 06/23/09
Serial ATA Hard Drive 12.7mm Bay Adapter III	0A65623	ann 02/28/12
DVD Burner Ultrabay Enhanced Drive III	0A65625	ann 06/05/12

Storage and removable storage

500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
1TB 5400rpm SATA 3.0Gb/s 9.5mm 4K HDD ⁴¹	0A65633	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12

250GB 7200rpm SATA 3.0Gb/s OPAL-capable FDE HDD II ⁴¹	0A33985	ann 02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann 02/22/11

⁴¹ Can be used as the main HDD or with
Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 or
Serial ATA Hard Drive 12.7mm Bay Adapter III 0A65623 in the Ultrabay.

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

ThinkPad USB 3.0 Dock	0A33970	ann 05/15/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 170W	433835U	ann 06/05/12
Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Security

3M 15.6W Privacy Filter from Lenovo	0A61771	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Batteries

ThinkPad Battery 70+ (6-cell)	0A36302	ann 06/05/12
ThinkPad Battery 70++ (9-cell)	0A36303	ann 06/05/12
ThinkPad Battery 28+++ (9 cell, slice) ⁴³	0A36304	ann 06/05/12

⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using ThinkPad Mini Dock Plus Series 3 w/ USB 3.0 - 170W 433835U)

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 170W AC Adapter for W520, W530	0A36227	ann 03/01/11
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More info at www.lenovo.com/support/poweradapters

Carrying Cases

Up to 15.6" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12
Lenovo Sport Backpack - Blue	0B47298	ann 08/28/12
Lenovo Sport Slimcase - Blue	0B47300	ann 08/28/12
Lenovo Sport Messenger - Blue	0B47299	ann 08/28/12
Lenovo Sport Backpack - Grey	0B47301	ann 08/28/12
Lenovo Sport Slimcase - Grey	0B47303	ann 08/28/12
Lenovo Sport Messenger - Grey	0B47302	ann 08/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included; use optional DisplayPort to DisplayPort Monitor Cable 0A36537.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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More information at www.lenovo.com/support/monitors
www.lenovo.com/support/thinkpad/optimus-monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann 09/13/11
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad W700



Lenovo ThinkPad W700 with
ThinkPad W700 Mini Dock 2.0
57Y4345



ThinkPad 170W AC Adapter
41R4421



ThinkPad Battery 37++ (9-cell)
45J7914



Lenovo ThinkPad W700



Lenovo ThinkPad W700

ThinkPad® W700 2758 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Discrete graphics	Cam-eras	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Color calib	Digitizer	Preload	Avail date
2758-28U	T9400	2.53	1GB	17" WXGA+	Cam	1GB	2x160G	7200	0	DVD±RW	Intel 5300 ²⁸		Smart	X-Rite	Wacom	Bus64	Sep08
2758-4SU	T9600	2.80	4GB	17" WUXGA	Cam	512MB	2x160G	7200		DVD±RW	Intel 5300	2G Turbo	Smart	X-Rite	Wacom	Bus64	Sep08
2758-29U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x250G	5400	1	DVD±RW	Intel 5300		Smart	X-Rite	Wacom	Bus64	Sep08
2758-MPU	Q9000	2.00	4GB	17" WUXGA	Cam	512MB	1x80G	SSD		DVD±RW	Intel 5300		/54			Bus64	Jun 09
2758-MWU	P8700	2.53	3GB	17" WXGA+	Cam	512MB	1x320G	7200		DVD±RW	Intel 5300		/54			XP Pro	Oct 09
2758-MXU	T9900	3.06	4GB	17" WUXGA	Cam	512MB	2x320G	7200		DVD±RW	Intel 5300		/54			Bus64	Oct 09
<p>• These small and medium business (SMB) models are part of the US TopSeller™ Program</p>																	
Positioning Processor	<p><i>Mobile workstation; three spindles</i> Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD Boost, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo processor T9400, T9600 or T9900 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Quad processor Q9000 with quad-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache</p>												<p>Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 64 ⇨ Vista models: Vista Premium logo</p>				
Memory	<p>1GB, 3GB or 4GB std / 8GB max⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available</p>												<p>Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™ PRO Monitor Color Correction by Pantone®/X-Rite® (color calibration models)</p>				
SATA DVD±RW	<p>DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)</p>																
Ultrabay Enhanced SATA disks	<p>One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some:</i> One disk, 80GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> One disk, 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>Some:</i> Two disks, 160GB (7200 rpm), 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports three disks max, Shock Mounted Hard Drive</p>																
Widescreen display	<p><i>Some:</i> 17.0" (431.8mm) WXGA+ (1440x900) color, anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, 45% color gamut <i>Some:</i> 17.0" (431.8mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut</p>																
Color calibration	<p><i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest</p>																
Camera	<p>Camera on top of screen, 1.3-megapixel, fixed focus</p>																
Discrete graphics	<p><i>Some:</i> NVIDIA® Quadro® FX2700M, PCI Express® x16, 512MB memory <i>Some:</i> NVIDIA Quadro FX3700M, PCI Express x16, 1GB memory <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)</p>												<p>ISV software certifications Supports ThinkVantage® technologies</p>				
Keyboard	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys</p>												<p>ThinkPad W700 Mini Dock 2.0</p>				
TrackPoint®	<p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p>												<p>Provides desktop expansion and cable management for W700 Series</p>				
Touch pad	<p>UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label</p>												<p>Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter</p>				
Numeric keypad	<p>10-key numeric keypad on right side of keyboard</p>																
Digitizer	<p><i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side</p>																
ThinkLight™	<p>Two LEDs illuminate the keyboard to improve visibility in low-light conditions</p>																
Dimensions ³	<p><i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm</p>																
Weight ²	<p><i>9-cell:</i> starting at 8.4 lb (3.8kg)</p>																
Case material	<p><i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic</p>																
Battery - type	<p>Lithium Ion 9-cell</p>																
Battery - life ¹⁰	<p><i>9-cell:</i> up to 2.3 hr</p>																
Chipset	<p>Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus</p>																
ExpressCard/34	<p>One ExpressCard/34</p>																
ExpressCard/54	<p><i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54</p>																
Compact Flash	<p>None</p>																
Smart Card Read	<p><i>Some:</i> Smart Card Reader</p>																
Multicard Reader	<p>7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)</p>																
Ports	<p>Five USB 2.0, external monitor¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>												<p>170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>				
Mini PCI Express	<p>Three Mini PCI Express slots</p>																
Intel 5300 ²⁸	<p>11a/b/g/n wireless⁴, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3</p>																
2G Turbo	<p><i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator</p>																
UWB	<p>None (uses Half-Mini PCIe slot)</p>																
Modem	<p>56K V.92⁶ modem in Communications Daughter Card socket</p>																
Bluetooth™	<p>Bluetooth 2.1 wireless, LED indicator</p>																
Ethernet	<p><i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1</p>												<p>ThinkPlus™.22 3-year LOR²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180</p>				
Intel AMT	<p>Intel Active Management Technology (iAMT)</p>																
Audio support	<p>High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack</p>																
Security	<p>Power-on password, hard disk password, supervisor password, security keyhole</p>																
Security chip	<p>Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant</p>																
Fingerprint reader	<p>Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>												<p>Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty</p>				
Limited warranty ¹²	<p>3-year - depot repair service / service upgrades²² available</p>																

See footnotes for important warranty information
 US models announced on August 12, 2008, June 2, 2009, or October 22, 2009
 US models withdrawn effective September 2008, December 2009, February 2010, or June 2010

ThinkPad® W700 2752 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Discrete Cam- graphics era memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo slot	Blue/ Color Fing calib	Digit- izer Preload	Workhorse (W) Global (G) Avail date
2752-36U	T9600	2.80	4GB	17"	WUXGA	Cam 1GB	1	DVD±RW	Intel 5300 ²⁸	None	/54	Yes	X-Rite Bus64 W Sep 08
2752-37U	T9600	2.80	4GB	17"	WUXGA	Cam 1GB	1	DVD±RW	Intel 5300	None	/54	Yes	X-Rite Bus64 W Sep 08
2752-38U	T9600	2.80	4GB	17"	WUXGA	Cam 1GB	0	DVD±RW	Intel 5300	None	CF	Yes	X-Rite Wacom Bus64 Sep 08
2752-3NU	T9600	2.80	4GB	17"	WUXGA	Cam 1GB	0	DVD±RW	Intel 5300	None	CF	Yes	X-Rite Wacom Bus64 Sep 08
2752-3YU	T9600	2.80	2GB	17"	WXGA+	Cam 1GB	0	DVD±RW	Intel 5300	None	/54	Yes	X-Rite Wacom Bus32 W Sep 08
2752-MSU	Q9000	2.00	3GB	17"	WUXGA	Cam 512MB	1x160G	7200	DVD±RW	Intel 5300	None	/54	Yes Bus32 Jun 09
2752-MTU	Q9000	2.00	4GB	17"	WUXGA	Cam 512MB	1x80G	SSD	DVD±RW	Intel 5300	None	/54	Yes Bus64 Jun 09
<ul style="list-style-type: none"> • First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks • Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports 													
Positioning	Mobile workstation; three spindles												
Processor	Intel® Core™ 2 Duo processor T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Quad processor Q9000 with quad-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache												
Memory	2GB, 3GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)												
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high												
SATA disk	<i>Some:</i> One disk, 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> One disk, 160GB (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>Some:</i> Two disks, 250GB (5400 rpm), 320GB (5400 rpm), or 200GB Full Disk Encryption [FDE] (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, supports three disks max, Shock Mounted Hard Drive												
Widescreen display	<i>Some:</i> 17.0" (431.8mm) WXGA+ (1440x900) color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 400:1 contrast ratio, 45% color gamut <i>Some:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut												
Color calibration	<i>Some:</i> huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus												
Discrete graphics	<i>Some:</i> NVIDIA® Quadro® FX2700M , PCI Express® x16, 512MB memory <i>Some:</i> NVIDIA Quadro FX3700M , PCI Express x16, 1GB memory <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label												
Numeric keypad	10-key numeric keypad on right side of keyboard												
Digitizer	<i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side												
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions												
Dimensions ³	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm												
Weight ²	9-cell: starting at 8.4 lb (3.8kg)												
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic												
Battery - type	Lithium Ion 9-cell												
Battery - life ¹⁰	9-cell: up to 2.3 hr												
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus												
ExpressCard/34	One ExpressCard/34												
ExpressCard/54	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54												
Compact Flash	<i>Some:</i> [CF] One Type I slot												
Smart Card Read	None												
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)												
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Mini PCI Express	Three Mini PCI Express slots												
Intel 5300 ²⁸	11a/b/g/n wireless ⁷ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3												
2G Turbo	None												
UWB	None (uses Half-Mini PCIe slot)												
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 37++ (9-cell)										45J7914	
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708	ThinkPad W700 Mini Dock 2.0										57Y4345	
Other accessories on O-W700 sheet		Other accessories at lenovo.com/accessories											
Preloaded operating system ²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Business 64 ⇨ Vista Premium logo Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)													
ISV software certifications													
Supports ThinkVantage® technologies													
ThinkPad W700 Mini Dock 2.0													
Provides desktop expansion and cable management for W700 Series													
Features:													
<ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter 													
170-watt AC adapter													
ENERGY STAR® 5.0-compliant													
RoHS-compliant													
International Warranty Service ¹⁷													
24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378													
ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176													
ThinkPlus 4-year LOR 9x5 NBD 41C9177													
ThinkPlus 5-year LOR 9x5 NBD 41C9179													
ThinkPlus 4-year P&L P/U Depot 41C9178													
ThinkPlus 5-year P&L P/U Depot 41C9180													
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty													

See footnotes for important warranty information
 US models announced on August 12, 2008 or June 2, 2009
 US models withdrawn effective August 2009, February 2010 or June 2010

ThinkPad® W700 2752 (Extreme) - withdrawn

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ slot	Fing	Digit- izer	Workhorse (W) Global (G) Avail date
2752-6SU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300 ²⁸		/54	Yes		Bus64 W G Sep 08
2752-6TU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	1	DVD±RW	Intel 5300		CF	Yes	Wacom	Bus64 W G Sep 08
2752-3AU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		/54	Yes	Wacom	Ult64 Sep 08
2752-6UU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300		CF	Yes	Wacom	Bus64 W G Sep 08
2752-3DU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		CF	Yes	Wacom	Bus64 Sep 08
2752-5ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	DVD±RW	Intel 5300		CF	Yes	Wacom	Bus64 Sep 08
2752-62U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200		DVD±RW	Intel 5300	2G Turbo	/54	Yes	Wacom	Bus64 W Sep 08
2752-43U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x200G FDE	0	BD burner	Intel 5300		/54	Yes	Wacom	Ult64 W Sep 08
2752-6ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200		DVD±RW	Intel 5300		CF	Yes	XP Pro	G Sep 08
2752-72U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0	DVD±RW	Intel 5300		CF	Yes	Wacom	XP Pro G Sep 08

- First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks
- Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports

Positioning Processor	Mobile workstation; three spindles Intel® Core™ 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business				
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										- Some: Genuine Windows Vista Business 64 - Some: Genuine Windows Vista Ultimate 64 ◇ Vista models: Vista Premium logo				
SATA DVD±RW SATA BD burner UltraTray Enhanced SATA disk	Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) Some: Blu-ray™ burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enh, removable (43R9150) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB⁸ (7200 rpm) or 200GB Full Disk Encryption [FDE] (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										- Some: Genuine Windows Vista Business 64 - Some: Genuine Windows Vista Ultimate 64 ◇ Vista models: Vista Premium logo				
Widescreen display Color calibration Camera	17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus										Preloaded applications¹⁴ (all OSes, only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®				
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express x16, 1GB memory <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)										ISV software certifications Supports ThinkVantage® technologies				
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions										• ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®				
Dimensions ³ Weight ² Case material	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm 9-cell: starting at 8.4 lb (3.8kg) <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										Supports ThinkVantage® technologies				
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell 9-cell: up to 2.3 hr										ISV software certifications Supports ThinkVantage® technologies				
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus One ExpressCard/34										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter				
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	Some: [/54] One ExpressCard/34 or ExpressCard/54 Some: [CF] One Type I slot 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										• Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter				
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Some: Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177				
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
	1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 37++ (9-cell)	45J7914											
	2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad 170W AC Adapter	41R4421											
	4GB PC3-8500 DDR3 L-H SODIMM	55Y3708	ThinkPad W700 Mini Dock 2.0	57Y4345											
	Other accessories on O-W700 sheet			Other accessories at lenovo.com/accessories											

See footnotes for important warranty information
US models announced August 12, 2008
US models withdrawn effective August 2009, February 2010, or June 2010

ThinkPad® W700 2752 (Quad-Core Extreme) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	SATA RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ Fing	Digit- izer	Workhorse (W) Global (G) Avail date				
2752-3KU	QX9300	2.53	4GB	17" WUXGA	Cam	1GB	2x320G	5400	0	BD burner	Intel 5300 ²⁸	None	/54	Yes	Wacom	Bus64	No	Sep 08

- **First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks**
- **Select models include digitizer on palm rest and dual-link DVI-D and DisplayPort ports**

Positioning	<i>Mobile workstation; three spindles</i>													
Processor	Intel® Core™ 2 Extreme processor QX9300 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache													
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available													
SATA BD burner	Blu-ray™ burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9150)													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high													
SATA disk	Two disks, 320GB⁸ (5400 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut													
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
Numeric keypad	10-key numeric keypad on right side of keyboard													
Digitizer	Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side													
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm													
Weight ²	<i>9-cell:</i> starting at 8.4 lb (3.8kg)													
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 9-cell													
Battery - life ¹⁰	<i>9-cell:</i> up to 2.3 hr													
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus													
ExpressCard/34	One ExpressCard/34													
ExpressCard/54	/54 One ExpressCard/34 or ExpressCard/54													
Compact Flash	None													
Smart Card Read	None													
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)													
2G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 2GB flash, disk-cache accelerator													
UWB	None (uses Half-Mini PCIe slot)													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706			ThinkPad Battery 37++ (9-cell)				45J7914						
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707			ThinkPad 170W AC Adapter				41R4421						
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708			ThinkPad W700 Mini Dock 2.0				57Y4345						
Other accessories on O-W700 sheet				Other accessories at lenovo.com/accessories										
Preloaded operating system²⁰ - Genuine Windows® Vista® Business 64 ⇨ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®														
ISV software certifications														
Supports ThinkVantage® technologies														
ThinkPad W700 Mini Dock														
Provides desktop expansion and cable management for W700 Series														
Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter														
170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²														
ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176														
ThinkPlus 4-year LOR 9x5 NBD 41C9177														
ThinkPlus 5-year LOR 9x5 NBD 41C9179														
ThinkPlus 4-year P&L P/U Depot 41C9178														
ThinkPlus 5-year P&L P/U Depot 41C9180														
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty														

See footnotes for important warranty information
 US model announced August 12, 2008
 US model withdrawn effective January 2010

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 (NIC1-4) January 2010

ThinkPad® W700 2753 (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ³ rpm	SATA RAID optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Blue/ Fing	Digit- izer	Workhorse (W) Global (G), Ed Avail date	
2753-48U	T9400	2.53	1GB	17" WUXGA		512MB	2x160G 7200	0 Combo	Intel 5300 ²⁸	None	/54	Yes		Bus32	Sep 08
2753-6SU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0 DVD±RW	Intel 5300	None	/54	Yes		Bus64	W G P Sep 08
2753-6TU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	1 DVD±RW	Intel 5300	None	CF	Yes	Wacom	Bus64	W G P Sep 08
2753-6UU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0 DVD±RW	Intel 5300	None	CF	Yes	Wacom	Bus64	W G P Sep 08
2753-6ZU	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0 DVD±RW	Intel 5300	None	CF	Yes	Wacom	XP Pro	G P Sep 08
2753-72U	X9100	3.06	4GB	17" WUXGA	Cam	1GB	2x160G 7200	0 DVD±RW	Intel 5300	None	CF	Yes	Wacom	XP Pro	G P Sep 08
2753-MNUT9600		2.80	4GB	17" WUXGA	Cam	512MB	2x160G 7200	DVD±RW	Intel 5300	None	/54	Yes		Bus32	W Ed Mar 09

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks

Processor	Intel® Core™ 2 Duo processor T9400 or T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache or Intel Core 2 Extreme processor X9100 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Business 64 ♦ Vista models: Vista Premium logo
Memory	1GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA Combo SATA DVD±RW Ultrapay Enhanced SATA disk	Some: DVD-ROM/CD-RW, SATA 1.5Gb/s, 12.7mm Ultrapay Enh, removable (43R9148) Some: DVD burner, SATA 1.5Gb/s, 12.7mm Ultrapay Enhanced, removable (43R9149) One bay for removable devices, Ultrapay Slim-compatible, 12.7mm high Two disks, 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	♦ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite®
Widescreen display Color calibration Camera	17.0" (431.8mm) WUXGA (1920x1200) color, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Some: camera on top of screen, 1.3-megapixel, fixed focus	
Discrete graphics	Some: NVIDIA® Quadro® FX2700M, PCI Express® x16, 512MB memory Some: NVIDIA Quadro FX3700M, PCI Express x16, 1GB memory Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)	
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm 9-cell: starting at 8.4 lb (3.8kg) Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	ISV software certifications Supports ThinkVantage® technologies
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell 9-cell: up to 2.3 hr	ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus	Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	One ExpressCard/34 Some: [/54] One ExpressCard/34 or ExpressCard/54 Some: [CF] One Type I slot 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 None None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.1 wireless, LED indicator Non-vPro model: Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 vPro model: Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip	ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD 12X5630 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information ♦ Intel Centrino® 2 with vPro™ technology
US models announced August 12, 2008 or March 24, 2009
US models withdrawn effective February or June 2010

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ThinkPad® W700 2752 - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Discrete graphics memory	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card slot	Blue/ Fing	Digit- izer	Preload	Workhorse (W) Global (G) Avail date
2752-MNUT9600	2.80	4GB	17"	WUXGA	Cam	512MB	2x160G	7200	None	DVD±RW	❖Intel 5300 ²⁸	None	/54	Yes	None	Bus32 W Mar 09
<ul style="list-style-type: none"> • First 17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks • This model has an EasyServ™,19 depot repair service 3-year limited warranty • Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. • Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States. 																
Positioning	<i>Mobile workstation; three spindles</i>															
Processor	Intel® Core™ 2 Duo processor T9600 with dual-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache															
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;															
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high															
SATA disk	Two disks, 160GB⁹ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	17.0" (431.8mm) WUXGA (1920x1200) color , anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut															
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest															
Camera	Camera on top of screen, 1.3-megapixel, fixed focus															
Discrete graphics	NVIDIA® Quadro® FX2700M , PCI Express® x16, 512MB memory <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass															
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label															
Numeric keypad	10-key numeric keypad on right side of keyboard															
Digitizer	None															
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 1.6"; 410mm x 310mm x 41mm															
Weight ²	<i>9-cell:</i> starting at 8.4 lb (3.8kg)															
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 9-cell															
Battery - life ¹⁰	<i>9-cell:</i> up to 2.3 hr															
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus															
ExpressCard/34	One ExpressCard/34															
ExpressCard/54	[/54] One ExpressCard/34 or ExpressCard/54															
Compact Flash	None															
Smart Card Read	None															
Multicard Reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)															
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Mini PCI Express	Three Mini PCI Express slots															
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3															
2G Turbo	None															
UWB	None (uses Half-Mini PCIe slot)															
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-year - EasyServ™,19 depot repair service / service upgrades ²² available															
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 37++ (9-cell)	45J7914													
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad 170W AC Adapter	41R4421													
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708	ThinkPad W700 Mini Dock 2.0	57Y4345													
Other accessories on O-W700 sheet	Other accessories at lenovo.com/accessories															
Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ⇨ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • ThinkPad Utilities (Power Manager and Presentation Director) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® ISV software certifications Supports ThinkVantage® technologies ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter 170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² ThinkPlus™,22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty																

See footnotes for important warranty information
 US model announced March 24, 2009
 US model withdrawn effective February 2010

❖ Intel Centrino 2 with vPro™ technology

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 (NIC1-6) February 2010

ThinkPad®



Lenovo® ThinkPad W700ds



Lenovo ThinkPad W700ds



Lenovo ThinkPad W700ds



ThinkPad 17W Business Topload Case
43R9117



Lenovo ThinkPad W700ds

ThinkPad® W700ds 2758 (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁶	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	Card Blue/ slot	Digit- izer	Workhorse (W) Global (G) Avail Preload date
2758-MMU	Q9000	2.00	4GB	17" WUXGA	10.6" WXGA	Cam	2x320GB	1	DVD±RW	❖Intel 5300 ²⁸	None	/54	Yes Wacom	Bus64 No Mar 09
2758-MYU	Q9000	2.00	4GB	17" WUXGA	10.6" WXGA	Cam	2x320GB	1	DVD±RW	❖Intel 5300	None	/54	Yes Wacom	Bus64 No Oct 09

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks**
- **Select models include digitizer on palm rest**

Positioning	<i>Mobile workstation; three spindles</i>										Preloaded operating system²⁰			
Processor	Intel® Core™ 2 Quad processor Q9000 with quad-core, Intel HD boost, 1066MHz system bus, and 6MB L2 cache										- Genuine Windows® Vista® Business 64 ↳ Vista Premium logo			
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 320GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® 			
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size													
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
Numeric keypad	10-key numeric keypad on right side of keyboard													
Digitizer	Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side													
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions										ISV software certifications			
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm										ThinkPad W700 Mini Dock 2.0			
Weight ²	<i>9-cell:</i> starting at 10.9 lb (4.96kg)										Provides desktop expansion and cable management for W700 Series			
Case color	Black										Features:			
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										<ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter 			
Battery - type	Lithium Ion 9-cell													
Battery - life ¹⁰	<i>9-cell:</i> up to 2.1 hr													
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus													
ExpressCard/34	One slot (ExpressCard/34)													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Compact Flash	None													
Smart Card read	None													
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)													
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)										170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Mini PCI Express	Three Mini PCI Express slots													
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3													
2G Turbo	None													
UWB	None (uses Half-Mini PCIe slot)													
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)										ThinkPlus™.22 3-year LOR 9x5 NBD 41C9176			
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus 4-year LOR 9x5 NBD 41C9177			
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus 4-year P&L P/U Depot 41C9178			
Limited warranty ¹²	3-year - EasyServ™-19 depot repair service / service upgrades ²² available										ThinkPlus 5-year P&L P/U Depot 41C9180			
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706		ThinkPad Battery 37++ (9-cell)				45J7914							
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707		ThinkPad 170W AC Adapter				41R4421							
4GB PC3-8500 DDR3 L-H SODIMM	55Y3708		ThinkPad W700 Mini Dock 2.0				57Y4345							
Other accessories	on O-W700 sheet										Other accessories at lenovo.com/accessories			
See footnotes for important warranty information										❖ Intel Centrino® 2 with vPro™ technology				
US models announced on March 24, 2009 or October 22, 2009										© Lenovo				
US models withdrawn effective December 2009 or June 2010										(NIC15-3) June 2010				

ThinkPad® W700ds 2752 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁶	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo	CardBlue/ slot	Digit- izer	Workhorse (W) Global (G) Avail Preload date
2752-EPU Q9100	2.26	4GB	17" WUXGA	10.6" WXGA	Cam	2x160GB	None	DVD±RW	Intel 5300 ²⁸	None	/54	Yes	Bus64 Jan 09
2752-E7U QX9300	2.53	4GB	17" WUXGA	10.6" WXGA	Cam	2x160GB	None	DVD±RW	Intel 5300	None	/54	Yes	Wacom Bus64 WG Jan 09

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks**
- **Select models include digitizer on palm rest**

Positioning	<i>Mobile workstation; three spindles</i>											
Processor	Intel® Core™ 2 Quad processor Q9100 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache or Intel Core 2 Extreme processor QX9300 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache											
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available											
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149)											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high											
SATA disk	Two disks, 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size											
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest											
Camera	Camera on top of screen, 1.3-megapixel, fixed focus											
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution:</i> 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label											
Numeric keypad	10-key numeric keypad on right side of keyboard											
Digitizer	<i>Some:</i> Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side											
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm											
Weight ²	<i>9-cell:</i> starting at 10.9 lb (4.96kg)											
Case color	Black											
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type	Lithium Ion 9-cell											
Battery - life ¹⁰	<i>9-cell:</i> up to 2.1 hr											
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus											
ExpressCard/34	One slot (ExpressCard/34)											
ExpressCard/54	<i>Some:</i> One slot (ExpressCard/34, ExpressCard/54)											
Compact Flash	None											
Smart Card read	None											
Multicard reader	7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H)											
Ports	Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)											
Mini PCI Express	Three Mini PCI Express slots											
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)											
2G Turbo	None											
UWB	None (uses Half-Mini PCIe slot)											
Modem	56K V.92 ⁶ modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											
Ethernet	<i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	3-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											
Preloaded operating system ²⁰	- Genuine Windows® Vista® Business 64 ◇ Vista Premium logo											
Preloaded applications ¹⁴ (only some listed)	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • huey™PRO Monitor Color Correction by Pantone®/X-Rite® 											
ISV software certifications	Supports ThinkVantage® technologies											
ThinkPad W700 Mini Dock 2.0	Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter 											
170-watt AC adapter	ENERGY STAR® 5.0-compliant											
ENERGY STAR® 5.0-compliant	RoHS-compliant											
International Warranty Service ¹⁷	24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378											
ThinkPlus™.22 3-year LOR 9x5 NBD	41C9176											
ThinkPlus 4-year LOR 9x5 NBD	41C9177											
ThinkPlus 5-year LOR 9x5 NBD	41C9179											
ThinkPlus 4-year P&L P/U Depot	41C9178											
ThinkPlus 5-year P&L P/U Depot	41C9180											
Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty											

See footnotes for important warranty information
 US models announced January 6, 2009
 US models withdrawn effective November 2009 or June 2010

✦ Intel Centrino 2 with vPro™ technology

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 (NIC15-1) June 2010

ThinkPad® W700ds 2753 (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	Mem-ory	Primary display	Secondary display	Camera	Disk(s) SATA GB ^a	RAID	SATA optical	Mini PCIe 802.11 wireless	Mini PCIe UWB or Turbo slot	CardBlue/ Digit-izer	Workhorse (W) Global (G) Avail (P) date
2753-E7U QX9300	2.53	4GB	17" WUXGA	10.6" WXGA	Cam	2x160GB	None	DVD±RW	Intel 5300 ²⁸	None	/54 Yes Wacom	Bus64 WGP Jan 09
<ul style="list-style-type: none"> • <i>ds = dual screen</i> • <i>17" widescreen ThinkPad workstation with integrated color calibration and two RAID-capable disks</i> • <i>Select models include digitizer on palm rest</i> • <i>This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty</i> 												
Positioning Processor	<i>Mobile workstation; three spindles</i> Intel® Core™ 2 Extreme processor QX9300 with quad-core , Intel HD boost, 1066MHz system bus, and 12MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 64 ◇ Vista Premium logo
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics: standard memory in one socket; one socket available</i>											Preloaded applications¹⁴ (only some listed)
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable (43R9149) One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Two disks, 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports third disk, ThinkPad Shock Mounted Hard Drive, Active Protection System TM											<ul style="list-style-type: none"> • Rescue and RecoveryTM • Access ConnectionsTM • Client Security SolutionTM • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisorTM (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows LiveTM Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) • hueyTMPRO Monitor Color Correction by Pantone®/X-Rite®
Displays	<i>Primary:</i> 17.0" (431.8mm) WUXGA (1920x1200) color , widescreen, anti-glare, CCFL backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 72% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size											
Color calibration Camera	huey TM PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 1.3-megapixel, fixed focus											
Discrete graphics	NVIDIA® Quadro® FX3700M , PCI Express® x16, 1GB memory; <i>Max external resolution: 2048x1536@85Hz (VGA DB-15 port); 2048x1536 (DisplayPort)</i>											
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight TM	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows and App keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav TM , wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case color Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm <i>9-cell:</i> starting at 10.9 lb (4.96kg) Black <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.1 hr											ISV software certifications Supports ThinkVantage® technologies
Chipset	Mobile Intel PM45 Express Chipset (Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, RAID 0 or 1 support, USB 2.0, PCI Express 1.1, PCI 2.3, security chip, ethernet MAC), LPC bus											ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable management for W700 Series Features: <ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 watt AC adapter
ExpressCard/34 ExpressCard/54 Compact Flash Smart Card read Multicard reader Ports	One slot (ExpressCard/34) One slot (ExpressCard/34, ExpressCard/54) None None 7-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC, XD, XD Type H) Five USB 2.0, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin conn; 1394a-2000 standard)											
Mini PCI Express Intel 5300 ²⁸ 2G Turbo UWB Modem Bluetooth TM Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 None None (uses Half-Mini PCIe slot) 56K V.92 ⁶ modem in Communications Daughter Card socket Bluetooth 2.1 wireless, LED indicator Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip											170-watt AC adapter ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Limited warranty ¹²	3-years /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available											ThinkPlus TM . ²² 4-year LOR 9x5 NBD 12X5630
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM 4GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-W700 sheet	55Y3706 55Y3707 55Y3708		ThinkPad Battery 37++ (9-cell) ThinkPad 170W AC Adapter ThinkPad W700 Mini Dock 2.0 Other accessories at lenovo.com/accessories					45J7914 41R4421 57Y4345		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
 US model announced January 6, 2009
 US model withdrawn effective June 2010

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 (NIC15-2) June 2010

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann	06/23/09

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412	ann	06/23/09
DVD-ROM Ultrabay Slim SATA 1.5Gb/s	43N3212	ann	08/05/08
DVD Burner Ultrabay Slim SATA 1.5Gb/s ⁴⁸	43N3214	ann	08/05/08

⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm

DVD-ROM Ultrabay Enhanced SATA 1.5Gb/s	43R9147	ann	08/05/08
DVD Burner Ultrabay Enh SATA 1.5Gb/s	43R9149	ann	08/05/08
Blu-ray™ Burner Ultrabay Enh SATA 1.5Gb/s	43R9150	ann	08/05/08
Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295	ann	01/07/10

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann	06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann	01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann	06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09
ThinkPad W700 Mini Dock 2.0	57Y4345	ann	09/29/09

More information at www.lenovo.com/support/W700minidock

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann	05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann	05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann	06/27/06

⁵⁷ Only compatible with the models having 54mm Express card slot.

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Batteries

ThinkPad Battery 37++ (9-cell)	45J7914	ann	08/12/08
ThinkPad 170W AC Adapter	41R4421	ann	08/12/08
ThinkPad 230W AC Adapter	55Y9333	ann	02/23/10

More information at www.lenovo.com/alldaycomputing

Carrying Cases

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann	08/12/08
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Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide



Lenovo® ThinkPad W701



Lenovo ThinkPad W701 with
ThinkPad W700 Mini Dock 2.0
57Y4345



ThinkPad W700 Mini Dock 2.0
57Y4345



ThinkPad Battery 37++ (9-cell)
45J7914



Lenovo ThinkPad W701



Lenovo ThinkPad W701

ThinkPad® W701 2500 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory (MHz)	Widescreen display	Discrete graphics	Disk(s) SATA GB ⁸ rpm	RAID	SATA optical	PCIe Mini Card 802.11	Card slot	Color calib/ Adapter Intel vPro	Power (watt) Preload	Avail date
2500-3AU	i7-720QM	2GBx1 1066	17" WXGA+	FX2800M	1x320G 7200	No	DVD±RW	Intel 6300 ²⁸	Exp 54	230W vPro	Pro 64	Mar 10
2500-3BU	i7-820QM	2GBx2 1066	17" WUXGA	FX2800M	1x320G 7200	No	DVD±RW	Intel 6300	Smart	Yes 230W vPro	Pro 64	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mobile workstation; three spindles Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM</i> : 1.60GHz, 6MB cache; <i>i7-820QM</i> : 1.73GHz, 8MB cache	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • Fingerprint Software • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets	
SATA DVD±RW Ultrabay Enhanced SATA disk(s)	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high One disk, 320GB⁹ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports 3rd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some</i> : 17.0" (433.0mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, 45% color gamut <i>Some</i> : 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut	ISV software certifications
Color calibration Camera	<i>Some</i> : huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus	Supports ThinkVantage® technologies
Discrete graphics	NVIDIA® Quadro® FX2800M , PCI Express® x16, 1GB memory supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz	ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpdr
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard <i>Some</i> : Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH)</i> : 16.1" x 12.2" x 1.60-1.63"; 410mm x 310mm x 40.6-41.4mm <i>9-cell</i> : starting at 8.97 lb (4.07kg) <i>Top</i> : magnesium alloy; <i>Bottom</i> : Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell</i> : up to 2.0 hr	
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 <i>Some</i> : [/54] One ExpressCard/34 or ExpressCard/54 None <i>Some</i> : Smart Card Reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet Intel AMT Audio support	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced February 23, 2010
US models withdrawn effective February 2011

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ThinkPad® W701 2541 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory (MHz)	Widescreen display	Camera	Discrete graphics	Disk(s) SATA GB ⁸ rpm	RAID	Card slot	Color calib/ Digitizer	Power Adapter (watt)	Intel vPro	Workhorse (W) Global (G) Avail date
2541-25U	i7-920XM	2GBx2 1066	17" WUXGA		FX3800M	320G 7200 x 2	0	CF	Yes	230W	Pro 64	Mar 10
2541-28U	i7-920XM	4GBx2 1333	17" WUXGA	2.0M	FX3800M	128G SSD + 320G 5400		CF	Yes	230W	Pro 64	Mar 10
2541-29U	i7-920XM	2GBx2 1066	17" WUXGA		FX2800M	320G 5400		CF	Yes	230W	Pro 64	Mar 10
2541-4HU	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX3800M	500G 7200 x 2		Smart	Yes	230W	vPro Pro 64	W Mar 10
2541-4KU	i7-820QM	4GBx1 1333	17" WUXGA	2.0M	FX2800M	320G 5400 x2	0	Smart	Yes	230W	vPro Pro 64	W Mar 10
2541-58U	i7-720QM	2+1GB 1066	17" WXGA+		FX2800M	320G 7200		Exp 54		170W	vPro Pro 64	W G Mar 10
2541-59U	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX2800M	500G 7200 x 2		Exp 54		230W	vPro Pro 64	W G Mar 10
2541-5BU	i7-820QM	2GBx2 1066	17" WUXGA	2.0M	FX3800M	128G SSD + 500G 7200		Exp 54		230W	vPro Pro 64	W G Mar 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Mobile workstation; three spindles Intel® Core™ i7 processor i7-720QM, i7-820QM, or i7-920XM with quad-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; i7-720QM: 1.60GHz, 6MB cache; i7-820QM/i7-920XM: 1.73GHz/2.00GHz, 8MB cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Preloaded applications ¹⁴ (only some listed)
Memory	3GB, 4GB, or 8GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, four 204-pin SO-DIMM sockets	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk(s)	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high Some: One disk, 320GB ⁸ (5400 or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS) Some: Two same disks, 320GB (5400 or 7200 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS Some: Two disks, 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high and 320GB (5400 rpm) or 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS All: removable, upgradable, supports three disks max, Shock Mounted Hard Drive	
Widescreen display	Some: 17.0" (433.0mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, 45% color gamut Some: 17.0" (433.0mm) WUXGA (1920x1200) color, anti-glare, RGB LED backlight, 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut	
Color calibration Camera	Some: huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Some: camera on top of screen, 2.0-megapixel, fixed focus	ISV software certifications
Discrete graphics	Some: NVIDIA® Quadro® FX2800M, PCI Express® x16, 1GB memory Some: NVIDIA Quadro FX3800M, PCI Express x16, 1GB memory supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort or dual-link DVI-D) @ 60Hz; 2048x1536 (VGA) @ 85Hz	Supports ThinkVantage® technologies
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Some: Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions	ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: <ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr
Dimensions ³ Weight ² Case material	9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.60-1.63"; 410mm x 310mm x 40.6-41.4mm 9-cell: starting at 8.97 lb (4.07kg) Top: magnesium alloy; Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell 9-cell: up to 2.0 hr	
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 Some: [54] One ExpressCard/34 or ExpressCard/54 Some: [CF] One Type I slot Some: Smart Card Reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	170-watt or 230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Modem Bluetooth™ Ethernet	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Non-vPro model: Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 vPro model: Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1	ThinkPlus™, 22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	ThinkPlus 4-year P&L P/U Depot 41C9178
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	ThinkPlus 5-year P&L P/U Depot 41C9180
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced February 23, 2010
US models withdrawn effective August 2010 or February 2011

ThinkPad® W701 2542 (Onsite) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory (MHz)	Widescreen display	Camera	Discrete graphics	Disk(s) SATA GB ³ rpm	RAID	Color calib/ Digitizer	Power Adapter (watt)	Intel vPro	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
2542-58U	i7-720QM	2+1GB	1066	17" WXGA+	FX2800M	320G 7200	None	None	170W	vPro	Pro 64	W G P	Mar 10
2542-59U	i7-820QM	2GBx2	1066	17" WUXGA	2.0M FX2800M	500G 7200 x 2	None	None	230W	vPro	Pro 64	W G P	Mar 10
2542-5BU	i7-820QM	2GBx2	1066	17" WUXGA	2.0M FX3800M	128G SSD + 500G 7200	None	None	230W	vPro	Pro 64	W G P	Mar 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Mobile workstation; three spindles</i> Intel® Core™ i7 processor i7-720QM or i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; <i>i7-720QM: 1.60GHz, 6MB cache; i7-820QM: 1.73GHz, 8MB cache</i>										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64
Memory	3GB or 4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)
SATA DVD±RW Ultrabay Enhanced SATA disk(s)	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some: One disk, 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS)</i> <i>Some: Two same disks, 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS</i> <i>Some: Two disks, 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high and 500GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS</i> <i>All: removable, upgradable, supports three disks max, Shock Mounted Hard Drive</i>										ISV software certifications
Widescreen display	<i>Some: 17.0" (433.0mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, 45% color gamut</i> <i>Some: 17.0" (433.0mm) WUXGA (1920x1200) color, anti-glare, RGB LED backlight, 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut</i>										Supports ThinkVantage® technologies
Color calibration Camera	None <i>Some: camera on top of screen, 2.0-megapixel, fixed focus</i>										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features: • Security key lock • Security cable lock slot • External monitor ports – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adpтр
Discrete graphics	<i>Some: NVIDIA® Quadro® FX2800M, PCI Express® x16, 1GB memory</i> <i>Some: NVIDIA Quadro FX3800M, PCI Express x16, 1GB memory</i> supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz										
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard None Two LEDs illuminate the keyboard to improve visibility in low-light conditions										
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH): 16.1" x 12.2" x 1.60-1.63"; 410mm x 310mm x 40.6-41.4mm</i> <i>9-cell: starting at 8.97 lb (4.07kg)</i> <i>Top: magnesium alloy;</i> <i>Bottom: Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic</i>										
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell: up to 2.0 hr</i>										
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card Read Multicard Reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 [54] One ExpressCard/34 or ExpressCard/54 None None 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										170-watt or 230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet Intel AMT Audio support	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced February 23, 2010
US models withdrawn effective August 2010 or February 2011

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ThinkPad®



Lenovo® ThinkPad W701ds



Lenovo ThinkPad W701ds



Lenovo ThinkPad W701ds



ThinkPad 17W Business Topload Case
43R9117



ThinkPad 230W AC Adapter
55Y9333

ThinkPad® W701ds 2500 (TopSeller) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory (MHz)	Primary display	Secondary display	Camera	Discrete graphics	Disk(s) SATA GB ⁸ rpm	Color RAID	Power calib/ Adapter (watt)	Intel vPro	Preload	Avail date
2500-2XU	i7-820QM	4GBx2 1333	17" WUXGA	10.6" WXGA		FX3800M	128G SSD + 320G 5400	None	Yes	230W	vPro Pro 64	Mar 10
2500-3CU	i7-820QM	2GBx2 1066	17" WUXGA	10.6" WXGA	2.0M	FX3800M	500G 7200	None	Yes	230W	vPro Pro 64	Mar 10

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with two RAID-capable disks**
- **Select models include integrated color calibration and digitizer on palm rest**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning	<i>Mobile workstation; three spindles</i>							Preloaded operating system²⁰				
Processor	Intel® Core™ i7 processor i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 1.73GHz, 8MB cache							- Genuine Windows® 7 Professional 64				
Memory	4GB or 8GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets							Preloaded applications¹⁴ (only some listed)				
SATA DVD±RW	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable							• Rescue and Recovery™				
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high							• Access Connections™				
SATA disk	<i>Some:</i> One disk, 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS)							• Password Manager				
	<i>Some:</i> Two disks, 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high and 320GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS							• ThinkVantage Power Manager				
	<i>All:</i> removable, upgradable, supports three disks max, Shock Mounted Hard Drive							• ThinkVantage System Update				
Displays	<i>Primary:</i> 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut;							• Fingerprint Software				
	<i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size							• ThinkVantage Toolbox				
Color calibration	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest							• Microsoft Office 2010 preloaded; purchase product key to activate				
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus							• Corel® WinDVD® (DVD±RW)				
Discrete graphics	NVIDIA® Quadro® FX3800M , PCI Express® x16, 1GB memory, supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @ 60Hz; 2048x1536 (VGA) @ 85Hz							• Corel Burn.Now™ Lenovo Edition (DVD±RW)				
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys							ISV software certifications				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass							Supports ThinkVantage® technologies				
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label							ThinkPad W700 Mini Dock 2.0				
Numeric keypad	10-key numeric keypad on right side of keyboard							Provides desktop expansion and cable mgmt for W700 and W701 Series				
Digitizer	Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side							Features:				
ThinkLight™	Two LEDs illuminate the keyboard to improve visibility in low-light conditions							• Security key lock				
Dimensions ³	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm							• Security cable lock slot				
Weight ²	<i>9-cell:</i> starting at 11.43 lb (5.23kg)							• External monitor ports				
Case material	<i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic							– Analog VGA DB-15				
Battery - type	Lithium Ion 9-cell							– Dual-link DVI-D				
Battery - life ¹⁰	<i>9-cell:</i> up to 2.0 hr							– DisplayPort				
Chipset	Mobile Intel QM57 Express Chipset							• Four USB 2.0 ports				
ExpressCard/34	One ExpressCard/34							• eSATA port				
ExpressCard/54	None							• Gigabit ethernet port				
Compact Flash	[CF] One Type I slot							• Microphone in and headphone out				
Smart Card read	None							• S/PDIF (RCA coaxial digital out)				
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)							• Requires 170 or 230 watt AC adptr				
Ports	One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)							230-watt AC adapter				
PCIe Mini Card	One PCI Express Half Mini Card slot							ThinkPad Roll Cage (one-piece magnesium frame)				
Intel 6300 ²⁸	11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3							EPEAT™ Gold rating				
Modem	56K V.92 ⁶ modem							ENERGY STAR® 5.0-compliant				
Bluetooth™	Bluetooth 2.1 wireless, LED indicator							RoHS-compliant				
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1							International Warranty Service ¹⁷				
Intel AMT	Intel Active Management Technology (iAMT)							24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack							via 800-426-7378				
Security	Power-on password, hard disk password, supervisor password, security keyhole							ThinkPlus™.22 3-year LOR 9x5 NBD 41C9176				
Security chip	Trusted Platform Module, TCG 1.2-compliant							ThinkPlus 4-year LOR 9x5 NBD 41C9177				
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip							ThinkPlus 5-year LOR 9x5 NBD 41C9179				
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available							ThinkPlus 4-year P&L P/U Depot 41C9178				
								ThinkPlus 5-year P&L P/U Depot 41C9180				
								Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				

See footnotes for important warranty information

US models announced February 23, 2010

US models withdrawn effective August 2010 or February 2011

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(NIC3D-1) February 2011

ThinkPad® W701ds 2541 (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸ rpm	RAID	Card slot	Power Adapter (watt)	Intel vPro	Workhorse (W) Global (G) Avail date
2541-4JU	i7-920XM	2.00	3.20	4GBx1 1333	17" WUXGA	10.6" WXGA	2.0M 320G 7200 x 2	0	Exp 54	230W		Pro 64 W Mar 10
2541-5AU	i7-820QM	1.73	3.06	2GBx2 1066	17" WUXGA	10.6" WXGA	2.0M 500G 7200		Smart	230W	vPro	Pro 64 W G Mar 10

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with two RAID-capable disks**
- **Select models include integrated color calibration and digitizer on palm rest**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Mobile workstation; three spindles</i> Intel® Core™ i7 processor i7-820QM or i7-920XM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 8MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64	
Memory	4GB std / 16GB max ⁷ / PC3-8500 1066MHz or PC3-10600 1333MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed)	
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high <i>Some:</i> One disk, 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ (APS) <i>Some:</i> Two same disks, 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, APS <i>All:</i> removable, upgradable, supports three disks max, Shock Mounted Hard Drive										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) 	
Displays	<i>Primary:</i> 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size										ISV software certifications	
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies	
Discrete graphics	NVIDIA® Quadro® FX2800M , PCI Express® x16, 1GB memory, supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @ 60Hz; 2048x1536 (VGA) @ 85Hz										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series	
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions										Features: <ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> – Analog VGA DB-15 – Dual-link DVI-D – DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr 	
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm <i>9-cell:</i> starting at 11.43 lb (5.23kg) <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										<ul style="list-style-type: none"> • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr 	
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.0 hr											
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 <i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54 None <i>Some:</i> Smart Card Reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 <i>vPro model:</i> Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1										ThinkPlus™, 22 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179	
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus 4-year P&L P/U Depot 41C9178	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 5-year P&L P/U Depot 41C9180	
Limited warranty ¹²	3-year - depot repair service / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty	

See footnotes for important warranty information
 US models announced February 23, 2010
 US models withdrawn effective February 2011

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ThinkPad® W701ds 2542 (Onsite) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (MHz)	Primary display	Secondary display	Camera	Disk(s) SATA GB ⁸ rpm	RAID	Card slot	Power Adapter (watt)	Intel vPro	Workhorse (W) Global (G) Preload GMP (P)	Avail date
2542-5AU	i7-820QM	1.73	3.06	2GBx2 1066	17" WUXGA	10.6" WXGA	2.0M 500G 7200 x 1	No	Smart	230W	vPro	Pro 64 W G P	Mar 10

- **ds = dual screen**
- **17" widescreen ThinkPad workstation with two RAID-capable disks**
- **Select models include integrated color calibration and digitizer on palm rest**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Mobile workstation; three spindles</i> Intel® Core™ i7 processor i7-820QM with quad-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1333MHz), Intel Turbo Boost, Hyper-Threading technology; 8MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	4GB std / 16GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, four 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (only some listed)		
SATA DVD±RW Ultrabay Enhanced SATA disk	DVD burner, SATA 1.5Gb/s, 12.7mm Ultrabay Enhanced, removable One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high One disk, 500GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, supports three disks max, Shock Mounted Hard Drive Active Protection System™ (APS)										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • Fingerprint Software • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) 		
Displays	<i>Primary:</i> 17.0" (433.0mm) WUXGA (1920x1200) color , anti-glare, RGB LED backlight , 280 nits, 16:10 aspect ratio, 600:1 contrast ratio, 100% color gamut; <i>Secondary:</i> 10.6" (268.7mm) WXGA (768x1280) color , portrait, anti-glare, LED backlight, 230 nits, 9:15 aspect ratio, 190:1 contrast ratio, 45% color gamut, slides out of right side of top cover, 30° tilt, 40% of primary screen size										ISV software certifications		
Color calibration Camera	huey™PRO Colorimeter by X-Rite® color calibration sensor in palm rest Camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies		
Discrete graphics	NVIDIA® Quadro® FX2800M , PCI Express® x16, 1GB memory, supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort or dual-link DVI-D) @60Hz; 2048x1536 (VGA) @85Hz										ThinkPad W700 Mini Dock 2.0 Provides desktop expansion and cable mgmt for W700 and W701 Series Features:		
Keyboard TrackPoint® Touch pad Numeric keypad Digitizer ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label 10-key numeric keypad on right side of keyboard Wacom® digitizer (128x80mm) on palm rest, digitizer pen, pen holder in right side Two LEDs illuminate the keyboard to improve visibility in low-light conditions										<ul style="list-style-type: none"> • Security key lock • Security cable lock slot • External monitor ports <ul style="list-style-type: none"> - Analog VGA DB-15 - Dual-link DVI-D - DisplayPort • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr 		
Dimensions ³ Weight ² Case material	<i>9-cell 17W" (WxDxH):</i> 16.1" x 12.2" x 2.1"; 410mm x 310mm x 52.2mm <i>9-cell:</i> starting at 11.43 lb (5.23kg) <i>Top:</i> magnesium alloy; <i>Bottom:</i> Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										<ul style="list-style-type: none"> • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr 		
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell <i>9-cell:</i> up to 2.0 hr										<ul style="list-style-type: none"> • Four USB 2.0 ports • eSATA port • Gigabit ethernet port • Microphone in and headphone out • S/PDIF (RCA coaxial digital out) • Requires 170 or 230 watt AC adptr 		
Chipset ExpressCard/34 ExpressCard/54 Compact Flash Smart Card read Multicard reader Ports	Mobile Intel QM57 Express Chipset One ExpressCard/34 None None Smart Card Reader 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One USB 3.0, Three USB 2.0 (one powered), one USB 2.0/eSATA combo port, external monitor ¹¹ (VGA DB-15, dual-link DVI-D, DisplayPort), modem (RJ-11), ethernet (RJ-45), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										230-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
PCIe Mini Card Intel 6300 ²⁸ Modem Bluetooth™ Ethernet Intel AMT Audio support	One PCI Express Half Mini Card slot 11a/b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										ThinkPlus™.22 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180		
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US model announced February 23, 2010
US model withdrawn effective February 2011

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(NIC3D-3) February 2011

Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09
1GB PC3-10600 DDR3 L-H SODIMM	55Y3709	ann 03/02/10
1GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4415	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Slim 9.5mm

Serial ATA Hard Drive Bay Adapter III ⁴⁸	43N3412	ann 06/23/09
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⁴⁸ Slim 9.5mm device in 12.7mm bay shows gap above the device.

Ultrabay Enhanced 12.7mm

Blu-ray Reader / DVD Burner Ultrabay Enh	43N3295	ann 01/07/10
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Storage and removable storage

160GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 3.0Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in the Ultrabay

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
ThinkPad 160GB Intel X25-M SSD ⁴¹	43N3435	ann 06/22/10

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad W700 Mini Dock 2.0	57Y4345	ann 09/29/09

More information at www.lenovo.com/support/W700minidock

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader ⁵⁷	41N3043	ann 06/27/06

⁵⁷ Only compatible with the models having 54mm Express card slot.

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Batteries

ThinkPad Battery 37++ (9-cell)	45J7914	ann 08/12/08
ThinkPad 230W AC Adapter	55Y9333	ann 02/23/10

More information at www.lenovo.com/alldaycomputing

Carrying Cases

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann 08/12/08
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More information at www.lenovo.com/support/cases

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
 Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® X31 (2672) - October 2003 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X3 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec Ethernet chip	Planar Preload	WH (W) Entry (E)	Gbl (G) TAA	Avail date
2672-27U	Pentium® M	1.4	256MB	12.1" XGA	20GB ⁸	None	Optional	Open; wireless upg ³⁶	Modem	Yes	10/100	XP Pro	E	Oct 03
2672-2BU	Pentium M	1.4	256MB	12.1" XGA	20GB	None	Optional	*Intel 11b Wi-Fi ³²	Modem	Yes	10/100	XP Pro	E	Oct 03
2672-N7U	Pentium M	1.6	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg	Modem	Yes	10/100	XP Pro	W G	Oct 03
2672-P7U	Pentium M	1.6	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg	Modem	Yes	Gigabit	XP Pro	W	Oct 03
2672-PBU	Pentium M	1.6	256MB	12.1" XGA	40GB	None	Optional	*Intel 11b Wi-Fi	Modem	Yes	Gigabit	XP Pro	W G	Oct 03
2672-PUU	Pentium M	1.6	256MB	12.1" XGA	40GB	None	Optional	11a/b/g Wi-Fi ³²	Modem	Yes	Gigabit	XP Pro	W	Oct 03
2672-PXU	Pentium M	1.6	256MB	12.1" XGA	40GB	None	Optional	Cisco® 802.11b ³²	Modem	Yes	Gigabit	XP Pro	W G	Oct 03
2672-REU	Pentium M	1.6	512MB	12.1" XGA	40HS	None	Optional	*Intel 11b Wi-Fi	Mod/Blue	Yes	Gigabit	XP Pro	W	Oct 03
2672-RHU	Pentium M	1.6	512MB	12.1" XGA	40HS	None	Optional	11a/b/g Wi-Fi ³²	Mod/Blue	Yes	Gigabit	XP Pro	W	Oct 03
2672-NYU	Pentium M	1.6	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg	Modem	Yes	10/100	XP Pro	W TAA	Dec03
Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i> NYU: US Government model (Trade Act Agreement-compliant) Intel® Pentium® M Processor 1.4 or 1.6GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus													
L2 cache	1MB / on die (at processor speed) / ECC													
Memory	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive													
Optical	None standard / optional USB-based optical, or optional Ultrabay 2000-based optical removable from optional X3 UltraBase, ThinkPad Dock, or ThinkPad Dock II													
Ultrabay™ 2000 Disk	Supports Ultrabay 2000 devices in optional X3 UltraBase (or optional ThinkPad Dock II) 20GB (4200 rpm), 40GB⁸ (4200 rpm), or 40GB (HS 5400 rpm), 9.5mm, ATA-100 / removable and upgradable / 9.5mm high bay													
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits													
Graphics controller	ATI® Mobility RADEON® / AGP 4X / 16MB DDR1 (DDR-SDRAM)													
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz													
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without X3 UltraBase:</i> 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm <i>with X3 UltraBase and optical:</i> 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm <i>with battery:</i> 3.6 lb (1.65kg); <i>with X3 UltraBase and optical:</i> 5.6 lb (2.54kg)													
Travel weight ²	Color: black; All: titanium composite in the top cover / magnesium alloy bottom case													
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries) supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)													
Battery - type	5.3 to 6.0 hrs; <i>with std battery and optional Extended Life Battery:</i> up to 10.1 hrs													
Battery - life ¹⁰														
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)													
Media slice	Optional X3 UltraBase media slice (see right side)													
Compact Flash slot	Compact Flash slot / 1 CF+ Type II / supports optional Microdrive™													
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)													
Ports	Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable													
Wireless upg ³⁶	Some: wireless upgradeable with wireless Mini PCI options													
11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset													
Cisco 802.11b ³²	Some: 802.11b wireless ⁴ , Mini PCI, Cisco® Aironet® Wireless 802.11b													
11a/b/g Wi-Fi ³²	Some: 11a/b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5001X+ chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Some: 10/100 ethernet on systemboard / Intel 82562EZ chipset (physical layer) / PXE													
Audio support	Some: Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE													
Security	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]													
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole													
Limited warranty ¹²	3 years/1 yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security ¹⁶ / TCG-compliant													
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X3 UltraBase media slice	46P7912											
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Port Replicator II	74P6733											
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Mini Dock	287810U											
1 GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Dock II	287710U											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	USB Portable Diskette Drive	05K9276											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097											
11a/b/g Wireless CardBus Adapter	31P9101	ThinkPad X30 Series Extended Life Battery	02K7041											
11a/b/g Wireless Mini PCI Adapter	31P9701	ThinkPad Ultraportable 56W AC Adapter	02K6880											
ThinkVision® L192p 19" Monitor (black)	9419HB2	ServicePac®.22 2yr IOR 9x5 NBD	30L9190											
M400 Projector	0037A04	Other options at lenovo.com/options												
56 watt AC Adapter	Asset ID™.34 (system-specific info in chip accessed over network)													
PC 2001-compliant	ACPI 1.0b and 2.0-compliant													
24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)	CIM and DMI 2.0-compliant													
	International Warranty Service ¹⁷													

See footnotes for important warranty information

* Powered by Intel Centrino™ mobile technology

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US models announced on October 7 or December 9, 2003

(X31O) October 2005

US models withdrawn effective April 2004, January 2005, or December 2005

ThinkPad® X31 (2884) - Express (February 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X3 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Security Ethernet chip	Ethernet planar Preload	Avail date
2884-68U	Pentium® M	1.5	256MB	12.1" XGA	20GB ⁸		Optional	Open; wireless upg ³⁶	Modem	Yes	10/100 XP Pro	Feb 2004
2884-6KU	Pentium M	1.5	256MB	12.1" XGA	20GB		Optional	* Intel 11b Wi-Fi ³²	Modem	Yes	10/100 XP Pro	Feb 2004
2884-6LU	Pentium M	1.5	256MB	12.1" XGA	20GB	DVD	X3 UltraBase	* Intel 11b Wi-Fi	Modem	Yes	10/100 XP Pro	Feb 2004
2884-3UU	Pentium M	1.5	256MB	12.1" XGA	30GB		Optional	11b/g ³²	Modem	Yes	10/100 XP Pro	Feb 2004
2884-3WU	Pentium M	1.5	256MB	12.1" XGA	30GB	Combo	X3 UltraBase	11b/g	Modem	Yes	10/100 XP Pro	Feb 2004
2884-5KU	Pentium M	1.7	256MB	12.1" XGA	40GB		Optional	* Intel 11b Wi-Fi	Modem	Yes	Gigabit XP Pro	Feb 2004
2884-5LU	Pentium M	1.7	256MB	12.1" XGA	40GB	Combo	X3 UltraBase	* Intel 11b Wi-Fi	Modem	Yes	Gigabit XP Pro	Feb 2004
2884-4LU	Pentium M	1.7	256MB	12.1" XGA	40HS	Combo	X3 UltraBase	* Intel 11b Wi-Fi	Modem	Yes	Gigabit XP Pro	Feb 2004
2884-4WU	Pentium M	1.7	512MB	12.1" XGA	40HS	Combo	X3 UltraBase	11b/g	Modem	Yes	Gigabit XP Pro	Feb 2004
<p>• These small and medium business (SMB) models are part of the US Think Express Program • The 2884 has a 1 year limited warranty</p>												
Positioning Processor	<p>Ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor 1.5 or 1.7GHz with enhanced Intel SpeedStep™ technology¹ and 400MHz system bus</p>											
L2 cache	<p>1MB / on die (at processor speed) / ECC</p>											
Memory	<p>256MB or 512MB std / 2GB max⁷ / PC2700 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available</p>											
Diskette drive	<p>None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive</p>											
DVD	<p><i>Some:</i> DVD-ROM / 8X-3.3X⁹ speed / single-layer / removable from Ultrabay 2000 of X3</p>											
Combo	<p><i>Some:</i> DVD-ROM/CD-RW / 16X/10X/24X/8X²¹ speed / removable from Ultrabay 2000</p>											
Ultrabay™ 2000	<p>Supports Ultrabay 2000 devices in std or opt X3 UltraBase (or opt ThinkPad Dock II)</p>											
Disk	<p>20GB⁸ (4200 rpm), 30GB (4200 rpm), or 40GB (4200 rpm or HS 5400 rpm), 9.5mm, ATA-100 / removable, upgradable / 9.5mm high bay</p>											
Display	<p>12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</p>											
Graphics controller	<p>ATI® MOBILITY™ RADEON® / AGP 4X / 16MB DDR1 (DDR-SDRAM)</p>											
Graphics - external	<p>External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz</p>											
Keyboard	<p>Standard-size²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap</p>											
ThinkLight™	<p>Illuminates the keyboard to improve visibility in low-light conditions</p>											
Dimensions ³	<p><i>without X3 UltraBase:</i> 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm <i>with X3 UltraBase and optical:</i> 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm</p>											
Travel weight ²	<p><i>with battery:</i> 3.6 lb (1.65kg); <i>with X3 UltraBase and optical:</i> 5.6 lb (2.54kg)</p>											
Case material	<p>Color: black; All: titanium composite in the top cover / magnesium alloy bottom case</p>											
Battery - type	<p>Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries) supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)</p>											
Battery - life ¹⁰	<p>Up to 5.5 hrs; <i>with std battery and optional Extended Life Battery:</i> up to 10.1 hrs</p>											
Architecture	<p>Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoch® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based diskette, serial, parallel])</p>											
Media slice	<p><i>Some:</i> X3 UltraBase media slice (see right side)</p>											
Docking Station	<p>Optional ThinkPad Dock or Dock II (includes Ultrabay 2000 and half-size PCI slot)</p>											
Compact Flash slot	<p>Compact Flash slot / 1 CF+ Type II / supports optional Microdrive™</p>											
PC Card Std slot	<p>One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door</p>											
IEEE 1394	<p>IEEE 1394 (FireWire) port (4-pin)</p>											
Ports	<p>Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports</p>											
Wireless antenna	<p>UltraConnect™ antenna built into the display cover for optimal wireless signal reception</p>											
Mini PCI	<p>One Mini PCI type III slot (Communications Bay) / customer upgradeable</p>											
Wireless upg ³⁶	<p><i>Some:</i> wireless upgradable with wireless Mini PCI options</p>											
11b Wi-Fi ³²	<p><i>Some:</i> 11b Wi-Fi³² wireless⁴, Mini PCI, Intel PRO/Wireless 2100 Network Connection</p>											
11b/g ³²	<p>802.11b, Intel 82531 chipset</p>											
CDC	<p><i>Some:</i> 11b/g Wi-Fi³² wireless⁴, Mini PCI, Atheros™ AR5004G chipset</p>											
Modem	<p>One Communications Daughter Card (CDC) socket / customer accessible</p>											
Ethernet	<p>56K⁶ V.90 (V.92-designed²⁵) modem in CDC / Agere® chipset</p>											
Audio support	<p><i>Some:</i> 10/100 ethernet on systemboard / Intel 82562EZ chipset (physical layer) / PXE</p>											
Security	<p><i>Some:</i> Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE</p>											
Security chip	<p>Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]</p>											
Limited warranty ¹²	<p>Power-on password / dual hard disk password / supervisor password / security keyhole Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant</p>											
	<p>1 year - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² available</p>											
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X3 UltraBase media slice	46P7912									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Port Replicator II	74P6733									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Mini Dock	287810U									
USB Portable Diskette Drive	05K9276	ThinkPad Dock II	287710U									
USB Fingerprint Reader	73P4774	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097									
USB 2.0 Memory Key 512MB	22P9230	ThinkPad X30 Series Extended Life Battery	02K7041									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad 72W AC/DC Combo Adapter	22P9010									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	Powered USB 2.0 Port Combo Drive	22P9194									
11a/b/g Wireless CardBus Adapter	31P9101	Carrying Case - Leather Ultraportable	73P5186									
11a/b/g Wireless Mini PCI Adapter	31P9701	ServicePac® ²² 1yr IOR 9x5 NBD	30L9188									
ThinkVision® L192p 19" Monitor (black)	9419HB2	ServicePac 3yr IOR 9x5 NBD	30L9195									
M400 Projector	0037A04	ServicePac 3yr P&L P/U Depot	30L9192									
Preferred Pro USB Fingerprint Keyboard	73P4730	Other options at lenovo.com/options										
				<p>56 watt AC Adapter Asset ID™³⁴ (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²</p>								

See footnotes for important warranty information
US models announced February 10, 2004
US models withdrawn effective October 2004 or December 2005

* Powered by Intel Centrino™ mobile technology

ThinkPad® X32 (2672) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	UltraBase X3	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec Ethernet chip	WH (W) Gbl (G) Avail	Preload Entry TAA	date
2672-KBU	Pentium® M 755	2.0	512MB	12.1" XGA	60HS	None	Optional	* Intel 11a/b/g ³²	Mod/Blue	Yes	Gigabit XP Pro	W	Apr 05	
2672-M2U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g ³²	Modem	Yes	Gigabit XP Pro	W	Apr 05	
2672-KDU	Pentium M 755	2.0	512MB	12.1" XGA	80HS	None	Optional	* Intel 11a/b/g	Mod/Blue	Yes	Gigabit XP Pro	W	Apr 05	
2672-8BU	Pentium M 735	1.7	512MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g	Modem	Yes	Gigabit XP Pro	Entry	Apr 05	
2672-A3U	Pentium M 725	1.6	512MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g	Modem	Yes	Gigabit XP Pro	Entry	Apr 05	
2672-M3U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	None	Optional	Open; wireless upg ³⁶	Modem	Yes	Gigabit XP Pro	W G	Apr 05	
2672-M4U	Pentium M 745	1.8	512MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g	Modem	Yes	Gigabit XP Pro	W G	Apr 05	
2672-L2U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	None	Optional	Open; wireless upg	Modem	Yes	Gigabit XP Pro	W TAA	Apr 05	
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>													
US Govt (TAA) ⁵	Model L1U: US Government model (Trade Act Agreement-compliant)													
Processor	Intel® Pentium® M Processor 725 (1.60GHz), 735 (1.70GHz), 745 (1.80GHz), or 755 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus													
L2 cache	2MB / on die (at processor speed) / ECC													
Memory	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive													
Optical	None standard / optional USB-based optical, or optional Ultrabay 2000-based optical removable from optional X3 UltraBase, ThinkPad Dock, or ThinkPad Dock II													
Ultrabay™ 2000	Supports Ultrabay 2000 devices in optional X3 UltraBase (or optional ThinkPad Dock II)													
Disk	40GB ⁸ (HS 5400 rpm), 60GB (HS 5400 rpm), or 80GB (HS 5400 rpm), 9.5mm, ATA-100/removable and upgradable / 9.5mm high bay													
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits													
Graphics controller	ATI® MOBILITY™ RADEON® / AGP 4X / 16MB DDR1 (DDR-SDRAM)													
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz													
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	without X3 UltraBase: 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm with X3 UltraBase and optical: 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm with battery: 3.6 lb (1.65kg); with X3 UltraBase and optical: 5.6 lb (2.54kg)													
Travel weight ²	Color: black; All: titanium composite in the top cover / magnesium alloy bottom case													
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries) supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)													
Battery - type	Up to 5.7 hr; with std battery and optional Extended Life Battery: up to 10.0 hr													
Battery - life ¹⁰														
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)													
Media slice	Optional X3 UltraBase media slice (see right side)													
Compact Flash slot	Compact Flash slot / 1 CF+ Type II / supports optional Microdrive™													
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)													
Ports	Two USB (Version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg ³⁶	Some: wireless upgradable with wireless Mini PCI options													
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁸) modem in CDC / Agere® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]													
Security	Power-on password / dual hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0 ³³ / Atmel® chip / TCG-compliant													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X3 UltraBase media slice	46P7912											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Port Replicator II	74P6733											
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Mini Dock	287810U											
USB Fingerprint Reader	73P4774	ThinkPad Dock II	287710U											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	USB Portable Diskette Drive	05K9276											
USB 2.0 Memory Key 512KB	40Y8596	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097											
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad X30 Series Extended Life Battery	02K7041											
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Ultraportable 56W AC Adapter	02K6880											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	Carrying Case - Leather Ultraportable	73P5186											
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175											
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year LOR 9x5 NBD	41C9176											
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPlus 5-year LOR 9x5 NBD	41C9179											
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180											
ThinkVision® L201p 20.1" Monitor (black)	9320HB1	Other options at lenovo.com/options												
Software ¹⁴	Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)													
Preloaded	<ul style="list-style-type: none"> Rescue and Recovery™ Access Program Access Connections™ Norton AntiVirus PC-Doctor™ ThinkPad Utilities Adobe Reader Update Connector™¹⁵ 													
Downloadable	<ul style="list-style-type: none"> IBM Director Agent Software Delivery Assistant System Migration Assistant Client Security Software (for security chip) 													
License (CD not included)	<ul style="list-style-type: none"> Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client 													
Supports ThinkVantage™ technologies														
ThinkPad X3 UltraBase™	Right bay of X3 UltraBase supports most Ultrabay 2000 options: <ul style="list-style-type: none"> Optional battery, CD-ROM, CD-RW, DVD-ROM, Zip 250MB, Combo Optional HDD adapter for 2nd disk Ultrabay Plus-compatible Ultrabay 2000 accessories: <ul style="list-style-type: none"> CD-RW/DVD Combo IV Ultrabay 2000 22P6991 Second HDD Adapter for Ultrabay 2000 08K6068 Ultrabay 2000 Li-Ion battery 02K6646 ThinkPad Multi-Burner Ultrabay 2000 Drive 22P7015 Enhanced Drive Adapter for Ultrabay 2000 73P3268 X3 UltraBase bottom contains: <ul style="list-style-type: none"> Bay for X30 battery (same as X31) Other features: <ul style="list-style-type: none"> Second battery support (for Ultrabay battery or second 6-cell battery) Stereo speakers (1 watt) Security keyhole, UltraBase lock Serial and parallel ports PS/2 mouse port Analog DB-15 monitor port One USB port (Ver 2.0 only on X31) Ethernet port and modem port Retractable feet; 1.41 lb; 638g 													
56 watt AC Adapter	Asset ID™ ³⁴ (system-specific info in chip accessed over network)													
ACPI 1.0b and 2.0-compliant	PC 2001-compliant													
CIM and DMI 2.0-compliant	ENERGY STAR®-compliant													
International Warranty Service ¹⁷	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²													

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced April 5, 2005

(X32) October 2006

US models withdrawn effective November 2005, April 2006, or October 2006

ThinkPad® X32 (2884) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad	Mini PCI	CDC: modem/	Sec	Ethernet	Limited	Avail
						UltraBase	X3 UltraBase™	wireless	Bluetooth™	chip	planar	warranty ¹²	date
2884-A2U	Pentium® M 725	1.6	256MB	12.1" XGA	40HS		Optional	* Intel 11b/g ³²	Modem	Yes	Gigabit	XP Pro	1 year Apr 05
2884-M2U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	Combo	X3 UltraBase	* Intel 11b/g	Modem	Yes	Gigabit	XP Pro	1 year Apr 05
2884-M5U	Pentium M 745	1.8	512MB	12.1" XGA	40HS		Optional	* Intel 11b/g	Modem	Yes	Gigabit	XP Pro	1 year Apr 05
2884-K4U	Pentium M 755	2.0	512MB	12.1" XGA	60HS	Combo	X3 UltraBase	* Intel 11a/b/g ³²	Mod/Blue	Yes	Gigabit	XP Pro	1 year Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2884 has a 1 year limited warranty

Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴																																																																												
Processor	Intel® Pentium® M Processor 725 (1.60GHz), 745 (1.80GHz), or 755 (2.00GHz) with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										Windows XP Professional																																																																												
L2 cache	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)																																																																												
Memory	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										◇ Disk-to-Disk Recovery (in hidden protected area)																																																																												
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive										Preloaded																																																																												
Combo	<i>Some: DVD-ROM/CD-RW / 16X/10X/24X/8X²¹ speed / removable from Ultrabay 2000 in X3 UltraBase</i>										• Rescue and Recovery™																																																																												
Ultrabay™ 2000	Supports Ultrabay 2000 devices in std or optional X3 UltraBase (or optional Dock II)										• Access IBM																																																																												
Disk	40GB⁸ (HS 5400 rpm) or 60GB (HS 5400 rpm), 9.5mm, ATA-100 / removable and upgradable / 9.5mm high bay										• Access Connections™																																																																												
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Norton AntiVirus																																																																												
Graphics controller	ATI® MOBILITY™ RADEON® / AGP 4X / 16MB DDR1 (DDR-SDRAM)										• PC-Doctor™																																																																												
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz										• ThinkPad Utilities																																																																												
Keyboard	Standard-size ²⁶ keys / 97% size of T-Series / 87-key / 18.5mm pitch; 2.5mm stoke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Adobe Reader																																																																												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ ¹⁵																																																																												
Dimensions ³	<i>without X3 UltraBase: 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm</i> <i>with X3 UltraBase and optical: 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm</i> <i>with battery: 3.6 lb (1.65kg); with X3 UltraBase and optical: 5.6 lb (2.54kg)</i>										Downloadable																																																																												
Travel weight ²	<i>Color: black; All: titanium composite</i> in the top cover / magnesium alloy bottom case										• IBM Director Agent																																																																												
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries)										• Software Delivery Assistant																																																																												
Battery - type	supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)										• System Migration Assistant																																																																												
Battery - life ¹⁰	Up to 5.7 hr; <i>with std battery and optional Extended Life Battery: up to 10.0 hr</i>										• Client Security Software (for security chip)																																																																												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)										License (CD not included)																																																																												
Media slice	<i>Some: X3 UltraBase media slice</i> (see right side)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																																												
Compact Flash slot	Compact Flash slot / 1 CF+ Type II / supports optional Microdrive™										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage																																																																												
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										ThinkPad X3 UltraBase™																																																																												
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)										Right bay of X3 UltraBase supports most Ultrabay 2000 options:																																																																												
Ports	Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports										• Optional battery, CD-ROM, CD-RW, DVD-ROM, Zip 250MB, Combo																																																																												
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										• Optional HDD adapter for 2nd disk																																																																												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable										• Ultrabay Plus-compatible																																																																												
Intel 11b/g ³²	<i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i>										Ultrabay 2000 accessories:																																																																												
Intel 11a/b/g ³²	<i>Some: 11a/b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset</i>										• CD-RW/DVD Combo IV Ultrabay 2000 22P6991																																																																												
CDC	One Communications Daughter Card (CDC) socket / customer accessible										• Second HDD Adapter for Ultrabay 2000 08K6068																																																																												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset										• Ultrabay 2000 Li-Ion battery 02K6646																																																																												
Bluetooth™	<i>Some: Bluetooth wireless technology / in CDC (with modem)</i>										• ThinkPad Multi-Burner Ultrabay 2000 Drive 22P7015																																																																												
Ethernet	Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										• Enhanced Drive Adapter for Ultrabay 2000 73P3268																																																																												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]										X3 UltraBase bottom contains:																																																																												
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										• Bay for X30 battery (same as X31)																																																																												
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant										Other features:																																																																												
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available										• Second battery support (for Ultrabay battery or second 6-cell battery)																																																																												
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X3 UltraBase media slice	46P7912	256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Port Replicator II	74P6733	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Mini Dock	287810U	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Dock II	287710U	USB Fingerprint Reader	73P4774	USB Portable Diskette Drive	05K9276	USB 2.0 Portable Multi-Burner	22P9163	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097	USB 2.0 Memory Key 256MB	22P9228	ThinkPad X30 Series Extended Life Battery	02K7041	USB 2.0 Memory Key 512MB	22P9230	ThinkPad Ultraportable 56W AC Adapter	02K6880	60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	Carrying Case - Leather Ultraportable	73P5186	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ServicePac® ²² 1yr IOR 9x5 NBD	30L9188	100GB Hard Disk 9.5mm SATA (5400 rpm)	40Y8716	ServicePac 2yr IOR 9x5 NBD	30L9189	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 3yr IOR 9x5 NBD	30L9195	11a/b/g Wireless Mini PCI Adapter II	73P4301	ServicePac 4yr IOR 9x5 NBD	30L9194	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ServicePac 5yr IOR 9x5 NBD	30L9196	Preferred Pro USB Fingerprint Keyboard	73P4730	ServicePac 2yr P&L P/U Depot	30L9191	M400 Projector	0037A04	ServicePac 3yr P&L P/U Depot	30L9192	ThinkVision® E500 Projector	0038A05	ServicePac 5yr P&L P/U Depot	69P9197	SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at lenovo.com/options		56 watt AC Adapter		Asset ID™ ³⁴ (system-specific info in chip accessed over network)		PC 2001-compliant		ACPI 1.0b and 2.0-compliant		CIM and DMI 2.0-compliant		ENERGY STAR®-compliant		International Warranty Service ¹⁷		24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	

See footnotes for important warranty information
US models announced April 5, 2005
US models withdrawn effective November 2005

* Powered by Intel Centrino™ mobile technology

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(X321) October 2005

ThinkPad® X32 (2885) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad UltraBase	ThinkPad X3 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec chip	Ethernet planar	Limited Preload warranty ¹²	Avail date
2885-M2U	Pentium® M 745	1.8	256MB	12.1" XGA	40HS	Combo	X3 UltraBase	*	Intel 11b/g ³²	Modem	Yes	Gigabit	XP Pro 3 year	Apr 05
2885-K4U	Pentium M 755	2.0	512MB	12.1" XGA	60HS	Combo	X3 UltraBase	*	Intel 11a/b/g ³²	Mod/Blue	Yes	Gigabit	XP Pro 3 year	Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2885 has a 3 year limited warranty

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i> Intel® Pentium® M Processor 745 (1.80GHz) or 755 (2.00GHz) with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										SOFTWARE¹⁴																																																																			
L2 cache	2MB / on die (at processor speed) / ECC										Windows XP Professional																																																																			
Memory	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)																																																																			
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive										Preloaded																																																																			
Combo	DVD-ROM/CD-RW / 16X/10X/24X/8X ²¹ speed / removable from Ultrabay 2000 in X3 UltraBase										• Rescue and Recovery™																																																																			
Ultrabay™ 2000	Supports Ultrabay 2000 devices in std or optional X3 UltraBase (or optional Dock II)										• Access IBM																																																																			
Disk	40GB (HS 5400 rpm) or 60GB (HS 5400 rpm), 9.5mm, ATA-100 / removable and upgradable / 9.5mm high bay										• Access Connections™																																																																			
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Norton AntiVirus																																																																			
Graphics controller	ATI® MOBILITY™ RADEON® / AGP 4X / 16MB DDR1 (DDR-SDRAM)										• PC-Doctor™																																																																			
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz										• ThinkPad Utilities																																																																			
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stoke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Adobe Reader																																																																			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ ¹⁵																																																																			
Dimensions ³	<i>without X3 UltraBase:</i> 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm <i>with X3 UltraBase and optical:</i> 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm <i>with battery:</i> 3.6 lb (1.65kg); <i>with X3 UltraBase and optical:</i> 5.6 lb (2.54kg)										Downloadable																																																																			
Travel weight ²	<i>Color:</i> black; <i>All: titanium composite</i> in the top cover / magnesium alloy bottom case										• IBM Director Agent																																																																			
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries)										• Software Delivery Assistant																																																																			
Battery - type	supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)										• System Migration Assistant																																																																			
Battery - life ¹⁰	Up to 5.7 hr; <i>with std battery and optional Extended Life Battery:</i> up to 10.0 hr										• Client Security Software (for security chip)																																																																			
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																																			
Media slice	X3 UltraBase media slice (see right side)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage																																																																			
Compact Flash slot	Compact Flash slot / 1 CF+ Type II / supports optional Microdrive™										ThinkPad X3 UltraBase™																																																																			
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										Right bay of X3 UltraBase supports most Ultrabay 2000 options:																																																																			
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)										• Optional battery, CD-ROM, CD-RW, DVD-ROM, Zip 250MB, Combo																																																																			
Ports	Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports										• Optional HDD adapter for 2nd disk																																																																			
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										• Ultrabay Plus-compatible																																																																			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable										Ultrabay 2000 accessories:																																																																			
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										• CD-RW/DVD Combo IV Ultrabay 2000 22P6991																																																																			
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										• Second HDD Adapter for Ultrabay 2000 08K6068																																																																			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										• Ultrabay 2000 Li-Ion battery 02K6646																																																																			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset										• ThinkPad Multi-Burner Ultrabay 2000 Drive 22P7015																																																																			
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)										• Enhanced Drive Adapter for Ultrabay 2000 73P3268																																																																			
Ethernet	Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										X3 UltraBase bottom contains:																																																																			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]										• Bay for X30 battery (same as X31)																																																																			
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										Other features:																																																																			
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant										• Second battery support (for Ultrabay battery or second 6-cell battery)																																																																			
Limited warranty ¹²	3 years/1 yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										• Stereo speakers (1 watt)																																																																			
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X3 UltraBase media slice	46P7912	256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Port Replicator II	74P6733	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Mini Dock	287810U	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Dock II	287710U	USB Fingerprint Reader	73P4774	USB Portable Diskette Drive	05K9276	USB 2.0 Portable Multi-Burner	22P9163	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097	USB 2.0 Memory Key 256MB	22P9228	ThinkPad X30 Series Extended Life Battery	02K7041	USB 2.0 Memory Key 512MB	22P9230	ThinkPad Ultraportable 56W AC Adapter	02K6880	60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Carrying Case - Backpack	73P3599	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Leather	73P3600	100GB Hard Disk 9.5mm SATA (5400 rpm)	40Y8716	Carrying Case - Leather Ultraportable	73P5186	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac®. 22 2yr IOR 9x5 NBD	30L9190	11a/b/g Wireless Mini PCI Adapter II	73P4301	ServicePac 3yr IOR 9x5 NBD	30L9197	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ServicePac 4yr IOR 9x5 NBD	69P9198	Preferred Pro USB Fingerprint Keyboard	73P4730	ServicePac 5yr IOR 9x5 NBD	69P9200	M400 Projector	0037A04	ServicePac 4yr P&L P/U Depot	69P9199	ThinkVision® E500 Projector	0038A05	ServicePac 5yr P&L P/U Depot	69P9201	C400 Projector	0039A04	Other options at lenovo.com/options	56 watt AC Adapter	Asset ID™.34 (system-specific info in chip accessed over network)	PC 2001-compliant	ACPI 1.0b and 2.0-compliant	CIM and DMI 2.0-compliant	ENERGY STAR®-compliant	International Warranty Service ¹⁷	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²

See footnotes for important warranty information
US models announced April 5, 2005
US models withdrawn effective November 2005

* Powered by Intel Centrino™ mobile technology

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(X323) October 2005

ThinkPad® X40 (2371) - May 2004 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad UltraBase X4	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Sec Bluetooth™	Battery chip	Preload	Limited warranty ¹²	WH Gbl TAA	Avail date
2371-97U	Pentium® M 1.2	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg ³⁶	Modem	Yes	8	XP Pro	3-year	TAA	May 2004	
2371-6DU	Pentium M 1.3	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b Wi-Fi ³²	Modem	Yes	8	XP Pro	3-year		May 2004	
2371-6FU	Pentium M 1.3	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g ³²	Modem	Yes	8	XP Pro	3-year		May 2004	
2371-7FU	Pentium M 1.3	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	4	XP Pro	3-year		May 2004	
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴				
US Govt (TAA) ⁵ Processor	97U: US Government model (Trade Act Agreement-compliant) Intel® Pentium® M Processor Low Voltage 1.2 or 1.3GHz with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ◇ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache Memory	1MB / on die (at processor speed) / ECC 256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / 97U/6DU/6FU: std memory soldered to systemboard; one 200-pin SO-DIMM socket available 7FU with 512MB: 256MB soldered to board; one 256MB SO-DIMM in 200-pin socket										• Access Program • Access Connections™ • Adobe Reader • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™.15				
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional or standard X4 UltraBase 40GB⁸ (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										• Preloaded • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)				
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										Downloadable • Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage				
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz														
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap Illuminates the keyboard to improve visibility in low-light conditions														
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)														
Weight ²	4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)														
Case material	Color: black; All: magnesium alloy														
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)														
Battery - life ¹⁰	with 4-cell: 3.5 hr; with 8-cell: 7.5 hr; with 8-cell and optional Extended Life Battery: up to 10 hr														
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										ThinkPad X4 UltraBase™ • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: – Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 – ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 – CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 – Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 – Second HDD Adapter for Ultrabay Slim 41U3148 Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 39W9106 • 80GB HS Hard Disk 09N4273				
Mobile media base Secure Digital slot PC Card Std slot Ports	Supports optional X4 UltraBase (see right side) and X4 Dock One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port														
Wireless antenna Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable														
Wireless upg ³⁶ Intel 11b Wi-Fi ³²	Some: wireless upgradable with wireless Mini PCI options Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset														
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset														
CDC	One Communications Daughter Card (CDC) socket / customer accessible														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset														
Bluetooth™	None														
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g				
Security Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant														
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail														
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429												
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U												
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009												
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119												
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X40 Series Extended Life Battery	92P1006												
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Multiple Battery Charger II	22P9040												
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Ultraportable 56W AC Adapter	02K6880												
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	72W Slim AC/DC Combo Adapter	73P4485												
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175												
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year LOR 9x5 NBD	41C9176												
Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 5-year LOR 9x5 NBD	41C9179												
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkPlus 4-year P&L P/U Depot	41C9178												
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180												
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at lenovo.com/options		56-watt AC Adapter Asset ID™.34 (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)											

See footnotes for important warranty information
US models announced May 18, 2004
US models withdrawn effective December 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® X40 (2371) - October 2004 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty ¹²	WH Entry	Gbl	Avail date	
2371-E8U	Pentium® M 738	1.4	2MB	256MB	12.1"	XGA	40GB	None	Optional	Open; wireless upg ³⁶	Modem	Yes	8	3 years	W G	Oct 04
2371-GHU	Pentium M 738	1.4	2MB	512MB	12.1"	XGA	40GB	None	Optional	* Intel 11b/g ³²	Modem	Yes	8	3 years	W G	Oct 04
2371-H8U	Pentium M 738	1.4	2MB	512MB	12.1"	XGA	40GB	None	Optional	* Intel 11b/g	Mod/Blue	Yes	8	3 years	W	Oct 04
2371-G4U	Pentium M 738	1.4	2MB	512MB	12.1"	XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	4	3 years	W	Oct 04
2371-H9U	Pentium M 738	1.4	2MB	512MB	12.1"	XGA	40GB	None	Optional	11a/b/g II ³²	Mod/Blue	Yes	8	3 years	W	Oct 04
2371-E9U	Pentium M 738	1.4	2MB	256MB	12.1"	XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	3 years	W	Oct 04
2371-E5U	Pentium M 738	1.4	2MB	256MB	12.1"	XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	4	3 years	W	Oct 04
2371-A9U	Pentium M 713	1.1	1MB	256MB	12.1"	XGA	30GB	None	Optional	* Intel 11b/g	Modem	Yes	4	3 years	Entry	Oct 04
Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Ultra Low Voltage 713 (1.1GHz) or Low Voltage 738 (1.4GHz) with enhanced Intel SpeedStep™ technology¹ and 400MHz system bus 1.1GHz: 1MB; 1.4GHz: 2MB; All: on die (at processor speed) / ECC</i>										SOFTWARE¹⁴					
L2 cache Memory	256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)					
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional or standard X4 UltraBase 30GB⁸ or 40GB⁸ (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										Preloaded • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵					
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits															
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz															
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz															
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap															
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm</i> <i>8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm</i> <i>4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)</i>															
Travel weight ²																
Case material	Color: black; All: magnesium alloy															
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)															
Battery - life ¹⁰	<i>with 4-cell: up to 3.25 hr; with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr</i>															
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])															
Mobile media base	Supports optional X4 UltraBase (see right side) and X4 Dock															
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices															
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door															
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port															
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception															
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable															
Wireless upg ³⁶	Some: wireless upgradeable with wireless Mini PCI options															
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset															
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chipset															
CDC	One Communications Daughter Card (CDC) socket / customer accessible															
Modem	56K ⁹ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset															
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)															
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®															
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)															
Security	Power-on password / dual hard disk password / supervisor password / security keyhole															
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail															
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X4 UltraBase	92P3429													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 Dock	250610U													
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009													
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119													
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Extended Life Battery	92P1006													
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040													
Powered USB 2.0 Port Combo Drive	22P9194	ThinkPad Ultraportable 56W AC Adapter	02K6880													
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad 72W AC/DC Combo Adapter	22P9010													
USB 2.0 Memory Key 512MB	22P9230	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175													
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus 3-year LOR 9x5 NBD	41C9176													
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 5-year LOR 9x5 NBD	41C9179													
11a/b/g Wireless CardBus Adapter	31P9101	ThinkPlus 4-year P&L P/U Depot	41C9178													
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot	41C9180													
ThinkVision® L192p 19" Monitor (black)	9419HB2	Other options at lenovo.com/options														
			56 watt AC Adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)													

See footnotes for important warranty information
US models announced May 18, 2004
US models withdrawn effective March or November 2005

* Powered by Intel Centrino™ mobile technology

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ThinkPad® X40 (2371) - February 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	ThinkPad UltraBase™	Mini PCI wireless	CDC: Bluetooth™	modem/Sec chip	Battery cells	Limited warranty ¹²	WH Entry	Gbl	Avail date	
2371-BMU	Pentium® M 733	1.1	2MB	256MB	12.1" XGA	30GB	None	Optional	* Intel 11b/g ³²	Modem	Yes	4	3-yr	Entry	Mar 05
2371-J3U	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg ³⁶	Modem	Yes	8	3-yr	W G	Mar 05
2371-K3U	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	3-yr	W G	Mar 05
2371-K4U	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	4	3-yr	W	Mar 05
2371-LBU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	11a/b/g II ³²	Mod/Blue	Yes	8	3-yr	W	Mar 05
2371-J4U	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	3-yr	W	Mar 05
2371-KZU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	3-yr	W TAA	Mar 05
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴				
US Govt (TAA) ⁵ Processor	KZU: US Government model (Trade Act Agreement-compliant) Intel® Pentium M Processor Ultra Low Voltage 733 (1.1GHz) or Low Voltage 758 (1.5GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache Memory	2MB / on die (at processor speed) / ECC 256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										Preloaded • Rescue and Recovery • Access Program • Access Connections™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™.15				
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional or standard X4 UltraBase 30GB⁸ or 40GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)				
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										Supports ThinkVantage™ technologies				
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz														
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap														
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)														
Travel weight ²	Color: black; All: magnesium alloy														
Case material	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)														
Battery - type	with 4-cell: up to 3.25 hr; with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr														
Battery - life ¹⁰															
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])														
Mobile media base	Supports optional X4 UltraBase (see right side) and X4 Dock														
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices														
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port														
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception														
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable														
Wireless upg ³⁶	Some: wireless upgradable with wireless Mini PCI options Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip														
CDC	One Communications Daughter Card (CDC) socket / customer accessible														
Modem	56K ⁹ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset														
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)														
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)														
Security	Power-on password / dual hard disk password / supervisor password / security keyhole														
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant														
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail														
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830		ThinkPad X4 UltraBase		92P3429										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832		ThinkPad X4 Dock		250610U										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834		ThinkPad X40 Series Li-Ion Battery (4-cell)		92P1009										
USB Portable Diskette Drive	05K9276		ThinkPad X40 Series Li-Ion Battery (8-cell)		92P1119										
USB Gemplus GemPC Smart Card Reader	41N3040		ThinkPad X40 Series Extended Life Battery		92P1006										
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad Multiple Battery Charger II		22P9040										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		ThinkPad Ultraportable 56W AC Adapter		02K6880										
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358		ThinkPad Convertible Monitor Stand		40Y7620										
Kensington® MicroSaver® Security Cable	73P2582		ThinkPlus™.22 2-year LOR 9x5 NBD		41C9175										
11a/b/g Wireless Mini PCI Adapter II	73P4301		ThinkPlus 3-year LOR 9x5 NBD		41C9176										
Intel PRO/Wireless 2915ABG Mini PCI	41N2990		ThinkPlus 5-year LOR 9x5 NBD		41C9179										
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137		ThinkPlus 4-year P&L P/U Depot		41C9178										
Lenovo M500 Projector	0037A05		ThinkPlus 5-year P&L P/U Depot		41C9180										
ThinkVision® L201p 20.1" Monitor (black)	9320HB1		Other options at lenovo.com/options												
											56 watt AC Adapter Asset ID™.34 (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)				

See footnotes for important warranty information
US models announced February 15 or March 22, 2005
US models withdrawn effective July 2005 or April 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® X40 (2371) - October 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™ chip	Sec Battery cells	Limited warranty ¹²	WH Entry	Gbl	Avail date
2371-M6U	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	30GB	None	Optional * Intel 11b/g ³²	Modem	Yes	4	3-yr	Entry	Oct 05
2371-N1U	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional Open; wireless upg ³⁶	Modem	Yes	8	3-yr	Global	Oct 05
2371-QEU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Modem	Yes	8	3-yr	Global	Oct 05
2371-Q1U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional * Intel 11b/g	Modem	Yes	8	3-yr		Oct 05
2371-R1U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional 11a/b/g II ³²	Mod/Blue	Yes	4	3-yr		Oct 05
2371-N2U	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Modem	Yes	8	3-yr		Oct 05
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>													
US Govt (TAA) ⁵	None													
Processor	Intel® Pentium M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ , XD bit, and 400MHz bus 2MB / on die (at processor speed) / ECC													
L2 cache	256 or 512 (MB std / 1.28 to 1.53GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available													
Memory														
Diskette drive	None standard / use optional USB-based diskette drive													
UltraBay™ Slim	Supports Ultrabay Slim devices in optional X4 UltraBase													
Disk	30GB⁸, 40GB, or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)													
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits													
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz													
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz													
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint™, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap													
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm</i> <i>8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm</i> <i>4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)</i>													
Travel weight ²														
Case material	Color: black; All: magnesium alloy													
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)													
Battery - life ¹⁰	<i>with 4-cell: up to 3.25 hr; with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr</i>													
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])													
Mobile media base	Supports optional X4 UltraBase (see right side) and X4 Dock													
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices													
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port													
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg ³⁶	<i>Some: wireless upgradable with wireless Mini PCI options</i>													
Intel 11b/g ³²	<i>Some: 11b/g wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i>													
11a/b/g II ³²	<i>Some: 11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X</i>													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	<i>Some: Bluetooth wireless technology / in CDC (with modem)</i>													
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / dual hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U											
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	X40 Series Li-Ion Battery (4-cell)	92P1009											
USB Portable Diskette Drive	05K9276	X40 Series Li-Ion Battery (8-cell)	92P1119											
USB Gemplus GemPC Smart Card Reader	41N3040	X40 Series Extended Life Battery	92P1006											
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Multiple Battery Charger II	22P9040											
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Ultraportable 56W AC Adapter	02K6880											
USB 2.0 Portable 80GB Hard Disk	40Y8726	Enh Perf Wireless Keyboard and Mouse	73P4067											
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175											
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 3-year LOR 9x5 NBD	41C9176											
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 5-year LOR 9x5 NBD	41C9179											
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkPlus 4-year P&L P/U Depot	41C9178											
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180											
ThinkVision® L201p 20.1" Monitor (black)	9320HB1	Other options at lenovo.com/options												
				SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ✦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Client Security Solution™ (for security chip) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage™ technologies ThinkPad X4 UltraBase™ • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 - Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 - Second HDD Adapter for Ultrabay Slim 62P4554 Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g 56 watt AC Adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)										

See footnotes for important warranty information
US models announced October 4, 2005
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® X40 (2382) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	SecBattery chip	Limited cells	Avail warranty ¹²	date
2382-1GU	Pentium® M	1.0	1MB	256MB	12.1" XGA	40GB	Optional	*Intel 11b Wi-Fi ³²	Modem	Yes	4	3-yr	Feb 04
2382-6UU	Pentium M	1.2	1MB	256MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b Wi-Fi	Modem	Yes	8	3-yr	Feb 04
2382-8WU	Pentium M	1.2	1MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	11b/g ³²	Mod/Blue	Yes	8	3-yr	Feb 04
2382-8RU	Pentium M	1.3	1MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g ³²	Modem	Yes	8	3-yr	May 04
2382-ECU	Pentium M 738	1.4	2MB	256MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Modem	Yes	8	3-yr	Oct 04
2382-HCU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Mod/Blue	Yes	8	3-yr	Oct 04
2382-JEU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Modem	Yes	8	3-yr	Mar 05
2382-KPU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Modem	Yes	8	3-yr	Mar 05
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • The 2382 has a 3-year limited warranty 													
Positioning Processor	Ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Ultra Low Voltage 1.0GHz or Low Voltage 1.2, 1.3, 1.4 (738), or 1.5GHz (758) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz bus										SOFTWARE¹⁴		
L2 cache	1.0/1.2/1.3GHz: 1MB; 1.4/1.5GHz: 2MB; All: on die (at processor speed) / ECC										Windows XP Professional		
Memory	256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / 1GU/6UU/8WU/ECU/HCU: std memory soldered to systemboard; 8RU with 512MB: 256MB soldered to board; one 256MB SO-DIMM in 200-pin socket										- Microsoft® Windows® XP Professional ²⁰ - ECU/HCU/JEU/KPU: Serv Pack 2 ⇨ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										Preloaded		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase										• Rescue and Recovery™		
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										• Access Program		
Disk	40GB ⁸ (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										• Access Connections™		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Norton AntiVirus (OEM edition)		
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										• PC-Doctor™		
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• ThinkPad Utilities		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Adobe Reader		
Dimensions ³	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 8-cell with X4 UltraBase and optical: 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm 1GU with 4-cell battery: 2.7 lb (1.23kg); Others with 8-cell battery: 3.2 lb (1.44kg); Models with 8-cell battery and X4 UltraBase with combo: 5.0lb (2.26kg)										• Update Connector™ ¹⁵		
Weight ²											• InterVideo WinDVD (combo models)		
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• RecordNow and DLA (combo)		
Battery - life ¹⁰	1GU with 4-cell: up to 3.25 hr; Models with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr										Downloadable		
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										• IBM Director Agent		
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported										• Software Delivery Assistant		
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										• System Migration Assistant		
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										• Client Security Software (for security chip)		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										ThinkPad X4 UltraBase™ (standard with some models)		
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										• Provides desktop expansion and cable management for the X40/X41		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										• Easily connects to the bottom of the X40/X41 for traveling		
Intel 11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset										• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 - ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 - Second HDD Adapter for Ultrabay Slim 41U3148		
Intel 11b/g ³²	Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset										Disks supported:		
CDC	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										• 40GB HS Hard Disk 08K9816		
Modem	One Communications Daughter Card (CDC) socket / customer accessible										• 60GB HS Hard Disk 39W9106		
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										• 80GB HS Hard Disk 09N4273		
Ethernet	Some: Bluetooth wireless technology / in CDC (with modem)										Other features:		
Audio support	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY)										• Power button (front)		
Security	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• Stereo speakers (1 watt)		
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole										• Security key lock, security keyhole, and optical security screw		
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										• Serial and parallel ports		
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			ThinkPad X4 UltraBase				92P3429			• PS/2 port for keyboard or mouse		
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad X4 Dock				250610U			• Analog DB-15 monitor port		
1 GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			ThinkPad X40 Series Li-Ion Battery (4-cell)				92P1009			• Three USB 2.0 ports (via USB hub)		
USB Portable Diskette Drive	05K9276			ThinkPad X40 Series Li-Ion Battery (8-cell)				92P1119			• Ethernet port (Gigabit Ethernet)		
USB 2.0 Memory Key 1GB	40Y7421			ThinkPad X40 Series Extended Life Battery				92P1006			• Modem port		
USB 2.0 Super Multi-Burner Drive	40Y8638			ThinkPad Ultraportable 56W AC Adapter				02K6880			• Retractable feet; 1.3 lb; 580g		
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358			ThinkPlus™.22 2-year LOR 9x5 NBD				41C9175			56-watt AC Adapter		
11a/b/g Wireless Mini PCI Adapter II	73P4301			ThinkPlus 3-year LOR 9x5 NBD				41C9176			Asset ID™.34 (system-specific info in chip accessed over network)		
Intel PRO/Wireless 2915ABG Mini PCI	41N2990			ThinkPlus 5-year LOR 9x5 NBD				41C9179			ACPI 1.0b and 2.0-compliant		
Lenovo M500 Projector	0037A05			ThinkPlus 5-year P&L P/U Depot				41C9180			International Warranty Service ¹⁷		
ThinkVision® L201p 20.1" Monitor (black)	9220HB1			Other options at lenovo.com/options							24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced February 10, May 18, or October 5, 2004 or February 15, 2005
US models withdrawn effective January 2005, July 2005, or December 2006

ThinkPad® X40 (2382) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty ¹²	Avail date
2382-QDU	Pentium® M 778	1.6	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase * Intel 11b/g ³²	Modem	Yes	8-cell	3-year	Oct 05
2382-RFU	Pentium® M 778	1.6	2MB	512MB	12.1" XGA	60GB	DVD±RW	X4 UltraBase * Intel 11b/g ³²	Mod/Blue	Yes	8-cell	3-year	Oct 05

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **The 2382 has a 3-year limited warranty**

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴		
L2 cache	Intel® Pentium M Processor Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ , XD bit, and 400MHz bus										Windows XP Professional		
Memory	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)		
Diskette drive	None standard / use optional USB-based diskette drive										◇ Disk-to-Disk Recovery (in hidden protected area)		
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase										Preloaded		
Ultrabay™ Slim	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from X4 UltraBase										• Rescue and Recovery™		
Disk	Supports Ultrabay Slim devices in standard X4 UltraBase										• Access Connections™		
	40GB⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										• ThinkVantage Productivity Center		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• ThinkVantage System Update		
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										• Symantec® Client Security		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz										• PC-Doctor™		
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• ThinkPad Utilities		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Adobe Reader		
Dimensions ³	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm										• Client Security Solution™ (for security chip)		
Travel weight ²	8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)		
Case material	Color: black; All: magnesium alloy										• InterVideo WinDVD (combo, DVD±RW models)		
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• InterVideo WinDVD Creator (DVD±RW models)		
Battery - life ¹⁰	with 4-cell: up to 3.25 hr; with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr										• Simple Backup (DVD±RW)		
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										License (CD not included)		
Mobile media base	X4 UltraBase (see right side) / optional X4 Dock supported										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										Supports ThinkVantage™ technologies		
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										ThinkPad X4 UltraBase™		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										• Provides desktop expansion and cable management for the X40/X41		
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										• Easily connects to the bottom of the X40/X41 for traveling		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:		
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622		
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)										- Second HDD Adapter for Ultrabay Slim 62P4554		
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®										Disks supported:		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• 40GB HS Hard Disk 08K9816		
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										• 60GB HS Hard Disk 73P3357		
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant										• 80GB HS Hard Disk 09N4273		
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										Other features:		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830				ThinkPad X4 UltraBase				92P3429				
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832				ThinkPad X4 Dock				250610U				
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834				X40 Series Li-Ion Battery (4-cell)				92P1009				
USB Portable Diskette Drive	05K9276				X40 Series Li-Ion Battery (8-cell)				92P1119				
USB 2.0 Memory Key 1GB	40Y7421				X40 Series Extended Life Battery				92P1006				
USB 2.0 Super Multi-Burner Drive	40Y8638				ThinkPad Multiple Battery Charger II				22P9040				
USB 2.0 Portable 80GB Hard Disk	40Y8726				ThinkPad Ultraportable 56W AC Adapter				02K6880				
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358				ThinkPad Convertible Monitor Stand				40Y7620				
11a/b/g Wireless Mini PCI Adapter II	73P4301				Kensington® MicroSaver® Security Cable				73P2582				
Intel PRO/Wireless 2915ABG Mini PCI	41N2990				ThinkPlus™ ²² 2-year LOR 9x5 NBD				41C9175				
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137				ThinkPlus 3-year LOR 9x5 NBD				41C9176				
Lenovo M500 Projector	0037A05				ThinkPlus 5-year LOR 9x5 NBD				41C9179				
ThinkVision® C400 Wireless Projector	0039WA1				ThinkPlus 4-year P&L P/U Depot				41C9178				
ThinkVision L171 17" Monitor (black)	9417AB1				ThinkPlus 5-year P&L P/U Depot				41C9180				
ThinkVision L201p 20.1" Monitor (black)	9320HB1				Other options at lenovo.com/options								
										56 watt AC Adapter			
										Asset ID™ ³⁴ (system-specific info in chip accessed over network)			
										ACPI 1.0b and 2.0-compliant			
										ENERGY STAR®-compliant			
										International Warranty Service ¹⁷			
										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)			

See footnotes for important warranty information
US models announced October 4, 2005
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® X40 (2386) - Express (October 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty ¹²	Avail date	
2386-A4U	Pentium® M 713	1.1	1MB	256MB	12.1" XGA	20GB	None	Optional	*Intel 11b/g ³²	Modem	Yes	4	1 year	Oct 04
2386-GCU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	*Intel 11b/g	Modem	Yes	8	1 year	Oct 04
2386-E9U	Pentium M 738	1.4	2MB	256MB	12.1" XGA	40GB	None	Optional	*Intel 11b/g	Modem	Yes	8	1 year	Oct 04
2386-ECU	Pentium M 738	1.4	2MB	256MB	12.1" XGA	40GB	Combo	X4 UltraBase	*Intel 11b/g	Modem	Yes	8	1 year	Oct 04
2386-HCU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	*Intel 11b/g	Mod/Blue	Yes	8	1 year	Oct 04

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2386 has a 1 year limited warranty

Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴		
Processor	Intel® Pentium® M Processor Ultra Low Voltage 713 (1.1GHz) or Low Voltage 738 (1.4GHz) with enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)		
L2 cache	1.1GHz: 1MB ; 1.4GHz: 2MB ; All: on die (at processor speed) / ECC										Preloaded		
Memory	256 or 512MB std / 1.28 to 1.53GB max ² / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • Adobe Reader • Update Connector™¹⁵ • InterVideo WinDVD (combo models) • RecordNow and DLA (combo) 		
Diskette drive	None standard / use optional USB-based diskette drive										Downloadable		
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from X4 UltraBase</i>										<ul style="list-style-type: none"> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) 		
UltraBay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase Dock										License (CD not included)		
Disk	20GB⁸ or 40GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System (shock protection)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										ThinkPad notebooks implement ThinkVantage™ technologies		
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										ThinkPad X4 UltraBase™ Dock (standard with GCU/ECU/HCU)		
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for the X40 • Easily connects to the bottom of the X40 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: <ul style="list-style-type: none"> - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 - Multi-Burner Plus Ultrabay Slim Drive 73P3342 - Second HDD Adapter for Ultrabay Slim 62P4554 		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										Disks supported:		
Dimensions ³	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 8-cell with X4 UltraBase and optical: 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm										<ul style="list-style-type: none"> • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273 		
Weight ²	4-cell with battery: 2.7 lb (1.23kg); 8-cell with battery: 3.2 lb (1.44kg); 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)										Other features:		
Case material	Color: black; All: magnesium alloy										<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g 		
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase Dock (for two batteries)										56 watt AC Adapter		
Battery - life ¹⁰	4-cell models: up to 3.25 hr; 8-cell models: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr										Asset ID™ ³⁴ (system-specific info in chip accessed over network)		
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										ACPI 1.0b and 2.0-compliant		
Mobile media base	<i>Some: X4 UltraBase Dock</i> (see right side) and X4 Dock										ENERGY STAR®-compliant		
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										International Warranty Service ¹⁷		
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4) / no IEEE 1394 port												
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable												
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	<i>Some: Bluetooth wireless technology / in CDC (with modem)</i>												
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY)												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / dual hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant												
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available												
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X4 UltraBase Dock	92P3429										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 Dock	250610U										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119										
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Extended Life Battery	92P1006										
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040										
Powered USB 2.0 Port Combo Drive	22P9194	ThinkPad Ultraportable 56W AC Adapter	02K6880										
USB 2.0 Portable Multi-Burner Drive	22P9163	Preferred Pro USB Fingerprint Keyboard	73P4730										
USB 2.0 Memory Key 128MB	73P4512	TrackPoint Cap Collection	73P2698										
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ServicePac® ²² 1yr IOR 9x5 NBD	30L9188										
Kensington® MicroSaver® Security Cable	73P2582	ServicePac 2yr IOR 9x5 NBD	30L9189										
11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 3yr IOR 9x5 NBD	30L9195										
11a/b/g Wireless Mini PCI Adapter II	73P4301	ServicePac 5yr IOR 9x5 NBD	30L9196										
Intel PRO/Wireless 2200BG Mini PCI	73P2801	ServicePac 3yr P&L P/U Depot	30L9192										
SonyEricsson® GC83 EDGE PC Card	26K3393	ServicePac 5yr P&L P/U Depot	69P9197										
M400 Projector	0037A04	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced October 5, 2004
US models withdrawn effective January or July 2005

* Powered by Intel Centrino™ mobile technology

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ThinkPad® X40 (2386) - TopSeller (February 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty ¹²	Avail date	
2386-BHU	Pentium® M 733	1.1	2MB	256MB	12.1" XGA	30GB	None	Optional	* Intel 11b/g ³²	Modem	Yes	4	1-year	Mar 05
2386-JBU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05
2386-KLU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05
2386-JCU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	Combo	X4 UltraBase	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05
2386-KMU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05

• These small and medium business (SMB) models are part of the US TopSeller™ Program
• The 2386 has a 1-year limited warranty

Positioning	Ultimate mobility in a versatile ultraportable; one spindle												
Processor	Intel® Pentium® M Processor Ultra Low Voltage 733 (1.1GHz) or Low Voltage 758 (1.5GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus												
L2 cache	2MB / on die (at processor speed) / ECC												
Memory	256 or 512MB std / 1.28 to 1.53GB max ² / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase												
Ultraportable™ Slim	Supports Ultraportable Slim devices in optional or standard X4 UltraBase												
Disk	20GB ⁸ or 40GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)												
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits												
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz												
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap												
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 8-cell with X4 UltraBase and optical: 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm												
Weight ²	4-cell with battery: 2.7 lb (1.23kg); 8-cell with battery: 3.2 lb (1.44kg); 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)												
Case material	Color: black; All: magnesium alloy												
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)												
Battery - life ¹⁰	4-cell models: up to 3.25 hr; 8-cell models: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr												
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])												
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported												
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices												
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door												
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port												
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY)												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / dual hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 ³³ / Atmel® chip / TCG-compliant												
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009										
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119										
USB Fingerprint Reader	41U3167	ThinkPad X40 Series Extended Life Battery	92P1006										
USB 2.0/Analog Headset by Sennheiser	40Y8518	ThinkPad Multiple Battery Charger II	22P9040										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Ultraportable 56W AC Adapter	02K6880										
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Super Multi-Burner Drive	40Y8638	Carrying Case - Leather Ultraportable	73P5186										
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus™ ²² 1-year LOR 9x5 NBD	41C9166										
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 2-year LOR 9x5 NBD	41C9167										
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 3-year LOR 9x5 NBD	41C9168										
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 5-year LOR 9x5 NBD	41C9173										
Lenovo M500 Projector	0037A05	ThinkPlus 3-year P&L P/U Depot	41C9170										
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	ThinkPlus 5-year P&L P/U Depot	41C9174										
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	Other options at lenovo.com/options											

SOFTWARE¹⁴

- Windows XP Professional**
- Microsoft® Windows® XP Professional²⁰ (Service Pack 2)
◇ Disk-to-Disk Recovery (in hidden protected area)
- Preloaded**
- Rescue and Recovery™
 - Access Program
 - Access Connections™
 - Norton AntiVirus (OEM edition)
 - PC-Doctor™
 - Adobe Reader
 - Update Connector™¹⁵
 - InterVideo WinDVD (combo models)
 - RecordNow and DLA (combo)
- Downloadable**
- IBM Director Agent
 - Software Delivery Assistant
 - System Migration Assistant
 - Client Security Software (for security chip)
- License** (CD not included)
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage® technologies

ThinkPad X4 UltraBase™ (standard with JCU/KMU)

- Provides desktop expansion and cable management for the X40/X41
- Easily connects to the bottom of the X40/X41 for traveling
- Converts the X40 to a two-spindle system by supporting optional Ultraportable Slim accessories in left side:
 - Ultraportable Slim Li-Polymer Battery 3-cell 08K8190
 - CD-RW/DVD Combo II Ultraportable Slim Drive 73P3288
 - Super Multi-Burner Ultraportable Slim Drive (curved bezel) 40Y8622
 - Second HDD Adapter for Ultraportable Slim 41U3148
- Disks supported:
 - 40GB HS Hard Disk 08K9816
 - 60GB HS Hard Disk 09Y86106
 - 80GB HS Hard Disk 09N4273

- Other features:**
- Power button (front)
 - Stereo speakers (1 watt)
 - Security key lock, security keyhole, and optical security screw
 - Serial and parallel ports
 - PS/2 port for keyboard or mouse
 - Analog DB-15 monitor port
 - Three USB 2.0 ports (via USB hub)
 - Ethernet port (Gigabit Ethernet)
 - Modem port
 - Retractable feet; 1.3 lb; 580g

- 56-watt AC Adapter
- Asset ID™³⁴ (system-specific info in chip accessed over network)
- ACPI 1.0b and 2.0-compliant
- ENERGY STAR®-compliant
- International Warranty Service¹⁷
- 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹² via 800-IBM-SERV (426-7378)

See footnotes for important warranty information
US models announced February 15, 2005
US models withdrawn effective December 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® X40 (2386) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty ¹²	Avail date	
2386-MCU	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g ³²	Modem	Yes	4-cell	1-year	Oct 05
2386-N8U	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8-cell	1-year	Oct 05
2386-QAU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8-cell	1-year	Oct 05
2386-QBU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	* Intel 11b/g	Modem	Yes	8-cell	1-year	Oct 05
2386-REU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	Combo	X4 UltraBase	* Intel 11b/g	Mod/Blue	Yes	8-cell	1-year	Oct 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2386 has a 1-year limited warranty

Positioning Processor	Ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ , XD bit, and 400MHz bus							SOFTWARE¹⁴					
L2 cache	2MB / on die (at processor speed) / ECC							Windows XP Professional					
Memory	256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available							- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)					
Diskette drive	None standard / use optional USB-based diskette drive							Preloaded					
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase							• Rescue and Recovery™					
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase							• Access Connections™					
Disk	40GB ⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable, upgradable / 9.5mm high bay / Active Protection System™ (shock protection)							• ThinkVantage Productivity Center					
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits							• ThinkVantage System Update					
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz							• Symantec® Client Security					
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz							• PC-Doctor™					
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap							• ThinkPad Utilities					
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions							• Adobe Reader					
Dimensions ³	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 8-cell with X4 UltraBase and optical: 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm							• Client Security Solution™ (for security chip)					
Travel weight ²	4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)							Downloadable					
Case material	Color: black; All: magnesium alloy							• IBM Director Agent					
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)							• Software Delivery Assistant					
Battery - life ¹⁰	with 4-cell: up to 3.25 hr; with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr							• System Migration Assistant					
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])							License (CD not included)					
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported							- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client					
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices							Supports ThinkVantage™ technologies					
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door							ThinkPad X4 UltraBase™					
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port							• Provides desktop expansion and cable management for the X40/X41					
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception							• Easily connects to the bottom of the X40/X41 for traveling					
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable							• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:					
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset							- Ultrabay Slim Li-Polymer Battery					
CDC	One Communications Daughter Card (CDC) socket / customer accessible							3-cell 08K8190					
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset							- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288					
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)							- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622					
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)							- Second HDD Adapter for Ultrabay Slim 62P4554					
Audio support	Power-on password / dual hard disk password / supervisor password / security keyhole							Disks supported:					
Security	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant							• 40GB HS Hard Disk 08K9816					
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant							• 60GB HS Hard Disk 73P3357					
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available							• 80GB HS Hard Disk 09N4273					
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			ThinkPad X4 UltraBase				92P3429					
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad X4 Dock				250610U					
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			X40 Series Li-Ion Battery (4-cell)				92P1009					
USB Portable Diskette Drive	05K9276			X40 Series Li-Ion Battery (8-cell)				92P1119					
USB 2.0 Memory Key 1GB	40Y7421			X40 Series Extended Life Battery				92P1006					
USB 2.0 Super Multi-Burner Drive	40Y8638			ThinkPad Multiple Battery Charger II				22P9040					
USB 2.0 Portable 80GB Hard Disk	40Y8726			ThinkPad Ultraportable 56W AC Adapter				02K6880					
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358			ThinkVision® L171 17" Monitor (black)				9417AB1					
Kensington® MicroSaver® Security Cable	73P2582			ThinkPlus™ ²² 1-year LOR 9x5 NBD				41C9166					
11a/b/g Wireless Mini PCI Adapter II	73P4301			ThinkPlus 2-year LOR 9x5 NBD				41C9167					
Intel PRO/Wireless 2915ABG Mini PCI	41N2990			ThinkPlus 3-year LOR 9x5 NBD				41C9168					
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137			ThinkPlus 5-year LOR 9x5 NBD				41C9173					
Lenovo M500 Projector	0037A05			ThinkPlus 3-year P&L P/U Depot				41C9170					
ThinkVision® C400 Wireless Projector	0039WA1			ThinkPlus 5-year P&L P/U Depot				41C9174					
ThinkVision L201p 20.1" Monitor (black)	9320HB1			Other options at lenovo.com/options									
							Other features:						
							• Power button (front)						
							• Stereo speakers (1 watt)						
							• Security key lock, security keyhole, and optical security screw						
							• Serial and parallel ports						
							• PS/2 port for keyboard or mouse						
							• Analog DB-15 monitor port						
							• Three USB 2.0 ports (via USB hub)						
							• Ethernet port (Gigabit Ethernet)						
							• Modem port						
							• Retractable feet; 1.3 lb; 580g						
							56 watt AC Adapter						
							Asset ID™ ³⁴ (system-specific info in chip accessed over network)						
							ACPI 1.0b and 2.0-compliant						
							ENERGY STAR®-compliant						
							International Warranty Service ¹⁷						
							24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)						

See footnotes for important warranty information
US models announced October 4, 2005
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

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(SP35M3) April 2006

ThinkPad® X40 (2371) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Limited warranty ¹²	Education software	Avail date	
2371-9EU	Pentium® M	1.2	1MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g ³²	Modem	Yes	EasyServ	No	Apr 2004
2371-GEU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	EasyServ	Yes	Oct 2004
2371-KJU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	EasyServ	Yes	Mar 2005
2371-Q8U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	EasyServ	Yes	Oct 2005

• **The 2371 has an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴		
L2 cache	Intel® Pentium M Processor Low Voltage 1.2GHz, 738 (1.4GHz), 758 (1.5GHz), or 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus										Windows XP Professional		
Memory	1.2GHz: 1MB; 1.4GHz: 2MB; All: on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰		
Diskette drive	None standard / use optional USB-based diskette drive										- <i>GEU/KJU/Q8U only: Service Pack 2</i>		
Ultrabay™ Slim Disk	Supports Ultrabay Slim devices in optional X4 UltraBase										- <i>Disk-to-Disk Recovery (in hidden protected area)</i>		
Display	40GB⁸ (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										Preloaded		
Graphics	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• <i>GEU/KJU/Q8U only: Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™</i>		
Graphics external	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										• Rescue and Recovery™		
Keyboard	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz										• Access Connections™		
ThinkLight®	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• ThinkVantage Productivity Center		
Dimensions ³	Illuminates the keyboard to improve visibility in low-light conditions										• Norton AntiVirus (OEM edition)		
Weight ²	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm										• PC-Doctor™		
Case material	with battery: 2.7 lb (1.23kg)										• ThinkPad Utilities		
Battery - type	Color: black; All: magnesium alloy										• Adobe Reader		
Battery - life ¹⁰	Li-Ion 4-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• Update Connector™ ¹⁵		
Architecture	with 4-cell: up to 3.25 hr; with optional 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr										• Client Security Software (for security chip)		
Mobile media base	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										Downloadable		
Secure Digital slot	Optional: X4 UltraBase (see right side) and X4 Dock										• IBM Director Agent		
PC Card Std slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										• Software Delivery Assistant		
Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										• System Migration Assistant		
Wireless antenna	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										License (CD not included)		
Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Intel 11b/g ³²	One Mini PCI type III slot (Communications Bay) / customer upgradable										Supports ThinkVantage™ technologies		
CDC	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										ThinkPad X4 UltraBase™		
Modem	One Communications Daughter Card (CDC) socket / customer accessible										• Provides desktop expansion and cable management for the X40/X41		
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										• Easily connects to the bottom of the X40/X41 for traveling		
Ethernet	None										• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:		
Audio support	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190		
Security	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288		
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270		
Limited warranty ¹²	Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										- Second HDD Adapter for Ultrabay Slim 62P4554		
256MB PC2700 DDR-SDRAM CL2.5 SOD	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										Disks supported:		
512MB PC2700 DDR-SDRAM CL2.5 SOD	256MB PC2700 DDR-SDRAM CL2.5 SOD										• 40GB HS Hard Disk 08K9816		
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834										• 60GB HS Hard Disk 73P3357		
USB Portable Diskette Drive	05K9276										• 80GB HS Hard Disk 09N4273		
USB Serial Parallel Adapter	22P5298										Other features:		
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637										• Power button (front)		
USB 2.0 Portable 80GB Hard Disk	40Y8726										• Stereo speakers (1 watt)		
USB 2.0 Memory Key 1GB	40Y7421										• Security key lock, security keyhole, and optical security screw		
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358										• Serial and parallel ports		
Kensington® MicroSaver® Security Cable	73P2582										• PS/2 port for keyboard or mouse		
11a/b/g Wireless Mini PCI Adapter II	73P4301										• Analog DB-15 monitor port		
Intel PRO/Wireless 2915ABG Mini PCI	41N2990										• Three USB 2.0 ports (via USB hub)		
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137										• Ethernet port (Gigabit Ethernet)		
Optical 3-Button Travel Wheel Mouse	31P7410										• Modem port		
ThinkPad Convertible Monitor Stand	40Y7620										• Retractable feet; 1.3 lb; 580g		
Lenovo M500 Projector	0037A05										56 watt AC Adapter		
ThinkVision® C400 Wireless Projector	0039WA1										Asset ID™ ³⁴ (system-specific info in chip accessed over network)		
Carrying Case - Leather Ultraportable	73P5186										ACPI 1.0b and 2.0-compliant		
ThinkPad Carrying Case - BackPack	73P3599										International Warranty Service ¹⁷		
											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced April 6 or October 5, 2004 or February 15 or October 4, 2005
US models withdrawn effective May 2005, April 2006, or May 2006

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ThinkPad® X40 (2372) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec chip	Limited warranty ¹²	Education software	Avail date	
2372-9EU	Pentium® M	1.2	1MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g ³²	Modem	Yes	Onsite	No	Apr 2004
2372-G4U	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	Onsite	Yes	Oct 2004
2372-KKU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	Onsite	Yes	Mar 2005
2372-Q9U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	Onsite	Yes	Oct 2005

• **The 2372 has a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴		
L2 cache Memory	Intel® Pentium® M Processor Low Voltage 1.2GHz, 738 (1.4GHz), 758 (1.5GHz), or 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ and 400MHz system bus 1.2GHz; 1MB ; 1.4/1.5/1.6GHz; 2MB ; All: on die (at processor speed) / ECC										Windows XP Professional		
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional X4 UltraBase 40GB³ (4200 rpm), 9.5mm, ATA-100/1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										- Microsoft® Windows® XP Professional ²⁰ - <i>G4U/KKU/Q9U only</i> : Service Pack 2 ⇨ Disk-to-Disk Recovery (in hidden protected area)		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• <i>G4U/KKU/Q9U only</i> : Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™		
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										• Rescue and Recovery™		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz										• Access Connections™		
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• ThinkVantage Productivity Center		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Norton AntiVirus (OEM edition)		
Dimensions ³ Weight ²	<i>4-cell without X4 UltraBase</i> : 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm <i>with battery</i> : 2.7 lb (1.23kg)										• PC-Doctor™		
Case material Battery - type	Color: black; All: magnesium alloy Li-Ion 4-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• ThinkPad Utilities		
Battery - life ¹⁰	<i>4-cell models</i> : up to 3.25 hr; <i>with optional 8-cell models</i> : up to 7.0 hr; <i>with 8-cell and optional Extended Life Battery</i> : up to 10 hr										• Adobe Reader		
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										• Update Connector™ ¹⁵		
Mobile media base	<i>Optional</i> : X4 UltraBase (see right side) and X4 Dock										• Client Security Software (for security chip)		
Secure Digital slot PC Card Std slot Ports	One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										Downloadable		
Wireless antenna Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable										• IBM Director Agent		
CDC	Intel 11b/g ³² 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset One Communications Daughter Card (CDC) socket / customer accessible										• Software Delivery Assistant		
Modem Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁸) modem in CDC / Conexant® chipset None										• System Migration Assistant		
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®										License (CD not included)		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Security Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										Supports ThinkVantage™ technologies		
Limited warranty ¹²	3-year/1-year battery, limited onsite service , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time ²⁴										ThinkPad X4 UltraBase™		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009	• Provides desktop expansion and cable management for the X40/X41	
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119	USB Serial Parallel Adapter	22P5298	ThinkPad X40 Series Extended Life Battery	92P1006	USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Multiple Battery Charger II	22P9040	• Easily connects to the bottom of the X40/X41 for traveling	
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Ultraportable 56W AC Adapter	02K6880	USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485	60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	USB Travel Keyboard with UltraNav®	31P9490	• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:	
Kensington® MicroSaver® Security Cable	73P2582	Enh Perf Wireless Keyboard and Mouse	73P4067	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkVision® C400 Wireless Projector	0037A05	11a/b/g Wireless Mini PCI Adapter II	73P4301	Lenovo M500 Projector	0037A05	- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190	
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkVision® L201p 20.1" Monitor (black)	9320HB1	Optical 3-Button Travel Wheel Mouse	31P7410	Other options at lenovo.com/options		Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137			- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288	
ThinkPad Monitor Stand	22P5265			Carrying Case - Leather Ultraportable	73P5186			ThinkPad Memory Key 1GB	40Y7421			- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622	
Carrying Case - BackPack	73P3599			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty								- Second HDD Adapter for Ultrabay Slim 62P4554	
												Disks supported:	
												• 60GB HS Hard Disk 73P3357	
												• 80GB HS Hard Disk 09N4273	
												Other features:	
												• Power button (front)	
												• Stereo speakers (1 watt)	
												• Security key lock, security keyhole, and optical security screw	
												• Serial and parallel ports	
												• PS/2 port for keyboard or mouse	
												• Analog DB-15 monitor port	
												• Three USB 2.0 ports (via USB hub)	
												• Ethernet port (Gigabit Ethernet)	
												• Modem port	
												• Retractable feet; 1.3 lb; 580g	
												56 watt AC Adapter	
												Asset ID™ ³⁴ (system-specific info in chip accessed over network)	
												ACPI 1.0b and 2.0-compliant	
												International Warranty Service ¹⁷	
												24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced April 6 or October 5, 2004 or February 15 or October 4, 2005
US models withdrawn effective June 2005, August 2005, April 2006, or May 2006

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ThinkPad® X41 (2525) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	L2 Memory	Screen	Optical in Disk	ThinkPad UltraBase X4	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Limited warranty ¹²	WH Gbl Entry	Avail date	
2525-18U	Pentium® M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg ³⁶	Modem	No	3-yr	W G	Apr 05
2525-3CU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g ³²	Modem	No	3-yr	W G	Apr 05
2525-54U	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Finger	3-yr	W G	Apr 05
2525-6NU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g ³²	Mod/Blue	Finger	3-yr	W	Apr 05
2525-6HU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	Combo	UltraBase	* Intel 11a/b/g	Mod/Blue	Finger	3-yr	W	Apr 05
2525-5ZU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Finger	3-yr	W TAA	Apr 05
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>													
US Govt (TAA) ⁵ Processor	5ZU: US Government model (Trade Act Agreement-compliant) Intel® Pentium® M Processor Low Voltage 758 (1.5GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus													
L2 cache Memory	2MB / on die (at processor speed) / ECC 256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available													
Diskette drive Combo Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase Supports Ultrabay Slim devices in optional or standard X4 UltraBase 40GB⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)													
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits													
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap Illuminates the keyboard to improve visibility in low-light conditions													
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Travel weight ²	<i>8-cell without X4 UltraBase:</i> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm <i>8-cell battery models:</i> 3.3 lb (1.49kg) <i>with 8-cell battery and X4 UltraBase with combo:</i> 5.1 lb (2.31kg)													
Case material	Color: black; All: magnesium alloy													
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)													
Battery - life ¹⁰	<i>with 8-cell:</i> up to 5.7 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 8.1 hr													
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip) <i>Some:</i> X4 UltraBase (see right side) / optional X4 Dock supported													
Mobile media base	One Secure Digital Card slot / supports SD memory cards used in consumer devices													
Secure Digital slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door													
PC Card Std slot	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use <i>X4 UltraBase</i>) / no IEEE 1394 port													
Ports														
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg ³⁶	<i>Some:</i> wireless upgradable with wireless Mini PCI options													
Intel 11b/g ³²	<i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / dual hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant													
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad X4 UltraBase				92P3429						
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad X4 Dock				250610U						
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			ThinkPad X40 Series Li-Ion Battery (4-cell)				92P1009						
USB Portable Diskette Drive	05K9276			ThinkPad X40 Series Li-Ion Battery (8-cell)				92P1119						
USB Numeric Keypad (black)	33L3225			ThinkPad X40 Series Extended Life Battery				92P1006						
USB Fingerprint Reader	73P4774			ThinkPad Multiple Battery Charger II				22P9040						
USB 2.0 Super Multi-Burner Drive	40Y8638			ThinkPad Ultraportable 56W AC Adapter				02K6880						
USB 2.0 Memory Key 1GB	40Y7421			72W Slim AC/DC Combo Adapter				73P4485						
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358			Enh Perf Wireless Keyboard and Mouse				73P4067						
Kensington® MicroSaver® Security Cable	73P2582			ThinkPlus™ ²² 2-year LOR 9x5 NBD				41C9175						
11a/b/g Wireless Mini PCI Adapter II	73P4301			ThinkPlus 3-year LOR 9x5 NBD				41C9176						
Intel PRO/Wireless 2915ABG Mini PCI	41N2990			ThinkPlus 5-year LOR 9x5 NBD				41C9179						
Carrying Case - Leather Ultraportable	73P5186			ThinkPlus 4-year P&L P/U Depot				41C9178						
Carrying Case - Backpack	73P3599			ThinkPlus 5-year P&L P/U Depot				41C9180						
ThinkVision® L201p 20.1" Monitor (black)	9320HB1			Other options at lenovo.com/options										
										SOFTWARE¹⁴				
										Windows XP Professional				
										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)				
										◇ Disk-to-Disk Recovery (in hidden protected area)				
										Preloaded				
										• Rescue and Recovery™				
										• Access Program				
										• Access Connections™				
										• Norton AntiVirus (OEM edition)				
										• PC-Doctor™				
										• ThinkPad Utilities				
										• Adobe Reader				
										• Update Connector™ ¹⁵				
										• Client Security Software (for security chip)				
										Downloadable				
										• IBM Director Agent				
										• Software Delivery Assistant				
										• System Migration Assistant				
										License (CD not included)				
										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
										Supports ThinkVantage™ technologies				
										ThinkPad X4 UltraBase™ Dock				
										• Provides desktop expansion and cable management for the X40/X41				
										• Easily connects to the bottom of the X40/X41 for traveling				
										• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:				
										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190				
										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288				
										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270				
										- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622				
										- Second HDD Adapter for Ultrabay Slim 62P4554				
										Disks supported:				
										• 40GB HS Hard Disk 08K9816				
										• 60GB HS Hard Disk 73P3357				
										• 80GB HS Hard Disk 09N4273				
										Other features:				
										• Power button (front)				
										• Stereo speakers (1 watt)				
										• Security key lock, security keyhole, and optical security screw				
										• Serial and parallel ports				
										• PS/2 port for keyboard or mouse				
										• Analog DB-15 monitor port				
										• Three USB 2.0 ports (via USB hub)				
										• Ethernet port (Gigabit Ethernet)				
										• Modem port				
										• Retractable feet; 1.3 lb; 580g				
										56 watt AC Adapter				
										Asset ID™ ³⁴ (system-specific info in chip accessed over network)				
										ACPI 1.0b and 2.0-compliant				
										ENERGY STAR®-compliant				
										International Warranty Service ¹⁷				
										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)				

See footnotes for important warranty information
US models announced April 5, 2005
US models withdrawn effective November 2005 or May 2006

* Powered by Intel Centrino® mobile technology

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ThinkPad® X41 (2525) - October 2005 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	UltraBase X4	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Limited warranty ¹²	WH Entry	Gbl	Avail date
2525-A2U	Pentium® M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg ³⁶	Modem	No	3-yr	W G	Oct 05
2525-C3U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11b/g ³²	Modem	No	3-yr	W G	Oct 05
2525-E2U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11b/g	Modem	Finger	3-yr	W G	Oct 05
2525-F6U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g ³²	Mod/Blue	Finger	3-yr	W	Oct 05
2525-FGU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	Combo	UltraBase	* Intel 11a/b/g	Mod/Blue	Finger	3-yr		Oct 05
2525-FUU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	Combo	UltraBase	11a/b/g II ³²	Mod/Blue	Finger	3-yr		Oct 05
Positioning US Govt (TAA) ⁵ Processor	Ultimate mobility in a versatile ultraportable; one spindle None Intel® Pentium® M Processor Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus													
L2 cache Memory	2MB / on die (at processor speed) / ECC 256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available													
Diskette drive Combo	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase													
UltraBay™ Slim Disk	Supports Ultrabay Slim devices in optional or standard X4 UltraBase 40GB⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)													
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits													
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap Illuminates the keyboard to improve visibility in low-light conditions													
ThinkLight®														
Dimensions ³ Weight ²	<i>8-cell without X4 UltraBase:</i> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm <i>8-cell battery models:</i> 3.3 lb (1.49kg); <i>with 8-cell battery and X4 UltraBase with combo:</i> 5.1 lb (2.31kg)													
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy													
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)													
Battery - life ¹⁰	<i>with 8-cell:</i> up to 5.7 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 8.1 hr													
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)													
Mobile media base	<i>Some:</i> X4 UltraBase (see right side) / optional X4 Dock supported													
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices													
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port													
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some:</i> wireless upgradable with wireless Mini PCI options <i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset <i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip													
Wireless upg ³⁶ Intel 11b/g ³² Intel 11a/b/g ³² 11a/b/g 11 ³²														
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset <i>Some:</i> Bluetooth wireless technology / in CDC (with modem)													
Bluetooth™														
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / dual hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant													
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad X4 UltraBase	92P3429											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad X4 Dock	250610U											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	X40 Series Li-Ion Battery (4-cell)	92P1009											
USB Portable Diskette Drive	05K9276	X40 Series Li-Ion Battery (8-cell)	92P1119											
USB Numeric Keypad (black)	33L3225	X40 Series Extended Life Battery	92P1006											
USB Fingerprint Reader	41U3167	ThinkPad Multiple Battery Charger II	22P9040											
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Ultraportable 56W AC Adapter	02K6880											
USB 2.0 Portable 80GB Hard Disk	40Y8726	72W Slim AC/DC Combo Adapter	73P4485											
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkVision™ L201p 20.1" Monitor (black)	9220HB1											
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175											
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 3-year LOR 9x5 NBD	41C9176											
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 5-year LOR 9x5 NBD	41C9179											
Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 4-year P&L P/U Depot	41C9178											
Carrying Case - BackPack	73P3599	ThinkPlus 5-year P&L P/U Depot	41C9180											
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options												
SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • Client Security Solution™ (for security chip) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies ThinkPad X4 UltraBase™ • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 - ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 - Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 - Second HDD Adapter for Ultrabay Slim 41U3148 Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 39W9106 • 80GB HS Hard Disk 09N4273 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g 56-watt AC Adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)														

See footnotes for important warranty information
US models announced October 4, 2005
US models withdrawn effective May or November 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® X41 (2527) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty ¹²	Avail date	
2527-55U	Pentium® M 758	1.5 GHz	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g ³²	Modem	Finger	Yes	1 year	Apr 05
2527-6NU	Pentium M 758	1.5 GHz	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	1 year	Apr 05
2527-5FU	Pentium M 758	1.5 GHz	2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	1 year	Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2527 has a 1 year limited warranty

Positioning	Ultimate mobility in a versatile ultraportable; one spindle										SOFTWARE¹⁴																																																																								
US Govt (TAA) ⁵	None										Windows XP Professional																																																																								
Processor	Intel® Pentium® M Processor Low Voltage 758 (1.5GHz) with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)																																																																								
L2 cache	2MB / on die (at processor speed) / ECC										◇ Disk-to-Disk Recovery (in hidden protected area)																																																																								
Memory	512MB std / 1.28 to 1.53GB max ⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										Preloaded																																																																								
Diskette drive	None standard / use optional USB-based diskette drive										• Rescue and Recovery™																																																																								
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase										• Access Program																																																																								
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										• Access Connections™																																																																								
Disk	40GB ⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										• Norton AntiVirus (OEM edition)																																																																								
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• PC-Doctor™																																																																								
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• ThinkPad Utilities																																																																								
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Adobe Reader																																																																								
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ ¹⁵																																																																								
Dimensions ³	8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Client Security Software (for security chip)																																																																								
Travel weight ²	8-cell battery models: 3.3 lb (1.49kg); with 8-cell battery and X4 UltraBase with combo: 5.1 lb (2.31kg)										Downloadable																																																																								
Case material	Color: black; All: magnesium alloy										• IBM Director Agent																																																																								
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• Software Delivery Assistant																																																																								
Battery - life ¹⁰	with 8-cell: up to 5.7 hr; with 8-cell and optional Extended Life Battery: up to 8.1 hr										• System Migration Assistant																																																																								
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										ThinkPad X4 UltraBase™																																																																								
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported										• Provides desktop expansion and cable management for the X40/X41																																																																								
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										• Easily connects to the bottom of the X40/X41 for traveling																																																																								
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door										• Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:																																																																								
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190																																																																								
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288																																																																								
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270																																																																								
CDC	11a/b/g wireless ⁴ , Intel PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										- Multi-Burner Plus Ultrabay Slim Drive 73P3342																																																																								
Modem	One Communications Daughter Card (CDC) socket / customer accessible										- Second HDD Adapter for Ultrabay Slim 62P4554																																																																								
Bluetooth™	56K V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										Disks supported:																																																																								
Ethernet	Some: Bluetooth wireless technology / in CDC (with modem)										• 40GB HS Hard Disk 08K9816																																																																								
Audio support	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										• 60GB HS Hard Disk 73P3357																																																																								
Security	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• 80GB HS Hard Disk 09N4273																																																																								
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole										Other features:																																																																								
Fingerprint reader	Embedded Security Subsystem 2.0 ³³ / Atmel® chip / TCG-compliant										• Power button (front)																																																																								
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available										• Stereo speakers (1 watt)																																																																								
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad X4 UltraBase	92P3429	512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad X4 Dock	250610U	1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009	USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119	USB Numeric Keypad (black)	33L3225	ThinkPad X40 Series Extended Life Battery	92P1006	USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040	Powered USB 2.0 Port Combo Drive	22P9194	ThinkPad Ultraportable 56W AC Adapter	02K6880	USB 2.0 Portable Multi-Burner Drive	22P9163	Enh Perf Wireless Keyboard and Mouse	73P4067	USB 2.0 Memory Key 512MB	22P9230	ThinkVision® C400 Wireless Projector	0039WA1	60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus™ ²² 1yr LOR 9x5 NBD	41C9166	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 2yr LOR 9x5 NBD	41C9167	11a/b/g Wireless CardBus Adapter	31P9101	ThinkPlus 3yr LOR 9x5 NBD	41C9168	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5yr LOR 9x5 NBD	41C9173	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 2yr P&L P/U Depot	41C9169	ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 3yr P&L P/U Depot	41C9170	ThinkPad Carrying Case - Leather	73P3600	ThinkPlus 4yr P&L P/U Depot	41C9172	Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 5yr P&L P/U Depot	41C9174	SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at lenovo.com/options		56 watt AC Adapter		Asset ID™ ³⁴ (system-specific info in chip accessed over network)		ACPI 1.0b and 2.0-compliant		ENERGY STAR®-compliant		International Warranty Service ¹⁷		24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)	

See footnotes for important warranty information
US models announced April 5, 2005
US models withdrawn effective November 2005

* Powered by Intel Centrino™ mobile technology

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(X2) October 2005

ThinkPad® X41 (2527) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty ¹²	Avail date	
2527-EJU	Pentium® M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g ³²	Modem	Finger	Yes	1-year	Oct 05
2527-FQU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	1-year	Oct 05
2527-B4U	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	1-year	Oct 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2527 has a 1-year limited warranty

Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>												
US Govt (TAA) ⁵	None												
Processor	Intel® Pentium® M Processor Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus 2MB / on die (at processor speed) / ECC 512MB std / 1.28 to 1.53GB max ⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available												
L2 cache													
Memory													
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase												
Ultraabay™ Slim	Supports Ultraabay Slim devices in optional or standard X4 UltraBase												
Disk	40GB⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)												
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits												
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz												
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint™, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap												
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>8-cell without X4 UltraBase:</i> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm												
Travel weight ²	<i>8-cell battery models:</i> 3.3 lb (1.49kg); <i>with 8-cell battery and X4 UltraBase with combo:</i> 5.1 lb (2.31kg)												
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy												
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)												
Battery - life ¹⁰	<i>with 8-cell:</i> up to 5.7 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 8.1 hr												
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)												
Mobile media base	<i>Some:</i> X4 UltraBase (see right side) / optional X4 Dock supported												
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices												
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door												
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port												
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green) / Power-on password / dual hard disk password / supervisor password / security keyhole												
Security	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant												
Security chip	Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
Fingerprint reader													
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad X4 UltraBase	92P3429										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad X4 Dock	250610U										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	X40 Series Li-Ion Battery (4-cell)	92P1009										
USB Portable Diskette Drive	05K9276	X40 Series Li-Ion Battery (8-cell)	92P1119										
USB Numeric Keypad (black)	33L3225	X40 Series Extended Life Battery	92P1006										
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040										
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Ultraportable 56W AC Adapter	02K6880										
USB 2.0 Memory Key 1GB	40Y7421	Enh Perf Wireless Keyboard and Mouse	73P4067										
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	SonyEricsson® GC83 EDGE PC Card	26K3393										
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus™ ²² 1-year LOR 9x5 NBD	41C9166										
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 2-year LOR 9x5 NBD	41C9167										
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year LOR 9x5 NBD	41C9168										
ThinkPad Carrying Case - BackPack	73P3599	ThinkPlus 5-year LOR 9x5 NBD	41C9173										
ThinkPad Carrying Case - Leather	73P3600	ThinkPlus 2-year P&L P/U Depot	41C9169										
Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 3-year P&L P/U Depot	41C9170										
ThinkVision® C400 Wireless Projector	0039WA1	ThinkPlus 4-year P&L P/U Depot	41C9172										
ThinkVision L171 17" Monitor (black)	9417AB1	ThinkPlus 5-year P&L P/U Depot	41C9174										
ThinkVision L201p 20.1" Monitor (black)	9320HB1	Other options at lenovo.com/options											
SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • Client Security Solution™ (for security chip) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client ThinkPad notebooks implement ThinkVantage™ technologies and de-sign; visit thinkpad.com/thinkvantage ThinkPad X4 UltraBase™ Dock • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X41 to a two-spindle system by supporting optional Ultraabay Slim accessories in left side: – Ultraabay Slim Li-Polymer Battery 3-cell 08K8190 – CD-RW/DVD Combo II Ultraabay Slim Drive 73P3288 – ThinkPad DVD-ROM Ultraabay Slim Drive 73P3270 – Super Multi-Burner Ultraabay Slim Drive (curved bezel) 40Y8622 – Second HDD Adapter for Ultraabay Slim 62P4554 Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g 56 watt AC Adapter Asset ID™ ³⁴ (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)													

See footnotes for important warranty information
US models announced October 4, 2005
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

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(SP35A2) April 2006

ThinkPad® X41 (2528) - Express - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Fingerprint reader	Sec chip	Limited warranty ¹²	Avail date	
2528-55U	Pentium® M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g ³²	Modem	Finger	Yes	3 years	Apr 05
2528-6NU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3 years	Apr 05
2528-5FU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	3 years	Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2528 has a 3 year limited warranty

Positioning	Ultimate mobility in a versatile ultraportable; one spindle										SOFTWARE¹⁴		
US Govt (TAA) ⁵	None										Windows XP Professional		
Processor	Intel® Pentium® M Processor Low Voltage 758 (1.5GHz) with enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)		
L2 cache	2MB / on die (at processor speed) / ECC										◇ Disk-to-Disk Recovery (in hidden protected area)		
Memory	512MB std / 1.28 to 1.53GB max ⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										Preloaded		
Diskette drive	None standard / use optional USB-based diskette drive										• Rescue and Recovery™		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X4 UltraBase										• Access Program		
Ultraplay™ Slim	Supports Ultraplay Slim devices in optional or standard X4 UltraBase										• Access Connections™		
Disk	40GB ⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										• Norton AntiVirus (OEM edition)		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• PC-Doctor™		
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• ThinkPad Utilities		
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Adobe Reader		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ ¹⁵		
Dimensions ³	8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Client Security Software (for security chip)		
Travel weight ²	8-cell battery models: 3.3 lb (1.49kg); with 8-cell battery and X4 UltraBase with combo: 5.1 lb (2.31kg)										Downloadable		
Case material	Color: black; All: magnesium alloy										• IBM Director Agent		
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• Software Delivery Assistant		
Battery - life ¹⁰	with 8-cell: up to 5.7 hr; with 8-cell and optional Extended Life Battery: up to 8.1 hr										• System Migration Assistant		
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										ThinkPad X4 UltraBase™		
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported										• Provides desktop expansion and cable management for the X40/X41		
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										• Easily connects to the bottom of the X40/X41 for traveling		
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door										• Converts the X41 to a two-spindle system by supporting optional Ultraplay Slim accessories in left side:		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										– Ultraplay Slim Li-Polymer Battery 3-cell 08K8190		
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										– CD-RW/DVD Combo II Ultraplay Slim Drive 73P3288		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable										– ThinkPad DVD-ROM Ultraplay Slim Drive 73P3270		
CDC	11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										– Multi-Burner Plus Ultraplay Slim Drive 73P3342		
Modem	One Communications Daughter Card (CDC) socket / customer accessible										– Second HDD Adapter for Ultraplay Slim 62P4554		
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										Disks supported:		
Ethernet	Some: Bluetooth wireless technology / in CDC (with modem)										• 40GB HS Hard Disk 08K9816		
Audio support	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• 60GB HS Hard Disk 73P3357		
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										• 80GB HS Hard Disk 09N4273		
Security chip	Embedded Security Subsystem 2.0 ³³ / Atmel® chip / TCG-compliant										Other features:		
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip										• Power button (front)		
Limited warranty ¹²	3 years/1 yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										• Stereo speakers (1 watt)		
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840				ThinkPad X4 UltraBase				92P3429				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842				ThinkPad X4 Dock				250610U				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844				ThinkPad X40 Series Li-Ion Battery (4-cell)				92P1009				
USB Portable Diskette Drive	05K9276				ThinkPad X40 Series Li-Ion Battery (8-cell)				92P1119				
USB Numeric Keypad (black)	33L3225				ThinkPad X40 Series Extended Life Battery				92P1006				
USB Fingerprint Reader	73P4774				ThinkPad Multiple Battery Charger II				22P9040				
Powered USB 2.0 Port Combo Drive	22P9194				ThinkPad Ultraportable 56W AC Adapter				02K6880				
USB 2.0 Portable Multi-Burner Drive	22P9163				ThinkPad 72W AC/DC Combo Adapter				22P9010				
USB 2.0 Portable 80GB Hard Disk	40Y8726				Enh Perf Wireless Keyboard and Mouse				73P4067				
USB 2.0 Memory Key 512MB	22P9230				Preferred Pro USB Fingerprint Keyboard				73P4730				
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358				M400 Projector				0037A04				
11a/b/g Wireless CardBus Adapter	31P9101				ThinkPlus™ ²² 2yr LOR 9x5 NBD				41C9175				
11a/b/g Wireless Mini PCI Adapter II	73P4301				ThinkPlus 3yr LOR 9x5 NBD				41C9176				
Intel PRO/Wireless 2915ABG Mini PCI	41N2990				ThinkPlus 4yr LOR 9x5 NBD				41C9177				
ThinkPad Carrying Case - BackPack	73P3599				ThinkPlus 5yr LOR 9x5 NBD				41C9179				
Carrying Case - Leather Ultraportable	73P5186				ThinkPlus 4yr P&L P/U Depot				41C9178				
SonyEricsson® GC83 EDGE PC Card	26K3393				ThinkPlus 5yr P&L P/U Depot				41C9180				
Verizon Wireless V620 WWAN PC Card	40Y9137				Other options at lenovo.com/options								

See footnotes for important warranty information
US models announced April 5, 2005
US models withdrawn effective November 2005

* Powered by Intel Centrino™ mobile technology

ThinkPad® X41 (2528) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty ¹²	Avail date	
2528-ELU	Pentium® M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g ³²	Modem	Finger	Yes	3-year	Oct 05
2528-FPU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3-year	Oct 05
2528-EMU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	3-year	Oct 05
2528-FRU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	60GB	DVD±RW	UltraBase	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3-year	Oct 05

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **The 2528 has a 3-year limited warranty**

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										SOFTWARE¹⁴		
L2 cache	Intel® Pentium® M Processor Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus										Windows XP Professional		
Memory	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)		
Diskette drive	None standard / use optional USB-based diskette drive										◇ Disk-to-Disk Recovery (in hidden protected area)		
Combo DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from X4 UltraBase										Preloaded		
Ultrabay™ Slim Disk	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™¹⁵ • Client Security Solution™ (for security chip) 		
Display	40GB ⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										License (CD not included)		
Graphics	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										ThinkPad notebooks implement ThinkVantage™ technologies and de-sign; visit thinkpad.com/thinkvantage		
ThinkLight®	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										ThinkPad X4 UltraBase™		
Dimensions ³	Illuminates the keyboard to improve visibility in low-light conditions										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: <ul style="list-style-type: none"> - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 - ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 - Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 - Second HDD Adapter for Ultrabay Slim 62P4554 		
Travel weight ²	8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										Disks supported:		
Case material	8-cell battery models: 3.3 lb (1.49kg); with 8-cell battery and X4 UltraBase with combo: 5.1 lb (2.31kg)										<ul style="list-style-type: none"> • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273 		
Battery - type	Color: black; All: magnesium alloy										Other features:		
Battery - life ¹⁰	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g 		
Architecture	with 8-cell: up to 5.7 hr; with 8-cell and optional Extended Life Battery: up to 8.1 hr										56 watt AC Adapter		
Mobile media base	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										Asset ID™ ³⁴ (system-specific info in chip accessed over network)		
Secure Digital slot	Some: X4 UltraBase (see right side) / optional X4 Dock supported										ACPI 1.0b and 2.0-compliant		
PC Card Std slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										ENERGY STAR®-compliant		
Ports	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door										International Warranty Service ¹⁷		
Wireless antenna	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception												
Intel 11a/b/g ³²	One Mini PCI type III slot (Communications Bay) / customer upgradable												
CDC	11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset												
Modem	One Communications Daughter Card (CDC) socket / customer accessible												
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset												
Ethernet	Some: Bluetooth wireless technology / in CDC (with modem)												
Audio support	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Security	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole												
Fingerprint reader	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant												
Limited warranty ¹²	Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad X4 UltraBase	92P3429										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad X4 Dock	250610U										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	X40 Series Li-Ion Battery (4-cell)	92P1009										
USB Portable Diskette Drive	05K9276	X40 Series Li-Ion Battery (8-cell)	92P1119										
USB Numeric Keypad (black)	33L3225	X40 Series Extended Life Battery	92P1006										
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040										
USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad Ultraportable 56W AC Adapter	02K6880										
USB 2.0 Super Multi-Burner Drive	40Y8638	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Portable 80GB Hard Disk	40Y8726	Enh Perf Wireless Keyboard and Mouse	73P4067										
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	Preferred Pro USB Fingerprint Keyboard	73P4730										
11a/b/g Wireless Mini PCI Adapter II	73P4301	Lenovo M500 Projector	0037A05										
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175										
ThinkPad Carrying Case - BackPack	73P3599	ThinkPlus 3-year LOR 9x5 NBD	41C9176										
Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 4-year LOR 9x5 NBD	41C9177										
SonyEricsson® GC83 EDGE PC Card	26K3393	ThinkPlus 5-year LOR 9x5 NBD	41C9179										
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkPlus 4-year P&L P/U Depot	41C9178										
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus 5-year P&L P/U Depot	41C9180										
ThinkVision® L171 17" Monitor (black)	9417AB1	Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced October 4, 2005
US models withdrawn effective May 2006

* Powered by Intel Centrino® mobile technology

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(SP35A3) April 2006

ThinkPad® X41 Tablet - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint Sec reader chip	Battery cells	Limited warranty ¹²	WH Entry	Gbl	Avail date	
1866-1CU	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g ³²	Modem	No	Yes	4-cell	3-yr	Entry	Jun 05
1866-2CU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	4-cell	3-yr	WH	Jun 05
1866-3GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH	Jun 05
1866-5GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-2GU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH	Jun 05
1866-6HU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-3RU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH	Jun 05
1866-6SU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	*Intel 11a/b/g	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-6GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-6JU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	11a/b/g II ³²	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-6TU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	11a/b/g II	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-3FU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	Open; wireless upg ³⁶	Modem	No	Yes	8-cell	3-yr	WH	Sep 05
Positioning US Govt (TAA) ⁵ Processor	Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle 3FU: US Government model (Trade Act Agreement-compliant) Intel® Pentium® M Processor Ultra Low Voltage 753 or Low Voltage 758 with Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, and 400MHz system bus										SOFTWARE¹⁴			
L2 cache Memory	2MB / on die (at processor speed) / ECC 256 or 512MB std / 1.28 to 1.53GB max⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										- Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ◇ Disk-to-Disk Recovery (in hidden protected area)			
Ultrapay™ Slim Disk	Supports Ultrapay™ Slim devices in optional ThinkPad X4 Dock 40GB⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System (shock protection)										Preloaded <ul style="list-style-type: none"> Rescue and Recovery™ Access Program Access Connections™ Norton AntiVirus (OEM edition) PC-Doctor™ ThinkPad Utilities Adobe Reader Update Connector™¹⁵ Fingerprint Software (fingerprint models) Client Security Software (for security chip) InterVideo VirtualDrive 			
Display	12.1" (307mm) Super Wide Angle FFS XGA (1024x768) TFT color / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)										<ul style="list-style-type: none"> Alias Sketchbook Pro Zinio Reader FranklinCovey PlanPlus (30 day trial) 			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										Free trial <ul style="list-style-type: none"> ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage 			
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ /										ThinkPad X4 Dock <ul style="list-style-type: none"> Provides desktop expansion and cable mgmt for X40/X41/X41 Tablet Connects to the bottom of notebook Supports optional Ultrapay™ Slim accessories in left side: <ul style="list-style-type: none"> ThinkPad DVD-ROM Ultrapay Slim Drive 73P3270 CD-RW/DVD Combo II Ultrapay Slim Drive 73P3288 Super Multi-Burner Ultrapay Slim Drive (curved bezel) 40Y8622 Second HDD Adapter for Ultrapay Slim 41U3148 Disks supported: <ul style="list-style-type: none"> 40GB HS Hard Disk 08K9816 80GB HS Hard Disk 09N4273 			
Dimensions ³	4-cell: 10.8" x 9.5" x 1.14-1.26"; 274mm x 242mm x 29-32mm 8-cell: 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm 4-cell battery models: 3.5 lb (1.61kg); 8-cell battery models: 4.0 lb (1.84kg) Color: black; All: magnesium alloy										<ul style="list-style-type: none"> 56 watt AC adapter Power button Stereo speakers (1 watt) Security key lock, security keyhole, and Ultrapay Slim security screw Serial and parallel ports PS/2 port for keyboard or mouse Analog DB-15 monitor port Three USB 2.0 ports (via USB hub) Gigabit Ethernet port (RJ-45) Modem port (RJ-11) 2.4 lb; 1.1kg 			
Travel weight ² Case material Battery - type Battery - life ¹⁰	Li-Ion 4-cell or 8-cell / supports opt Extended Life Battery on base (for two batteries) with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional Extended Life Battery: up to 8.5 hr										<ul style="list-style-type: none"> 56 watt AC Adapter ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹² 			
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)													
Secure Digital slot PC Card Std slot Ports	One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 Dock) / no IEEE 1394 port													
Wireless antenna Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg ³⁶ Intel 11b/g ³² Intel 11a/b/g ³² 11a/b/g II ³²	Some: wireless upgradable with wireless Mini PCI options Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip													
CDC Modem Bluetooth™	One Communications Daughter Card (CDC) socket / customer accessible 56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet Audio support	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security Security chip Fingerprint reader	Power-on password / dual hard disk password / supervisor password / security keyhole Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant Some: Fingerprint reader on right base of display / 2-way swipe sensor													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad X41 Tablet Digitizer Pen		73P5188									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad X4 Dock		250610U									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		X41 Tablet Li-Ion Battery (4-cell)		73P5167									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		X41 Tablet Li-Ion Battery (8-cell)		73P5168									
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad X40 Series Extended Life Battery		92P1006									
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358		ThinkPad Ultraportable 56W AC Adapter		02K6880									
Intel PRO/Wireless 2915ABG Mini PCI	41N2990		72W Slim AC/DC Combo Adapter		73P4485									
11a/b/g Wireless Mini PCI Adapter II	73P4301		ThinkPlus™ ²² 2-year LOR 9x5 NBD		41C9175									
ThinkPad X41 Tablet Sleeve	30R4959		ThinkPlus 3-year LOR 9x5 NBD		41C9176									
ThinkVision® L201p 20.1" Monitor (black)	9320HB1		Other options at lenovo.com/options											

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced June 7, June 28, or August 30, 2005
US models withdrawn effective April or September 2006

ThinkPad® X41 Tablet (March 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Battery cells	Limited warranty ¹²	WH TAA	Gbl	Avail date
1866-9MU	Pentium® M 778	1.6	2MB	512MB	12.1" XGA	60GB	*Intel 11b/g ³²	Modem	No	Yes	4-cell	3-yr	WH Gbl	Mar 06
1866-9GU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH Gbl	Mar 06
1866-BGU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	Finger	Yes	8-cell	3-yr	WH Gbl	Mar 06
1866-8GU	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH	Mar 06
1866-CHU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Mar 06
1866-9RU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	*Intel 11b/g ³²	Modem	No	Yes	8-cell	3-yr	WH	Mar 06
1866-CTU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	11a/b/g II ³²	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Mar 06
1866-CRU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	*Intel 11a/b/g	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Mar 06
1866-AEU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	11a/b/g II	Mod/Blue	No	Yes	4-cell	3-yr	WH	Mar 06
1866-ADU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11a/b/g	Mod/Blue	No	Yes	4-cell	3-yr	WH	Mar 06
1866-CGU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Mar 06
1866-BFU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	Open; wireless upg ³⁶	Modem	Finger	Yes	8-cell	3-yr	WH TAA	Mar 06
Positioning	Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle										SOFTWARE¹⁴ Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Fingerprint Software (fingerprint models) • InterVideo VirtualDrive CD/DVD Emulator Free trial • Alias Sketchbook Pro • Zinio Reader • FranklinCovey TabletPlanner			
US Govt (TAA) ⁵	BFU: US Government model (Trade Act Agreement-compliant)													
Processor	Intel® Pentium® M Processor Low Voltage 778 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus													
L2 cache	2MB / on die (at processor speed) / ECC													
Memory	256 or 512MB std / 1.28 to 1.53GB max ⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available													
Ultrabay™ Slim Disk	Supports Ultrabay™ Slim devices in optional ThinkPad X4 Dock 40GB⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System (shock protection)													
Display	12.1" (307mm) Super Wide Angle FFS XGA (1024x768) TFT color / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)													
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ /													
Dimensions ³	4-cell: 10.8" x 9.5" x 1.14-1.26"; 274mm x 242mm x 29-32mm 8-cell: 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm 4-cell battery models: 3.5 lb (1.61kg); 8-cell battery models: 4.0 lb (1.84kg)													
Weight ²	Color: black; All: magnesium alloy													
Case material	Li-Ion 4-cell or 8-cell / supports opt Extended Life Battery on base (for two batteries) with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional Extended Life Battery : up to 8.5 hr													
Battery - type														
Battery - life ¹⁰														
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)													
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices													
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 Dock) / no IEEE 1394 port													
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg ³⁶	Some: wireless upgradable with wireless Mini PCI options													
Intel 11b/g ³²	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset													
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / dual hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant													
Fingerprint reader	Some: Fingerprint reader on right base of display / 2-way swipe sensor													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad X41 Tablet Digitizer Pen		73P5188									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad X4 Dock		250610U									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		X41 Tablet Li-Ion Battery (4-cell)		73P5167									
USB 2.0 Super Multi-Burner Drive	41N5565		X41 Tablet Li-Ion Battery (8-cell)		73P5168									
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad X40 Series Extended Life Battery		92P1006									
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358		ThinkPad Ultraportable 56W AC Adapter		02K6880									
Intel PRO/Wireless 2915ABG Mini PCI	41N2990		72W Slim AC/DC Combo Adapter		73P4485									
11a/b/g Wireless Mini PCI Adapter II	73P4301		ThinkPlus™ ²² 2-year LOR 9x5 NBD		41C9175									
ThinkPad X41 Tablet Sleeve	30R4959		ThinkPlus 3-year LOR 9x5 NBD		41C9176									
ThinkVision® L201p 20.1" Monitor (black)	9220HB1		Other options at lenovo.com/options											

See footnotes for important warranty information
US models announced March 14, 2006
US models withdrawn effective February 2007

* Powered by Intel Centrino® mobile technology

ThinkPad® X41 Tablet (1866) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty ¹²	OneNote® Education CD	Avail software date
1866-1GU	Pentium® M 753	1.2 2MB	256MB	12.1" XGA	40GB	* Intel 11b/g ³²	Modem	No	Yes	EasyServ 3-yrs	No	Yes Jun 05
1866-4GU	Pentium M 758	1.5 2MB	512MB	12.1" XGA	40GB	* Intel 11b/g	Mod/Blue	No	Yes	EasyServ 3-yrs	Yes	Yes Jun 05
1866-A7U	Pentium M 778	1.6 2MB	512MB	12.1" XGA	40GB	* Intel 11b/g	Mod/Blue	No	Yes	EasyServ 3-yrs	Yes	Yes Mar 06
1866-CXU	Pentium M 778	1.6 2MB	512MB	12.1" XGA	60GB	* Intel 11b/g	Mod/Blue	Finger	Yes	EasyServ 3-yrs	Yes	Yes Mar 06

• **The 1866 has an EasyServ™, onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 758 (1.5GHz) or Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, and 400MHz system bus										SOFTWARE¹⁴ Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ♦ Disk-to-Disk Recovery Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Model A7U/CXU: Microsoft Office OneNote 2003 • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint) • InterVideo VirtualDrive CD/DVD Emulator CD included • Model 4GU/A7U/CXU: Microsoft Office OneNote 2003 • Adobe Photoshop Elements plus Adobe Premiere Elements Free trial • Alias Sketchbook Pro • Zinio Reader • FranklinCovey TabletPlanner	
L2 cache	2MB / on die (at processor speed) / ECC											
Memory	256 or 512MB std / 1.28 to 1.53GB max⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available											
Ultrabay™ Slim Disk	Supports Ultrabay™ Slim devices in optional ThinkPad X4 Dock 40GB⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)											
Display	12.1" (307mm) Super Wide Angle FFS XGA (1024x768) TFT color / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)											
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz											
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ /											
Dimensions ³	8-cell: 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm											
Weight ²	8-cell battery models: 4.0 lb (1.84kg)											
Case material	Color: black; All: magnesium alloy											
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries)											
Battery - life ¹⁰	with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional Extended Life Battery: up to 8.5 hr											
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)											
Docking station	Optional ThinkPad X4 Dock (see right side)											
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices											
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door											
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 Dock) / no IEEE 1394 port											
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b/g ³²	11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁵) modem in CDC / Conexant® chipset											
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / dual hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant											
Fingerprint reader	<i>Some:</i> Fingerprint reader on right base of display / 2-way swipe sensor											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™, onsite pickup and delivery / service upgrades²² avail											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X41 Tablet Digitizer Pen	73P5188									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X4 Dock	250610U									
2GB PC2-5300 DDR2 SODIMM	40Y7735	X41 Tablet Li-Ion Battery (4-cell)	73P5167									
USB Portable Diskette Drive	05K9276	X41 Tablet Li-Ion Battery (8-cell)	73P5168									
USB Fingerprint Reader	41U3167	ThinkPad X40 Series Extended Life Battery	92P1006									
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Multiple Battery Charger II	22P9040									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Ultraportable 56W AC Adapter	02K6880									
USB 2.0 Security Memory Key 2GB	41U5119	72W Slim AC/DC Combo Adapter	73P4485									
USB 2.0 Security Memory Key 4GB	41U5120	Enh Perf Wireless Keyboard and Mouse	73P4067									
USB 2.0 Super Multi-Burner Drive	41N5565	Preferred Pro USB Fingerprint Keyboard	73P4730									
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	Lenovo M500 Projector	0037A05									
Kensington® MicroSaver® Security Cable	73P2582	Lenovo C500 Projector	0039A05									
11a/b/g Wireless CardBus Adapter	31P9101	Lenovo L192 Wide 19" Monitor (black)	6920AB1									
11a/b/g Wireless Mini PCI Adapter II	73P4301	Lenovo D221 Wide 22" Monitor (black)	6622HB1									
ThinkPad X41 Tablet Sleeve	30R4959	ThinkPlus™, 22 2-year LOR 9x5 NBD	41C9175									
ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 3-year LOR 9x5 NBD	41C9176									
Carrying Case - Leather Ultraportable	73P5186	Other accessories at lenovo.com/accessories										

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced on June 7, 2005 or March 14, 2006

(PH3) August 2007

US models withdrawn effective August 2006 or August 2007

ThinkPad® X41 Tablet (1867) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty ¹²	OneNote® CD	Education software	Avail date
1867-1GU	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g ³²	Modem	No	Yes	Onsite 3-yrs	No	Yes Jun 05
1867-4GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	No	Yes	Onsite 3-yrs	Yes	Yes Jun 05
1867-AGU	Pentium M 778	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	No	Yes	Onsite 3-yrs	Yes	Yes Mar 06

• **The 1867 has a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 758 (1.5GHz) or Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, and 400MHz system bus										SOFTWARE¹⁴		
L2 cache Memory	2MB / on die (at processor speed) / ECC 256 or 512MB std / 1.28 to 1.53GB max⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ◇ Disk-to-Disk Recovery		
Ultraportable™ Slim Disk	Supports Ultraportable™ Slim devices in optional ThinkPad X4 Dock 40GB⁸ (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Model AGU: Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • DiskKeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • InterVideo VirtualDrive CD/DVD Emulator		
Display	12.1" (307mm) Super Wide Angle FFS XGA (1024x768) TFT color / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)										• Model AGU: Microsoft Office OneNote 2003 • Adobe Photoshop Elements plus Adobe Premiere Elements Free trial • Alias Sketchbook Pro • Zinio Reader • FranklinCovey TabletPlanner		
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										CD included • Model 4GU/AGU: Microsoft Office OneNote 2003 • Adobe Photoshop Elements plus Adobe Premiere Elements		
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ /										Supports ThinkVantage® technologies		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	8-cell: 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm 8-cell battery models: 4.0 lb (1.84kg) Color: black; All: magnesium alloy Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries) with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional Extended Life Battery: up to 8.5 hr										ThinkPad X4 Dock • Provides desktop expansion and cable mgmt for X40/X41/X41 Tablet • Connects to the bottom of notebook • Supports optional Ultraportable™ Slim accessories in left side: – ThinkPad DVD-ROM Ultraportable Slim Drive 73P3270 – CD-RW/DVD Combo II Ultraportable Slim Drive (flat bezel) 40Y8621 – ThinkPad DVD Ultraportable Slim Burner (flat bezel) 41N5643 – Second HDD Adapter for Ultraportable Slim 41U3148 Disks supported (some listed): • 80GB HS Hard Disk 09N4273		
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip) Optional ThinkPad X4 Dock (see right side)										Other features: • 56-watt AC adapter • Power button • Stereo speakers (1 watt) • Security key lock, security keyhole, and Ultraportable Slim security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Gigabit Ethernet port (RJ-45) • Modem port (RJ-11) • 2.4 lb; 1.1kg		
Docking station Secure Digital slot PC Card Std slot Ports	One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 Dock) / no IEEE 1394 port										• 56-watt AC Adapter • ACPI 1.0b and 2.0-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via		
Wireless antenna Mini PCI Intel 11b/g ³² CDC Modem Bluetooth™ Ethernet Audio support	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset One Communications Daughter Card (CDC) socket / customer accessible 56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset <i>Some:</i> Bluetooth wireless technology / in CDC (with modem) Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green) Power-on password / dual hard disk password / supervisor password / security keyhole												
Security Security chip Fingerprint reader	Embedded Security Subsystem 2.0³³ / Atmel® chip / TCG-compliant None												
Limited warranty ¹²	3-years/1-year battery, limited onsite service, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time²⁴												
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM USB Portable Diskette Drive USB Numeric Keypad (black) USB Fingerprint Reader USB 2.0 Security Memory Key 2GB USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive 60GB Mini Hard Disk 9.5mm (4200 rpm) Kensington® MicroSaver® Security Cable 11a/b/g Wireless CardBus Adapter 11a/b/g Wireless Mini PCI Adapter II ThinkPad X41 Tablet Sleeve ThinkPad Carrying Case - Backpack Carrying Case - Leather Ultraportable Lenovo D221 Wide 22" Monitor (black)	40Y7733 40Y7734 40Y7735 05K9276 33L3225 41U3167 41U5119 41U5120 41N5656 73P3358 73P2582 31P9101 73P4301 30R4959 73P3599 73P5186 6622HB1	ThinkPad X41 Tablet Digitizer Pen ThinkPad X4 Dock X41 Tablet Li-Ion Battery (4-cell) X41 Tablet Li-Ion Battery (8-cell) ThinkPad X40 Series Extended Life Battery ThinkPad Multiple Battery Charger II ThinkPad Ultraportable 56W AC Adapter 72W Slim AC/DC Combo Adapter Enh Perf Wireless Keyboard and Mouse Preferred Pro USB Fingerprint Keyboard Lenovo M500 Projector Lenovo C500 Projector Optical 3-Button Travel Wheel Mouse Optical 3-Button ScrollPoint® Mouse ThinkPlus™.22 2-year LOR 9x5 NBD ThinkPlus 3-year LOR 9x5 NBD Other accessories at lenovo.com /accessories	73P5188 250610U 73P5167 73P5168 92P1006 22P9040 02K6880 73P4485 73P4067 73P4730 0037A05 0039A05 31P7410 31P7405 41C9175 41C9176										

See footnotes for important warranty information

* Powered by Intel Centrino® mobile technology

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US models announced on June 7, 2005 or March 14, 2006

(PH4) August 2007

US models withdrawn effective August 2006 or August 2007

ThinkPad® X41 Tablet (1869) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/ Bluetooth™	Fingerprint reader	Sec chip	Battery cells	Limited warranty ¹²	WH Gbl Entry	Avail date
1869-5CU	Pentium® M 758	1.5 2MB	512MB	12.1" XGA	40GB	*Intel 11b/g ³²	Modem	Finger	Yes	4-cell	3-years	TopSeller	Jun 05
1869-BCU	Pentium M 778	1.6 2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	Finger	Yes	4-cell	3-years	TopSeller	Mar 06
1869-CSU	Pentium M 778	1.6 2MB	512MB	12.1" XGA	60GB	*Intel 11a/b/g ³²	Mod/Blue	Finger	Yes	8-cell	3-years	TopSeller	Mar 06

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **The 1869 has a 3-year limited warranty**

Positioning Processor	Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Low Voltage 758 or Low Voltage 778 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 400MHz system bus										SOFTWARE¹⁴ Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Fingerprint Software (fingerprint models) • InterVideo VirtualDrive CD/DVD Emulator Free trial • Alias Sketchbook Pro • Zinio Reader • FranklinCovey TabletPlanner License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache	2MB / on die (at processor speed) / ECC										
Memory	512MB std / 1.53GB max ⁷ / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										
Ultrabay™ Slim Disk	Supports Ultrabay™ Slim devices in optional ThinkPad X4 Dock 40GB ⁸ or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										
Display	12.1" (307mm) Super Wide Angle FFS XGA (1024x768) TFT color / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)										
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										
Keyboard	Standard-size ²⁶ keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ /										
Dimensions ³	4-cell: 10.8" x 9.5" x 1.14-1.26"; 274mm x 242mm x 29-32mm 8-cell: 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm 4-cell battery models: 3.5 lb (1.61kg); 8-cell battery models: 4.0 lb (1.84kg)										
Weight ²											
Case material	Color: black; All: magnesium alloy										
Battery - type	Li-Ion 4-cell or 8-cell / supports opt Extended Life Battery on base (for two batteries)										
Battery - life ¹⁰	with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional Extended Life Battery: up to 8.5 hr										
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										
Docking station	Optional ThinkPad X4 Dock (see right side)										
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door										
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 Dock) / no IEEE 1394 port										
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										
CDC	One Communications Daughter Card (CDC) socket / customer accessible										
Modem	56K ⁶ V.90 (V.92-designed ²⁵) modem in CDC / Conexant® chipset										
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										
Security chip	Embedded Security Subsystem 2.0 ³³ / Atmel® chip / TCG-compliant										
Fingerprint reader	Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / integrated with security chip										
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad X41 Tablet Digitizer Pen							73P5188	
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad X4 Dock							250610U	
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		X41 Tablet Li-Ion Battery (4-cell)							73P5167	
USB Portable Diskette Drive	05K9276		X41 Tablet Li-Ion Battery (8-cell)							73P5168	
USB Fingerprint Reader	41U3167		ThinkPad X40 Series Extended Life Battery							92P1006	
USB 2.0 Portable 80GB Hard Disk	40Y8726		ThinkPad Multiple Battery Charger II							22P9040	
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad Ultraportable 56W AC Adapter							02K6880	
USB 2.0 Super Multi-Burner Drive	40Y8638		72W Slim AC/DK Combo Adapter							73P4485	
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358		Enh Perf Wireless Keyboard and Mouse							73P4067	
Kensington® MicroSaver® Security Cable	73P2582		ThinkVision® E500 Projector							0038A05	
11a/b/g Wireless CardBus Adapter	31P9101		Lenovo M500 Projector							0037A05	
11a/b/g Wireless Mini PCI Adapter II	73P4301		ThinkVision C400 Wireless Projector							0039WA1	
Intel PRO/Wireless 2915ABG Mini PCI	41N2990		SonyEricsson® GC83 EDGE PC Card							26K3393	
ThinkPad X41 Tablet Sleeve	30R4959		Verizon Wireless V620 WWAN PC Card ²⁵							40Y9137	
ThinkPad Carrying Case - Backpack	73P3599		ThinkPlus™.22 2-year LOR 9x5 NBD							41C9175	
Carrying Case - Leather Ultraportable	73P5186		ThinkPlus 3-year LOR 9x5 NBD							41C9176	
ThinkVision® L171 17" Monitor (black)	9417AC1		Other options at lenovo.com/options								
											56-watt AC Adapter ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)

See footnotes for important warranty information
US models announced June 7, 2005 or March 14, 2006
US models withdrawn effective December 2006

* Powered by Intel Centrino® mobile technology

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(PH2) December 2006

ThinkPad® X60 (1706) - withdrawn

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Preload	Workhorse Global	Avail date
1706-5DU	Core Duo T2400	1.83	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g ³²				8-cell	XP Pro	W G	Feb 06
1706-5KU	Core Duo T2400	1.83	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g			Finger	8-cell	XP Pro	W G	Feb 06
1706-7AU	Core Duo T2400	1.83	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g		Blue		8-cell	XP Pro	W	Feb 06
1706-85U	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	None	Optional	* Intel 11a/b/g		Blue	Finger	4-cell	XP Pro	W	Feb 06
1706-86U	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	None	Optional	* Intel 11a/b/g		Blue	Finger	8-cell	XP Pro	W	Feb 06
1706-8DU	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	Combo	UltraBase*	Intel 11a/b/g		Blue	Finger	8-cell	XP Pro	W	Feb 06
1706-95U	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	Combo	UltraBase*	Intel 11a/b/g	Verizon	Blue	Finger	4-cell	XP Pro		Feb 06
1706-AFU	Core Duo T2300E	1.66	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g			Finger	8-cell	XP Pro		May 06
1706-ABU	Core Duo T2300E	1.66	512MB	12.1" XGA	40GB	None	Optional	11a/b/g ³²			Finger	8-cell	XP Pro		May 06
1706-A7U	Core Duo T2300E	1.66	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g			Finger	4-cell	XP Pro		May 06
Positioning Processor	<i>Thinnest and lightest; one spindle</i>														
Memory	Intel® Core™ Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache 512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available														
Diskette drive	None standard / use optional USB-based diskette drive														
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 UltraBase														
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase														
Serial ATA disk (SATA150)	40, 60 or 80GB⁸ (5400 rpm) / 9.5mm high / removable, upgradeable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 UltraBase														
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare														
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>without X6 UltraBase:</i> 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm														
Weight ²	<i>with 4-cell battery:</i> 3.15 lb (1.43kg); <i>with 8-cell battery:</i> 3.6 lb (1.64kg)														
Case material	Color: black; All: magnesium alloy														
Battery - type	Li-Ion 4- or 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)														
Battery - life ¹⁰	<i>Enhanced 4-cell:</i> up to 3.9 hr; <i>8-cell:</i> up to 7.8 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)														
Media slice	Some: X6 UltraBase media slice (see right side)														
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices														
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door														
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)														
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradeable														
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset														
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005												
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad External Battery Charger	40Y7625												
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597												
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - BackPack	73P3599												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkVision® L193p 19" LCD Monitor	4431HB2												
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkVision L194 Wide 19" LCD Monitor	4434HB6												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPlus 3-year LOR 9x5 NBD	41C9176												
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 4-year LOR 9x5 NBD	41C9177												
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus 5-year LOR 9x5 NBD	41C9179												
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 4-year P&L P/U Depot	41C9178												
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180												
Other accessories on O-X60 sheet	Other accessories at lenovo.com/accessories														

SOFTWARE¹⁴

Windows XP Professional

- Microsoft® Windows® XP Professional²⁰ (Service Pack 2)

Preloaded (only some listed)

- Rescue and Recovery™
- Access Connections™
- Client Security Solution™
- ThinkVantage Productivity Center with Maintenance Manager
- ThinkVantage System Update
- System Migration Assistant
- Symantec® Client Security™
- Diskeeper® Lite
- PC-Doctor™ (diagnostics)
- ThinkPad utilities
- Picasa from Google
- Fingerprint Software (fingerprint models)
- Multimedia Center for Think Offerings
- Sonic RecordNOW and Drive Letter Access (combo model)
- InterVideo WinDVD (combo model)

License - CD not included (all)

- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

Supports ThinkVantage® technologies

ThinkPad X6 UltraBase™

- Provides desktop expansion and cable management for X60 Series
- Easily connects to the bottom of the X60 Series X60s for traveling
- Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side:
 - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789
 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621
 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643
 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725
- Disks supported (only some listed):
 - 120GB Disk 5400 rpm 41N5691
 - 160GB Disk 5400 rpm 41N5692
 - 160GB Disk 7200 rpm 41N5737

Other features:

- Power button (front)
- Stereo speakers (1 watt)
- Security key lock, security keyhole, and optional security screw
- Serial and parallel ports
- Analog DB-15 monitor port
- Four USB 2.0 ports
- Gigabit ethernet port
- Modem port
- Microphone in and headphone out
- Requires 65 or 90 watt AC adapter
- Retractable feet; 1.48 lb; 670g

65-watt AC Adapter
ROHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
 US models announced Jan 5, Jan 31, Feb 28, or May 30, 2006
 US models withdrawn effective Nov 2006, Aug 2007, or Oct 2007

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	UltraBase	ThinkPad X60 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	EW 9-month Global	Avail date
1706-B5U	Core Duo T2500	2.00	512MB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g ³²					4-cell	EW Gbl	Oct 06
1706-C9U	Core Duo T2500	2.00	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g			Blue	Finger	4-cell	EW Gbl	Oct 06
1706-CEU	Core Duo T2500	2.00	2GB	12.1" XGA	120GB	None	Optional	*Intel 11a/b/g			Blue	Finger	8-cell	EW	Oct 06
1706-B8U	Core Duo T2500	2.00	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g				Finger	8-cell	EW Gbl	Oct 06
1706-AUU	Core Duo T2300E	1.66	1GB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g				Finger	8-cell	EW	Oct 06
1706-5VU	Core Duo T2400	1.83	1GB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g				Finger	8-cell	EW Gbl	Oct 06
1706-E3U	Core Duo T2500	2.00	1GB	12.1" XGA	100GB	None	Optional	*Intel 11a/b/g		Verizon	Blue	Finger	8-cell	EW	Oct 06
1706-KEU	Core 2 Duo T5500	1.66	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g					4-cell	EW	Oct 06
1706-M8U	Core 2 Duo T5600	1.83	1GB	12.1" XGA	100GB	None	Optional	*Intel 11a/b/g			Blue	Finger	8-cell	EW	Oct 06
Positioning	<i>Thinnest and lightest; one spindle</i>														
Processor	Intel® Core™ Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T5500 or T5600 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache														
Memory	512MB, 1GB, or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>C9U/B8U/AUU/5VU</i> : std mem in both sockets (512MB each socket); no sockets avail; <i>Others</i> : standard memory in 1 socket; 1 socket available														
Diskette drive	None standard / use optional USB-based diskette drive														
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard <i>X6 UltraBase</i>														
Serial ATA disk (SATA150)	60, 80, 100 or 120GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional <i>X6 UltraBase</i>														
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare														
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>without X6 UltraBase</i> : 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm														
Weight ²	<i>with 4-cell battery</i> : 3.15 lb (1.43kg); <i>with 8-cell battery</i> : 3.64 lb (1.65kg)														
Case material	Color: black; All: magnesium alloy														
Battery - type	Li-Ion 4- or 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)														
Battery - life ¹⁰	<i>Enhanced 4-cell</i> : up to 4.1 hr; <i>8-cell</i> : up to 8.2 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)														
Media slice	Optional X6 UltraBase media slice (see right side)														
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices														
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door														
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)														
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN ¹⁶	<i>Some</i> : Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset <i>Some</i> : Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Modem	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Bluetooth™	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)														
Ethernet	Power-on password / hard disk password / supervisor password / security keyhole														
Audio support	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Security	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<i>Some</i> : Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005												
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad External Battery Charger	40Y7625												
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Expander	73P3597												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - BackPack	73P3599												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkVision® L193p 19" LCD Monitor	4431HB2												
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175												
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus 3-year LOR 9x5 NBD	41C9176												
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 5-year LOR 9x5 NBD	41C9179												
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180												
Other accessories on O-X60 sheet	Other accessories at lenovo.com/accessories														
												SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) Preloaded (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad utilities • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
												Supports ThinkVantage® technologies			
												ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported (only some listed): • 120GB Disk 5400 rpm 41N5691 • 160GB Disk 5400 rpm 41N5692 • 160GB Disk 7200 rpm 41N5737 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 65-watt AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			

See footnotes for important warranty information
 US models announced October 17, 2006
 US models withdrawn effective July, September, or October 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® X60 (1708) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad UltraBase	802.11 UltraBase	wireless	WWAN	Blue-tooth	Fingerprt reader	Battery cells	Preloadwarranty ¹²	Avail date
1708-5MU	Core Duo T2400	1.83	512MB	12.1"	XGA 60GB	Combo	Ultrabase	*	Intel 11a/b/g	None	None	Finger	8-cell	XP Pro	3-yr Feb 06
<ul style="list-style-type: none"> • This small and medium business (SMB) model is part of the US TopSeller™ Program • This 1708 model has a 3-year limited warranty 															
Positioning Processor	<i>Thinnest and lightest; one spindle</i> Intel® Core™ Duo processor T2400 (1.83GHz) with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↗ Disk-to-Disk Recovery			
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available											Preloaded <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad utilities • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model) 			
Diskette drive	None standard / use optional USB-based diskette drive											License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 UltraBase														
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase														
Serial ATA disk (SATA150)	60GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 UltraBase														
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare														
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>without X6 UltraBase:</i> 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm														
Weight ²	<i>with 8-cell battery:</i> 3.6 lb (1.64kg); <i>with optional 4-cell battery:</i> 3.15 lb (1.43kg)														
Case material	Color: black; All: magnesium alloy														
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)														
Battery - life ¹⁰	<i>8-cell:</i> up to 7.8 hr; <i>with std 8-cell battery and Extended Life Battery:</i> up to 10.7 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)														
Media slice	<i>Some: X6 UltraBase media slice (see right side)</i>														
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices														
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door														
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)														
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN ¹⁶	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad External Battery Charger	40Y7625												
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad 65W AC Adapter	40Y7696												
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter	40Y7659												
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Expander	73P3597												
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Carrying Case - Organizer	73P3598												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - BackPack	73P3599												
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo L171 17" Monitor (black)	9227AC1												
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo D221 Wide 22" Monitor (black)	6622HB1												
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkVision® L192p 19" Monitor (black)	9419HC2												
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175												
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 3-year LOR 9x5 NBD	41C9176												
Lenovo Laser Mouse (USB, PS/2)	41U3074	ThinkPlus 4-year LOR 9x5 NBD	41C9177												
Lenovo M500 Projector	0037A05	ThinkPlus 5-year LOR 9x5 NBD	41C9179												
Lenovo C500 Projector	0039A05	ThinkPlus 4-year P&L P/U Depot	41C9178												
Kensington MicroSaver Security Cable	73P2582	ThinkPlus 5-year P&L P/U Depot	41C9180												
Other accessories on O-X60 sheet		Other accessories at lenovo.com/accessories													
				Other features: <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 											
				65-watt AC Adapter ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²											

See footnotes for important warranty information
US models announced January 31, 2006
US models withdrawn effective August 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® X60 (1709) - TopSeller - withdrawn

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	ThinkPad UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Preload warranty ¹²	Avail date
1709-24U	Core Solo T1300	1.66	512M	12.1"	XGA 40GB	Optional	Optional	*Intel 11a/b/g ³²	None	None	Enh 4-cell	Pro	1-yr	Feb 06
1709-7HU	Core Duo T2400	1.83	512M	12.1"	XGA 60GB	Combo	UltraBase	*Intel 11a/b/g	None	Blue Finger	8-cell	Pro	1-yr	Feb 06
1709-47U	Core Duo T2300	1.66	512M	12.1"	XGA 60GB	Optional	Optional	*Intel 11a/b/g	None	None Finger	Enh 4-cell	Pro	1-yr	Feb 06
1709-96U	Core Duo T2400	1.83	512M	12.1"	XGA 80GB	Combo	UltraBase	11a/b/g ³²	Verizon	Blue Finger	8-cell	Pro	1-yr	Feb 06
1709-97U	Core Duo T2400	1.83	1GB	12.1"	XGA 100GB	DVD±RW	UltraBase	11a/b/g	Verizon	Blue Finger	8-cell	Pro	1-yr	Feb 06
1709-A7U	Core Duo T2300E	1.66	512M	12.1"	XGA 60GB	Optional	Optional	*Intel 11a/b/g	None	None Finger	Enh 4-cell	Pro	1-yr	May 06
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These 1709 models have a 1-year limited warranty 														
Positioning Processor	<i>Thinnest and lightest; one spindle</i> Intel® Core™ Solo processor T1300 (1.66GHz) with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300, T2300E, or T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery			
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / one socket available										Preloaded <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad utilities • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model) 			
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 UltraBase													
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6													
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase													
Serial ATA disk (SATA150)	40, 60, 80, or 100GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 UltraBase													
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare													
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz Graphics - external monitor support via analog DB-15 connector / no DVI-out support													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
TrackPoint®	None													
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions													
ThinkLight™														
Dimensions ³	without X6 UltraBase: 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm													
Weight ²	with 8-cell battery: 3.6 lb (1.64kg); with optional 4-cell battery: 3.15 lb (1.43kg)													
Case material	Color: black; All: magnesium alloy													
Battery - type	Li-Ion Enhanced Cap Battery 4-cell, or Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)													
Battery - life ¹⁰	Enh 4-cell: up to 3.9 hr; 8-cell: up to 7.8 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)													
Media slice	Some: X6 UltraBase media slice (see right side)													
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices													
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door													
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX													
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset													
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	1-year - EasyServ™¹⁹ onsite pickup and delivery / service upgrades ²² available													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003											
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad External Battery Charger	40Y7625											
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
USB Portable Diskette Drive	05K9276	ThinkPlus™ ²² 1-year LOR 9x5 NBD	41C9166											
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPlus 2-year LOR 9x5 NBD	41C9167											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPlus 3-year LOR 9x5 NBD	41C9168											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPlus 5-year LOR 9x5 NBD	41C9173											
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPlus 2-year P&L P/U Depot	41C9169											
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 3-year P&L P/U Depot	41C9170											
Lenovo M500 Projector	0037A05	ThinkPlus 4-year P&L P/U Depot	41C9172											
Other accessories on O-X60 sheet	Other accessories at lenovo.com/accessories													
														Other features: <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g
														65-watt AC Adapter ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
 US models announced January 31, February 28, or May 30, 2006
 US models withdrawn effective Nov 2006, Aug 2007, or Oct 2007

ThinkPad® X60 (1709) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	UltraBase	802.11	WWAN	Blue-Fingerprnt	Battery	Limited Avail
							X6 UltraBase	wireless	wireless	tooth	cells	Preloadwarranty ¹² date
1709-H6U	Core 2 Duo T7200	2.00	1GB	12.1" XGA	120GB DVD±RW	UltraBase	*Intel 11a/b/g ³²	Verizon Blue	Finger	8-cell	XP Pro	1-yr Oct 06

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This 1709 model has a 1-year limited warranty

Positioning Processor	<i>Thinnest and lightest; one spindle</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache											
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6 UltraBase											
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase											
Serial ATA disk (SATA150)	120GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 UltraBase											
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare											
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz											
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
TrackPoint®	None											
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions											
ThinkLight™												
Dimensions ³	<i>without X6 UltraBase:</i> 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm											
Weight ²	<i>with 4-cell battery:</i> 3.15 lb (1.43kg); <i>with 8-cell battery:</i> 3.64 lb (1.65kg)											
Case material	Color: black; All: magnesium alloy											
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries) / supports optional Ultrabay Slim battery in X6 UltraBase (for two batteries)											
Battery - life ¹⁰	<i>Enh 4-cell:</i> up to 3.9 hr; <i>8-cell:</i> up to 7.2 hr											
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)											
Media slice	X6 UltraBase media slice (see right side)											
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices											
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door											
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)											
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
WWAN ¹⁶	Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless											
Modem	56K® V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset											
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003									
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad External Battery Charger	40Y7625									
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 65W AC Adapter	40Y7696									
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad 90W AC Adapter	40Y7659									
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC/DC Combo Adapter	40Y7630									
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - BackPack	73P3599									
USB 2.0 Security Memory Key 4GB	41U5120	Lenovo L192 Wide 19" Monitor (black)	6920AB1									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo D221 Wide 22" Monitor (black)	6622HB1									
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkVision® L192p 19" Monitor (black)	9419HC2									
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPlus™ ²² 1-year LOR 9x5 NBD	41C9166									
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 2-year LOR 9x5 NBD	41C9167									
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus 3-year LOR 9x5 NBD	41C9168									
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 5-year LOR 9x5 NBD	41C9173									
Lenovo M500 Projector	0037A05	ThinkPlus 2-year P&L P/U Depot	41C9169									
Lenovo C500 Projector	0039A05	ThinkPlus 3-year P&L P/U Depot	41C9170									
Kensington MicroSaver Security Cable	73P2582	ThinkPlus 4-year P&L P/U Depot	41C9172									
Other accessories on O-X60 sheet		Other accessories at lenovo.com/accessories										
SOFTWARE¹⁴												
Windows XP Professional												
- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)												
↳ Disk-to-Disk Recovery												
Preloaded (only some listed)												
• Microsoft Office OneNote® 2003												
• Rescue and Recovery™												
• Access Connections™												
• Client Security Solution™												
• ThinkVantage Productivity Center with Maintenance Manager												
• ThinkVantage System Update												
• Symantec® Client Security™												
• DiskKeeper Lite												
• PC-Doctor™ (diagnostics)												
• ThinkPad utilities												
• Fingerprint Software (fingerprint models)												
• Multimedia Center for Think Offerings												
• Sonic RecordNOW and Drive Letter Access (DVD±RW)												
• InterVideo WinDVD (DVD±RW)												
• InterVideo WinDVD Creator (DVD±RW models)												
CD included												
• Microsoft Office OneNote 2003												
License - CD not included												
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client												
Supports ThinkVantage® technologies												
ThinkPad X6 UltraBase™												
• Provides desktop expansion and cable management for X60 Series												
• Easily connects to the bottom of the X60 Series for traveling												
• Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side:												
– ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789												
– ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643												
– Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725												
Disks supported:												
• 80GB Disk 5400 rpm 41N5662												
• 100GB Disk 7200 rpm 41N3013												
• 120GB Disk 5400 rpm 41N5691												
• 160GB Disk 5400 rpm 41N5692												
Other features:												
• Power button (front)												
• Stereo speakers (1 watt)												
• Security key lock, security keyhole, and optional security screw												
• Serial and parallel ports												
• Analog DB-15 monitor port												
• Four USB 2.0 ports												
• Gigabit ethernet port												
• Modem port												
• Microphone in and headphone out												
• Requires 65 or 90 watt AC adapter												
• Retractable feet; 1.48 lb; 670g												
65-watt AC Adapter												
ROHS-compliant												
International Warranty Service ¹⁷												
24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²												

See footnotes for important warranty information
US model announced October 17, 2006
US model withdrawn effective August 2007

* Powered by Intel Centrino® Duo mobile technology

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(SM2-2) August 2007

ThinkPad® X60s (1702) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad UltraBase	ThinkPad X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Workhorse Global	Avail date
1702-3JU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g ³²	None				8-cell	W G	Feb 06
1702-3LU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	11a/b/g ³²	None				8-cell	W	Feb 06
1702-3QU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	None			Finger	8-cell	W G	Feb 06
1702-24U	Core Duo L2300	1.50	512MB	12.1" XGA	40GB	Optional	Optional	*Intel 11a/b/g	None				Enh 4-cell	W	Feb 06
1702-4EU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	None		Blue	Finger	8-cell	W	Feb 06
1702-37U	Core Duo L2400	1.66	512MB	12.1" XGA	40GB	Optional	Optional	*Intel 11a/b/g	None				8-cell	W G	Feb 06
1702-94U	Core Duo L2400	1.66	512MB	12.1" XGA	40GB	Optional	Optional	11a/b/g	None				Slim 4-cell	W	Feb 06
1702-4GU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	11a/b/g	None		Blue	Finger	8-cell	W	Feb 06
1702-58U	Core Duo L2400	1.66	512MB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None		Blue	Finger	8-cell	W	Feb 06
1702-5JU	Core Duo L2400	1.66	512MB	12.1" XGA	80GB	Combo	UltraBase	*Intel 11a/b/g	None		Blue	Finger	8-cell	W	Feb 06
1702-63U	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	Verizon		Blue	Finger	8-cell	W	Feb 06
1702-68U	Core Duo L2400	1.66	1GB	12.1" XGA	100GB DVD±RW	UltraBase	*Intel 11a/b/g	*Intel 11a/b/g	Verizon		Blue	Finger	Slim 4-cell	W	Feb 06
Positioning Processor	<i>Thinnest and lightest; one spindle</i>														
Memory	Intel® Core™ Duo processor L2300 (1.50GHz) or L2400 (1.66GHz) with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache 512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available														
Diskette drive	None standard / use optional USB-based diskette drive														
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 UltraBase														
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6														
Ultradray™ Slim	Supports Ultradray Slim devices in optional or standard X6 UltraBase														
Serial ATA disk (SATA150)	40, 60, 80, or 100GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 UltraBase														
Display	<i>Some:</i> 12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare <i>Some:</i> [UL] 12.1" (308mm) UltraLight XGA (1024x768) TFT color / 180 nits / anti-glare														
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz														
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>without X6 UltraBase:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm														
Weight ²	<i>Model 94U with UltraLight display and Slim 4-cell:</i> 2.69 lb (1.22kg); <i>Slim 4-cell batt:</i> 2.89 lb (1.31kg); <i>Enh 4-cell:</i> 3.00 lb (1.36kg); <i>8-cell:</i> 3.46 lb (1.57kg)														
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy														
Battery - type	Li-Ion Enhanced Cap Battery 4-cell, Li-Ion Slim Line Battery 4-cell, or Li-Ion 8-cell / supports optional Ultradray Slim battery in optional X6 UltraBase (for two batteries); supports optional Ultradray Slim battery in optional X6 UltraBase (for two batteries)														
Battery - life ¹⁰	<i>Slim 4-cell:</i> up to 3.0 hr; <i>Enh 4-cell:</i> up to 4.0 hr; <i>8-cell:</i> up to 8.0 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)														
Media slice	<i>Some:</i> X6 UltraBase media slice (see right side)														
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices														
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door														
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)														
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset														
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			ThinkPad X6 UltraBase							40Y8116				
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			X60 Enhanced Capacity Battery 4-cell							40Y7001				
2GB PC2-5300 DDR2 SODIMM	40Y7735			X60 High Capacity Battery 8-cell							40Y7003				
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad X60 Extended Life Battery							40Y7005				
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737			ThinkPlus™ ²² 2-year LOR 9x5 NBD							41C9175				
ThinkVision® L220x Wide 22" LCD Monitor	4433HB2			ThinkPlus 3-year LOR 9x5 NBD							41C9176				
Lenovo M500 Projector	0037A05			ThinkPlus 5-year LOR 9x5 NBD							41C9179				
ThinkPad Adjustable Notebook Stand	40Y7676			ThinkPlus 5-year P&L P/U Depot							41C9180				
Other accessories on O-X60 sheet	Other accessories at lenovo.com/accessories														
	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery Preloaded (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW model) Supports ThinkVantage® technologies ThinkPad X6 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultradray Slim options in left side: <ul style="list-style-type: none"> - ThinkPad Advanced Ultradray Battery 3-cell (flat bezel) 40Y6789 - CD-RW/DVD Combo II Ultradray Slim Drive (flat bezel) 40Y8621 - ThinkPad DVD Ultradray Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultradray Slim Adapter (flat bezel) 40Y8725 • Disks supported (some listed): <ul style="list-style-type: none"> • 160GB Disk 7200 rpm 41N5737 Other features: <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 65-watt AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²														

See footnotes for important warranty information

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US models announced January 5, January 31, or February 28, 2006

(KB1-1) October 2007

US models withdrawn effective November 2006, August 2007, or October 2007

ThinkPad® X60s (1702) - October 2006 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Optical in	ThinkPad	802.11	WWAN	Blue-	Fingerprt	Battery	EW	9-month	Avail
					DiskUltraBase	X6 UltraBase	wireless	wireless	tooth	reader	cells	Global		date
1702-D5U	Core Duo L2500	1.83	512MB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g ³²			Enh 4-cell	EW	Oct 06	
1702-D6U	Core Duo L2500	1.83	512MB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g			8-cell	EW	Gbl Oct 06	
1702-3WU	Core Duo L2400	1.66	1GB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g		Finger	8-cell	EW	Gbl Oct 06	
1702-D8U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g			8-cell	EW	Gbl Oct 06	
1702-E7U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g		Blue Finger	Enh 4-cell	EW	Gbl Oct 06	
1702-F6U	Core Duo L2500	1.83	1GB	12.1" XGA	100G	None	Optional	*Intel 11a/b/g	Verizon	Blue Finger	8-cell	EW	Oct 06	
1702-7CU	Core Duo L2400	1.66	512MB	12.1" UL XGA	60GB	None	Optional	*Intel 11a/b/g			8-cell	EW	Oct 06	
1702-H7U	Core Duo L2500	1.83	1GB	12.1" UL XGA	80GB	None	Optional	*Intel 11a/b/g		Finger	8-cell	EW	Oct 06	
1702-L6U	Core 2 Duo L7400	1.50	512MB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g			8-cell	EW	Gbl Mar 07	
1702-L8U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g			8-cell	EW	Gbl Mar 07	
1702-M7U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g		Blue Finger	Enh 4-cell	EW	Gbl Mar 07	
Positioning	<i>Thinnest and lightest; one spindle</i>													
Processor	Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or Intel® Core 2 Duo processor L7400 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache													
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 512MB models: standard memory in 1 socket; 1 socket available; <i>1GB models (italics):</i> std mem in both sockets (512MB each socket); no sockets avail													
Diskette drive	None standard / use optional USB-based diskette drive													
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard <i>X6 UltraBase</i>													
Serial ATA disk (SATA150)	60, 80, or 100GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional <i>X6 UltraBase</i>													
Display	<i>Some:</i> 12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare <i>Some:</i> [UL] 12.1" (308mm) UltraLight XGA (1024x768) TFT color / 180 nits / anti-glare													
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz													
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without X6 UltraBase:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm													
Weight ²	<i>Models 7CU/H7U with UltraLight display and 8-cell:</i> beginning at 3.33 lb (1.51kg); <i>Enhanced 4-cell:</i> 3.04 lb (1.38kg); <i>8-cell:</i> 3.53 lb (1.60kg)													
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy													
Battery - type	Li-Ion Enhanced Cap Battery 4-cell or Li-Ion 8-cell / supports optional Li-Ion Slim Line Battery 4-cell, supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 UltraBase</i> (for two batteries)													
Battery - life ¹⁰	<i>Slim 4-cell:</i> up to 3.2 hr; <i>Enh 4-cell:</i> up to 4.2 hr; <i>8-cell:</i> up to 8.4 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)													
Media slice	Optional X6 UltraBase media slice (see right side)													
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices													
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door													
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset													
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	3-years /1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X6 UltraBase	40Y8116											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	X60 Enhanced Capacity Battery 4-cell	40Y7001											
USB 2.0 Lenovo Multimedia Headset	40Y8518	X60 High Capacity Battery 8-cell	40Y7003											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad X60 Extended Life Battery	40Y7005											
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad External Battery Charger	40Y7625											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPlus™ ²² 3-year LOR 9x5 NBD	41C9176											
ThinkVision® L220x Wide 22" LCD Monitor	4433HB2	ThinkPlus 5-year P&L P/U Depot	41C9180											
Other accessories on O-X60 sheet		Other accessories at lenovo.com/accessories												

SOFTWARE¹⁴

Windows XP Professional
 - Microsoft® Windows® XP Professional²⁰ (Service Pack 2)

Preloaded

- Rescue and Recovery™
- Access Connections™
- Client Security Solution™
- ThinkVantage Productivity Center with Away Manager
- ThinkVantage System Update
- System Migration Assistant
- Symantec® Client Security™
- Diskeeper® Lite
- PC-Doctor™ (diagnostics)
- ThinkPad Utilities (Power Manager and Presentation Director)
- Adobe® Reader
- Google Toolbar
- Google Desktop
- Picasa from Google
- Fingerprint Software (fingerprint models)
- Multimedia Center for Think Offerings

License - CD not included
 - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

Supports ThinkVantage® technologies

ThinkPad X6 UltraBase™

- Provides desktop expansion and cable management for X60 Series
- Easily connects to the bottom of the X60 Series for traveling
- Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side:
 - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789
 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621
 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643
 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725
- Disks supported (some listed):
 - 160GB Disk 7200 rpm 41N5737

Other features:

- Power button (front)
- Stereo speakers (1 watt)
- Security key lock, security keyhole, and optional security screw
- Serial and parallel ports
- Analog DB-15 monitor port
- Four USB 2.0 ports
- Gigabit ethernet port
- Modem port
- Microphone in and headphone out
- Requires 65 or 90 watt AC adapter
- Retractable feet; 1.48 lb; 670g

65-watt AC Adapter
 ROHS-compliant
 International Warranty Service¹⁷
 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²

See footnotes for important warranty information
 US models announced October 17, 2006 or April 3, 2007
 US models withdrawn effective July or October 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® X60s (1704) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	OneNote	Avail date
1704-3TU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Combo	UltraBase	*Intel 11a/b/g ³²			Finger	8-cell		Feb 06
1704-4DU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g		Blue	Finger	Enh 4-cell		Feb 06
1704-4JU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Combo	UltraBase	*Intel 11a/b/g		Blue	Finger	8-cell		Feb 06
1704-3DU	Core Duo L2400	1.66	256MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g				8-cell		Feb 06
1704-63U	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	Verizon	Blue	Finger	8-cell		Feb 06
1704-66U	Core Duo L2400	1.66	512MB	12.1" XGA	80GB	Combo	UltraBase	11a/b/g ³²	Verizon	Blue	Finger	8-cell		Feb 06
1704-69U	Core Duo L2400	1.66	1GB	12.1" XGA	100GB	DVD±RW	UltraBase	11a/b/g	Verizon	Blue	Finger	8-cell		Feb 06
1704-G3U	Core Duo L2500	1.83	1GB	12.1" XGA	120GB	DVD±RW	UltraBase	ThinkPad 11n ²⁸	Verizon		Finger	8-cell	Yes	Oct 06

• These small and medium business (SMB) model is part of the US TopSeller™ Program
• These 1704 models have a 3-year limited warranty

Positioning	<i>Thinnest and lightest; one spindle</i>	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) Preloaded (only some listed) • Model G3U: Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD included (Model G3U only) • Microsoft Office OneNote 2003 License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported (some listed): • 160GB Disk 7200 rpm 41N5737 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 65-watt AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²	
Processor	Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache		
Memory	256MB, 512MB, or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 UltraBase		
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6		
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional X6 UltraBase		
Serial ATA disk (SATA150)	60, 80, 100 or 120GB ⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 UltraBase		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare		
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz		
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	None		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>without X6 UltraBase:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm		
Weight ²	<i>with Enh 4-cell:</i> 3.04 lb (1.38kg); <i>with 8-cell:</i> 3.53 lb (1.60kg)		
Case material	Color: black; All: magnesium alloy		
Battery - type	Li-Ion Enhanced Cap Battery 4-cell or Li-Ion 8-cell / supports optional Li-Ion Slim Line Battery 4-cell, supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)		
Battery - life ¹⁰	4-cell: up to 4.2 hr; 8-cell: up to 8.4 hr; <i>with std batt and Extend Life Batt:</i> up to 11.0 hr		
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)		
Media slice	Some: X6 UltraBase media slice (see right side) One Secure Digital Card slot / supports SD memory cards used in consumer devices		
Secure Digital slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door		
PC Card slot	IEEE 1394 (FireWire) port (4-pin)		
IEEE 1394	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) /		
Ports	RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX		
ThinkPad 11n ²⁸	Some: 11a/b/g/n wireless ⁴ , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3 for non-WWAN models		
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset		
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Cap Battery 4-cell (cyl)	40Y7001
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	X60 High Capacity 8-cell (cylindrical)	40Y7003
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	X60 Extended Life Battery	40Y7005
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad X6 UltraBase	40Y8116
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad External Battery Charger	40Y7625
USB 2.0 Portable 120GB Hard Disk	41N8379	Carrying Case - Leather Attache	73P3600
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175
ThinkVision® L194 Wide 19" LCD Monitor	4434HB6	ThinkPlus 3-year LOR 9x5 NBD	41C9176
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180
Other accessories on O-X60 sheet		Other accessories at lenovo.com/accessories	

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
 US models announced January 31, February 28, or October 17, 2006
 US models withdrawn effective May or October 2007

ThinkPad® X60s (1705) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Limited warranty ¹²	Avail date
1705-24U	Core Duo L2300	1.50	512MB	12.1" XGA	40GB	Optional	Optional	* Intel 11a/b/g	None	None	None	Enh 4-cell	1-yr	Feb 06
<ul style="list-style-type: none"> • This small and medium business (SMB) model is part of the US TopSeller™ Program • This 1705 model has a 1-year limited warranty 														
Positioning	<i>Thinnest and lightest; one spindle</i>													
Processor	Intel® Core™ Duo processor L2300 (1.50GHz) with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache													
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional X6 UltraBase													
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 UltraBase													
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare													
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz													
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size ²⁶ keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
TrackPoint®	None													
Touch pad	None													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without X6 UltraBase: 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm</i>													
Weight ²	<i>with Enh 4-cell: 3.00 lb (1.36kg); with optional 8-cell: 3.46 lb (1.57kg)</i>													
Case material	<i>Color: black; All: magnesium alloy</i>													
Battery - type	Li-Ion Enhanced Cap Battery 4-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)													
Battery - life ¹⁰	<i>Enh 4-cell: up to 4 hr; with optional 8-cell battery and Extended Life Battery: up to 11 hr</i>													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)													
Media slice	Optional X6 UltraBase media slice (see right side)													
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices													
PC Card slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door													
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN ¹⁶	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card / Conexant® chipset													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	None													
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Cap Battery 4-cell (cyl)	40Y7001											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	X60 High Capacity 8-cell (cylindrical)	40Y7003											
2GB PC2-5300 DDR2 SODIMM	40Y7735	X60 Extended Life Battery	40Y7005											
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad External Battery Charger ⁴⁴	40Y7625											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Adjustable Notebook Stand	40Y7676											
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad X6 UltraBase	40Y8116											
USB Portable Diskette Drive	05K9276	ThinkPad 65W AC Adapter	40Y7696											
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 90W AC Adapter	40Y7659											
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Carrying Case - Expander	73P3597											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Organizer	73P3598											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Carrying Case - Backpack	73P3599											
USB 2.0 Portable 120GB Hard Disk	41N8379	Carrying Case - Leather Attache	73P3600											
USB 2.0 Super Multi-Burner Drive	41N5565	Kensington MicroSaver Security Cable	73P2582											
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPlus™ ²² 1-year LOR 9x5 NBD	41C9166											
ThinkVision® L171p 17" LCD Monitor	9417HC2	ThinkPlus 2-year LOR 9x5 NBD	41C9167											
ThinkVision L190x 19" LCD Monitor	4439HB2	ThinkPlus 3-year LOR 9x5 NBD	41C9168											
ThinkVision L193p 19" LCD Monitor	4431HB2	ThinkPlus 5-year LOR 9x5 NBD	41C9173											
ThinkVision L194 Wide 19" LCD Monitor	4434HB6	ThinkPlus 2-year P&L P/U Depot	41C9169											
ThinkVision L220x Wide 22" LCD Monitor	4433HB2	ThinkPlus 3-year P&L P/U Depot	41C9170											
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 4-year P&L P/U Depot	41C9172											
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9174											
Other accessories on O-X60 sheet		Other accessories at lenovo.com/accessories												
SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery Preloaded <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies ThinkPad X6 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: <ul style="list-style-type: none"> - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 - DVD-ROM Ultrabay Slim Drive (curved bezel) 73P3270 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: <ul style="list-style-type: none"> • 100GB Disk 7200 rpm 41N3013 • 120GB Disk 5400 rpm 41N5691 • 160GB Disk 5400 rpm 41N5692 • 160GB Disk 7200 rpm 41N5737 Other features: <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 65-watt AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²														

See footnotes for important warranty information
 US model announced January 31, 2006
 US model withdrawn effective October 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® X61 (7675) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Bluetooth	Finger print reader	Battery cells	Preload	Avail date
7675-7FU	T7300	2.00	1GB	12.1" XGA	160GB 5400		UltraBase	* Intel 11n ²⁸		Blue	Finger	8-cell	Home Basic	Jun 07
7675-55U	T7300	2.00	2GB	12.1" XGA	160GB 5400	Combo	UltraBase	* Intel 11a/b/g ³²	Verizon	Blue	Finger	8-cell	Business	32 Jun 07
7675-4KU	T7300	2.00	1GB	12.1" XGA	120GB 5400		UltraBase	* Intel 11a/b/g		Blue	Finger	4-cell	Business	32 Jun 07
7675-7KU	T7300	2.00	1GB	12.1" XGA	120GB 5400	DVD±RW	UltraBase	* Intel 11n	1G Turbo	Blue	Finger	8-cell	Business	32 Jun 07
7675-59U	T7300	2.00	2GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11a/b/g	Verizon	Blue	Finger	8-cell	Business	32 Jun 07
7675-8PU	T7250	2.00	1GB	12.1" XGA	120GB 5400		UltraBase	* Intel 11n		Blue	Finger	4-cell	Business	32 Sep 07
7675-92U	T7500	2.20	1GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11n		Blue	Finger	8-cell	Business	32 Sep 07
7675-93U	T7500	2.20	2GB	12.1" XGA	160GB 7200	DVD±RW	UltraBase	* Intel 11n	1G Turbo	Blue	Finger	8-cell	Business	32 Sep 07
7675-H7U	T8100	2.10	1GB	12.1" XGA	100GB 7200	DVD±RW	UltraBase	* Intel 11n		Blue	Finger	8-cell	XP Pro	Feb 08
7675-HMUT8100	T8100	2.10	2GB	12.1" XGA	100GB 7200	DVD±RW	UltraBase	* Intel 11n	1G Turbo	Blue	Finger	8-cell	Business	32 Mar 08
7675-K2U	T8300	2.40	1GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11n	Verizon	Blue	Finger	8-cell	XP Pro	Feb 08
7675-K3U	T8300	2.40	2GB	12.1" XGA	160GB 5400	DVD±RW	UltraBase	* Intel 11n	Verizon	Blue	Finger	8-cell	Business	32 Mar 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning	<i>Thinnest and lightest; one spindle</i>										Preloaded operating system ²⁰
Processor	Intel® Core™ 2 Duo processor T7250, T7300, T7500, T8100, or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz bus; <i>T7250</i> : 2MB L2 cache; <i>T7300/T7500</i> : 4MB L2 cache; <i>T8100/T8300</i> : 3MB L2 cache										- Some: Microsoft® Windows® XP Professional with Vista® COA
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in 1 socket; 1 socket available										- Some: Microsoft Windows Vista Home Basic Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ 7FU/7KU/8PU/92U: Vista Basic logo ◇ Other Vista models: Vista Premium logo
Diskette drive	None (use optional USB-based diskette drive)										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
EIDE Combo	<i>Some</i> : DVD-ROM/CD-RW, 24X/24X/24X/8X ²¹ speed, removable from X6 UltraBase										
EIDE DVD±RW	<i>Some</i> : DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6										
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase										
Serial ATA disk	100GB⁸ (7200 rpm), 120GB (5400 rpm), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Display	12.1" (308mm) XGA (1024x768) TFT color , anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio										
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965										
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	None										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Supports ThinkVantage® technologies
Dimensions ³	<i>without X6 UltraBase; 4-cell:</i> 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase; 8-cell:</i> 10.5" x 9.4" x .80-1.39"; 268mm x 238mm x 20-35mm <i>with Enhanced 4-cell battery:</i> from 3.11 lb (1.41kg); <i>8-cell:</i> from 3.59 lb (1.63kg)										ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Weight ²											
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy										
Battery - type	Lithium Ion Enhanced Cap Battery 4-cell or Lithium Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)										
Battery - life ¹⁰	<i>Enh 4-cell:</i> up to 3.9 hr; <i>8-cell:</i> up to 7.8 hr; <i>8-cell and Extended Life Battery:</i> up to 10.7										
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprnt]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)										
Media slice	<i>Some</i> : X6 UltraBase media slice (see right side)										
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices										
PC Card slot	One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door										
Ports	Three USB 2.0, DB-15 (external VGA monitor), -RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										
Intel 11a/b/g ³²	<i>Some</i> : 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG										
Intel 11n ²⁸	<i>Some</i> : 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)										
Verizon ¹⁶	<i>Some</i> : Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, rod antenna, service contract reqd with Verizon® Wireless										
1G Turbo	<i>Some</i> : Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator										
Modem	56K V.92 ⁵ modem in Communications Daughter Card										
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt, volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)										65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip										
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										

See footnotes for important warranty information

US models announced May 31 or September 4, 2007; or January 8 or March 25, 2008

US models withdrawn effective August or December 2007, or May 2009

* Intel Centrino® processor technology

* Intel Centrino with vPro™ technology

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(SM3-1) May 2009

ThinkPad® X61 (7673) - withdrawn

Type-model	Proc- essor	GHz	Memory	Display	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger Bat- tery tooth reader cells	Workhorse (W) Preload EW 9-month Global (G)	Avail date
7673-74U	T7300	2.00	1GB	12.1" XGA	80GB 5400			* Intel 4965AG ³²		Blue Fing	8-cell XP Pro	W G Jun 07
7673-66U	T7300	2.00	1GB	12.1" XGA	80GB 5400			* Intel 4965AG		8-cell XP Pro	W G Jun 07	
7673-65U	T7300	2.00	1GB	12.1" XGA	80GB 5400			* Intel 4965AG		8-cell Business	32 W G Jun 07	
7673-3HU	T7100	1.80	1GB	12.1" XGA	80GB 5400			* Intel 11a/b/g ³²		Blue Fing	8-cell Business 64	EW Jun 07
7673-7EU	T7300	2.00	2GB	12.1" XGA	160 5400	DVD±RW	UltraBase	* Intel 11a/b/g		Blue Fing	8-cell Business 64	Jun 07
7673-4NU	T7300	2.00	2GB	12.1" XGA	120G 5400			* Intel 4965AG		Blue Fing	8-cell Business 32	W G Jun 07
7673-A5U	T7500	2.20	2GB	12.1" XGA	100G 7200			* Intel 11a/b/g		Blue Fing	8-cell Business 32	W Oct 07
7673-8TU	T7250	2.00	2GB	12.1" XGA	160G 7200			* Intel 4965AG	1G Turbo	Blue Fing	8-cell Business 32	W Oct 07
7673-H6U	T8100	2.10	1GB	12.1" XGA	120G 5400			* Intel 11n ²⁸	1G Turbo	Blue Fing	4-cell Business 32	W G Feb 08
7673-J5U	T8300	2.40	2GB	12.1" XGA	160G 5400			* Intel 11n ²⁸	1G Turbo	Blue Fing	4-cell Business 32	W G Feb 08
7673-5GU	T7300	2.00	2GB	12.1" XGA	120G 5400			* Intel 4965AG		Blue Fing	8-cell Business 32	W Feb 08
Processor	Intel® Core™ 2 Duo processor T7100, T7250, T7300, T7500, T8100, or T8300 with dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz bus; <i>T7100/T7250</i> : 2MB L2 cache; <i>T7300/T7500</i> : 4MB L2; <i>T8100/T8300</i> : 3MB L2 cache										Preloaded operating system²⁰ - <i>Some</i> : Microsoft® Windows® XP Professional - <i>Some</i> : Microsoft Windows Vista® Home Basic Edition (32-bit) - <i>Some</i> : Microsoft Windows Vista Business Edition (32-bit) ⇨ <i>Vista 1GB models</i> : Vista Basic logo ⇨ <i>2GB models</i> : Vista Premium logo	
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics</i> : standard memory in both sockets; no sockets available; <i>Non-italics</i> : standard memory in 1 socket; 1 socket available											
Diskette drive EIDE DVD±RW Ultrabay™ Slim Serial ATA disk	None (use optional USB-based diskette drive) <i>Some</i> : DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6 Supports Ultrabay Slim devices in optional or standard X6 UltraBase 80GB⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security™ • Diskeeper® Home • PC-Doctor™ (diagnostics) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)	
Display	12.1" (308mm) XGA (1024x768) TFT color , anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio											
Graphics controller Graphics - external	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965 External VGA monitor support via analog DB-15 connector / no DVI-out support											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke											
TrackPoint® Touch pad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>without X6 UltraBase; 4-cell</i> : 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase; 8-cell</i> : 10.5" x 9.4" x .80-1.39"; 268mm x 238mm x 20-35mm <i>with Enhanced 4-cell battery</i> : from 3.11 lb (1.41kg); <i>8-cell</i> : from 3.59 lb (1.63kg)											
Weight ² Case material Battery - type	<i>Color</i> : black; <i>All</i> : magnesium alloy Lithium Ion 4-cell or 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)										Supports ThinkVantage® technologies ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: - ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB FDE 7200 rpm 43N3410 • 320GB FDE 7200 rpm 43N3411	
Battery - life ¹⁰	<i>Enh 4-cell</i> : up to 3.9 hr; <i>8-cell</i> : up to 7.8 hr; <i>8-cell and Extended Life Battery</i> : up to 10.7											
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)											
Media slice Secure Digital slot PC Card Ports	<i>Some</i> : X6 UltraBase media slice (see right side) One Secure Digital Card slot, supports SD memory cards used in consumer devices One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna Mini PCI Express Intel 11a/b/g ³² Intel 4965AG ³² Intel 11n ²⁸	UltraConnect™ II Antenna / on-off switch for all wireless radios Two Mini PCI Express slots / 802.11 and WWAN are customer upgradable <i>Some</i> : 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG <i>Some</i> : 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG <i>Some</i> : 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											
WWAN upg ¹⁶ 1G Turbo	None <i>Some</i> : Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator											
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ² modem in Communications Daughter Card <i>Some</i> : Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE Intel Active Management Technology (AMT) High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant <i>Some</i> : Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available											
2GB PC2-5300 DDR2 SODIMM 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 43N3406 ThinkPad X6 UltraBase Other accessories on O-X60 sheet	40Y7735 43N3406 40Y8116			ThinkPad X60 High Capacity 8-cell ThinkPad X60 Extended Life Battery ThinkPlus™. ²² 2-year LOR 9x5 NBD Other accessories at lenovo.com/accessories			40Y7003 40Y7005 41C9175			65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		

See footnotes for important warranty information

US models announced May 31 or October 30, 2007; or January 8 or February 19, 2008;
 US models withdrawn effective January or May 2008, or May 2009

* Intel Centrino® processor technology
 * Intel Centrino with vPro™ technology

ThinkPad® X61 (7674) - Onsite - withdrawn

Proc- Type-model	essor GHz	Memory	Display	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
7674-65U	T7300	2.00	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG	None	Blue	Fing	8	Business 32	W G P Jun 07
7674-74U	T7300	2.00	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG ³²	None	Blue	Fing	8	XP Pro	W G P Jun 07
7674-66U	T7300	2.00	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG	None	Blue	Fing	8	XP Pro	W G P Jun 07
7674-4NU	T7300	2.00	2GB	12.1" XGA	120G 5400	Optional	Optional	* Intel 4965AG	None	Blue	Fing	8	Business 32	W G P Jun 07

• **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	<i>Thinnest and lightest; one spindle</i> Intel® Core™ 2 Duo processor T7300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) ◇ <i>Vista 1GB models:</i> Vista Basic logo ◇ <i>2GB models:</i> Vista Premium logo			
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day)			
Diskette drive EIDE DVD±RW Ultrabay™ Slim Serial ATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X6 Tablet UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X6 UltraBase</i> 80GB⁸ (5400 rpm), 120GB (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™										• ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB Disk 5400 rpm 43R8152 • 320GB Disk 5400 rpm 43N3403			
Display	12.1" (308mm) XGA (1024x768) TFT color , anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio										Supports ThinkVantage® technologies			
Graphics controller Graphics - external	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965 External monitor support via analog DB-15 connector / no DVI-out support										ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB Disk 5400 rpm 43R8152 • 320GB Disk 5400 rpm 43N3403			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke													
TrackPoint® Touch pad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without X6 UltraBase; 4-cell:</i> 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase; 8-cell:</i> 10.5" x 9.4" x .80-1.39"; 268mm x 238mm x 20-35mm <i>with Enhanced 4-cell battery:</i> from 3.11 lb (1.41kg); <i>8-cell:</i> from 3.59 lb (1.63kg)													
Weight ² Case material Battery - type	Color: black; All: magnesium alloy Lithium Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)													
Battery - life ¹⁰	<i>Enh 4-cell:</i> up to 3.9 hr; <i>8-cell:</i> up to 7.8 hr; <i>8-cell and Extended Life Battery:</i> up to 10.7													
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)													
Media slice Secure Digital slot PC Card slot Ports	<i>Option:</i> X6 UltraBase media slice (see right side) One Secure Digital Card slot, supports SD memory cards used in consumer devices One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door Three USB 2.0, DB-15 (external VGA monitor), -RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna Mini PCI Express Intel 4965AG ³² WWAN Turbo Memory	UltraConnect™ II Antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None										Other features: • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g			
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K ⁹ V.92 ²⁹ modem in Communications Daughter Card <i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE Intel Active Management Technology (AMT) High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
	2GB PC2-5300 DDR2 SODIMM		40Y7735		ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD		12X5630							
	200GB Disk FDE SATA 1.5Gb/s (7200 rpm)		41N5738		ThinkPlus 5-year LOR 9x5 NBD		43R2162							
	ThinkPad X6 UltraBase		40Y8116		Post-warranty annual maintenance agreements at									
	Other accessories at lenovo.com/accessories				lenovo.com/thinkplus/warranty									

See footnotes for important warranty information
US models announced May 31, 2007
US models withdrawn effective May or November 2008

* Intel Centrino with vPro™ technology

ThinkPad® X61s (7669) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-essor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger-print reader	Bat-tery cells	Vista preload	Avail date
7669-45U	L7500 LV	1.60	2GB	12.1" XGA	100G 7200	DVD±RW	UltraBase	* Intel 11a/b/g ³²	Verizon	Finger 8-cell	Ultimate 32	Jun 07	
7669-7DU	L7300 LV	1.40	1GB	12.1" UL XGA	80GB 5400		UltraBase	* Intel 11a/b/g		Finger Slim-4	Business 32	Jun 07	
7669-88U	L7500 LV	1.60	2GB	12.1" UL XGA	160G 5400	DVD±RW	UltraBase	* Intel 11a/b/g		Finger 8-cell	Business 64	Jun 07	
7669-85U	L7500 LV	1.60	1GB	12.1" UL XGA	120G 5400		UltraBase	* Intel 11a/b/g		Finger 8-cell	Home Basic 32	Jun 07	
7669-3GU	L7500 LV	1.60	2GB	12.1" XGA	160G 7200	DVD±RW	UltraBase	* Intel 11n ²⁸	1G Turbo	Finger 8-cell	Business 32	Sep 07	
7669-3HU	L7500 LV	1.60	1GB	12.1" XGA	100G 7200		UltraBase	* Intel 11n		Finger 8-cell	Business 32	Sep 07	

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These models have a 3-year limited warranty¹²

Positioning	<i>Thinnest and lightest; one spindle</i>	Preloaded operating system²⁰ - Some: Microsoft® Windows® Vista™ Home Basic Edition (32-bit) - Some: Microsoft Windows Vista™ Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ◇ 7DU/85U/3HU: Vista Basic logo ◇ 45U/88U/3GU: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security™ • Diskeeper® Home • PC-Doctor™ (diagnostics) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Processor	Intel® Core™ 2 Duo processor L7300 or L7500 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache			
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available			
Diskette drive	None (use optional USB-based diskette drive)			
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6			
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase			
Serial ATA disk	80GB⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™			
Display	<i>Some:</i> 12.1" (308mm) XGA (1024x768) TFT color , anti-glare, 150 nits <i>Some:</i> [UL] 12.1" (308mm) UltraLight XGA (1024x768) TFT color , anti-glare, 180 nits <i>All:</i> 4:3 aspect ratio, 300:1 contrast ratio			
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965			
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass			
Touch pad	None			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	<i>without X6 UltraBase: Slim 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm <i>without X6 UltraBase: Enh 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase: 8-cell:</i> 10.5" x 9.4" x 0.8-1.4"; 268mm x 238mm x 20-35mm <i>Slim 4-cell:</i> from 2.73 lb (1.24kg); <i>Enh 4-cell:</i> from 2.83 (1.28kg); <i>8-cell:</i> 3.30 lb (1.50kg)			
Weight ²				
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy			
Battery - type	Lithium Ion Slim Line Battery 4-cell (prismatic) or Lithium Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)			
Battery - life ¹⁰	<i>Slim 4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 9.0 hr; <i>8-cell and Extended Life Battery:</i> up to 12.5			
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)			
Media slice	<i>Some:</i> X6 UltraBase media slice (see right side)			
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices			
PC Card	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door			
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)			
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable			
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG			
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)			
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, rod antenna, service contract reqd with Verizon® Wireless			
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator			
Modem	56K V.92 ⁵ modem in Communications Daughter Card			
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator			
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE			
Intel AMT	Intel Active Management Technology (iAMT)			
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)			
Security	Power-on password, hard disk password, supervisor password, security keyhole			
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant			
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip			
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available			
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	X60 Slim Line Battery 4-cell (prismatic)	40Y6999	65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	X60 Enhanced Capacity Battery 4-cell	40Y7001	
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ThinkPad X60 High Capacity 8-cell	40Y7003	
ThinkPad X6 UltraBase	40Y8116	ThinkPad X60 Extended Life Battery	40Y7005	

See footnotes for important warranty information
 US models announced May 31 or September 4, 2007
 US models withdrawn effective August 2007 or May 2009

* Intel Centrino® processor technology
 * Intel Centrino with vPro™ technology

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 (KB3-1) May 2009

ThinkPad® X61s (7666) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-essor	GHz	Memory	Display	Disk SATA GB ³	Optical in UltraBase	Optical in ThinkPad UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger-print reader	Bat-tery cells	Workhorse (W) Global (G)	Avail date
7666-34U	L7500	1.60	1GB	12.1" XGA	80GB 5400			*Intel 4965AG ³²		Finger	8	Business 32 W G	Jun 07
7666-36U	L7500	1.60	1GB	12.1" XGA	120G 5400			*Intel 4965AG		Finger	8	Business 32 W G	Jun 07
7666-47U	L7500	1.60	1GB	12.1" XGA	160G 5400			*Intel 11a/b/g ³²	Verizon	Finger	8	Business 32 W	Jun 07
7666-76U	L7300	1.40	512M	12.1" UL XGA	80GB 5400			*Intel 11a/b/g		Finger	4	Business 32	Jun 07
7666-54U	L7500	1.60	1GB	12.1" XGA	80GB 5400			*Intel 11n ²⁸		Finger	8	Business 64	Jun 07
7666-43U	L7500	1.60	1GB	12.1" XGA	120G 5400	DVD±RW	UltraBase	*Intel 11a/b/g	AT&T	Finger	8	Ultimate 32	Jun 07
7666-3FU	L7500	1.60	1GB	12.1" XGA	80GB 5400			*Intel 4965AG			8	XP Pro W G	Jun 07
7666-3EU	L7500	1.60	1GB	12.1" XGA	120G 5400			*Intel 4965AG		Finger	8	XP Pro W G	Jun 07
7666-B7U	L7700	1.80	2GB	12.1" XGA	100G 7200			*Intel 4965AG		Finger	8	Business 32 W	Oct 07
7666-8LU	L7500	1.60	2GB	12.1" XGA	160G 7200			*Intel 4965AG	1G Turbo	Finger	8	Business 32 W	Oct 07
7666-48U	L7500	1.60	1GB	12.1" XGA	120G 5400			*Intel 4965AG		Finger	8	Business 32 W	Feb 08
Processor	Intel® Core™ 2 Duo processor L7300, L7500, or L7700 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache												
Memory	512MB, 1GB, or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												
Diskette drive	None (use optional USB-based diskette drive)												
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6												
Ultradabay™ Slim	Supports Ultradabay Slim devices in optional or standard X6 UltraBase												
Serial ATA disk	80GB ⁸ (5400 rpm), 100GB (7200 rpm), 120GB (5400), or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional X6 UltraBase, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Display	<i>Some:</i> 12.1" (308mm) XGA (1024x768) TFT color, anti-glare, 150 nits <i>Some:</i> [UL] 12.1" (308mm) UltraLight XGA (1024x768) TFT color, anti-glare, 180 nits <i>All:</i> 4:3 aspect ratio, 300:1 contrast ratio												
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965												
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	None												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without X6 UltraBase: Slim 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm <i>without X6 UltraBase: Enh 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase: 8-cell:</i> 10.5" x 9.4" x 0.8-1.4"; 268mm x 238mm x 20-35mm <i>Slim 4-cell:</i> from 2.73 lb (1.24kg); <i>Enh 4-cell:</i> from 2.83 (1.28kg); <i>8-cell:</i> 3.30 lb (1.50kg)												
Weight ²													
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy												
Battery - type	Lithium Ion Slim Line Battery 4-cell (prismatic) or Lithium Ion 8-cell; supports optional Extended Life Battery on base (for two batteries); supports optional Ultradabay Slim battery in optional X6 UltraBase (for two batteries)												
Battery - life ¹⁰	<i>Slim 4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 9.0 hr; <i>8-cell and Extended Life Battery:</i> up to 12.5												
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express ⁹ x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)												
Media slice	<i>Some:</i> X6 UltraBase media slice (see right side)												
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices												
PC Card slot	One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots												
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel PRO/Wireless 3945ABG												
Intel 4965AG ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)												
WWAN upg	None												
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, rod antenna, service contract reqd with Verizon												
AT&T ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, rod antenna, service contract reqd with AT&T ²³												
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator												
Modem	56K V.92 ⁹ modem in Communications Daughter Card												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE												
Intel AMT	Intel Active Management Technology (IAMT)												
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												

Preloaded operating system²⁰
 - *Some:* Microsoft® Windows® XP Professional
 - *Some:* Microsoft Windows Vista™ Business Edition (32-bit)
 - *Some:* Microsoft Windows Vista Business Edition (64-bit)
 - *Some:* Microsoft Windows Vista Ultimate Edition (32-bit)
 ◇ 2GB models: Vista Premium logo
 ◇ Other Vista models: Vista Basic logo

Preloaded applications¹⁴ (all OSes; only some listed)
 • Rescue and Recovery™
 • Access Connections™
 • Client Security Solution™
 • ThinkVantage Productivity Center
 • Norton Internet Security™
 • Diskeeper® Home
 • PC-Doctor™ (diagnostics)
 • *Some:* Fingerprint Software
 • Microsoft Office 2007 Trial (60-day)
 • Sonic RecordNow and Drive Letter Access (DVD±RW)
 • Corel® WinDVD® (DVD±RW)

Supports ThinkVantage® technologies

ThinkPad X6 UltraBase™

- Provides desktop expansion and cable management for X60 Series
- Easily connects to the bottom of the X60 Series for traveling
- Converts ThinkPad to a two-spindle system with optional flat bezel
- Ultradabay Slim options in left side:
 - ThinkPad Advanced Ultradabay Battery II 3-cell (flat) 43R9250
 - ThinkPad DVD Ultradabay Slim Burner (flat bezel) 41N5643
 - Serial Hard Drive Ultradabay Slim Adapter (flat bezel) 40Y8725
- Disks supported:
 - 250GB FDE 7200 rpm 43N3410
 - 320GB Disk 7200 rpm 43N3411

- Other features:**
- Stereo speakers (1 watt)
 - Security key lock, security keyhole, and optional security screw
 - Serial and parallel ports
 - Analog VGA monitor port (no DVI)
 - Four USB 2.0 ports
 - Gigabit ethernet port
 - Modem port
 - Microphone in and headphone out
 - Requires 65 or 90 watt AC adapter
 - Retractable feet; 1.48 lb; 670g

65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

See footnotes for important warranty information
 US models announced May 31, October 30, 2007 or February 19, 2008
 US models withdrawn effective Sept 2007, Jan, May 2008 or May 2009

* Intel Centrino® processor technology
 * Intel Centrino with vPro™ technology

ThinkPad® X61s (7667) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger Bat- tery reader cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
7667-34U	L7500	1.60	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG ³²	None	Finger 8	Business 32	WG P Jun 07	
7667-36U	L7500	1.60	1GB	12.1" XGA	120G 5400	Optional	Optional	* Intel 4965AG	None	Finger 8	Business 32	WG P Jun 07	
7667-3FU	L7500	1.60	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG	None	8 XP Pro	WG P	Jun 07	
7667-3EU	L7500	1.60	1GB	12.1" XGA	120G 5400	Optional	Optional	* Intel 4965AG	None	8 XP Pro	WG P	Jun 07	

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Processor	Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core. Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ◇ Vista models: Vista Basic logo		
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Some: Fingerprint Software • Microsoft Office 2007 Trial (60-day)		
Diskette drive EIDE DVD±RW Ultrabay™ Slim Serial ATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X6 Tablet UltraBase</i> Supports Ultrabay Slim devices in optional <i>X6 UltraBase</i> 80GB⁸ (5400 rpm), 120GB (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Display	12.1" (308mm) XGA (1024x768) TFT color , anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio												
Graphics controller Graphics - external	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965 External VGA monitor support via analog DB-15 connector / no DVI-out support												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size ²⁶ keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke												
TrackPoint® Touch pad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without X6 UltraBase: Slim 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm <i>without X6 UltraBase: Enh 4-cell:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase: 8-cell:</i> 10.5" x 9.4" x 0.8-1.4"; 268mm x 238mm x 20-35mm <i>Slim 4-cell:</i> from 2.73 lb (1.24kg); <i>Enh 4-cell:</i> from 2.83 (1.28kg); <i>8-cell:</i> 3.30 lb (1.50kg) <i>Color:</i> black; <i>All:</i> magnesium alloy										Supports ThinkVantage® technologies		
Weight ² Case material Battery - type	Lithium Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)										ThinkPad X6 UltraBase™ • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Battery - life ¹⁰	<i>Slim 4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 9.0 hr; <i>8-cell and Extended Life Battery:</i> up to 12.5												
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 975SC3203 TPM)												
Media slice Secure Digital slot PC Card slot Ports	<i>Option: ThinkPad X6 UltraBase media slice</i> (see right side) One Secure Digital Card slot, supports SD memory cards used in consumer devices One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door Three USB 2.0, DB-15 (external VGA monitor), -RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna Mini PCI Express Intel 4965AG ³² WWAN Turbo 1G Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II Antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None 56K V.92 ⁹ modem in Communications Daughter Card Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1, PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green) Power-on password, hard disk password, supervisor password, security keyhole										Other features: • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g		
Security Security chip Fingerprint reader	Trusted Platform Module , Atmel chip, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip										65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
ThinkPlus™.22 4-year LOR ²⁴ 9x5 NBD ThinkPlus 5-year LOR 9x5 NBD	12X5630 43R2162		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty										

See footnotes for important warranty information

* Intel Centrino® with vPro™ technology

US models announced May 31, 2007

US models withdrawn effective May 2008 or May 2009

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(KB3-3) May 2009

Partial list of accessories supported on:

- ThinkPad X60 originally announced January 5, 2006
- ThinkPad X60s originally announced January 5, 2006
- ThinkPad X61 originally announced May 31, 2007
- ThinkPad X61s originally announced May 31, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann 03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann 03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm (best to use flat bezel options)

Most Ultrabay Slim options supported in X6 Ultrabase

Ultrabay Enhanced 12.7mm

None

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09

⁴¹ Can be used as the main disk or with

ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the optional ThinkPad X6 Ultrabase 40Y8116.

USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08

USB Portable Diskette Drive 05K9276		ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann 02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad X6 UltraBase	40Y8116	ann 01/05/06

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann 06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann 01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Batteries

X60s only:

X60 Slim Line Battery 4-cell (prismatic)	40Y6999	ann 01/05/06
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All models:

X60 Enhanced Cap Battery 4-cell (cylindric)	40Y7001	ann 01/05/06
X60 High Capacity 8-cell (cylindrical)	40Y7003	ann 01/05/06
X60 Extended Life Battery	40Y7005	ann 01/05/06
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter	40Y7696	ann 09/20/05
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann 11/27/07
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin Surge Protector	31P7659	

Carrying Cases

Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann 06/24/08
ThinkPad Women's Microfiber Tote	22P8855	
ThinkPad Women's Leather Trim Tote	22P8856	
ThinkPad Convertible Carrying Case	22P8860	
ThinkPad Women's Executive Leather Tote	22P8857	
Women's Executive Red Leather Tote	22P8858	

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann 05/01/07
Lenovo Standard Case	45K1697	ann 11/25/08
Lenovo Standard Backpack	45K1698	ann 11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann 02/24/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann 08/12/08
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Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad® X60 Tablet (6363) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	WH TAA	Gbl	Avail date
6363-46U	Core Duo L2400	1.66	1GB	12.1" XGA	80GB			* Intel 11a/b/g ³²	None		Finger	8-cell	WH	Gbl	Dec 06
6363-54U	Core Duo L2500	1.83	1GB	12.1" XGA	60GB			* Intel 11a/b/g	None			8-cell	WH	Gbl	Dec 06
6363-64U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB			* Intel 11a/b/g	None		Finger	8-cell	WH	Gbl	Dec 06
6363-A7U	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH	Gbl	Dec 06
6363-85U	Core Duo L2500	1.83	1GB	12.1" XGA <i>Touch</i>	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH	Gbl	Dec 06
6363-34U	Core Duo L2400	1.66	512MB	12.1" XGA	60GB			* Intel 11a/b/g	None			4-cell	WH		Dec 06
6363-5BU	Core Duo L2400	1.66	1GB	12.1" XGA <i>Touch</i>	100G			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Feb 07
6363-86U	Core Duo L2500	1.83	1GB	12.1" XGA <i>Touch</i>	100G			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Dec 06
6363-2BU	Core Duo L2400	1.66	1GB	12.1" SXGA+	120G	DVD±RW	UltraBase	* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Feb 07
6363-A8U	Core Duo L2500	1.83	1GB	12.1" SXGA+	120G	DVD±RW	UltraBase	* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Dec 06
6363-4KU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Combo	UltraBase	* Intel 11a/b/g	None	Blue	Finger	4-cell	WH		Feb 07
6363-65U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	Combo	UltraBase	* Intel 11a/b/g	None	Blue	Finger	4-cell	WH		Dec 06
6363-4GU	Core Duo L2400	1.66	1GB	12.1" XGA	60GB			* Intel 11a/b/g	None		Finger	8-cell	TAA		Dec 06
Positioning	Convertible tablet; one spindle														
US Govt (TAA) ⁵	4GU: US Government model (Trade Act Agreement-compliant)														
Processor	Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core , Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache														
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>Some: (italics)</i> standard memory in both sockets; no sockets available; <i>Some:</i> standard memory in 1 socket; 1 socket available														
Ultrabay™ Slim EIDE Combo EIDE DVD±RW Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional ThinkPad X6 Tablet UltraBase <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 UltraBase <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6 60GB ⁸ (5400 rpm), 80GB (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 Tablet UltraBase														
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)														
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Dimensions ³	<i>4-cell:</i> 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>8-cell:</i> 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm														
Weight ²	<i>4-cell battery models:</i> 3.7 to 4.1 lb (1.7 to 1.9kg); <i>8-cell battery models:</i> 4.2 to 4.6lb (1.9 to 2.1kg)														
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy														
Battery - type	Li-Ion 4-cell or 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 Tablet UltraBase (for two batteries)														
Battery - life ¹⁰	<i>4-cell:</i> up to 3.3 hr; <i>8-cell:</i> up to 7.5 hr; <i>with 8-cell and Ultrabay Slim:</i> up to 8.5 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr														
Chipset	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) <i>Some:</i> ThinkPad X6 Tablet UltraBase (see right side)														
Media slice	One Secure Digital Card slot / supports SD memory cards used in consumer devices														
Secure Digital slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door														
PC Card Std slot	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports														
Ports															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communication Daughter Card														
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
2GB PC2-5300 DDR2 SODIMM	40Y7735		ThinkPad X6 Tablet UltraBase				41U3120								
Other accessories on O-X60-T sheet			Other accessories at lenovo.com/accessories								65-watt AC Adapter				

See footnotes for important warranty information * Intel Centrino® processor technology
 US models announced November 14, 2006 or February 22, 2007
 US models withdrawn effective July 2007, Nov 2007, or April 2008

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 (DL1-1) April 2008

ThinkPad® X60 Tablet (6363) - February 2007 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	WH Gbl	Avail date
6363-38U	Core Duo L2400	1.66	1GB	12.1" XGA	60GB			* Intel 11a/b/g ³²	None			8-cell	WH Gbl	Mar 07
6363-4JU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB			* Intel 11a/b/g	None		Finger	8-cell	WH Gbl	Mar 07
6363-2AU	Core Duo L2400	1.66	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Mar 07
6363-5AU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Mar 07
6363-9CU	Core 2 Duo L7400	1.50	1GB	12.1" XGA	60GB			* Intel 11a/b/g	None			8-cell	WH Gbl	Apr 07
6363-P3U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB			* Intel 11a/b/g	None		Finger	8-cell	WH Gbl	Apr 07
6363-J3U	Core 2 Duo L7400	1.50	1GB	12.1" XGA Touch	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Apr 07
6363-C7U	Core 2 Duo L7400	1.50	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Apr 07
6363-P5U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB	Combo	UltraBase	* Intel 11a/b/g	None	Blue	Finger	4-cell		Apr 07
<p>• These models have a 3-year limited warranty¹²</p>														
Positioning Processor	<p>Convertible tablet; one spindle Intel® Core™ Duo processor L2400 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor L7400 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache</p>										<p>SOFTWARE¹⁴ Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005²⁰ Preloaded • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Some: Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator Free trial • Zinio Reader License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Memory	<p>1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / P5U: standard memory in both sockets (512MB each socket); no sockets available; Others: standard memory in 1 socket; 1 socket available</p>										<p>Supports ThinkVantage® technologies</p>			
Ultrabay™ Slim EIDE Combo Serial ATA disk (SATA150)	<p>Supports Ultrabay™ Slim devices in optional ThinkPad X60 Tablet UltraBase Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from X60 Tablet UltraBase 60GB⁸ (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X60 Tablet UltraBase</p>													
Display	<p>Some: 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing Some: 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing Touch: 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) All: Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)</p>													
Graphics	<p>Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support</p>										<p>Free trial • Zinio Reader</p>			
Keyboard TrackPoint®	<p>89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p>													
Dimensions ³	<p>4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm</p>													
Weight ²	<p>4-cell battery models: 3.7 to 4.1 lb (1.7 to 1.9kg); 8-cell battery models: 4.2 to 4.6lb (1.9 to 2.1kg)</p>													
Case material	<p>Color: black; All: magnesium alloy</p>													
Battery - type	<p>Li-Ion 4-cell or 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X60 Tablet UltraBase (for two batteries)</p>													
Battery - life ¹⁰	<p>4-cell: up to 3.3 hr; 8-cell: up to 7.5 hr; with 8-cell and Ultrabay Slim: up to 8.5 hr; with 8-cell and optional Extended Life Battery: up to 9.5 hr</p>													
Architecture	<p>Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Some: ThinkPad X60 Tablet UltraBase (see right side)</p>													
Media slice	<p>One Secure Digital Card slot / supports SD memory cards used in consumer devices</p>													
Secure Digital slot	<p>One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door</p>													
PC Card Std slot	<p>Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports</p>													
Ports	<p>UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios</p>													
Wireless antenna	<p>Two Mini PCI Express slots / only 802.11 wireless is customer upgradable</p>													
Mini PCI Express	<p>Intel 11a/b/g³² / 11a/b/g wireless⁴, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</p>													
WWAN	<p>None</p>													
Modem	<p>56K⁶ V.90 (V.92-designed²⁹) modem in Communication Daughter Card</p>													
Bluetooth™	<p>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</p>													
Ethernet	<p>Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE</p>													
Audio support	<p>High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)</p>													
Security	<p>Power-on password / hard disk password / supervisor password / security keyhole</p>													
Security chip	<p>Trusted Platform Module / Atmel chip / TCG 1.2-compliant</p>													
Fingerprint reader	<p>Some: Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip</p>													
<p>Limited warranty¹² 3-years/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail</p>														
512 MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X60 Tablet UltraBase	41U3120											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen	41U3143											
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)	41U4820											
Other accessories on O-X60-T sheet		Other accessories at lenovo.com/accessories												
<p>65-watt AC Adapter</p>														

See footnotes for important warranty information
 US models announced February 27 or April 3, 2007
 US models withdrawn effective July or November 2007

* Powered by Intel Centrino® Duo mobile technology

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 (DL1-8) October 2007

ThinkPad® X60 Tablet (6363) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty ¹²	WH Gbl	Avail date
6363-R3U	Core Duo L2400	1.66	1GB	12.1" TN XGA <i>Touch</i>	80GB	Optional	Optional	*Intel 11a/b/g ³²	None	Blue	Finger	EasyServ	WH	Apr 07
6363-G4U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Apr 07
6363-ADU	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Dec 06
6363-8DU	Core Duo L2500	1.83	1GB	12.1" XGA <i>Touch</i>	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Dec 06
6363-6DU	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Dec 06

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket; 1 socket available										Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ⇨ Disk-to-Disk Recovery Preloaded (only some listed) • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator			
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase</i> 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>													
Display	<i>Some:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 190 nits / 100° viewing <i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 155 nits / 100° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS or Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)										Free trial • Zinio Reader CD included • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003 License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support										Supports ThinkVantage® technologies			
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Dimensions ³	<i>8-cell:</i> 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm													
Weight ²	<i>8-cell:</i> 4.2 to 4.6lb (1.9 to 2.1kg)													
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy													
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X60 Tablet UltraBase</i> (for two batteries)													
Battery - life ¹⁰	<i>8-cell:</i> up to 7.5 hr; <i>with optional Extended Life Battery:</i> up to 9.5 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional ThinkPad X60 Tablet UltraBase (see right side)										ThinkPad X60 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013			
Media slice	Optional Secure Digital slot One Secure Digital Card slot / supports SD memory cards used in consumer devices													
Secure Digital slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door													
PC Card Std slot	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Ports														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g ³² WWAN	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
Modem	None													
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communication Daughter Card													
Ethernet	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Audio support	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Security	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security chip	Power-on password / hard disk password / supervisor password / security keyhole													
Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			ThinkPad X60 Tablet UltraBase						41U3120				
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			ThinkPad X60 Tablet Digitizer Pen						41U3143				
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad X60 Tether (3-pack)						41U4820				
USB 2.0 Lenovo Multimedia Headset	40Y8518			X60 Tablet Li-ion Battery 8-cell						40Y8318				
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad X60 Extended Life Battery						40Y7005				
USB 2.0 Portable 120GB Hard Disk	41N8379			ThinkPad External Battery Charger						40Y7625				
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad X60 Tablet Sleeve						41U3142				
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692			ThinkPlus™ ²² 2-year LOR 9x5 NBD						41C9175				
Other accessories on O-X60-T sheet				ThinkPlus 3-year LOR 9x5 NBD						41C9176				
											Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g 65-watt AC Adapter			

See footnotes for important warranty information

* Powered by Intel Centrino® Duo mobile technology

US models announced November 14, 2006 or April 10, 2007

US models withdrawn effective July 2007

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(DL1-5) August 2007

ThinkPad® X60 Tablet (6363) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X60 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty ¹²	Educ Avail preload date
6363-R5U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g ³²	None	Blue	Finger	EasyServ HE	Apr 07
6363-G5U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	EasyServ HE	Apr 07
6363-R6U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	EasyServ K12	Apr 07
6363-G6U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	EasyServ K12	Apr 07
<p>• These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit)		
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in both sockets (512MB each socket); no sockets available										Preloaded applications¹⁴ (only some listed) • <i>Some (K12):</i> K-12 educ software - VitalSource Library School Edition - Adobe® Instruct Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher ed software - VitalSource Library College Edition - Adobe® Instruct Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Lenovo Multimedia Center • Norton Internet Security • Diskeeper™ Home • PC-Doctor™ (diagnostics) • InterVideo VirtualDrive CD/DVD Emulator		
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase</i> 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>												
Display	<i>Some:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 190 nits / 100° viewing <i>Touch:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 155 nits / 100° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)												
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support												
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Dimensions ³	8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm												
Weight ²	8-cell: 4.2 to 4.6lb (1.9 to 2.1kg)												
Case material	Color: black; All: magnesium alloy												
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in opt <i>X60 Tablet UltraBase</i> (for two batteries)												
Battery - life ¹⁰	8-cell: up to 7.5 hr; with optional <i>Extended Life Battery</i> : up to 9.5 hr												
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM)												
Media slice	Optional ThinkPad X60 Tablet UltraBase (see right side)												
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices												
PC Card Std slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door												
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN	None												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip												
Limited warranty ¹² 3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available													
512 MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X60 Tablet UltraBase	41U3120										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen	41U3143										
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)	41U4820										
USB Gemplus GemPC Smart Card Reader	41N3040	X60 Tablet Li-Ion Battery 4-cell	40Y8314										
USB 2.0 Lenovo Multimedia Headset	40Y8518	X60 Tablet Li-Ion Battery 8-cell	40Y8318										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X60 Extended Life Battery	40Y7005										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 65W AC Adapter	40Y7696										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad X60 Tablet Sleeve	41U3142										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Backpack	73P3599										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Expander	73P3597										
TrackPoint Cap Collection	73P2698	ThinkPlus™ ²² 2-year LOR 9x5 NBD	41C9175										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPlus 3-year LOR 9x5 NBD	41C9176										
Other accessories on O-X60-T sheet				Other accessories at lenovo.com/accessories									
Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g													
65-watt AC Adapter													

See footnotes for important warranty information
 US models announced April 10, 2007
 US models withdrawn effective July 2007

ThinkPad® X60 Tablet (6363) - Wireless WAN - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprnt reader	OneNote	WH TAA	Gbl Avail date
6363-HBU	Core Duo L2400	1.66	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g ³²	Verizon	Blue	Finger	Yes	WH	Feb 07
6363-C3U	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	Verizon	Blue	Finger	Yes	WH	Dec 06
6363-7BU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	Verizon	Blue	Finger	Yes	WH	Feb 07
6363-94U	Core Duo L2500	1.83	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	Verizon	Blue	Finger		WH	Dec 06
6363-74U	Core Duo L2500	1.83	1GB	12.1" XGA	100G	DVD±RW	UltraBase	11a/b/g ³²	Verizon		Finger		WH	Dec 06
6363-75U	Core Duo L2500	1.83	1GB	12.1" XGA	100G	DVD±RW	UltraBase	11a/b/g	Verizon		Finger	Yes	WH	Dec 06
6363-7CU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	AT&T	Blue	Finger	Yes	WH	Feb 07
6363-95U	Core Duo L2500	1.83	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	AT&T	Blue	Finger	Yes	WH	Dec 06
Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core , Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE ¹⁴			
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>Some: (italics) standard memory in both sockets; no sockets available; Some: standard memory in 1 socket; 1 socket available</i>										Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ◆ Disk-to-Disk Recovery Preloaded (only some listed) • <i>Some:</i> Microsoft Office OneNote® 2003 • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator			
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X6 Tablet UltraBase</i> <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6 80GB ⁸ (5400 rpm), 100GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in <i>X6 Tablet UltraBase</i>										Free trial • Zinio Reader			
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)										CD included • Microsoft Office OneNote 2003			
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support													
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Dimensions ³ Weight ² Case material Battery - type	<i>8-cell:</i> 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm <i>8-cell:</i> 4.2 to 4.6lb (1.9 to 2.1kg) <i>Color:</i> black; <i>All:</i> magnesium alloy Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in <i>X6 Tablet UltraBase</i> (for two batteries)													
Battery - life ¹⁰	<i>with 8-cell:</i> up to 7.5 hr; <i>with 8-cell and Ultrabay Slim:</i> up to 8.5 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr													
Chipset	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) <i>Some:</i> ThinkPad X6 Tablet UltraBase (see right side)										ThinkPad X6 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: – ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 – CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 – DVD-ROM Ultrabay Slim Drive (curved bezel) 73P3270 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 100GB Disk 7200 rpm 41N3013 • 160GB Disk 7200 rpm 41N5737 • 250GB Disk 5400 rpm 43R8152			
Media slice Secure Digital slot PC Card Std slot Ports	One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Wireless antenna Mini PCI Express	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO Rev. 0, WWAN antenna on display, service contract reqd with Verizon® Wireless <i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract reqd with AT&T®													
Modem Bluetooth™ Ethernet Audio support	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communication Daughter Card <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / mono speaker, 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g			
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
512MB PC2-5300 DDR2 SODIMM	40Y7733	ThinkPad X60 Tablet UltraBase								41U3120				
1GB PC2-5300 DDR2 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen								41U3143				
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)								41U4820				
USB 2.0 Lenovo Webcam	40Y8519	X60 Tablet Li-ion Battery 4-cell								40Y8314				
USB 2.0 Security Memory Key 4GB	41U5120	X60 Tablet Li-ion Battery 8-cell								40Y8318				
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad X60 Tablet Sleeve								41U3142				
Other accessories on O-X60-T sheet	Other accessories at lenovo.com/accessories								65-watt AC Adapter					

See footnotes for important warranty information
US models announced November 14, 2006 or February 22, 2007
US models withdrawn effective July 2007 or April 2008

ThinkPad® X60 Tablet (6364) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty	WH Global	Avail date
6364-38U	Core Duo L2400	1.66	1GB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g ³²	None			Onsite	WH Gbl	Mar 07
6364-4JU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None		Finger	Onsite	WH Gbl	Mar 07
6364-2AU	Core Duo L2400	1.66	1GB	12.1" SXGA+	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite	WH Gbl	Mar 07
6364-5AU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite	WH Gbl	Mar 07

• These models have a limited onsite service²⁴ 3-year limited warranty

Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ↕ Disk-to-Disk Recovery Preloaded • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • <i>Some:</i> Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator Free trial • Zinio Reader License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available	
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X6 Tablet UltraBase</i> 60GB ⁸ (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional <i>X6 Tablet UltraBase</i>	
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)	
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support	
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Dimensions ³	<i>8-cell:</i> 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm	
Weight ²	<i>8-cell:</i> 4.2 to 4.6lb (1.9 to 2.1kg)	
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy	
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for two batteries)	
Battery - life ¹⁰	<i>8-cell:</i> up to 7.5 hr; <i>with 8-cell and Ultrabay Slim:</i> up to 8.5 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr	
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional ThinkPad X6 Tablet UltraBase (see right side)	
Media slice	One Secure Digital Card slot / supports SD memory cards used in consumer devices	
Secure Digital slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door	
PC Card Std slot	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports	
Ports		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	11a/b/g wireless ³ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
WWAN	None	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communication Daughter Card	
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator	
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker / 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green) Power-on password / hard disk password / supervisor password / security keyhole	
Security	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Security chip		
Fingerprint reader	<i>Some:</i> Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip	
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time	

512 MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X6 Tablet UltraBase	41U3120
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen	41U3143
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)	41U4820
USB Gemplus GemPC Smart Card Reader	41N3040	X60 Tablet Li-Ion Battery 4-cell	40Y8314
USB 2.0 Lenovo Multimedia Headset	40Y8518	X60 Tablet Li-Ion Battery 8-cell	40Y8318
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X60 Extended Life Battery	40Y7005
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad External Battery Charger	40Y7625
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 65W AC Adapter	40Y7696
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad X60 Tablet Sleeve	41U3142
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Backpack	73P3599
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Expander	73P3597
TrackPoint Cap Collection	73P2698	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPlus 3-year LOR 9x5 NBD	41C9176
Other accessories on O-X60-T sheet		Other accessories at lenovo.com/accessories	

Other features:	<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g
	65-watt AC Adapter

See footnotes for important warranty information
US models announced February 27, 2007
US models withdrawn effective November 2007

* Powered by Intel Centrino® Duo mobile technology

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(DL1-9) October 2007

ThinkPad® X60 Tablet (6364) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical UltraBase	802.11 wireless	WWAN wireless tooth	Fingerprt reader	Limited warranty ¹²	WH Gbl	Avail date
6364-R3U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	*Intel 11a/b/g ³²	None	Blue	Finger	Onsite WH Apr 07
6364-G4U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Apr 07
6364-ADU	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Dec 06
6364-8DU	Core Duo L2500	1.83	1GB	12.1" XGA Touch	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Dec 06
6364-6DU	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Dec 06

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache							SOFTWARE¹⁴				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket; 1 socket available							Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ◇ Disk-to-Disk Recovery				
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase 80GB</i> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>							Preloaded (only some listed) • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator				
Display	<i>Some:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 190 nits / 100° viewing <i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 155 nits / 100° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS or Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)							Free trial • Zinio Reader				
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support							CD included • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003				
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass							License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Dimensions ³ Weight ² Case material Battery - type	8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg) Color: black; All: magnesium alloy Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in opt <i>X60 Tablet UltraBase</i> (for two batteries)							Supports ThinkVantage® technologies				
Battery - life ¹⁰	8-cell: up to 7.5 hr; with optional <i>Extended Life Battery</i> : up to 9.5 hr							ThinkPad X60 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013				
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional ThinkPad X60 Tablet UltraBase (see right side)							Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g				
Media slice	One Secure Digital Card slot / supports SD memory cards used in consumer devices							65-watt AC Adapter				
Secure Digital slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door											
PC Card Std slot	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports											
Ports	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Wireless antenna	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Mini PCI Express	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
Intel 11a/b/g ³²	None											
WWAN	56K ⁶ V.90 (V.92-designed ²⁹) modem in Communication Daughter Card											
Modem	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Bluetooth™	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Ethernet	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)											
Audio support	Power-on password / hard disk password / supervisor password / security keyhole											
Security	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											
Security chip	Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip											
Fingerprint reader	Limited warranty ¹² 3-year /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733		ThinkPad X60 Tablet UltraBase				41U3120					
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734		ThinkPad X60 Tablet Digitizer Pen				41U3143					
2GB PC2-5300 DDR2 SODIMM	40Y7735		ThinkPad X60 Tether (3-pack)				41U4820					
USB 2.0 Security Memory Key 4GB	41U5120		X60 Tablet LI-ion Battery 8-cell				40Y8318					
USB 2.0 Portable 120GB Hard Disk	41N8379		ThinkPad X60 Extended Life Battery				40Y7005					
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad X60 Tablet Sleeve				41U3142					
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013		ThinkPad Nylon Carrying Case				10K0207					
Lenovo C500 Projector	0039A05		ThinkPad Carrying Case - Expander				73P3597					
Other accessories on O-X60-T sheet	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information * Powered by Intel Centrino® Duo mobile technology
US models announced November 14, 2006 or April 10, 2007
US models withdrawn effective July 2007

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(DL1-6) August 2007

ThinkPad® X60 Tablet (6364) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X60 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty ¹²	Educ Avail preload date
6364-R5U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g ³²	None	Blue	Finger	Onsite	HE Apr 07
6364-G5U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	Onsite	HE Apr 07
6364-R6U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	Onsite	K12 Apr 07
6364-G6U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	Onsite	K12 Apr 07

• These models have a limited onsite service²⁴ 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										Preloaded operating system ²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit)		
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in both sockets (512MB each socket); no sockets available										Preloaded applications ¹⁴ (only some listed) • <i>Some (K12):</i> K-12 educ software - VitalSource Library School Edition - Adobe® Instruct Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher ed software - VitalSource Library College Edition - Adobe® Instruct Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Lenovo Multimedia Center • Norton Internet Security • Diskeeper™ Home • PC-Doctor™ (diagnostics) • InterVideo VirtualDrive CD/DVD Emulator		
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase 80GB</i> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>												
Display	<i>Some:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 190 nits / 100° viewing <i>Touch:</i> 12.1" (307mm) TN XGA (1024x768) TFT color / 4:3 / 155 nits / 100° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)												
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support												
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Dimensions ³ Weight ² Case material Battery - type	8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg) <i>Color:</i> black; <i>All:</i> magnesium alloy Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in opt <i>X60 Tablet UltraBase</i> (for two batteries)												
Battery - life ¹⁰	8-cell: up to 7.5 hr; with optional <i>Extended Life Battery</i> : up to 9.5 hr												
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional ThinkPad X60 Tablet UltraBase (see right side)												
Media slice	One Secure Digital slot / supports SD memory cards used in consumer devices												
PC Card Std slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door												
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g ³² WWAN	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None												
Bluetooth™ Ethernet	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip												
Limited warranty ¹²	3-year /1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time												
512 MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X60 Tablet UltraBase	41U3120	Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen	41U3143										
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)	41U4820										
USB Gemplus GemPC Smart Card Reader	41N3040	X60 Tablet Li-Ion Battery 4-cell	40Y8314										
USB 2.0 Lenovo Multimedia Headset	40Y8518	X60 Tablet Li-Ion Battery 8-cell	40Y8318										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X60 Extended Life Battery	40Y7005										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 65W AC Adapter	40Y7696										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad X60 Tablet Sleeve	41U3142										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Backpack	73P3599										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Expander	73P3597										
TrackPoint Cap Collection	73P2698	Lenovo L191 19" Monitor (black)	6135AB1										
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo D221 Wide 22" Monitor (black)	6622HB1										
Other accessories on O-X60-T sheet		Other accessories at lenovo.com/accessories		65-watt AC Adapter									

See footnotes for important warranty information
US models announced April 10, 2007
US models withdrawn effective July 2007

ThinkPad® X60 Tablet (6366) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue tooth	Fingerprt reader	Battery cells	Limited warranty ¹²	Avail date
6366-4DU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB			*Intel 11a/b/g ³²			Finger	4-cell	3-yr	Dec 06
6366-AJU	Core Duo L2500	1.83	2GB	12.1" SXGA+	100G DVD±RW	UltraBase		*Intel 11a/b/g		Blue	Finger	8-cell	3-yr	Dec 06
6366-6AU	Core Duo L2500	1.83	1GB	12.1" XGA	80GB Combo	UltraBase		*Intel 11a/b/g		Blue	Finger	4-cell	3-yr	Dec 06
6366-8KU	Core Duo L2500	1.83	1GB	12.1" XGA Touch	100G			Thinkpad 11n ²⁸		Blue	Finger	8-cell	3-yr	Dec 06
6366-98U	Core Duo L2500	1.83	2GB	12.1" XGA Touch	120G DVD±RW	UltraBase		*Intel 11a/b/g	Verizon	Blue	Finger	8-cell	3-yr	Dec 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty¹²

Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴			
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 4DU/AJU/6AU/98U: standard memory in both sockets; no sockets avail; 8KU: standard memory in 1 socket; 1 socket available										Windows XP Tablet - Microsoft® Windows® XP Tablet PC Edition 2005 ²⁰ ⇨ Disk-to-Disk Recovery Preloaded (only some listed) • Microsoft Office OneNote® 2003 • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator Free trial • Zinio Reader CD included • Microsoft Office OneNote 2003 License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional ThinkPad X6 Tablet UltraBase Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 UltraBase Some: DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6 80GB (5400 rpm), 100GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 Tablet UltraBase													
Display	Some: 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing Some: 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing Touch: 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) All: Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)													
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support													
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Dimensions ³	4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm													
Weight ²	4-cell: 3.7 to 4.1 lb (1.7 to 1.9kg); 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg)													
Case material	Color: black; All: magnesium alloy													
Battery - type	Li-Ion 4-cell or 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 Tablet UltraBase (for two batteries)													
Battery - life ¹⁰	with 4-cell: up to 3.3 hr; with 8-cell: up to 7.5 hr; 8-cell and Ultrabay Slim: up to 8.5 hr with 8-cell and optional Extended Life Battery : up to 9.5 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional ThinkPad X6 Tablet UltraBase (see right side)										Supports ThinkVantage® technologies			
Docking station	One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door										ThinkPad X6 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 - DVD-ROM Ultrabay Slim Drive (curved bezel) 73P3270 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013			
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door													
PC Card Std slot	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Ports	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG Some: 11a/b/g/n wireless ⁴ , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3													
Wireless antenna	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless													
Mini PCI Express	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Intel 11a/b/g ³²	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
ThinkPad 11n ²⁸	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
WWAN ¹⁶	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Modem	Power-on password / hard disk password / supervisor password / security keyhole													
Bluetooth™	Trusted Platform Module / Atmel chip / TCG 1.2-compliant													
Ethernet	Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip													
Audio support											Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g			
Security											65-watt AC Adapter			
Security chip														
Fingerprint reader														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			ThinkPad X6 Tablet UltraBase			41U3120							
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			ThinkPad X60 Tablet Sleeve			41U3142							
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad X60 Tablet Digitizer Pen			41U3143							
Other accessories on O-X60-T sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced November 14, 2006
US models withdrawn effective July 2007

* Powered by Intel Centrino® Duo mobile technology

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(DL1-4) August 2007

ThinkPad® X60 Tablet (6366) - TopSeller (January 2007) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Limited warranty ¹²	Avail date
6366-F6U	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g ³²			Finger	4-cell	3-yr	Jan 07
6366-L5U	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Combo	UltraBase	*Intel 11a/b/g		Blue	Finger	4-cell	3-yr	Feb 07
6366-L6U	Core Duo L2400	1.66	2GB	12.1" SXGA+	100G	DVD±RW	UltraBase	*Intel 11a/b/g		Blue	Finger	8-cell	3-yr	Feb 07
6366-L4U	Core Duo L2400	1.66	2GB	12.1" XGA <i>Touch</i>	120G	DVD±RW	UltraBase	*Intel 11a/b/g	Verizon	Blue	Finger	8-cell	3-yr	Feb 07

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty¹²**

Positioning Processor	Convertible tablet; one spindle Intel® Core™ Duo processor L2400 with low voltage, dual-core , Enhanced Intel SpeedStep® technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										Preloaded operating system²⁰ - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Premium logo			
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in both sockets / no sockets available										Preloaded applications¹⁴ • Microsoft Office OneNote® 2003 • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Picasa from Google • Fingerprint Software (fingerprint models) • InterVideo VirtualDrive CD/DVD Emulator			
Ultrabay™ Slim EIDE Combo EIDE DVD±RW Serial ATA disk (SATA150)	<i>Some:</i> Supports Ultrabay™ Slim devices in optional <i>ThinkPad X6 Tablet UltraBase</i> <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from X6 <i>UltraBase</i> <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6 80GB (5400 rpm), 100GB (5400 rpm), or 120GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / ThinkPad Shock Mounted Hard Drive / Active Protection System™ / supports 2nd disk in optional X6 <i>Tablet UltraBase</i>										CD included • Microsoft Office OneNote 2003 Supports ThinkVantage® technologies ThinkPad X6 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: – ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 – CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 – DVD-ROM Ultrabay Slim Drive (curved bezel) 73P3270 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 100GB Disk 7200 rpm 41N3013 • 160GB Disk 7200 rpm 41N5737 • 250GB Disk 5400 rpm 43R8152 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g 65-watt AC Adapter			
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)													
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support													
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Dimensions ³	4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm													
Weight ²	4-cell: 3.7 to 4.1 lb (1.7 to 1.9kg); 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg)													
Case material Battery - type	Color: black; <i>All:</i> magnesium alloy Li-Ion 4-cell or 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 <i>Tablet UltraBase</i> (for two batteries)													
Battery - life ¹⁰	<i>with 4-cell:</i> up to 3.3 hr; <i>with 8-cell:</i> up to 7.5 hr; <i>8-cell and Ultrabay Slim:</i> up to 8.5 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr													
Chipset	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Standard or optional ThinkPad X6 Tablet UltraBase (see right side)													
Docking station Secure Digital slot PC Card Std slot Ports	One Secure Digital Card slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Wireless antenna Mini PCI Express Intel 11a/b/g ³² WWAN ¹⁶	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO Rev. 0, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K V.90 (V.92-designed ²⁹) modem in Communication Daughter Card													
Modem Bluetooth™ Ethernet Audio support	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / mono speaker, 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green) Power-on password / hard disk password / supervisor password / security keyhole													
Security Security chip Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available													
1GB PC2-5300 DDR2 SODIMM	40Y7734		ThinkPad X6 Tablet UltraBase		41U3120									
2GB PC2-5300 DDR2 SODIMM	40Y7735		ThinkPad X60 Tablet Digitizer Pen		41U3143									
USB Portable Diskette Drive	05K9276		ThinkPad X60 Tether (3-pack)		41U4820									
USB 2.0 Security Memory Key 4GB	41U5120		X60 Tablet Li-Ion Battery 4-cell		40Y8314									
USB 2.0 Super Multi-Burner Drive	41N5565		X60 Tablet Li-Ion Battery 8-cell		40Y8318									
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152		ThinkPad X60 Tablet Sleeve		41U3142									
USB 2.0 Lenovo Enhanced Port Replicator	43R8770		ThinkPlus™.22 2-year LOR 9x5 NBD		41C9175									
Other accessories on O-X60-T sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced January 30 or February 22, 2007
US models withdrawn effective July 2007 or April 2008

* Intel Centrino® processor technology

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(DL1-7) April 2008

ThinkPad® X61 Tablet (7762) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-essor	GHz	Memory	Display	Disk SATA GB ^s rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger-print reader	Bat-tery cells	Workhorse (W) Global (G) Avail date
7762-54U	L7500	1.60	1GB	12.1" XGA	80GB 5400			* Intel 4965AG ³²		Fing	8	Business32 W G Jun 07
7762-95U	L7500	1.60	1GB	12.1" SXGA+ SV	80GB 5400			* Intel 4965AG		Fing	8	Business32 W G Jun 07
7762-D6U	L7500	1.60	2GB	12.1" XGA Touch	160G 5400	DVD±RW	UltraBase	* Intel 11n ²⁸		Fing	8	Ultimate 32 W G Jun 07
7762-B6U	L7500	1.60	1GB	12.1" XGA Touch	120G 5400			* Intel 4965AG		Fing	8	Business32 W G Jun 07
7762-58U	L7500	1.60	2GB	12.1" XGA	120G 5400			* Intel 4965AG		Fing	8	Ultimate 32 W G Jun 07
7762-44U	L7500	1.60	2GB	12.1" XGA	120G 5400	Combo	UltraBase			Fing	8	XP Tablet TAA Jun 07
7762-H7U	L7700	1.80	2GB	12.1" XGA	100G 7200			* Intel 11a/b/g ³²		Fing	8	Business32 W Oct 07
7762-98U	L7500	1.60	2GB	12.1" SXGA+ SV	160G 5400			* Intel 4965AG	1G Turbo	Fing	8	Business32 W Oct 07
7762-BEU	L7500	1.60	2GB	12.1" XGA Touch	160G 7200			* Intel 4965AG		Fing	8	Business32 W Oct 07
7762-99U	L7500	1.60	2GB	12.1" SXGA+ SV	120G 5400			* Intel 11a/b/g		Fing	8	XP Tablet TAA Nov 07
7762-63U	L7500	1.60	1GB	12.1" XGA	80GB 5400			* Intel 4965AG		Fing	8	Business 32 Feb 08
7762-9CU	L7500	1.60	2GB	12.1" SXGA+ SV	120G 5400			* Intel 11a/b/g		Fing	8	Business 32 TAA Jun 08
US Govt (TAA) ⁵ Processor	44U/99U/9CU: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor L7500 and L7700 with low voltage, dual-core , Intel 64 Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰	
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										- <i>Some:</i> Microsoft® Windows® Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) - <i>Some:</i> Microsoft Windows XP Tablet PC Edition 2005	
Ultrabay™ Slim EIDE Combo Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from <i>X6 UltraBase</i> <i>Some:</i> DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from <i>X6 80GB⁸</i> (5400 rpm), 100GB (7200 rpm), 120GB , or 160GB (5400 or 7200 rpm) / SATA1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™										↔ <i>2GB Vista D6U/H7U/98U/BEU/9CU:</i> Vista Premium logo ↔ <i>Other Vista models:</i> Vista Basic logo	
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) color, 190 nits, 4:3, 500:1, 170° viewing, direct bonding panel (SuperView) for improved outdoor viewability <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security™ • PC-Doctor™ (diagnostics) • FingerPrint Software • Corel VirtualDrive CD/DVD Emulator	
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965											
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support											
Keyboard TrackPoint®	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										Supports ThinkVantage® technologies	
Dimensions ³	<i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg)										ThinkPad X6 Tablet UltraBase	
Weight ² Case material Battery - type	Color: black; All: magnesium alloy Li-Ion 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries)										• Provides desktop expansion and cable mgmt for X60/X61 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 250GB Disk 5400 rpm 43R8152 • 320GB Disk 7200 rpm 43N3411	
Battery - life ¹⁰	<i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>8-cell and Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Carbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)											
Media slice	<i>Some:</i> ThinkPad X6 Tablet UltraBase (see right side)											
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices											
PC Card Ports	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Mini PCI Express Intel 11a/b/g ³² Intel 4965AG ³² Intel 11n ²⁸	Two Mini PCI Express slots <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)											
WWAN upg 1G Turbo	None <i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator											
Modem	56K V.92 ⁶ modem in Communications Daughter Card											
Bluetooth™	<i>All except 44U/99U/9CU:</i> Bluetooth 2.0 wireless, USB 2.0 via ICH8M, LED indicator											
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)											
Security Security chip	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest , swipe sensor, supports the security chip											
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	

See footnotes for important warranty information

* Intel Centrino® processor technology

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US models announced

* Intel Centrino with vPro™ technology

(DL2-2) May 2009

May 31, Oct 30, 2007, Feb 12, or May 20, 2008

US models withdrawn effective December 2007, May 2008, or May 2009

ThinkPad® X61 Tablet (7763) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-essor	GHz	Memory	Display	Disk SATA GB ³ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger-print reader	Bat-tery cells	Vista preload	Workhorse (W) Global (G) GMP (P)	Avail date
7763-54U	L7500	1.60	1GB	12.1" XGA	80GB 5400	Optional	Optional	*Intel 4965AG ³²	None	Fing	8	Business	32 W G P	Jun 07
7763-95U	L7500	1.60	1GB	12.1" SXGA+ SV	80GB 5400	Optional	Optional	*Intel 4965AG	None	Fing	8	Business	32 W G P	Jun 07
7763-B6U	L7500	1.60	1GB	12.1" XGA Touch	120G 5400	Optional	Optional	*Intel 4965AG	None	Fing	8	Business	32 W G P	Jun 07
7763-58U	L7500	1.60	2GB	12.1" XGA	120G 5400	Optional	Optional	*Intel 4965AG	None	Fing	8	Ultimate	32 W G P	Jun 07

• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning	Convertible tablet; one spindle												
Processor	Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core, Intel 64 Technology, EIST ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache												
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available												
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> Option for <i>ThinkPad X6 Tablet UltraBase</i> 80GB³ (5400 rpm), 120GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) color, 190 nits, 4:3, 500:1, 170° viewing, direct bonding panel (SuperView) for improved outdoor viewability <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)												
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965 Graphics - external External VGA monitor support via analog DB-15 connector / no DVI-out support												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Dimensions ³	<i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm <i>4-cell:</i> starting at 3.77 lb (1.71kg); <i>8-cell:</i> starting at 4.25 lb (1.93kg)												
Weight ²	Color: black; All: magnesium alloy												
Case material	Li-Ion 8-cell ;												
Battery - type	supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries)												
Battery - life ¹⁰	<i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>8-cell and Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr												
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express [®] x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)												
Media slice	<i>Option:</i> ThinkPad X6 Tablet UltraBase (see right side)												
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices												
PC Card slot	One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door												
Ports	Three USB 2.0, DB-15 (external VGA monitor), -RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 4965AG ³² WWAN	11a/b/g wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
Turbo 1G	None												
Modem	56K V.92 ⁶ modem in Communications Daughter Card												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 via ICH8M, LED indicator												
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (IAMT)												
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
ThinkPlus™.22	4-year LOR ²⁴ 9x5 NBD		12X5630		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty								
ThinkPlus	5-year LOR 9x5 NBD		43R2162										
Preloaded operating system ²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ♦ <i>Vista models:</i> Vista Basic logo													
Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • ThinkPad Utilities • PC-Doctor™ (diagnostics) • Fingerprint Software • Corel® VirtualDrive CD/DVD Emulator													
Supports ThinkVantage® technologies													
ThinkPad X6 Tablet UltraBase • Provides desktop expansion and cable mgmt for X60/X61 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 250GB Disk 5400 rpm 43R8152 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g													
65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378													

See footnotes for important warranty information
 US models announced May 31, 2007
 US models withdrawn effective May 2009

* Intel Centrino with vPro™ technology

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 (DL2-6) May 2009

ThinkPad® X61 Tablet (7767) - TopSeller (3-year) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-essor	GHz	Memory	Display	Disk SATA GB ⁶ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Finger Bat-tery reader/cells	Workhorse (W) Vista Global (G) preload	Avail date
7767-59U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400			*Intel 11a/b/g ³²		Fing 4	Business 32	Jun 07
7767-5AU	L7500 LV	1.60	1GB	12.1" XGA	120G 5400	DVD±RW	UltraBase	*Intel 11n ²⁸	1G Turbo	Fing 4	Business 32	Jun 07
7767-96U	L7500 LV	1.60	2GB	12.1" SXGA+ SV	120G 5400	DVD±RW	UltraBase	*Intel 11a/b/g	1G Turbo	Fing 8	Business 32	Jun 07
7767-B7U	L7500 LV	1.60	2GB	12.1" XGA Touch	120G 5400			*Intel 11n	1G Turbo	Fing 8	Business 32	Jun 07
7767-C3U	L7500 LV	1.60	1GB	12.1" XGA Touch	100G 7200	DVD±RW	UltraBase	*Intel 11a/b/g	Verizon	Fing 8	Ultimate 32 W	Jul 07
7767-C4U	L7500 LV	1.60	1GB	12.1" XGA Touch	120G 5400	DVD±RW	UltraBase	*Intel 11n	AT&T	Fing 8	Ultimate 32 W	Jul 07
7767-01U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400			*Intel 11a/b/g		Fing 4	XP Tablet	Aug 07
7767-02U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400	DVD±RW	UltraBase	*Intel 11a/b/g		Fing 8	XP Tablet	Aug 07
7767-5CU	L7500 LV	1.60	2GB	12.1" XGA	160G 7200	DVD±RW	UltraBase	*Intel 11n	1G Turbo	Fing 8	Business 32	Sep 07

Positioning	Convertible tablet; one spindle	Preloaded operating system²⁰ - <i>Some:</i> Microsoft® Windows® Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) - <i>Some:</i> Microsoft Windows XP Tablet PC Edition 2005 with Vista COA ◇ <i>Cxx:</i> Vista Basic logo ◇ <i>Other Vista:</i> Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Norton Internet Security (90 days of virus definitions) • PC-Doctor™ (diagnostics) • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Corel® VirtualDrive CD/DVD Emulator
Processor	Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, EDB, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache	
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> <i>Some:</i> DVD burner, Super Multi-Burner (40Y8623), dual-layer, removable from X6 100GB⁸ (7200 rpm), 120GB⁸ (5400 rpm), or 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Display	<i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 155 nits, 4:3, 500:1, 170° viewing <i>Some:</i> 12.1" (307mm) SXGA+ (1400x1050) color, 190 nits, 4:3, 500:1, 170° viewing, direct bonding panel (SuperView) for improved outdoor viewability <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)	
Graphics controller	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GM965	
Graphics - external	External VGA monitor support via analog DB-15 connector / no DVI-out support	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass	
Dimensions ³	<i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg) <i>Color:</i> black; <i>All:</i> magnesium alloy	
Weight ²	Li-Ion 4-cell or 8-cell ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries) <i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>8-cell and Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr	
Case material		
Battery - type		
Battery - life ¹⁰		
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)	
Media slice	<i>Some:</i> ThinkPad X6 Tablet UltraBase (see right side)	
Secure Digital slot	One Secure Digital Card slot, supports SD memory cards used in consumer devices	
PC Card	One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
Intel 11n ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract required with Verizon® Wireless	
AT&T ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, service contract required with AT&T®	
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator	
Modem	56K V.92 ⁵ modem in Communications Daughter Card	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Ethernet	Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module , Atmel chip, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest , swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service, service upgrades ²² available	

See footnotes for important warranty information
 US models announced May 31, June 12, August 14, or September 4, 2007
 US models withdrawn effective May 2009

* Intel Centrino® processor technology
 * Intel Centrino with vPro™ technology

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 (DL2-3) May 2009

ThinkPad® X61 Tablet (Education) - EasyServ - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-processor	GHz	Memory	Display	Disk SATA GB ⁸ rpm	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Vista preload	Educ pre-load	Limited warranty ¹²	Workhorse (W) Global (G) Avail date	
7762-B5U	L7500 LV	1.60	1GB	12.1" XGA <i>Touch</i>	120G 5400	Optional	Optional	11a/b/g ³²	None	Business 32	HE	EasyServ	W Jun 07	
7762-01U	L7500 LV	1.60	1GB	12.1" XGA	100G 7200	Optional	Optional	11a/b/g	None	Business 32	HE	EasyServ	Jun 07	
7762-02U	L7500 LV	1.60	1GB	12.1" XGA <i>Touch</i>	100G 7200	Optional	Optional	11a/b/g	None	Business 32	K12	EasyServ	July 07	
<p>• These models have an EasyServ™¹⁹ depot repair service 3-year limited warranty Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<p>Convertible tablet; one spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Basic logo</p>			
Memory	<p>1GB or 2GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>										<p>Preloaded applications¹⁴ (only some listed) • <i>01U/02U:</i> Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>(HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Norton Internet Security • Corel® VirtualDrive CD/DVD Emulator</p>			
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	<p>Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> 120GB⁹ (5400 rpm) or 100GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i>, <i>ThinkPad Shock Mounted Hard Drive</i>, <i>Active Protection System™</i></p>													
Display	<p><i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)</p>													
Graphics controller Graphics - external	<p>Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965 External VGA monitor support via analog DB-15 connector / no DVI-out support</p>													
Keyboard TrackPoint®	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p>													
Dimensions ³	<p><i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 4-cell: starting at 3.77 lb (1.71kg); 8-cell: starting at 4.25 lb (1.93kg)</p>													
Weight ² Case material Battery - type	<p><i>Color:</i> black; <i>All:</i> magnesium alloy Li-Ion 8-cell; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries) with 4-cell: up to 3.0 hr; with 8-cell: up to 7.0 hr; 8-cell and <i>Ultrabay Slim</i>: up to 9.0 hr with 8-cell and optional <i>Extended Life Battery</i>: up to 9.5 hr</p>													
Battery - life ¹⁰											Supports ThinkVantage® technologies			
Chipset	<p>Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)</p>													
Media slice Secure Digital slot PC Card Ports	<p><i>Option:</i> ThinkPad X6 Tablet UltraBase (see right side) One Secure Digital Card slot, supports SD memory cards used in consumer devices One slot (Type I, Type II), CardBus Plus (34mm ExpressCard via adapter), door Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>													
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN Turbo 1G Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>UltraConnect™ II Antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None None 56K V.92⁶ modem in Communications Daughter Card Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (iAMT) High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)</p>													
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>													
Limited warranty ¹²	<p>3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available</p>													
1GB PC2-5300 DDR2 SODIMM	40Y7734	ThinkPad X6 Tablet UltraBase							41U3120					
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tablet Digitizer Pen							41U3143					
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X60 Tether (3-pack)							41U4820					
USB 2.0 Essential Memory Key 32GB	45K1258	X60 Tablet Li-Ion Battery 8-cell							40Y8318					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad X60 Extended Life Battery							40Y7005					
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ThinkPad X60 Tablet Sleeve							41U3142					
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Ultratable Case							41U5062					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ThinkPlus™ ²² 2-year LOR 9x5 NBD							41C9175					
Other accessories on O-X60-T sheet	Other accessories at lenovo.com/accessories													
								<p>65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>						

See footnotes for important warranty information
 US models announced May 31 or July 16, 2007
 US models withdrawn effective May 2009

ThinkPad® X61 Tablet (Education) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-essor	GHz	Memory	Display	Disk SATA GB ⁶	Optical in UltraBase	X6 Tablet UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Vista preload	Educ pre-load	Workhorse (W) Limited warranty ¹²	Global (G) Avail date
7763-B5U	L7500 LV	1.60	1GB	12.1" XGA	120G 5400	Optional	Optional	11a/b/g ³²	None	Business 32	HE	Onsite	W Jun 07
7763-01U	L7500 LV	1.60	1GB	12.1" XGA	100G 7200	Optional	Optional	11a/b/g	None	Business 32	HE	Onsite	July 07
7763-02U	L7500 LV	1.60	1GB	12.1" XGA	100G 7200	Optional	Optional	11a/b/g	None	Business 32	K12	Onsite	July 07
<p>• These models have a limited onsite service²⁴ 3-year limited warranty These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<p>Convertible tablet; one spindle Intel® Core™ 2 Duo processor L7500 with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology¹, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p>Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Basic logo</p>		
Memory	<p>1GB or 2GB std / 4GB max⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available</p>										<p>Preloaded applications¹⁴ (only some listed) • <i>01U/02U:</i> Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional - Contribute 4 • <i>(HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Norton Internet Security™ • Corel® VirtualDrive CD/DVD Emulator</p>		
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk	<p>Supports Ultrabay Slim devices in optional or standard <i>ThinkPad X6 Tablet UltraBase</i> Option for <i>ThinkPad X6 Tablet UltraBase</i> 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 Tablet UltraBase</i>, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>												
Display	<p><i>Some:</i> 12.1" (307mm) XGA (1024x768) TFT color, 185 nits, 4:3, 500:1, 170° viewing <i>Touch:</i> 12.1" (307mm) XGA (1024x768) TFT color, 4:3, 150 nits, 170° viewing / MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)</p>												
Graphics controller	<p>Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965</p>												
Graphics - external	<p>External VGA monitor support via analog DB-15 connector / no DVI-out support</p>												
Keyboard TrackPoint®	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, 18.5mm pitch TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p>												
Dimensions ³	<p><i>without X6 UltraBase:</i> 4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm <i>without X6 UltraBase:</i> 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm <i>4-cell:</i> starting at 3.77 lb (1.71kg); <i>8-cell:</i> starting at 4.25 lb (1.93kg) <i>Color:</i> black; <i>All:</i> magnesium alloy</p>												
Weight ²													
Case material													
Battery - type	<p>Li-Ion 8-cell; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for 2 batteries)</p>												
Battery - life ¹⁰	<p><i>with 4-cell:</i> up to 3.0 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>8-cell and Ultrabay Slim:</i> up to 9.0 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr</p>										<p>Supports ThinkVantage® technologies</p>		
Chipset	<p>Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)</p>										<p>ThinkPad X6 Tablet UltraBase</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable mgmt for X60/X61 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: <ul style="list-style-type: none"> - ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 <p>SATA disks supported (some): • 250GB FDE 7200 rpm 43N3410</p>		
Media slice	<p><i>Option:</i> ThinkPad X6 Tablet UltraBase (see right side)</p>												
Secure Digital slot	<p>One Secure Digital Card slot, supports SD memory cards used in consumer devices</p>												
PC Card slot	<p>One Type I or one Type II, CardBus Plus (34mm ExpressCard via adapter), door</p>												
Ports	<p>Three USB 2.0, DB-15 (external VGA monitor), -RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>												
Wireless antenna	<p>UltraConnect™ II Antenna / on-off switch for all wireless radios</p>												
Mini PCI Express	<p>Two Mini PCI Express slots / only 802.11 wireless is customer upgradable</p>												
11a/b/g ³²	<p>11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX</p>												
WWAN	<p>None</p>												
Turbo 1G	<p>None</p>												
Modem	<p>56K V.92⁶ modem in Communications Daughter Card</p>												
Bluetooth™	<p>Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator</p>												
Ethernet	<p>Gigabit ethernet, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE</p>												
Intel AMT	<p>Intel Active Management Technology (iAMT)</p>												
Audio support	<p>High Definition (HD) Audio, AD1984 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green)</p>												
Security	<p>Power-on password, hard disk password, supervisor password, security keyhole</p>												
Security chip	<p>Trusted Platform Module, Atmel chip, TCG 1.2-compliant</p>												
Fingerprint reader	<p>Fingerprint reader on palm rest, swipe sensor, supports the security chip</p>												
Limited warranty ¹²	<p>3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time²⁴</p>												
1GB PC2-5300 DDR2 SODIMM	40Y7734			ThinkPad X6 Tablet UltraBase				41U3120					
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad X60 Tablet Digitizer Pen				41U3143					
USB 2.0 Lenovo Multimedia Headset	40Y8518			ThinkPad X60 Tether (3-pack)				41U4820					
USB 2.0 Security Memory Key 4GB	41U5120			X60 Tablet Li-ion Battery 8-cell				40Y8318					
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad X60 Extended Life Battery				40Y7005					
320GB Disk SATA 1.5Gb/s (7200 rpm)	43N3411			ThinkPad X60 Tablet Sleeve				41U3142					
TrackPoint Cap Collection	73P2698			ThinkPad Ultraportable Case				41U5062					
Other accessories on O-X60-T sheet											<p>Other accessories at lenovo.com/accessories</p>		
										<p>65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>			

See footnotes for important warranty information
 US models announced May 31, or July 16, 2007
 US models withdrawn effective May 2009

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 (DL2-5) May 2009

Partial list of accessories supported on:

- ThinkPad X60 Tablet originally announced on Nov 14, 2006
- ThinkPad X61 Tablet originally announced on May 31, 2007

Memory

512MB PC2-5300 DDR2 SODIMM	40Y7733	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	ann	03/25/08
1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	ann	03/25/08
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06

Ultrabay Slim 9.5mmNone (Ultrabay Slim on optional *ThinkPad X6 Tablet UltraBase*)**Ultrabay Enhanced 12.7mm**

None

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann	03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann	10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann	01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann	01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann	08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann	01/20/09

⁴¹ Can be used as the main disk or with *ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725* in the optional *ThinkPad X6 Tablet Ultrabase 41U3120*.

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
USB 2.0 Essential Memory Key 4GB	45J7904	ann	06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann	07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann	10/28/08
USB 2.0 Security Memory Key 2GB	41U5119	ann	07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann	07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann	08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann	08/26/08
USB Portable Diskette Drive	05K9276	ann	06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann	01/05/06
USB 2.0 Portable 160GB Hard Disk	43R1784	ann	09/23/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann	01/23/07

ThinkPad Expansion

USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ann	02/26/08
ThinkPad Adjustable Notebook Stand	40Y7676	ann	09/20/05
ThinkPad X6 Tablet UltraBase	41U3120	ann	11/14/06

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04
USB Keyboard with UltraNav	31P8950	ann	01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann	04/27/04
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Optical Wheel Mouse (USB)	06P4069	ann	05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann	08/27/02
Optical Wheel Travel Mouse (USB, PS/2)	31P7410	ann	06/04/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann	01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann	11/25/08
Laser Tilt Wheel Travel Mouse (Bluetooth)	41U5008	ann	01/22/08
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann	12/07/04

Security

Kensington® Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann	12/13/05

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann	06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann	08/29/06

Batteries

X60 Tablet Li-Ion 4-cell	40Y8314	ann	11/14/06
X60 Tablet Li-Ion 8-cell	40Y8318	ann	11/14/06
X60 Extended Life Battery	40Y7005	ann	01/05/06
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* (adapter provided with some systems).

ThinkPad 65W AC Adapter	40Y7696	ann	09/20/05
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 90W Slim AC/DC Combo Adapter	41N8460	ann	11/27/07

Tablet

ThinkPad X60 Tablet Digitizer Pen	41U3143	ann	11/14/06
ThinkPad X60 Tether (3-pack)	41U4820	ann	11/14/06

Carrying Cases

ThinkPad X60 Tablet Sleeve	41U3142	ann	11/14/06
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
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Up to 14.1" widescreen models:

ThinkPad Expander Case	43R9118	ann	06/24/08
ThinkPad Women's Microfiber Tote	22P8855		
ThinkPad Convertible Carrying Case	22P8860		
ThinkPad Women's Executive Leather Tote	22P8857		
Women's Executive Red Leather Tote	22P8858		

Up to 15.4" widescreen models:

Lenovo Carrying Case - Messenger Max	41U5253	ann	05/01/07
Lenovo Carr Case - Performance Backpack	41U5254	ann	05/01/07
Lenovo Standard Case	45K1697	ann	11/25/08
Lenovo Standard Backpack	45K1698	ann	11/25/08
Checkpoint Friendly Business Topload Case	51J0418	ann	02/24/09
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

Up to 17.0" widescreen models:

ThinkPad 17W Business Topload Case	43R9117	ann	08/12/08
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Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann	04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann	09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann	09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann	04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann	09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann	09/17/08

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington Cable Lock from Lenovo	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
ThinkPad Convertible Monitor Stand	40Y7620	ann	01/05/06
Radial Arm	19K4464	ann	05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.More information at www.lenovo.com/support/monitoraccessories**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann	01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann	01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann	01/31/07

Other accessories at www.lenovo.com/accessoriesAccessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X100e



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e with 3-cell battery



Lenovo ThinkPad X100e



Lenovo ThinkPad X100e family

ThinkPad® X100e (3508) - TopSeller (XP Home) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁵ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Carrier cells	Workhorse (W) Gbl (G) Educ	Avail date
3508-24U	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 2200	160G 5400	None	11b/g/n	Gobi 2000	None	6 XP Home	No Jan 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Positioning	<i>Entry ultraportable for excellent usability and reliability; one spindle</i>											Preloaded operating system²⁰		
Processor	AMD® Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache											- Genuine Windows® XP Home Edition		
Memory	1GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ (only some listed)		
SATA DVD±RW	None (use optional USB-based optical drive)											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Presentation Director • Lenovo System Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft® Office 2007 Trial (60-day) 		
SATA disk	160GB⁸ (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable													
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio													
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive													
Integrated graphics	ATI™ Radeon™ HD 2200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536 @60Hz													
Keyboard	Full-size, 6-row, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	Two-button touch pad, supports multi-touch function													
ThinkLight™	None													
Dimensions ³	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm													
Weight ²	<i>6-cell:</i> from 3.3 lb (1.5kg)													
Case	<i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion 6-cell											Supports ThinkVantage® technologies		
Battery - life ¹⁰	<i>6-cell:</i> up to 5 hr											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Chipset	AMD M780G Chipset, SB710 south bridge											ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968		
Multicard reader	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital)											ThinkPlus 2-year LOR 9x5 NBD 45K5969		
ExpressCard/54	None											ThinkPlus 3-year LOR 9x5 NBD 45K5970		
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)											ThinkPlus 4-year LOR 9x5 NBD 45K5973		
PCIe Mini Card	Two PCI Express Mini Card slots											ThinkPlus 2-year P&L P/U Depot 45K5971		
11b/g/n	11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2											ThinkPlus 3-year P&L P/U Depot 45K5972		
Gobi™ 2000	Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider											ThinkPlus 4-year P&L P/U Depot 45K5974		
Carrier	None											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Modem	None													
Bluetooth™	Bluetooth 2.1 wireless													
Ethernet	Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1													
Intel AMT	None													
Audio support	High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	None													
Fingerprint reader	None													
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM					40Y7734	ThinkPad Battery 17 (3-cell)				57Y4558				
2GB PC2-5300 DDR2 SODIMM					40Y7735	ThinkPad Battery 17+ (6-cell)				57Y4559				
Other accessories on O-X100-E sheet					Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
US model announced January 12, 2010
US model withdrawn effective October 2010

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ThinkPad® X100e (3508) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁹ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Blue- tooth	Preload	Avail date
3508-28U	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg		black		Home P 32	Jan 10
3508-29U	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Pro 32	Jan 10
3508-2AU	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	AT&T ²³	black		Pro 32	Jan 10
3508-9BU	L335	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg		black		Home P 32	Mar 10
3508-9CU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Pro 32	Mar 10
3508-9DU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		red		Pro 32	Mar 10
3508-9EU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000		black	Blue	Pro 32	Mar 10
3508-9TU	L335	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	Gobi 2000	AT&T	black		Home P 32	Apr 10
3508-A9U	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black	Blue	Home P 32	Jul 10
3508-AAU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	selectable	black		Pro 32	Jul 10
3508-AHU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11a/b/g/n	WWAN upg		black	Blue	Home P 32	Jul 10
3508-AKU	L335	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg		black		Home P 32	Sep 10
3508-ALU	MV-40	1.60	1GB	11.6" HD	LED	0.3M	HD 3200	160GB 5400	11b/g/n	Gobi 2000	selectable	black	Blue	Home P 32	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Athlon Neo X2 Processor for Ultrathin Notebooks L335 with dual-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 32 - Some: Genuine Windows 7 Professional 32
Memory	1GB or 2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 160GB⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable	
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive	
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536@60Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None	
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black or red; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr	Supports ThinkVantage® technologies
Chipset	AMD M780G Chipset, SB710 south bridge	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n 11a/b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 <i>Some:</i> 11a/b/g/n wireless, ThinkPad 11a/b/g/n, PCIe Half Mini Card, Broadcom® chipset, 2x2	ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
WWAN upg Gobi™ 2000	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	ThinkPlus 2-year LOR 9x5 NBD 45K5969
Carrier	<i>Some:</i> AT&T®, contract required with service provider <i>Some:</i> User selectable at first boot, AT&T, Verizon®, or Sprint®, contract required with service provider	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Modem	None	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless	ThinkPlus 2-year P&L P/U Depot 45K5971
Ethernet	Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1	ThinkPlus 3-year P&L P/U Depot 45K5972
Audio support	High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack	ThinkPlus 4-year P&L P/U Depot 45K5974
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced January 5, March 30, April 6, July 6, July 27, or September 21, 2010
US models withdrawn effective June 2011

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ThinkPad® X100e (2876) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁹ rpm	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Top color	Bat-tery cells	Blue-tooth	Workhorse (W) Global (G) Avail date
2876-2JU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg	None	black	6	Blue	Pro 32 G Jan 10
2876-2FU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6	Blue	Pro 32 G Jan 10
2876-35U	MV-40	1.60	3GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue	Pro 32 Jan 10
2876-33U	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	WiMAX	WWAN upg	None	black	6	Blue	Pro 32 Mar 10
2876-34U	MV-40	1.60	4GB	11.6" HD	0.3M	HD 3200	250GB 5400	WiMAX	WWAN upg	None	black	6	Blue	Pro 32 Mar 10
2876-6RU	MV-40	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6 high	Blue	Pro 32 G Mar 10
2876-72U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6	Blue	Pro 32 G Mar 10
2876-73U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue	Pro 32 Mar 10
2876-74U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	red	6	Blue	Pro 32 Mar 10
2876-76U	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	WWAN upg	None	black	6 high	Blue	Pro 32 Mar 10
2876-9XU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	160GB 5400	11b/g/n	WWAN upg	None	black	6	Blue	Pro 32 G May 10
2876-9YU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11b/g/n	Gobi 2000	None	black	6	Blue	Pro 32 May 10
2876-AHU	L335	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11a/b/g/n	WWAN upg	None	black	6 high	Blue	Pro 32 Jul 10
2876-AJU	L625	1.60	2GB	11.6" HD	0.3M	HD 3200	250GB 5400	11a/b/g/n	WWAN upg	None	black	6 high	Blue	Pro 32 Jul 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Athlon Neo X2 Processor for Ultrathin Notebooks L335 with dual-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache or AMD Turion™ Neo X2 Processor for Ultrathin Notebooks L625 with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB L2 cache	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Windows Live™ Toolbar • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
Memory	2GB, 3GB, or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available	
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 160GB ⁸ (5400 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable	
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive	
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536 @60Hz	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint® pointing device, Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None	
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black or red; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 6-cell high capacity <i>6-cell:</i> up to 5.1 hr; <i>6-cell high:</i> up to 5.2 hr	Supports ThinkVantage® technologies
Chipset	AMD M780G Chipset, SB710 south bridge	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)	
PCIe Mini Card 11b/g/n 11a/b/g/n	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 <i>Some:</i> 11a/b/g/n wireless, ThinkPad 11a/b/g/n, PCIe Half Mini Card, Broadcom® chipset, 2x2	ThinkPlus™.22 1-year LOR ²⁴ 9x5 NBD 45K5968
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX	ThinkPlus 2-year LOR 9x5 NBD 45K5969
WWAN upg Gobi™ 2000	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider	ThinkPlus 3-year LOR 9x5 NBD 45K5970
Carrier Modem	None None	ThinkPlus 4-year LOR 9x5 NBD 45K5973
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless	ThinkPlus 2-year P&L P/U Depot 45K5971
Ethernet	Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1	ThinkPlus 3-year P&L P/U Depot 45K5972
Audio support	High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack	ThinkPlus 4-year P&L P/U Depot 45K5974
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None	Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for important warranty information

US models announced January 5, March 2, March 30, May 4, or July 27, 2010

US models withdrawn effective April 2011 or June 2011

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ThinkPad® X100e (3508) - Education (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Camera	Integrated graphics	Disk SATA GB ⁵ rpm	SATA optical	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Carrier cells	Workhorse (W) Gbl (G) Edu	Avail date
3508-2GU	MV-40	1.60	2GB	11.6" HD	LED	0.3M	HD 3200	250G 5400	None	11b/g/n	WWAN upg	None	6 Pro 32 Edu	Jan 10

- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**

Positioning Processor	<i>Entry ultraportable for excellent usability and reliability; one spindle</i> AMD Athlon™ Neo Processor for Ultrathin Notebooks MV-40 with single-core, virtualization technology, integrated DDR2 memory controller, and 512KB L2 cache											Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2 , non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications ¹⁴ (only some listed) • Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premiere Elements (and DVD) - Acrobat 8 Professional - Contribute 4 • Rescue and Recovery™ • Access Connections™ • Password Manager • Microsoft Office 2010 preloaded; purchase product key to activate
SATA DVD±RW SATA disk	None (use optional USB-based optical drive) 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 9.5mm high, Active Protection System™, upgradable											
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight , 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive											
Integrated graphics	ATI™ Radeon™ HD 3200 graphics , in M780G, external analog monitor support via VGA DB-15 connector; <i>Maximum external resolution:</i> 2048x1536@60Hz											
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass Two-button touch pad, supports multi-touch function None											Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case	<i>6-cell:</i> 11.1" x 8.2" x 0.6-1.2"; 282mm x 209mm x 16-30mm <i>6-cell:</i> from 3.3 lb (1.5kg) <i>Color:</i> black; <i>Material:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 5 hr											
Chipset	AMD M780G Chipset, SB710 south bridge											
Multicard reader ExpressCard/54 Ports	4-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital) None Three USB 2.0 (one powered), external monitor (VGA DB-15), ethernet (RJ-45)											ThinkPlus™, ²² 1-year LOR ²⁴ 9x5 NBD 45K5968
PCIe Mini Card 11b/g/n WWAN upg Gobi™ 2000 Carrier Modem Bluetooth™ Ethernet Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x2 Wireless WAN upgradable None None None None Realtek RT8111DL Gigabit Network Connection, PHY, PCIe x1 High Definition (HD) Audio, Conexant CX20582-11Z codec / stereo speakers, 1.5 watt x 2 / combo audio/mic jack											ThinkPlus 2-year LOR 9x5 NBD 45K5969 ThinkPlus 3-year LOR 9x5 NBD 45K5970 ThinkPlus 4-year LOR 9x5 NBD 45K5973 ThinkPlus 2-year P&L P/U Depot 45K5971 ThinkPlus 3-year P&L P/U Depot 45K5972
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None											ThinkPlus 4-year P&L P/U Depot 45K5974
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US model announced January 5, 2010
US model withdrawn effective June 2011

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Memory

1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0502	ann	03/17/09
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06
2GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0548	ann	03/17/09

Storage and removable storage

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

⁵³ USB-only attach.

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad AT&T® Gobi 2000 Broadband Opt	78Y1398	ann	01/07/10
ThinkPad Gobi 2000 Broadband Option	78Y1399	ann	01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
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⁵⁶ USB Port Replicator with Digital Video 45K1610 is not supported by ThinkPad X100e due to the system's CPU capabilities.

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Preferred Pro USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08
Lenovo Wireless Laser Mouse - Black ⁵²	45K1696	ann	11/25/08
Lenovo Wireless Laser Mouse - Red/Black ⁵²	51J0198	ann	11/25/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries

ThinkPad Battery 17+ (6-cell)	57Y4559	ann	01/05/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696		
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann	09/07/10
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

ThinkPad 11W Case Sleeve	57Y4286	ann	01/05/10
ThinkPad 11W Sling Case	57Y4287	ann	01/05/10

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10

More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems



Lenovo® ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e



Lenovo ThinkPad X120e

ThinkPad® X120e (0596) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁹ rpm	SATA optical	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Blue-tooth	Battery cells	Preload
0596-2UU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64
0596-2TU	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64
0596-2SU	E-240	1.50	2+1GB	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0596-2RU	E-350	1.60	2GBx2	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0596-2PU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0596-2NU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg			6	Pro 64
0596-24U	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0596-22U	E-240	1.50	1GBx1	11.6" HD	0.3M	HD 6310	250G 5400	None	TP 11b/g/n	WWAN upg			3	Prem 32
0596-2ZU	E-350	1.60	2GBx2	11.6" HD	0.3M	HD 6310	320G 7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64
0596-34U	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G 5400	None	TP 11b/g/n	WWAN upg			6	Prem 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Entry ultraportable for excellent usability and reliability; one spindle</i> AMD Accelerated Processor E-240 with single-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 512KB L2 cache AMD Accelerated Processor E-350 with dual-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 1MB L2 cache	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 32 - <i>Some:</i> Genuine Windows 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 64
Memory	4GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1066MHz DDR3 memory controller	Ready to install applications¹⁴ (only some listed)
Optical SATA disk	None (use optional USB-based optical drive) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable, Active Protection System™	<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions)
Widescreen display Camera	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator	Preloaded applications¹⁴ (only some listed)
Graphics	AMD Radeon™ HD 6310M graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @60Hz; 1920x1200 (HDMI) @60Hz	<ul style="list-style-type: none"> • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, 89-key, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None	
Dimensions ³	<i>3-cell:</i> 11.1" x 7.4" x 0.6-1.2"; 282mm x 189mm x 15.6-29.5mm <i>6-cell:</i> 11.1" x 8.3" x 0.6-1.2"; 282mm x 210mm x 15.6-29.5mm	
Weight ² Case color Case material	<i>3-cell:</i> from 2.93 lb (1.33kg); <i>6-cell:</i> from 3.31 lb (1.5kg) Matte black (top) <i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 3-cell or 6-cell <i>3-cell:</i> up to 3 hr; <i>6-cell:</i> up to 6 hr	
Chipset	AMD A50M FCH Chipset	
Multicard reader ExpressCard Ports	4-in-1 reader (MMC, SD, Memory Stick, Memory Stick Pro) None Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x1 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 2000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable carrier at first boot, AT&T, Verizon®, or Sprint®, contract required with service provider	Supports ThinkVantage® technologies
Modem Bluetooth™ Ethernet Audio support	None <i>Some:</i> Bluetooth 3.0 wireless (requires Bluetooth 3.0 driver support) Realtek RTL8111DL Gigabit Network Connection, PHY, PCIe x1 High Definition (HD) Audio, Conexant CX20582 codec / stereo speakers, 1 watt x 2 / digital mono microphone, combo audio/mic jack	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None	For compatible accessories, please go to O-X120-E sheet; For ThinkPlus™ service upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced February 15, May 3, or November 29, 2011
US models withdrawn effective November 2011 or January 2012

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(MNK2-1) January 2012

ThinkPad® X120e (0611) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Integrated graphics	Disk SATA GB ⁹	rpm	SATA optical	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Blue-tooth	Battery cells	Preload
0611-2NU	E-350	1.60	2+1GB	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64
0611-2HU	E-350	1.60	2+1GB	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg			6	Pro 64
0611-2EU	E-350	1.60	2GBx2	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0611-2DU	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg			6	Pro 64
0611-2BU	E-350	1.60	2GBx1	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0611-29U	E-240	1.50	2GBx1	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	WWAN upg		Blue	6	Pro 64
0611-2SU	E-350	1.60	2GBx2	11.6" HD	0.3M	HD 6310	320G	7200	None	TP 11b/g/n	Gobi 2000	selectable	Blue	6	Pro 64

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning	<i>Entry ultraportable for excellent usability and reliability; one spindle</i>	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSEs; only some listed) • Rescue and Recovery™ • Access Connections™ • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) Preloaded applications¹⁴ (all OSEs; only some listed) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
Processor	AMD Accelerated Processor E-240 with single-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 512KB L2 cache AMD Accelerated Processor E-350 with dual-core, virtualization technology, integrated 1066MHz DDR3 memory controller, and 1MB L2 cache	
Memory	4GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1066MHz DDR3 memory controller	
Optical	None (use optional USB-based optical drive)	
SATA disk	<i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm or 9.5mm high, upgradable, Active Protection System™	
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator	
Graphics	AMD Radeon™ HD 6310M graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA) @60Hz; 1920x1200 (HDMI) @60Hz</i>	
Keyboard	Full-size, 6-row, 89-key, spill-resistant, multimedia Fn keys	
TrackPoint®	TrackPoint pointing device, Internet Scroll Bar ¹³ , magnifying glass	
Touch pad	UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch	
ThinkLight™	None	
Dimensions ³	<i>3-cell:</i> 11.1" x 7.4" x 0.6-1.2"; 282mm x 189mm x 15.6-29.5mm <i>6-cell:</i> 11.1" x 8.3" x 0.6-1.2"; 282mm x 210mm x 15.6-29.5mm	
Weight ²	<i>3-cell:</i> from 2.93 lb (1.33kg); <i>6-cell:</i> from 3.31 lb (1.5kg)	
Case color	Matte black (top)	
Case material	<i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> Magnesium alloy	
Battery - type	Lithium Ion 3-cell or 6-cell	
Battery - life ¹⁰	<i>3-cell:</i> up to 3 hr; <i>6-cell:</i> up to 6 hr	
Chipset	AMD A50M FCH Chipset	
Multicard reader	4-in-1 reader (MMC, SD, Memory Stick, Memory Stick Pro)	
ExpressCard	None	
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card	Two PCI Express Mini Card slots	
WLAN ⁴	ThinkPad 11b/g/n, PCIe Half Mini Card, Realtek® chipset, 1x1	
WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 2000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable carrier at first boot, AT&T, Verizon®, or Sprint®, contract required with service provider	
Modem	None	
Bluetooth™	<i>Some:</i> Bluetooth 3.0 wireless (requires Bluetooth 3.0 driver support)	
Ethernet	Realtek RTL8111DL Gigabit Network Connection, PHY, PCIe x1	
Audio support	High Definition (HD) Audio, Conexant CX20582 codec / stereo speakers, 1 watt x 2 / digital mono microphone, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	None	
Fingerprint reader	None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
 US models announced February 15 or May 3, 2011
 US models withdrawn effective January 2012

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ThinkPad® X120e Accessories - withdrawn

Personal Systems Reference (PSREF)

Memory⁶⁴		
2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
⁶⁴ System automatically clocks down for processors with 1066MHz DDR3 memory controller.		
Storage and removable storage		
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11
Wireless WAN (Mini PCI Express)		
<i>Only WWAN upgradable models:</i>		
ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10
ThinkPad Expansion		
Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
Keyboard		
TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09
Mouse		
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
Security		
3M 11.6W Privacy Filter from Lenovo	0A61768	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
Multimedia		
ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
Modem		
USB 2.0 Lenovo Modem	43R1814	ann 02/26/08

Batteries		
ThinkPad Battery 17+ (6-cell)	57Y4559	ann 01/05/10
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter 40Y7659</i> or the adapter provided with the system.		
More information at www.lenovo.com/alldaycomputing		
ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09
More info at www.lenovo.com/support/poweradapters		
<i>Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493</i>		
•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09
More information at www.lenovopowertips.com		
Carrying Cases		
ThinkPad 11W Case Sleeve	57Y4286	ann 01/05/10
ThinkPad 11W Sling Case	57Y4287	ann 01/05/10
More information at www.lenovo.com/support/cases		
Monitors		
ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11
⁶⁹ DisplayPort cable is not included.		
Lenovo LS2421p Wide 23.6" (VGA, HDMI)	4015LS1	ann 08/02/11
More information at www.lenovo.com/support/monitors		
Monitor Accessories⁴⁶		
Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.		
More information at www.lenovo.com/support/monitoraccessories		
For more information on accessories: www.lenovo.com/accessories Purchase Lenovo accessories		
www.lenovo.com/support/accessories Product specifications on Lenovo Support		
www.lenovo.com/accessoriesguide Option Compatibility Matrix (OCM) and accessory brochures		
www.lenovoquickpick.com An Options Compatibility Configurator for Lenovo systems		

ThinkPad®



Lenovo® ThinkPad X130e



Lenovo ThinkPad X130e



Lenovo ThinkPad X130e



Lenovo ThinkPad X130e



Lenovo ThinkPad X130e



Lenovo ThinkPad X130e

ThinkPad® X130e 2338 (Intel) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Preload (mm/yy)	Ann Date
2338-2BU	i3-2367M	4GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	Gobi 3000	selectable	Matte black	None	Blue	6	Pro 64	12/11
2338-2AU	i3-2367M	4GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
2338-A14	Cel 867	4GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	02/12
2338-29U	i3-2367M	2GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
2338-28U	i3-2367M	2GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Prem 64	12/11
2338-2JU	Cel 867	4GBx1	11.6" HD	0.3M	128G SSD	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12
2338-2HU	i3-2367M	4GBx1	11.6" HD	0.3M	128G SSD	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12
2338-2GU	Cel 867	4GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12
2338-2FU	Cel 867	4GBx1	11.6" HD	0.3M	320G 7200	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle Intel® Celeron® 867 processor (dual-core, 1.30GHz, 2MB Cache), DDR3 memory controller (up to 1333MHz) Intel Core™ i3-2367M processor (dual-core, 1.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Hyper-Threading technology	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions)
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™	Preloaded applications¹⁴ (only some listed) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI port) @60Hz</i>	
Keyboard TrackPoint®	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³	
Touch pad ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case color Case material	<i>11.6W" (WxDxH):</i> 11.6" x 8.5" x 0.98"; 293.4mm x 216mm x 24.8mm <i>6-cell:</i> from 3.93 lb (1.78kg) Matte black (top) <i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell (62.4Whr):</i> up to 9.0 hr	
Chipset	Mobile Intel HM65 Express Chipset	
Multicard reader ExpressCard Ports	4-in-1 reader (MMC, SD, SDHC, SDXC) None Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad a/b/g/n, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	Supports ThinkVantage® technologies
Carrier	<i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Modem Bluetooth™ Ethernet Intel AMT Audio support	None Bluetooth 3.0 wireless Gigabit ethernet, Atheros® AR8151 None High Definition (HD) Audio, Conexant CX20671 codec / stereo speakers, 2 watt x 2 / digital mono microphone, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None	For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced December 20, 2011, or February 14, April 3, or April 10, 2012
US model(s) withdrawn effective September 2012

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ThinkPad® X130e 2339 (Intel) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Bat-tery cells	Pre-load	Ann Date (mm/yy)
2339-2AU	i3-2367M	1.40	4GBx1	11.6" HD	0.3M	320G 7200	TP 11a/b/g/n	WWAN upg	selectable	Matte black	None	Blue	6	Pro 64	12/11
2339-28U	i3-2367M	1.40	4GBx1	11.6" HD	0.3M	320G 7200	TP 11a/b/g/n	Gobi 3000		Matte black	None	Blue	6	Pro 64	12/11
2339-27U	i3-2367M	1.40	2GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Prem 64	12/11

- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Entry ultraportable for excellent usability and reliability; one spindle</i> Intel® Core™ i3-2367M processor (dual-core, 1.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Hyper-Threading technology										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 64				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions)				
Optical SATA disk	None (use optional USB-based optical drive) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™										Preloaded applications¹⁴ (only some listed) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate				
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio										Supports ThinkVantage® technologies				
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI™ (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution:</i> 2048x1536 (VGA) @75Hz; 1920x1200 (HDMI port) @60Hz										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Keyboard TrackPoint®	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³														
Touch pad ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch None										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Dimensions ³	<i>11.6W" (WxDxH):</i> 11.6" x 8.5" x 0.98"; 293.4mm x 216mm x 24.8mm														
Weight ²	<i>6-cell:</i> from 3.93 lb (1.78kg)										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Case color	Matte black (top)														
Case material	<i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	<i>6-cell (6.24Whr):</i> up to 9.0 hr										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Chipset	Mobile Intel HM65 Express Chipset														
Multicard reader ExpressCard	4-in-1 reader (MMC, SD, SDHC, SDXC) None										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad a/b/g/n, 2x2										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS														
Carrier	<i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Modem	None														
Bluetooth™	Bluetooth 3.0 wireless										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Ethernet	Gigabit ethernet, Atheros® AR8151														
Intel AMT	None										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Audio support	High Definition (HD) Audio, Conexant CX20671 codec / stereo speakers, 2 watt x 2 / digital mono microphone, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Security chip	Trusted Platform Module, TCG 1.2-compliant														
Fingerprint reader	None										For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet				
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced December 20, 2011
US model(s) withdrawn effective September 2012

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(JN1-2) September 2012

ThinkPad® X130e 0622 (AMD) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload (mm/yy)	Ann Date
0622-2HU	E-450	4GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	Gobi 3000	selectable	Matte black	None	Blue	6	Pro 64	12/11
0622-2GU	E-450	2GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
0622-2FU	E-300	2GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
0622-2EU	E-450	2GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Prem 64	12/11
0622-2DU	E-300	2GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Prem 64	12/11
0622-23U	E-450	4GBx1	11.6" HD	0.3M	320G 7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
0622-2PU	E-300	4GBx1	11.6" HD	0.3M	128G SSD	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12
0622-2NU	E-450	4GBx1	11.6" HD	0.3M	128G SSD	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12
0622-2MU	E-450	4GBx1	11.6" HD	0.3M	320G 7200	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12
0622-2LU	E-300	2GBx1	11.6" HD	0.3M	320G 7200	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	04/12

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	Entry ultraportable for excellent usability and reliability; one spindle AMD Accelerated Processor E-300 (dual-core, 1.30GHz, 1MB L2 cache), integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz) AMD Accelerated Processor E-450 (dual-core, 1.65GHz, 1MB L2 cache), integrated AMD Radeon HD 6320 Graphics, integrated DDR3 memory controller (up to 1333MHz)	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1066MHz DDR3 memory controller	Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions)
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™	Preloaded applications¹⁴ (only some listed) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator	
Graphics	AMD Radeon HD 6310 or 6320 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA); 1920x1200 (HDMI)</i>	
Keyboard TrackPoint®	Full-size, 6-row, spill-resistant, multimedia Fn keys	
Touch pad	TrackPoint pointing device, Internet Scroll Bar ¹³	
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch	
None	None	
Dimensions ³	11.6W" (WxDxH): 11.6" x 8.5" x 0.98"; 293.4mm x 216mm x 24.8mm	
Weight ²	6-cell: from 3.93 lb (1.78kg)	
Case color	Matte black (top)	
Case material	<i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell	
Battery - life ¹⁰	6-cell (62.4Whr): up to 9.2 hr	
Chipset	AMD A50M FCH Chipset	
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	
ExpressCard	None	
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots Some: 11b/g/n, PCIe Half Mini Card, ThinkPad b/g/n, 1x1 Some: 11a/b/g/n, PCIe Half Mini Card, ThinkPad a/b/g/n, 2x2	
WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS	Supports ThinkVantage® technologies
Carrier	Some: User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Modem	None	
Bluetooth™	Bluetooth 3.0 wireless	
Ethernet	Gigabit ethernet, Atheros® AR8151	
Audio support	High Definition (HD) Audio, Conexant CX20671 codec / stereo speakers, 2 watt x 2 / digital mono microphone, combo audio/mic jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	None	
Fingerprint reader	None	For compatible accessories, please go to O-X130-E sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information

US model(s) announced December 20, 2011, April 3, 2012, or April 10, 2012

US model(s) withdrawn effective September 2012

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(JN1-3) September 2012

ThinkPad® X130e 0627 (AMD) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ³	rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Pre-load	Ann Date (mm/yy)
0627-2AU	E-450	1.65	4GBx1	11.6" HD	0.3M	320G	7200	TP 11a/b/g/n	Gobi 3000	selectable	Matte black	None	Blue	6	Pro 64	12/11
0627-29U	E-450	1.65	4GBx1	11.6" HD	0.3M	320G	7200	TP 11a/b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
0627-28U	E-450	1.65	2GBx1	11.6" HD	0.3M	320G	7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
0627-27U	E-300	1.30	2GBx1	11.6" HD	0.3M	320G	7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Pro 64	12/11
0627-26U	E-450	1.65	2GBx1	11.6" HD	0.3M	320G	7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Prem 64	12/11
0627-25U	E-300	1.30	2GBx1	11.6" HD	0.3M	320G	7200	TP 11b/g/n	WWAN upg		Matte black	None	Blue	6	Prem 64	12/11

• Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Entry ultraportable for excellent usability and reliability; one spindle</i></p> <p>AMD Accelerated Processor E-300 (dual-core, 1.30GHz, 1MB L2 cache), integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz)</p> <p>AMD Accelerated Processor E-450 (dual-core, 1.65GHz, 1MB L2 cache), integrated AMD Radeon HD 6320 Graphics, integrated DDR3 memory controller (up to 1333MHz)</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Genuine Windows® 7 Home Premium 64 - Some: Genuine Windows 7 Professional 64 <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1066MHz DDR3 memory controller	
Optical SATA disk	None (use optional USB-based optical drive) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm, upgradable, Active Protection System™	
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator	
Graphics	AMD Radeon HD 6310 or 6320 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA); 1920x1200 (HDMI)</i>	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³ UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case color Case material	11.6W" (WxDxH): 11.6" x 8.5" x 0.98"; 293.4mm x 216mm x 24.8mm <i>6-cell:</i> from 3.93 lb (1.78kg) Matte black (top) <i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell (62.4Whr):</i> up to 9.2 hr	
Chipset	AMD A50M FCH Chipset	
Multicard reader ExpressCard Ports	4-in-1 reader (MMC, SD, SDHC, SDXC) None Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Carrier	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, ThinkPad b/g/n, 1x1 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, ThinkPad a/b/g/n, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	<p>Supports ThinkVantage® technologies</p> <p>65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p> <p>For compatible accessories, please go to O-X130-E sheet; For Lenovo service²² upgrade options, please go to S-TA sheet</p>
Modem Bluetooth™ Ethernet Audio support	None Bluetooth 3.0 wireless Gigabit ethernet, Atheros® AR8151 High Definition (HD) Audio, Conexant CX20671 codec / stereo speakers, 2 watt x 2 / digital mono microphone, combo audio/mic jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole None None	
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced December 20, 2011
US model(s) withdrawn effective September 2012

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(JN1-4) September 2012

ThinkPad® X130e 0627 (AMD) - DOS - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Top color	Finger print reader	Blue-tooth	Battery cells	Preload	Ann Date (mm/yy)
0627-2FU	E-300	1.30	2GBx1	11.6" HD	0.3M	None	TP 11a/b/g/n	WWAN upg	None	Matte black	None	None	6	None	02/12

- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Entry ultraportable for excellent usability and reliability; one spindle</i> AMD Accelerated Processor E-300 (dual-core, 1.30GHz, 1MB L2 cache), integrated AMD Radeon™ HD 6310 Graphics, integrated DDR3 memory controller (up to 1066MHz)										Preloaded operating system²⁰ - None (DOS License ready)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, two 204-pin SO-DIMM sockets * System automatically clocks down for processors with 1066MHz DDR3 memory controller														
Optical SATA disk	None (use optional USB-based optical drive) None														
Widescreen display	11.6" (295mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio														
Camera	Camera on top of screen, 0.3-megapixel, fixed focus, low light sensitive, LED indicator														
Graphics	AMD Radeon HD 6310 graphics in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via HDMI (supporting HDCP to output protected content); supports dual independent display; <i>Maximum external resolution: 2048x1536 (VGA); 1920x1200 (HDMI)</i>														
Keyboard TrackPoint®	Full-size, 6-row, spill-resistant, multimedia Fn keys TrackPoint pointing device, Internet Scroll Bar ¹³														
Touch pad ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch None														
Dimensions ³	<i>11.6W" (WxDxH):</i> 11.6" x 8.5" x 0.98"; 293.4mm x 216mm x 24.8mm														
Weight ²	<i>6-cell:</i> from 3.93 lb (1.78kg)														
Case color	Matte black (top)														
Case material	<i>Top:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic; <i>Bottom:</i> PolyCarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell														
Battery - life ¹⁰	<i>6-cell (62.4Whr):</i> up to 9.2 hr														
Chipset	AMD A50M FCH Chipset														
Multicard reader	4-in-1 reader (MMC, SD, SDHC, SDXC)														
ExpressCard	None														
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15, HDMI), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, ThinkPad a/b/g/n, 2x2										Supports ThinkVantage® technologies				
WWAN	Wireless WAN upgradable														
Carrier	None														
Modem	None														
Bluetooth™	None														
Ethernet	Gigabit ethernet, Atheros® AR8151														
Audio support	High Definition (HD) Audio, Conexant CX20671 codec / stereo speakers, 2 watt x 2 / digital mono microphone, combo audio/mic jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	None														
Fingerprint reader	None														
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced February 28, 2012
US model(s) withdrawn effective September 2012

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(JN1-5) September 2012

65-watt AC Adapter
ROHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
For compatible accessories, please go to O-X130-E sheet;
For Lenovo service²² upgrade options, please go to S-TA sheet

Memory⁶⁴

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann	03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann	03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann	03/02/10

⁶⁴ System automatically clocks down for processors with 1066MHz DDR3 memory controller.

Storage and removable storage

USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann	11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann	11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann	08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann	06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 3000 Broadband Option	0A36185	ann	04/12/11
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ThinkPad Expansion

USB 2.0 Port Replicator with Digital Video	0A33942	ann	03/22/11
Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann	04/05/11
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Preferred Pro USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann	06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann	12/20/11

Security

3M 11.6W Privacy Filter from Lenovo	0A61768	ann	04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann	02/21/06

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries

ThinkPad Battery 35+ (6-cell)	0A36292	ann	07/05/11
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann	09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493			
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 11" widescreen models:			
ThinkPad 11W Sling Case	57Y4287	ann	01/05/10
Up to 12" widescreen models:			
ThinkPad 12W Case Sleeve	51J0476	ann	08/18/09

Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
Lenovo Sport Backpack - Red	0A33896	ann	02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann	02/28/12
Lenovo Sport Messenger - Red	0A33898	ann	02/28/12

More information at www.lenovo.com/support/cases

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann	10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann	11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann	09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann	10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann	10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann	09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann	09/13/11

⁶⁹ DisplayPort cable is not included.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann	08/16/11
Lenovo LS2421p Wide 23.6" (VGA, HDMI)	4015LS1	ann	08/02/11

More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
Lenovo USB Soundbar	0A36190	ann	05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad X200



Lenovo ThinkPad X200 with
X200/X200s (WXGA), X201 12W Privacy Filter
55Y9264



Lenovo ThinkPad X200



Lenovo ThinkPad X200 with
ThinkPad X200 UltraBase
43R8781



Lenovo ThinkPad X200



ThinkPad 65W AC Adapter
40Y7696

ThinkPad® X200 (7454) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo cells	Battery Pre- load	Whorse (W) Gbl (G) Educ	Avail date
7454-2GU	P8600	2.40	2GB	12.1" WXGA		160GB 5400			Intel 5100 ²⁸			4 XP Pro		Aug 08
7454-2HU	P8600	2.40	2GB	12.1" WXGA		160GB 5400 DVD±RW		UltraBase	Intel 5100			6 XP Pro		Aug 08
7454-2JU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200 DVD±RW		UltraBase	Intel 5300 ²⁸	WWAN upg	2G Turbo	6 Bus 32		Aug 08
7454-2NU	P8400	2.26	2GB	12.1" WXGA		160GB 5400			Intel 5100	AT&T ²³		4 Bus 32		Aug 08
7454-2PU	P8400	2.26	2GB	12.1" WXGA		160GB 7200 DVD±RW		UltraBase	Intel 5100	AT&T		6 Bus 32		Aug 08
7454-2QU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200 DVD±RW		UltraBase	Intel 5100	AT&T	2G Turbo	6 Bus 32		Aug 08
7454-2ZU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200 DVD±RW		UltraBase	Intel 5100	AT&T		6 XP Pro		Sep 08
7454-95U	P8600	2.40	2GB	12.1" WXGA		160GB 5400			Intel 5100			4 XP Pro		Sep 08
7454-96U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200 DVD±RW		UltraBase	Intel 5300	WWAN upg		6 XP Pro		Sep 08
7454-9FU	P8600	2.40	2GB	12.1" WXGA		160GB 5400			WiMAX	WWAN upg		4 Bus 32		Jan 09
7454-9GU	P8600	2.40	3GB	12.1" WXGA	Cam	128GB SSD DVD±RW		UltraBase	Intel 5100	WWAN upg		6 XP Pro		Jan 09
7454-9HU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400			Intel 5100	WWAN upg		6 Ult 32	Edu	Mar 09
7454-9JU	P8700	2.53	2GB	12.1" WXGA	Cam	80GB SSD DVD±RW		UltraBase	Intel 5100	WWAN upg		6 XP Pro		Jun 09
7454-36U	P8700	2.53	4GB	12.1" WXGA LED	Cam	160GB 7200 DVD±RW		UltraBase	Intel 5100	AT&T		6 XP Pro		Oct 09
Positioning Processor	An ultrabortable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8400, P8600 or P8700 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache													
Memory	2GB, 3GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Ultimate 32 ◇ <i>Vista models:</i> Vista Premium logo		
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) Some: 80GB³ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std X200 UltraBase											Preloaded applications ¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox		
Widescreen display	Some: 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio													
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus													
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz											Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg)													
Weight ² Case Battery - type Battery - life ¹⁰	Color: black; Material: magnesium alloy Lithium Ion 4-cell or 6-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice Multicard reader ExpressCard/54 Ports	X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WiMAX	Three Mini PCI Express slots Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)													
WWAN upg AT&T ²³	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T													
2G Turbo UWB Modem	Some: Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem													
Bluetooth™ Ethernet Intel AMT Audio support	Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
Other accessories on O-X200 sheet	Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced August 5 or September 2, 2008 or January 6, March 17, June 2, or October 22, 2009
US models withdrawn effective September 2008 or June, October, or December 2009

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ThinkPad® X200 (7454) - TopSeller (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo Intel AMT	Intel Preload	Avail date
7454-32U	P8700	2.53	2GB	12.1" WXGA	LED	160GB 5400			✦ Intel 5100 ²⁸	WWAN upg	None	XP Pro	Oct 09
7454-34U	P8700	2.53	2GB	12.1" WXGA	LED Cam	160GB 7200	DVD±RW	UltraBase	✦ Intel 5100	WWAN upg	None	XP Pro	Oct 09
7454-3SU	P8800	2.66	4GB	12.1" WXGA	LED Cam	160GB 7200	DVD±RW	UltraBase	✦ Intel 5100	WWAN upg	None	Yes XP Pro	Oct 09
7454-GKU	P8600	2.40	2GB	12.1" WXGA	LED	250GB 5400			✦ Intel 5100	WWAN upg	None	Yes XP Pro	Dec 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning	An ultraportable for the executive on the move; one spindle										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update
Processor	Intel® Core™ 2 Duo processor P8600, P8700, or P8800 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache										
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁶ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, Active Protection System™, removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std X200 UltraBase										
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio										
Camera	200 nits, 16:10 aspect ratio, 250:1 contrast ratio Some: camera on top of screen, 1.3-megapixel, fixed focus										
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45										
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz										
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	None										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm										
Weight ²	4-cell: from 2.98 lb (1.35kg); 6-cell: from 3.26 lb (1.48kg); 9-cell: from 3.61 lb (1.64kg)										
Case color	Black										
Case material	Magnesium alloy										
Battery - type	Lithium Ion 6-cell										
Battery - life ¹⁰	4-cell: up to 3.3 hr; 6-cell: up to 6.5 hr; 9-cell: up to 9.8 hr										
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										
Media slice	Some: X200 UltraBase media slice (see right side)										
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)										
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
Mini PCI Express	Three Mini PCI Express slots										
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										
2G Turbo	None										
UWB	None										
Modem	56K V.92 ⁶ modem										
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										
Ethernet	Non-vPro model: Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 vPro model: Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Some: Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available										
	65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378										

See footnotes for important warranty information
 US models announced on October 22 or December 15, 2009
 US models withdrawn effective June 2010

✦ Intel Centrino® 2 processor technology
 ✦ Intel Centrino 2 with vPro™ technology

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 (MOC2-1) June 2010

ThinkPad® X200 (7454) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	CCFL or LED	Cam- era	Disk SATA GB ⁹	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo	Whorse (W) Pre- Gbl (G) Educ	Avail date
7454-33U	P8700	2.53	2GB	12.1" WXGA	LED		160GB	5400			Intel 5100 ²⁸	WWAN upg	None	6 Pro 32	No Oct 09
7454-3VU	P8700	2.53	2GB	12.1" WXGA	LED	Cam	160GB	7200	DVD±RW	UltraBase	Intel 5100	Verizon ¹⁶	None	6 Pro 32	No Nov 09
7454-3WU	P8700	2.53	2GB	12.1" WXGA	LED	Cam	160GB	7200	DVD±RW	UltraBase	WiMAX	WWAN upg	None	6 Pro 32	No Nov 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning	An ultraportable for the executive on the move; one spindle											Preloaded operating system ²⁰
Processor	Intel® Core™ 2 Duo processor P8700 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache											- Genuine Windows® 7 Professional 32
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ (only some listed)
SATA DVD±RW	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase											<ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Password Manager ThinkVantage Power Manager ThinkVantage System Update Fingerprint Software (fingerprint models) ThinkVantage Toolbox
Ultrabay Slim	Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781)											
SATA disk	160GB ⁹ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, Active Protection System™, removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std X200 UltraBase											
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio											
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GM45											
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536 @ 75Hz											ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> Provides desktop expansion and cable management for X200 Series Easily connects to the bottom of the X200 Series for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> 250GB FDE 7200 rpm 43N3410 320GB FDE 7200 rpm 43N3411
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys											Other features: <ul style="list-style-type: none"> Power button (front) Stereo speakers (2 watt) Security key lock, security keyhole, and optional security screw Analog DB-15 monitor port DisplayPort (supports single-link DVI-D via cable 45J7915) Four USB 2.0 ports Gigabit ethernet port Microphone in and headphone out Second battery charger Requires 65 or 90 watt AC adapter 1.6 lb; 730g
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass											
Touch pad	None											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm											
Weight ²	4-cell: from 2.98 lb (1.35kg); 6-cell: from 3.26 lb (1.48kg); 9-cell: from 3.61 lb (1.64kg)											
Case	Color: black; Material: magnesium alloy											
Battery - type	Lithium Ion 6-cell											
Battery - life ¹⁰	4-cell: up to 3.3 hr; 6-cell: up to 6.5 hr; 9-cell: up to 9.8 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											
Media slice	Some: X200 UltraBase media slice (see right side)											65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)											
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)											
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											
Mini PCI Express	Three Mini PCI Express slots											
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)											
WiMAX	Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)											
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)											
Verizon ¹⁶	Some: Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon											
2G Turbo	None											
UWB	None											
Modem	56K V.92 ⁶ modem											
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1											
Intel AMT	None											
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for important warranty information Intel Centrino® 2 processor technology
 US models announced on October 22 or November 3, 2009
 US models withdrawn effective August 2008 or June 2010

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ThinkPad® X200 (7455) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Pre- load	Whorse (W) Gbl (G) Educ	Avail date
7455-D9U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB	5400	Optional	Optional	Intel 5100 ²⁸ WWAN upg	None	6 Ult 32	Educ Mar 09

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has an EasyServ™,19 depot repair service 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache							Preloaded operating system²⁰ - Genuine Windows® Vista® Ultimate 32 ↳ Vista Premium logo						
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available							Preloaded applications¹⁴ (only some listed)						
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, Active Protection System™, removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std <i>X200 UltraBase</i>							<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • Adobe® Reader® 						
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus							Supports ThinkVantage® technologies						
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536 @ 75Hz</i>							ThinkPad X200 UltraBase™						
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions							<ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 						
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg)							Other features:						
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)							<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 						
Media slice Multicard reader ExpressCard/54 Ports	Option: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)							<ul style="list-style-type: none"> • 65-watt (GMA graphics) AC Adapter • Climate Savers® certified • EPEAT™ Silver rating • ENERGY STAR® 5.0-compliant • ROHS-compliant • International Warranty Service¹⁷ • 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² • via 800-426-7378 						
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 None High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available													
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM ThinkPad X200 UltraBase Other accessories on O-X200 sheet	55Y3706 55Y3707 43R8781		X200 Series Li-Ion Battery 4-cell X200 Series Li-Ion Battery 6-cell X200 Series Li-Ion Battery 9-cell Other accessories at lenovo.com/accessories			43R9253 43R9254 43R9255								

See footnotes for important warranty information
US model announced March 24, 2009
US model withdrawn effective December 2009

Intel Centrino® 2 processor technology

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(MOC1-7) January 2010

ThinkPad® X200 (7458) - withdrawn

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Whorse (W) Pre- Gbl (G) TAA	Avail date
7458-5EU	P8600	2.40	2GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100 ²⁸			Blue		6	B32 W G	Aug 08
7458-5FU	P8600	2.40	2GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5100			Blue	Finger	6	B32 W G	Aug 08
7458-69U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	Intel 5300 ²⁸	WWAN upg	2G Turbo	Blue	Finger	6	B32 W G	Aug 08
7458-M2U	P8600	2.40	1GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100			Blue		4	B32 W G	Aug 08
7458-M3U	P8600	2.40	1GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100			Blue	Finger	6	B32 W G	Aug 08
7458-7DU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 7200	Optional	Optional	Intel 5300	WWAN upg	2G Turbo	Blue	Finger	6	B32	Aug 08
7458-X4U	P8600	2.40	2GB	12.1" WXGA		160GB 5400	Optional	Optional	Intel 5100	WWAN upg				6	B32 TAA	Aug 08
7458-5HU	P8600	2.40	4GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5300	Verizon ¹⁶		Blue	Finger	9	B32 W	Sep 08
7458-7CU	P8600	2.40	4GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5300	AT&T ²³		Blue	Finger	9	B32 W	Sep 08
7458-87U	P8600	2.40	2GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5100			Blue	Finger	6	XP G	Sep 08
7458-88U	P8600	2.40	4GB	12.1" WXGA		160GB 7200	Optional	Optional	Intel 5300	AT&T		Blue	Finger	9	XP W	Sep 08
7458-89U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB 5400	Optional	Optional	Intel 5300	Verizon		Blue	Finger	9	XP W	Sep 08

• These models have a depot repair service 3-year limited warranty

Positioning US Govt (TAA) ⁵ Processor	An ultraportable for the executive on the move; one spindle X4U: US Government model (Trade Act Agreement-compliant) Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo				
Memory	1GB, 2GB, or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models)				
SATA Combo Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>											Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus															
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @75Hz (VGA)															
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) Black Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)															
Media slice Multicard reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g				
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg Verizon ¹⁶ AT&T ²³ 2G Turbo UWB Modem	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem															
Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced on August 5 or September 2, 2008
US models withdrawn effective August 2008 or June 2010

ThinkPad® X200 (7458) - December 2008 - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Whorse (W) Pre- Gbl (G)	Avail date
7458-8SU	P8600	2.40	2GB	12.1" WXGA	Cam 128GB SSD			↕ Intel 5100 ²⁸	WWAN upg				6	XP	Dec08
7458-8RU	P8600	2.40	2GB	12.1" WXGA	128GB SSD			↕ Intel 5300 ²⁸	WWAN upg		Blue	Finger	6	B32	Dec08
7458-8QU	P8600	2.40	2GB	12.1" WXGA	Cam 128GB SSD			↕ WiMAX	WWAN upg		Blue	Finger	6	B32	Dec08
7458-8PU	P8600	2.40	2GB	12.1" WXGA	128GB SSD			↕ WiMAX	WWAN upg		Blue	Finger	6	B32	Dec08
7458-7BU	P8600	2.40	2GB	12.1" WXGA	Cam 160GB 7200	Combo	UltraBase	↕ WiMAX	WWAN upg	2G Turbo	Blue	Finger	9	U32 W	Dec08

Positioning Processor	<i>An ultraportable for the executive on the move; one spindle</i> Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 - <i>Some:</i> Genuine Windows Vista Ultimate 32 ↕ <i>Vista models:</i> Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA Combo Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard <i>X200 UltraBase</i>	
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus	
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg)	
Weight ² Case color Case material Battery - type Battery - life ¹⁰	Black Magnesium alloy Lithium Ion 6-cell or 9-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr	
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	
Media slice Multicard reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WiMAX WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader Limited warranty ¹²	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip	
	Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB FDE 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	

See footnotes for important warranty information
US models announced December 2 or December 9, 2008
US models withdrawn effective February or June 2010

↕ Intel Centrino® 2 with vPro™ technology

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(MOC1-6) June 2010

ThinkPad® X200 (7459) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Mem- ory	Wide- screen display	Cam- era	Disk SATA GB ⁵	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger Bat- print tery reader cells	Whorse (W) Gbl (G) Avail Preload GMP (P) date
7459-M2U	P8600	2.40	1GB	12.1" WXGA	160GB	5400		❖ Intel 5100 ²⁸			4	Bus32 WGP Aug 08
7459-M3U	P8600	2.40	1GB	12.1" WXGA	160GB	5400		❖ Intel 5100			Finger 6	Bus32 WGP Aug 08
7459-5EU	P8600	2.40	2GB	12.1" WXGA	160GB	5400		❖ Intel 5100			Finger 6	Bus32 WGP Aug 08
7459-5FU	P8600	2.40	2GB	12.1" WXGA	160GB	7200		❖ Intel 5100			Finger 6	Bus32 WGP Aug 08
7459-69U	P8600	2.40	2GB	12.1" WXGA Cam	160GB	5400		❖ Intel 5300 ²⁸	WWAN upg	2G Turbo	Finger 6	Bus32 WGP Aug 08
7459-M4U	P8600	2.40	2GB	12.1" WXGA Cam	160GB	7200	Combo UltraBase	❖ WiMAX	WWAN upg		Finger 9	Ult 32 W Oct 08

• Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core , Intel HD boost, 1066MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Some: Genuine Windows® Vista® Business 32 - Some: Genuine Windows Vista Ultimate 32 ❖ Vista Premium logo	
Memory	1GB or 2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models)	
SATA Combo Ultrabay Slim SATA disk	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>											
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)										Supports ThinkVantage® technologies	
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411	
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.98 lb (1.35kg); <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg)											
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy											
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr											
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											
Media slice Multicard Reader ExpressCard slot Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g	
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WiMAX WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											

See footnotes for important warranty information
US models announced August 5 or October 14, 2008
US models withdrawn effective February 2010 or June 2010

❖ Intel Centrino® 2 with vPro™ technology

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(MOC1-3) June 2010

ThinkPad® X200 (7458) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type	Proc- model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ³	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G)	Avail date
7458-E2U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB	5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	Finger	6	Bus32 W	Aug 08
7458-FQU	P8600	2.40	2GB	12.1" WXGA	Cam	160GB	5400	Optional	Optional	❖ Intel 5100	WWAN upg	None	Finger	6	Bus32 W	Mar 09

- **This model has a depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ↳ Vista Premium logo				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models)				
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>															
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies				
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase <i>Maximum external resolution: 2048x1536 @75Hz</i>											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 320GB Disk 7200 rpm 43N3411				
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy															
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr															
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g				
Media slice Multicard Reader ExpressCard slot Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											• 65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available															

See footnotes for important warranty information
US models announced August 5, 2008 or March 24, 2009
US models withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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(MOC1-4) June 2010

ThinkPad® X200 (7459) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ³	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Finger print reader	Bat- tery cells	Whorse (W) Gbl (G)	Avail date				
7459-E3U	P8600	2.40	2GB	12.1" WXGA	Cam	160GB	5400	Optional	Optional	❖Intel 5100 ²⁸	WWAN	upg	None	None	6	Bus32	W	Aug08

• **This model has a limited onsite service²⁴ 3-year limited warranty**

Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel Core 2 Duo processor P8600 with dual-core, Intel HD boost, 1066MHz system bus, and 3MB L2 cache											Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ↳ Vista Premium logo		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Lenovo System Toolbox		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional <i>ThinkPad X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>													
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus											Supports ThinkVantage® technologies		
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GM45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase <i>Maximum external resolution: 2048x1536 @75Hz</i>											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions											Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 21-35mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>6-cell:</i> from 3.26 lb (1.48kg); <i>9-cell:</i> from 3.61 lb (1.64kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy													
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>6-cell:</i> up to 6.5 hr; <i>9-cell:</i> up to 9.8 hr													
Chipset	Mobile Intel GM45 Express Chipset (Graphics Memory Controller Hub), ICH9M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Media slice Multicard Reader ExpressCard slot Ports	<i>Option:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant None													
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available													

See footnotes for important warranty information
US model announced August 5, 2008
US model withdrawn effective June 2010

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(MOC1-5) June 2010



Lenovo® ThinkPad X200s



Lenovo ThinkPad X200s



Lenovo ThinkPad X200s



ThinkPad 12W Case Sleeve
51J0476



Lenovo ThinkPad X200s



ThinkPad Battery 47++ (9-cell)
43R9255

ThinkPad® X200s (7465) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁶	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing cells	Bat- tery Preload	Workhorse (W) Global (G)	Avail date	
7465-DFU	Cel 723	1.20	2GB	12.1" WXGA	160GB	5400	Optional	Optional	Intel 5100 ²⁸	None	None	Yes	6	XP Pro	No	Jul 09

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Celeron® Processor 723 with single-core, 800MHz system bus, and 1MB L2 cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business ↳ Vista logo: None				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software				
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411				
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio None														
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536 @75Hz</i>										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g				
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)										65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				
Weight ² Case color Case material	black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr										Supported ThinkVantage® technologies				
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice Multicard Reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										Supports ThinkVantage® technologies				
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										Supported ThinkVantage® technologies				
Limited warranty ¹²	1-year - EasyServ™.19 depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM ThinkPad X200 UltraBase Other accessories on O-X200 sheet	55Y3706 55Y3707 43R8781		X200 Series Li-Ion Battery 4-cell X200 Series Li-Ion Battery 6-cell X200 Series Li-Ion Battery 9-cell Other accessories at lenovo.com/accessories		43R9253 43R9254 43R9255										

See footnotes for important warranty information
US model announced July 7, 2009
US model withdrawn effective December 2009

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(PEC1-6) December 2009

ThinkPad® X200s (7466) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Workhorse (W) Global (G) Avail date
7466-3GU	SL9400	1.86	4GB	12.1" WXGA+	160GB 7200	DVD±RW	UltraBase	Intel 5100 ²⁸	None	2G Turbo	Yes	9	Bus 32 No Sep 08
7466-3HU	SL9400	1.86	2GB	12.1" WXGA+	160GB 7200	DVD±RW	UltraBase	Intel 5100	None	None	Yes	6	XP Pro No Sep 08
7466-3JU	SL9400	1.86	4GB	12.1" WXGA+	160GB 7200	DVD±RW	UltraBase	Intel 5100	None	None	Yes	9	XP Pro No Sep 08

- Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-years limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ◇ Vista models: Vista Premium logo		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software		
Diskette drive SATA DVD±RW Ultrabay Slim SATA disk	None (use optional USB-based diskette drive) <i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase										Supports ThinkVantage® technologies		
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411		
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Dimensions ³ Weight ² Case color Case material Battery - type Battery - life ¹⁰	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg) black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy Lithium Ion 6-cell or 9-cell <i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice Multicard Reader ExpressCard/54 Ports	<i>Some:</i> X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None <i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available												
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM ThinkPad X200 UltraBase Other accessories on O-X200 sheet	55Y3706 55Y3707 43R8781		X200 Series Li-Ion Battery 4-cell X200 Series Li-Ion Battery 6-cell X200 Series Li-Ion Battery 9-cell Other accessories at lenovo.com/accessories		43R9253 43R9254 43R9255								

See footnotes for important warranty information
US models announced September 23, 2008
US models withdrawn effective December 2009

◇ Intel Centrino® 2 with vPro™ technology

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(PEC1-1) December 2008

ThinkPad® X200s (7466) - TopSeller (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Fing cells	Workhorse (W) Pre-Global (G)	Avail date
7466-43U	SL9600	2.13	2GB	12.1" WXGA	160GB 7200	DVD±RW	UltraBase	♣Intel 5100 ²⁸	WWAN upg	None	Yes	6	XP Pro No Oct 09

- Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover
- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has a 3-years limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>										
Widescreen display	12.1" (308mm) WXGA (1280x800) color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio										
Camera	Camera on top of screen, 1.3-megapixel, fixed focus										
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45										
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536@75Hz</i>										
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	None										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)										
Weight ²											
Case color	black										
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										
Battery - type	Lithium Ion 6-cell										
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr										
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										
Media slice	X200 UltraBase media slice (see right side)										
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)										
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
Mini PCI Express	Three Mini PCI Express slots										
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										
2G Turbo	None										
UWB	None										
Modem	56K V.92 ⁶ modem										
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										
	<p>Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32</p> <p>Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • Fingerprint Software</p> <p>Supports ThinkVantage® technologies</p> <p>ThinkPad X200 UltraBase™</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 <p>Other features:</p> <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g <p>65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>										

See footnotes for important warranty information
US model announced October 22, 2009
US model withdrawn effective June 2010

♣ Intel Centrino® 2 with vPro™ technology

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(PEC2-1) June 2010

ThinkPad® X200s (7466) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Fing cells	Workhorse (W) Pre-Global (G)	Avail date
7466-44U	SL9600	2.13	4GB	12.1" WXGA+	320GB 7200	DVD±RW	UltraBase	❖ Intel 5100 ²⁸	None	None	Yes	9 Pro 64	No Oct 09
<ul style="list-style-type: none"> Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover This small and medium business (SMB) model is part of the US TopSeller™ Program This model has a 3-years limited warranty 													
Positioning	An ultraportable for the executive on the move; one spindle										Preloaded operating system ²⁰		
Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										- Genuine Windows® 7 Professional 64		
Memory	4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										Preloaded applications ¹⁴ (only some listed)		
SATA DVD±RW Ultrabay Slim SATA disk	DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 320GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase										<ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Password Manager ThinkVantage Power Manager ThinkVantage System Update Fingerprint Software Lenovo Online Data Backup Norton™ Internet Security 2009 (30 days of virus definitions) 		
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None										Supports ThinkVantage® technologies		
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45										ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> Provides desktop expansion and cable management for X200 and X201 Series Easily connects to the bottom of the X200 or X201 Series for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> 250GB FDE 7200 rpm 43N3410 320GB Disk 7200 rpm 43N3411 		
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions										<ul style="list-style-type: none"> Other features: <ul style="list-style-type: none"> Power button (front) Stereo speakers (2 watt) Security key lock, security keyhole, and optional security screw Analog DB-15 monitor port DisplayPort (supports single-link DVI-D via cable 45J7915) Four USB 2.0 ports Gigabit ethernet port Microphone in and headphone out Second battery charger Requires 65 or 90 watt AC adapter 1.6 lb; 730g 		
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm without X200 UltraBase; 9-cell: 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm 4-cell: from 2.43 lb (1.1kg); 6-cell: from 2.71 lb (1.23kg); 9-cell: from 3.05 lb (1.38kg)												
Weight ² Case color Case material	black Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy										<ul style="list-style-type: none"> ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378 		
Battery - type Battery - life ¹⁰	Lithium Ion 9-cell 4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										<ul style="list-style-type: none"> Climate Savers® certified EPEAT™ Gold rating 		
Media slice Multicard Reader ExpressCard/54 Ports	X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) None None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										<ul style="list-style-type: none"> 65-watt (GMA graphics) AC Adapter 		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available										<ul style="list-style-type: none"> 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378 		
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 47 (4-cell)	43R9253										
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 47+ (6-cell)	43R9254										
ThinkPad X200 UltraBase	43R8781	ThinkPad Battery 47++ (9-cell)	43R9255										
Other accessories on O-X200 sheet	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US model announced October 22, 2009
US model withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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(PEC2-2) June 2010

ThinkPad® X200s (7469) - withdrawn

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Workhorse (W) Global (G)	Avail date		
7469-5GU	SL9400	1.86	2GB	12.1" WXGA+	160GB 5400			❖ Intel 5100 ²⁸	None	None	Yes	6	Bus 32	G W	Sep 08
7469-5HU	SL9400	1.86	2GB	12.1" WXGA+	160GB 7200			❖ Intel 5300 ²⁸	None	None	Yes	4	Bus 32	G W	Sep 08
7469-5JU	SL9400	1.86	2GB	12.1" WXGA+	80GB SSD	Combo	UltraBase	❖ Intel 5100	None	None	Yes	6	XP Pro	W	Dec 08
7469-74U	SL9400	1.86	2GB	12.1" WXGA+	80GB SSD			❖ Intel 5300	None	None	Yes	4	XP Pro	W	Dec 08
7469-7YU	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ WiMAX	None	None	Yes	6	Bus 32		Dec 08
7469-7ZU	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ Intel 5100	None	None	Yes	4	Bus 32		Dec 08
7469-82U	SL9300	1.60	2GB	12.1" WXGA+	128GB SSD			❖ Intel 5300	None	None	Yes	6	XP Pro		Dec 08
7469-8TU	SL9400	1.86	3GB	12.1" WXGA+	160GB 5400			❖ Intel 5100	None	None	Yes	6	Bus 32	G W	Mar 09

- Compared to the X200, the X200s has lighter weight, low voltage processors, LED backlight displays, and roll cage in display cover

Positioning	An ultraportable for the executive on the move; one spindle										
Processor	Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
SATA Combo	<i>Some:</i> CD-RW/DVD-ROM, SATA 1.5Gb/s, removable from X200 UltraBase										
Ultraday Slim	Supports Ultraday Slim devices in optional or standard X200 UltraBase (43R8781)										
SATA disk	<i>Some:</i> 80GB ⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase										
Widescreen display	12.1" (308mm) WXGA+ (1440x900) color, anti-glare, LED backlight, 250 nits, 16:10 aspect ratio, 300:1 contrast ratio										
Camera	None										
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45										
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @75Hz										
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	None										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)										
Weight ²											
Case color	Black										
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										
Battery - type	Lithium Ion 4-cell or 6-cell										
Battery - life ¹⁰	4-cell: up to 4.4 hr; 6-cell: up to 8.8 hr; 9-cell: up to 13.2 hr										
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)										
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)										
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
Mini PCI Express	Three Mini PCI Express slots										
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3										
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless, Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)										
WWAN upg	None										
2G Turbo	None										
UWB	None										
Modem	56K V.92 ⁶ modem										
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator										
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										
	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 <p>❖ Vista models: Vista Premium logo</p> <p>Preloaded applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • Fingerprint Software (fingerprint models) <p>Supports ThinkVantage® technologies</p> <p>ThinkPad X200 UltraBase™</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultraday Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultraday Slim - SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive - Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 <p>Other features:</p> <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g <p>65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>										

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
 US models announced on September 23 or December 9, 2008, or March 10, 2009
 US models withdrawn effective September 2009 or June 2010

ThinkPad® X200s (7469) - April 2009 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Preload	Workhorse (W) Global (G) Avail date
7469-8UU	Cel 723	1.20	2GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100 ²⁸	WWAN upg	None	Blue	6	Bus 32	G W Apr 09
7469-8ZU	Cel 723	1.20	2GB	12.1" WXGA	160GB 5400	Optional	Optional	11n ²⁸	WWAN upg	None	Yes	6	Bus 32	G W May 09

- **These models have a depot repair service 3-year limited warranty**

Positioning Processor	<i>An ultraportable for the executive on the move; one spindle</i>										
Processor	Intel® Celeron® Processor 723 with single-core, 800MHz system bus, and 1MB L2 cache										
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
SATA Combo Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>										
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio										
Camera	Camera on top of screen, 1.3-megapixel, fixed focus										
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45										
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @ 75Hz										
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	None										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)										
Weight ²											
Case color	Black										
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										
Battery - type	Lithium Ion 6-cell										
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr										
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										
Media slice	Option: ThinkPad X200 UltraBase media slice (see right side)										
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)										
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
Mini PCI Express	Three Mini PCI Express slots										
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II										
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										
2G Turbo	None										
UWB	None										
Modem	56K V.92 ⁶ modem										
Bluetooth™	Bluetooth 2.1 wireless, LED indicator										
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										
	Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ↪ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • Adobe® Reader® Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378										

See footnotes for important warranty information
 US models announced on April 14 or May 12, 2009
 US models withdrawn effective June 2010

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ThinkPad® X200s (7470) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Widescreen display	Camera	Disk SATA GB ³	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery Blue/ery	Workhorse (W) Global (G) Preload GMP (P)	Avail date	
7470-5GU	SL9400	1.86	2GB	12.1" WXGA+		160GB	5400	Optional	Optional	❖ Intel 5100 ²⁸			None	Yes	6 Bus 32 W G P	Sep 08
7470-5HU	SL9400	1.86	2GB	12.1" WXGA+		160GB	7200	Optional	Optional	❖ Intel 5300 ²⁸			None	Yes	4 Bus 32 W G P	Sep 08
7470-6FU	SL9400	1.86	2GB	12.1" WXGA+		160GB	5400	Optional	Optional	❖ Intel 5100			None	Yes	6 Bus 32 W	Sep 08
7470-6GU	SL9400	1.86	2GB	12.1" WXGA+		80GB	5400	Optional	Optional	❖ Intel 5300			None	Yes	4 Bus 32 W	Sep 08
7470-6HU	SL9400	1.86	2GB	12.1" WXGA+		80GB	SSD	Optional	Optional	❖ Intel 5300			None	Yes	4 XP Pro W	Dec 08
7470-8TU	SL9400	1.86	3GB	12.1" WXGA+		160GB	5400	Optional	Optional	❖ Intel 5100			None	Yes	6 Bus 32 W G P	Mar 09
7470-8UU	Cel 723	1.20	2GB	12.1" WXGA	Cam	160GB	5400	Optional	Optional	Intel 5100	WWAN upg	None	Blue	6 Bus 32 W G P	Apr 09	
7470-8ZU	Cel 723	1.20	2GB	12.1" WXGA	Cam	160GB	5400	Optional	Optional	11n ²⁸	WWAN upg	None	Blue	6 Bus 32 W G P	May 09	

• Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Celeron® Processor 723 with single-core, 800MHz system bus, and 1MB L2 cache or Intel Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache	Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ❖ Vista models: Vista Premium logo
Memory	2GB or 3GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications¹⁴ (all OSES; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • Adobe® Reader®
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) <i>Some:</i> 80GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 80GB (5400) or 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard <i>X200 UltraBase</i>	
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> 12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> Camera on top of screen, 1.3-megapixel, fixed focus	
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536 @75Hz	Supports ThinkVantage® technologies
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)	
Weight ² Case color Case material	Black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell or 6-cell <i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)	
Media slice Multicard reader ExpressCard/54 Ports	<i>Option:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ 11n ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT)	
Intel AMT Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	65-watt (GMA graphics) AC Adapter Climate Savers® certified (except Celeron models) EPEAT™ Gold rating (LED models) ENERGY STAR® 5.0-compliant (except Celeron models) ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest, swipe sensor, supports the security chip 3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
US models announced on September 23 or December 9, 2008, or March 10, April 14, or May 12, 2009
US models withdrawn effective September 2009 or June 2010

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(PEC1-3) June 2010

ThinkPad® X200s (7469) - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Workhorse (W) Global (G) Avail date
7469-E2U	Cel 723	1.20	2GB	12.1" WXGA	160GB 5400	Optional	Optional	Intel 5100 ²⁸	WWAN upg	None	None	6 Bus 32 W Apr 09

• **This model has a depot repair service 3-year limited warranty**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Celeron® Processor 723 with single-core, 800MHz system bus, and 1MB L2 cache										
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
SATA Combo Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>										
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio										
Camera	Camera on top of screen, 1.3-megapixel, fixed focus										
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45										
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536@75Hz</i>										
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	None										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 21-29mm <i>without X200 UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 21-35mm <i>4-cell:</i> from 2.43 lb (1.1kg); <i>6-cell:</i> from 2.71 lb (1.23kg); <i>9-cell:</i> from 3.05 lb (1.38kg)										
Weight ²											
Case color	Black										
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										
Battery - type	Lithium Ion 6-cell										
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>6-cell:</i> up to 8.8 hr; <i>9-cell:</i> up to 13.2 hr										
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)										
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)										
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)										
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
Mini PCI Express	Three Mini PCI Express slots										
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										
2G Turbo	None										
UWB	None										
Modem	56K V.92 ⁶ modem										
Bluetooth™	None										
Ethernet	Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	None										
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										
	Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ⇨ Vista Premium logo Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 65-watt (GMA graphics) AC Adapter ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378										

See footnotes for important warranty information
 US model announced April 14, 2009
 US model withdrawn effective June 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III 43N3412* in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann 08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann 08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
X200s (WXGA+), X201s 12W Privacy Filter	43R2470	ann 08/05/08
X200/X200s (WXGA), X201 12W Privacy Filter	55Y9264	ann 04/07/09
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Batteries

ThinkPad Battery 47 (4-cell)	43R9253	ann 08/05/08
ThinkPad Battery 47+ (6-cell)	43R9254	ann 08/05/08
ThinkPad Battery 47++ (9-cell)	43R9255	ann 08/05/08
ThinkPad External Battery Charger	40Y7625	ann 09/20/05

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

<i>Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493</i>		
•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

<i>Up to 12" widescreen models:</i>		
ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09
<i>Up to 13.3" widescreen models:</i>		
ThinkPad Ultraportable Case	41U5062	ann 05/13/08
<i>Up to 15.4" widescreen models:</i>		
Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

- www.lenovo.com/support/accessories
- www.lenovo.com/support/notebookaccessories
- www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories
Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet



Lenovo ThinkPad X200 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115



Lenovo ThinkPad X200 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115

ThinkPad® X200 Tablet (7448) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁶ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Bat- tery cells	Preload	Workhorse (W) Global (G) Educ	Avail date
7448-2QU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 5400	Optional	Optional	✦Intel 5100 ²⁸	WWAN upg	8	Ultimate	32 Educ	Mar 09

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has an EasyServ™¹⁹ depot repair service 1-year limited warranty**

Positioning	<i>Convertible tablet ultraportable; one spindle</i>										Preloaded operating system²⁰			
Processor	Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										- Genuine Windows® Vista® Ultimate 32 ✦ Vista Premium logo			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed)			
Diskette drive	None (use optional USB-based diskette drive)										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day) 			
SATA DVD±RW	None													
Ultrabay Slim	Supports Ultrabay Slim devices in optional <i>X200 UltraBase</i> (43R8781)										Supports ThinkVantage® technologies			
SATA disk	160GB⁸ (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>													
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 			
Camera	Camera on top of screen, 1.3-megapixel, fixed focus													
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45										Other features: <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536@75Hz (VGA)</i>													
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None										Limited warranty¹² 1-year - EasyServ™¹⁹ depot repair service / service upgrades²² available			
ThinkLight™	None													
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)										1GB PC3-8500 DDR3 L-H SODIMM 55Y3706 X200 Tablet Li-Ion Battery 4-cell 43R9256 2GB PC3-8500 DDR3 L-H SODIMM 55Y3707 X200 Tablet Li-Ion Battery 8-cell 43R9257 Other accessories on O-X200-T sheet Other accessories at lenovo.com/accessories			
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy													
Case	Lithium Ion 8-cell										24 hour x 7 day¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Battery - type	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr													
Battery - life ¹⁰														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)													
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)													
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots													
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)													
2G Turbo	None													
UWB	None													
Modem	56K V.92 ⁶ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													

See footnotes for important warranty information
US model announced March 17, 2009
US model withdrawn effective December 2009

✦ Intel Centrino® 2 with vPro™ technology

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(CML1-7) January 2010

ThinkPad® X200 Tablet (7449) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED Cam	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Preload	Avail date
7449-EKU	SL9400	1.86	4GB	12.1" WXGA	Touch LED Cam	160G 7200	DVD±RW	UltraBase	Intel 5100 ²⁸	AT&T ²³	2G Turbo	8 Bus 64	Oct 08
7449-88U	SL9400	1.86	2GB	12.1" WXGA	LED Cam	160G 7200	DVD±RW	UltraBase	Intel 5100	WWAN upg	2G Turbo	8 Bus 32	Oct 08
7449-9FU	SL9400	1.86	2GB	12.1" WXGA		160G 5400	DVD±RW	UltraBase	Intel 5100	WWAN upg		4 XP Tab	Oct 08
7449-8JU	SL9400	1.86	2GB	12.1" WXGA	LED Cam	160G 7200	DVD±RW	UltraBase	Intel 5100	WWAN upg		8 XP Tab	Oct 08
7449-9EU	SL9400	1.86	2GB	12.1" WXGA		160G 5400			Intel 5100	WWAN upg		4 XP Tab	Oct 08
7449-F9U	SL9400	1.86	2GB	12.1" WXGA	Touch LED	160G 5400			Intel 5100	WWAN upg		8 XP Tab	Oct 08
7449-84U	SL9400	1.86	4GB	12.1" WXGA	LED Cam	128G SSD	DVD±RW	UltraBase	Intel 5100	AT&T		8 XP Tab	Oct 08
7449-2QU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G 5400			Intel 5100	WWAN upg		8 Ult 32	Mar 09
• These small and medium business (SMB) models are part of the US TopSeller™ Program													
Processor	Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										- <i>Some:</i> Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business		
Diskette drive	None (use optional USB-based diskette drive)										- <i>Some:</i> Genuine Windows Vista Business 32		
SATA DVD±RW	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase										- <i>Some:</i> Genuine Windows Vista Business 64		
Ultrabay Slim	Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781)										- <i>Some:</i> Genuine Windows Vista Ultimate 32		
SATA disk	<i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high; <i>Some:</i> 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™										◇ Vista models: Vista Premium logo		
All:	removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase										Preloaded applications ¹⁴ (all OSes; only some listed)		
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) 		
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus										Supports ThinkVantage® technologies		
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45										ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - CD-RW/DVD-ROM Ultrabay Slim SATA 1.5Gb/s 43N3213 - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 		
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)												
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys										Other features: <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	None												
ThinkLight™	None										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)												
Weight ²	<i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)												
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Battery - type	Lithium Ion 4-cell or 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice	<i>Some:</i> X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express	Three Mini PCI Express slots												
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T®												
2G Turbo	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator												
UWB	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												
Other accessories on O-X200-T sheet													
Other accessories at lenovo.com/accessories													

See footnotes for important warranty information
US models announced September 23, 2008, October 14, 2008, or March 24, 2009
US models withdrawn effective December 2009

◆ Intel Centrino® 2 with vPro™ technology

ThinkPad® X200 Tablet (7449) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ³	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Preload	Avail date
7449-43U	SL9600	2.13	2GB	12.1" WXGA	Entry	160G	5400		❖ Intel 5100 ²⁸	WWAN upg	None	4 XP Tab	Oct 09
7449-45U	SL9600	2.13	2GB	12.1" WXGA	Entry	160G	7200	DVD±RW	❖ Intel 5100	WWAN upg	None	8 XP Tab	Oct 09
7449-47U	SL9600	2.13	4GB	12.1" WXGA	Entry	160G	7200	DVD±RW	❖ Intel 5100	AT&T ²³	None	8 XP Tab	Oct 09
7449-49U	SL9600	2.13	2GB	12.1" WXGA	MultiTouch	160G	7200		❖ Intel 5100	WWAN upg	None	8 XP Tab	Oct 09
7449-4AU	SL9600	2.13	4GB	12.1" WXGA	MultiTouch	160G	7200	DVD±RW	❖ Intel 5100	WWAN upg	None	8 XP Tab	Oct 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache								Preloaded operating system ²⁰ - Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows 7 Professional 32				
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available								Preloaded applications ¹⁴ (only some listed)				
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase								<ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Client Security Solution™ ThinkVantage Productivity Center ThinkVantage System Update Fingerprint Software Lenovo System Toolbox ThinkPad Utilities (Power Manager and Presentation Director) Adobe® Reader® Windows Live™ Toolbar Microsoft® Office 2007 Trial (60-day) Roxio® Creator® Business Edition (DVD±RW) Roxio MyDVD® (DVD±RW) Corel® WinDVD® (DVD±RW) 				
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	Some: camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)												
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45												
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz (VGA)												
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys								Supports ThinkVantage® technologies				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	None								ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> Provides desktop expansion and cable management for X200 Series Easily connects to the bottom of the X200 Series for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> 250GB FDE 7200 rpm 43N3410 320GB Disk 7200 rpm 43N3411 				
ThinkLight™	None												
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg)												
Weight ²	Color: black; Material: magnesium alloy												
Case	Lithium Ion 4-cell or 8-cell												
Battery - type	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr												
Battery - life ¹⁰													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice	Some: X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express	Three Mini PCI Express slots												
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)												
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T												
2G Turbo	None												
UWB	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available												
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706		ThinkPad Battery 12 (4-cell)		43R9256								
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707		ThinkPad Battery 12++ (8-cell)		43R9257								
Other accessories on O-X200-T sheet								Other accessories at lenovo.com/accessories					

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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(CML2-3) June 2010

ThinkPad® X200 Tablet (7449) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁸	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Preload	Avail date
7449-44U	SL9600	2.13	2GB	12.1" WXGA Entry		160G 5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	4 Pro 32	Oct 09
7449-4KU	SL9600	2.13	2GB	12.1" WXGA MultiTouch	Cam	160G 7200	Optional	Optional	❖ Intel 5100	WWAN upg	None	8 Pro 32	Oct 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 32	
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics</i> : standard memory in 1 socket; 1 socket available										Preloaded applications ¹⁴ (only some listed)	
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Lenovo Online Data Backup • Adobe® Reader® • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) 	
Widescreen display	<i>Entry</i> : 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>MultiTouch</i> : 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All</i> : WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)											
Camera	Some: camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)											
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45										Supports ThinkVantage® technologies	
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution</i> : 2048x1536@75Hz (VGA)											
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None										ThinkPad X200 UltraBase™	
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg)										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 	
Weight ²	Color: black; Material: magnesium alloy											
Battery - type	Lithium Ion 4-cell or 8-cell											
Battery - life ¹⁰	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr											
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											
Media slice	Optional: X200 UltraBase media slice (see right side)											
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										Other features:	
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None										<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 	
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available											
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell)						43R9256				
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell)						43R9257				
Other accessories on O-X200-T sheet		Other accessories at lenovo.com/accessories										

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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(CML2-4) June 2010

ThinkPad® X200 Tablet (7450) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA	Optical in	ThinkPad X200	Mini PCIe 802.11	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Workhorse (W) Global (G) Avail date
7450-2CU	SL9400	1.86	2GB	12.1" WXGA			160G 5400	Optional	Opt	❖ Intel 5100 ²⁸	WWAN upg			Bus 32 W G Oct 08
7450-28U	SL9300	1.60	2GB	12.1" WXGA		Cam	250G 5400	Optional	Opt	❖ Intel 5300 ²⁸	WWAN upg	2G Turbo	Yes	Bus 32 W G Oct 08
7450-EDU	SL9400	1.86	2GB	12.1" WXGA	LED		160G 7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes	Bus 32 W G Oct 08
7450-8HU	SL9400	1.86	2GB	12.1" WXGA	LED	Cam	160G 7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes	Bus 32 W G Oct 08
7450-9GU	SL9400	1.86	2GB	12.1" WXGA		Cam	160G 7200	Optional	Opt	❖ Intel 5300	WWAN upg		Yes	XP Tab W G Oct 08
7450-EYU	SL9300	1.60	2GB	12.1" WXGA	LED	Cam	160G 5400	Optional	Opt	❖ Intel 5300	WWAN upg		Yes	XP Tab Oct 08
7450-FDU	SL9400	1.86	2GB	12.1" WXGA	LED		160G 7200	Optional	Opt	❖ Intel 5100	WWAN upg		Yes	XP Tab W G Oct 08
Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache													
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics</i> : standard memory in 1 socket; 1 socket available													
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB ⁹ (5400 or 7200 rpm) or 250GB (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>													
Widescreen display	<i>Some</i> : 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some</i> : 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch</i> : 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All</i> : WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)													
Camera	<i>Some</i> : camera on top of screen, 1.3-megapixel, fixed focus													
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45													
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution</i> : 2048x1536@75Hz													
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None													
Dimensions ³	<i>without X200 UltraBase; 4-cell</i> : 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell</i> : 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell</i> : from 3.5 lb (1.6kg); <i>8-cell</i> : from 3.88 lb (1.76kg) <i>Color</i> : black; <i>Material</i> : magnesium alloy													
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>4-cell</i> : up to 4.4 hr; <i>8-cell</i> : up to 10.3 hr													
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice Multicard Reader ExpressCard/54 Ports	<i>Optional</i> : X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some</i> : 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some</i> : 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some</i> : Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator None 56K V.92 ⁵ modem <i>Some</i> : Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some</i> : Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-X200-T sheet	55Y3706 55Y3707	ThinkPad Battery 12 (4-cell) ThinkPad Battery 12++ (8-cell) Other accessories at lenovo.com/accessories	43R9256 43R9257											

Preloaded operating system²⁰
- *Some*: Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business
- *Some*: Genuine Windows Vista Business 32
❖ *Vista models*: Vista Premium logo

Preloaded applications¹⁴ (all OSes; only some listed)
• Rescue and Recovery™
• Access Connections™
• Client Security Solution™
• ThinkVantage Productivity Center
• ThinkVantage System Update
• Fingerprint Software (fingerprint models)
• Lenovo System Toolbox
• ThinkPad Utilities (Power Manager and Presentation Director)
• Adobe® Reader®

Supports ThinkVantage® technologies

ThinkPad X200 UltraBase™

- Provides desktop expansion and cable management for X200 Series
- Easily connects to the bottom of the X200 Series for traveling
- Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:
 - DVD Burner Ultrabay Slim
 - SATA 1.5Gb/s 43N3214
 - Serial ATA Hard Drive
 - Bay Adapter III 43N3412
- Disks supported (some):
 - 250GB FDE 7200 rpm 43N3410
 - 320GB Disk 7200 rpm 43N3411

Other features:

- Power button (front)
- Stereo speakers (2 watt)
- Security key lock, security keyhole, and optional security screw
- Analog DB-15 monitor port
- DisplayPort (supports single-link DVI-D via cable 45J7915)
- Four USB 2.0 ports
- Gigabit ethernet port
- Microphone in and headphone out
- Second battery charger
- Requires 65 or 90 watt AC adapter
- 1.6 lb; 730g

65-watt (GMA graphics) AC Adapter
Climate Savers® certified
EPEAT™ Gold rating (LED models)
EPEAT Silver rating (other models)
ENERGY STAR® 5.0-compliant
ROHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹²
via 800-426-7378

See footnotes for important warranty information

❖ Intel Centrino® 2 with vPro™ technology

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(CML1-2) June 2010

US models announced September 23, 2008

US models withdrawn effective September 2009, December 2009, or June 2010

ThinkPad® X200 Tablet (7450) - December 2008 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA GB ⁹	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing	Pre- load	Avail date
7450-8UU	SL94001	1.86	2GB	12.1" WXGA	LED	Cam	80GBSSD	DVD±RW	Ultrabase	Intel 5300 ²⁸	AT&T ²³	None	Yes	8	Bus 32 Dec 08
7450-G9U	SL93001	1.60	2GB	12.1" WXGA			128G SSD			Intel 5100 ²⁸	WWAN upg	None	Yes	4	Bus 32 Dec 08
7450-GDU	SL94001	1.86	2GB	12.1" WXGA	LED	Cam	128G SSD			Intel 5300	WWAN upg	None	Yes	8	Bus 32 Dec 08
7450-GEU	SL94001	1.86	2GB	12.1" WXGA	LED	Cam	128G SSD			Intel 5300	WWAN upg	None	Yes	8	Bus 32 Dec 08
7450-GAU	SL94001	1.86	2GB	12.1" WXGA			128G SSD			WiMAX	WWAN upg	None	Yes	8	Bus 32 Jan 09
7450-GBU	SL94001	1.86	2GB	12.1" WXGA	LED	Cam	128G SSD			WiMAX	WWAN upg	None	Yes	8	Bus 32 Jan 09
7450-GCU	SL94001	1.86	2GB	12.1" WXGA	LED	Cam	128G SSD			WiMAX	WWAN upg	None	Yes	8	Bus 32 Jan 09
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9300 or SL9400 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system ²⁰ - Genuine Windows® Vista® Business 32 ↳ Vista Premium logo			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications ¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 80GB ⁹ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high removable, upgradable, shock mounted storage, supports second disk in optional or standard X200 UltraBase											<ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Client Security Solution™ ThinkVantage Productivity Center ThinkVantage System Update Fingerprint Software (fingerprint models) McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) Lenovo System Toolbox ThinkPad Utilities (Power Manager and Presentation Director) Adobe® Reader® Windows Live™ Toolbar Microsoft® Office 2007 Trial (60-day) Roxio® Creator® Business Edition (DVD±RW) Roxio MyDVD® (DVD±RW) Corel® WinDVD® (DVD±RW) 			
Widescreen display	Some: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen Some: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen Touch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)														
Camera	Some: camera on top of screen, 1.3-megapixel, fixed focus														
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45														
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; Maximum external resolution: 2048x1536@75Hz														
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None											Supports ThinkVantage® technologies			
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm														
Weight ²	4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg)														
Case	Color: black; Material: magnesium alloy														
Battery - type	Lithium Ion 4-cell or 8-cell														
Battery - life ¹⁰	4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice	Some: X200 UltraBase media slice (see right side)														
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)														
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	Some: 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
Intel 5300 ²⁸	Some: 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3														
WiMAX	Some: 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)														
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)														
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T														
2G Turbo UWB	None														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Some: Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip														
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell)				43R9256				24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell)				43R9257									
Other accessories on O-X200-T sheet											Other accessories at lenovo.com/accessories				

See footnotes for important warranty information Intel Centrino® 2 with vPro™ technology

US models announced December 9, 2008 or January 6, 2009

US models withdrawn effective September 2009, December 2009, or June 2010

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ThinkPad® X200 Tablet (7450) - April 2009 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED Cam	Disk SATA GB ⁷ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Pre- load	Avail date
7450-9RU	SL9600	2.13	2GB	12.1" WXGA	LED Cam	160GB 7200	DVD±RW	Ultrabase	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	8 Bus 32	May 09
7450-9SU	SL9600	2.13	2GB	12.1" WXGA	LED Cam	128GB SSD			❖ Intel 5100	AT&T ²³	None	Yes	8 Bus 32	May 09
7450-2NU	SL9600	2.13	2GB	12.1" WXGA		160GB 5400			❖ Intel 5100	WWAN upg	None	Yes	8 Bus 32	May 09
Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® Vista® Business 32 ❖ Vista Premium logo			
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed)			
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) <i>Some:</i> 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (5400 or 7200 rpm) / SATA 1.5Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports second disk in optional or std <i>X200 UltraBase</i>										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW) 			
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)													
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus													
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45													
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz													
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys										Supports ThinkVantage® technologies			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	None										ThinkPad X200 UltraBase™			
ThinkLight™	None													
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 			
Weight ²											Other features:			
Case color	Black													
Case material	Magnesium alloy										<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Battery - type	Lithium Ion 8-cell													
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)													
Media slice	<i>Some:</i> X200 UltraBase media slice (see right side)										<ul style="list-style-type: none"> • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)													
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Mini PCI Express	Three Mini PCI Express slots										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)													
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T													
2G Turbo	None										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
UWB	None													
Modem	56K V.92 ⁶ modem										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										<ul style="list-style-type: none"> • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available													
1GB PC3-8500 DDR3 L-H SODIMM					55Y3706	ThinkPad Battery 12 (4-cell)				43R9256				
2GB PC3-8500 DDR3 L-H SODIMM					55Y3707	ThinkPad Battery 12++ (8-cell)				43R9257				
Other accessories on O-X200-T sheet										Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
US models announced April 28, 2009
US models withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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(CML1-8) June 2010

ThinkPad® X200 Tablet (7450) - September 2009 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED Cam	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Bat- tery Pre- Fing cells	load	Avail date
7450-66U	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	LED Cam	160GB 5400			❖ Intel 5100 ²⁸	WWAN upg	8 Bus	32 Sep 09	
7450-67U	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED	250GB 5400	DVD±RW	Ultrabase	❖ Intel 5100	AT&T ²³	Yes 8 XP Tab	Sep 09	
7450-68U	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	LED Cam	160GB 7200			❖ Intel 5100	WWAN upg	Yes 8 Bus	32 Sep 09	
7450-69U	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED Cam	160GB 7200			❖ Intel 5100	WWAN upg	Yes 8 Bus	32 Sep 09	
7450-6AU	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	LED Cam	160GB 7200			❖ Intel 5300 ²⁸	WWAN upg	Yes 8 XP Tab	Sep 09	
7450-6BU	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED Cam	160GB 7200			11n ²⁸	WWAN upg	Yes 8 Bus	32 Sep 09	
7450-6CU	SL9600	2.13	2GB	12.1" WXGA <i>Outdoor</i>	LED	320GB 7200			❖ Intel 5100	Verizon ¹⁶	Yes 8 Bus	32 Sep 09	

• **These models have a depot repair service 3-year limited warranty**

Positioning	<i>Convertible tablet ultraportable; one spindle</i>									
Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache									
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available									
SATA DVD±RW	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i>									
Ultrabay Slim	Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781)									
SATA disk	160GB⁸ (5400 or 7200 rpm), 250GB (5400 rpm) or 320GB (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>									
Widescreen display	<i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)									
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)									
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45									
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz									
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys									
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass									
Touch pad	None									
ThinkLight™	None									
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm									
Weight ²	<i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)									
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy									
Battery - type	Lithium Ion 8-cell									
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr									
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)									
Media slice	<i>Some:</i> X200 UltraBase media slice (see right side)									
Multicard reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)									
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)									
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)									
Mini PCI Express	Three Mini PCI Express slots									
Intel 5100 ²⁸	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)									
Intel 5300 ²⁸	<i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3									
11n ²⁸	<i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II									
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)									
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Qualcomm Gobi 1000 chipset, Mini PCIe adptr, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon									
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T									
2G Turbo	None									
UWB	None									
Modem	56K V.92 ⁶ modem									
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator									
Ethernet	<i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1									
Intel AMT	Intel Active Management Technology (iAMT)									
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack									
Security	Power-on password, hard disk password, supervisor password, security keyhole									
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant									
Fingerprint reader	<i>Some:</i> Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip									
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available									

Preloaded operating system²⁰
 - *Some:* Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business
 - *Some:* Genuine Windows Vista Business 32
 ❖ *Vista models:* Vista Premium logo

Preloaded applications¹⁴ (all OSes; only some listed)
 • Rescue and Recovery™
 • Access Connections™
 • Client Security Solution™
 • ThinkVantage Productivity Center
 • ThinkVantage System Update
 • Fingerprint Software (fingerprint models)
 • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions)
 • Lenovo System Toolbox
 • ThinkPad Utilities (Power Manager and Presentation Director)
 • Roxio® Creator® Business Edition (DVD±RW)

Supports ThinkVantage® technologies

ThinkPad X200 UltraBase™

- Provides desktop expansion and cable management for X200 Series
- Easily connects to the bottom of the X200 Series for traveling
- Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:
 - DVD Burner Ultrabay Slim
 - SATA 1.5Gb/s 43N3214
 - Serial ATA Hard Drive
 - Bay Adapter III 43N3412
 - Disks supported (some):
 - 250GB FDE 7200 rpm 43N3410
 - 320GB Disk 7200 rpm 43N3411

Other features:

- Power button (front)
- Stereo speakers (2 watt)
- Security key lock, security keyhole, and optional security screw
- Analog DB-15 monitor port
- DisplayPort (supports single-link DVI-D via cable 45J7915)
- Four USB 2.0 ports
- Gigabit ethernet port
- Microphone in and headphone out
- Second battery charger
- Requires 65 or 90 watt AC adapter
- 1.6 lb; 730g

65-watt (GMA graphics) AC Adapter
 Climate Savers® certified
 EPEAT™ Gold rating
 ENERGY STAR® 5.0-compliant
 ROHS-compliant
 International Warranty Service¹⁷
 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

See footnotes for important warranty information
 US models announced September 15, 2009
 US models withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

ThinkPad® X200 Tablet (7450) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Disk SATA GB ⁹	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe Bat- tery or Turbo cells	Workhorse (W) Global (G) Avail date					
7450-DDU	SL9600	2.13	2GB	12.1" WXGA <i>MultiTouch</i>	160G	7200	Optional	Optional	❖ Intel 5300 ²⁸	WWAN upg	None	8	Pro	64	G	Oct 09
Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache															
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available															
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase															
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch), WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)															
Camera	Camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)															
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45															
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)															
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None															
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm															
Weight ² Case Battery - type Battery - life ¹⁰	4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 8-cell 4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr															
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)															
Media slice	Optional: X200 UltraBase media slice (see right side)															
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)															
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)															
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)															
Mini PCI Express	Three Mini PCI Express slots															
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3															
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i>															
2G Turbo	None															
UWB	None															
Modem	56K V.92 ⁶ modem															
Bluetooth™	Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant															
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available															
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell)				43R9256										
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell)				43R9257										
Other accessories on O-X200-T sheet		Other accessories at lenovo.com/accessories														

Preloaded operating system²⁰
- Genuine Windows® 7 Professional 64

Preloaded applications¹⁴ (only some listed)

- Rescue and Recovery™
- Access Connections™
- Password Manager
- ThinkVantage Power Manager
- ThinkVantage System Update
- Fingerprint Software
- ThinkVantage Toolbox
- Lenovo Online Data Backup
- Norton™ Internet Security 2009 (30 days of virus definitions)
- Adobe® Reader®
- Skype™ for Windows

Supports ThinkVantage® technologies

ThinkPad X200 UltraBase™

- Provides desktop expansion and cable management for X200 Series
- Easily connects to the bottom of the X200 Series for traveling
- Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side:
 - DVD Burner Ultrabay Slim
 - SATA 1.5Gb/s 43N3214
 - Serial ATA Hard Drive
 - Bay Adapter III 43N3412
- Disks supported (some):
 - 250GB FDE 7200 rpm 43N3410
 - 320GB Disk 7200 rpm 43N3411

- Other features:
- Power button (front)
 - Stereo speakers (2 watt)
 - Security key lock, security keyhole, and optional security screw
 - Analog DB-15 monitor port
 - DisplayPort (supports single-link DVI-D via cable 45J7915)
 - Four USB 2.0 ports
 - Gigabit ethernet port
 - Microphone in and headphone out
 - Second battery charger
 - Requires 65 or 90 watt AC adapter
 - 1.6 lb; 730g

65-watt (GMA graphics) AC Adapter
Climate Savers® certified
EPEAT™ Gold rating
ENERGY STAR® 5.0-compliant
ROHS-compliant
International Warranty Service¹⁷
24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378

See footnotes for important warranty information
US model announced October 22, 2009
US model withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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(CML2-5) June 2010

ThinkPad® X200 Tablet (7453) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Widescreen Memory display	CCFL or LED	Disk SATA GB ³	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB Blue/ or TurboFing	Workhorse (W) Global (G) Avail Preload GMP (P)	date
7453-2CU	SL9400	1.86	2GB 12.1" WXGA		160G5400			❖ Intel 5100 ²⁸	WWAN upg	No	Bus 32 W G P	Oct 08
7453-EDU	SL9400	1.86	2GB 12.1" WXGA	TouchLED	160G7200			❖ Intel 5100	WWAN upg	No	Yes Bus 32 W	Oct 08
7453-9GU	SL9400	1.86	2GB 12.1" WXGA	Cam	160G7200			❖ Intel 5300 ²⁸	WWAN upg	No	Yes XP Tab W G P	Oct 08
7453-FDU	SL9400	1.86	2GB 12.1" WXGA	TouchLED	160G7200			❖ Intel 5100	WWAN upg	No	Yes XP Tab W G P	Oct 08
7453-8HU	SL9400	1.86	2GB 12.1" WXGA	LED Cam	160G7200			❖ Intel 5100	WWAN upg	No	Yes Bus 32 W	Oct 08
7453-9RU	SL9600	2.13	2GB 12.1" WXGA	LED Cam	160G7200	DVD±RW	UltraBase	❖ Intel 5100	WWAN upg	No	Yes Bus 32	G P Apr 09
Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ 2 Duo processor SL9400 or SL9600 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>											
Widescreen display	<i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen <i>Some:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 285 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, frameless screen <i>Touch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 230 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), MultiTouch (touchscreen via finger and pen) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)											
Camera	<i>Some:</i> camera on top of screen, 1.3-megapixel, fixed focus											
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45											
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz											
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None											
Dimensions ⁹	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy											
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr											
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)											
Media slice Multicard Reader ExpressCard/54 Ports	<i>Some:</i> X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack											
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant <i>Some:</i> Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip											
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-X200-T sheet	55Y3706 55Y3707		ThinkPad Battery 12 (4-cell) ThinkPad Battery 12++ (8-cell) Other accessories at lenovo.com/accessories		43R9256 43R9257							
<p>Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 ❖ <i>Vista models:</i> Vista Premium logo</p> <p>Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Microsoft® Office 2007 Trial (60-day)</p> <p>Supports ThinkVantage® technologies</p> <p>ThinkPad X200 UltraBase™</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 <p>Other features:</p> <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g <p>65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating (LED models) EPEAT Silver rating (other models) ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>												

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
US model announced September 23, 2008 or April 28, 2009
US models withdrawn effective December 2009 or June 2010

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(CML1-3) June 2010

ThinkPad® X200 Tablet (7453) - Onsite (September 2009) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	CCFL or LED	Cam	Disk SATA	Optical in	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue/ Fing	Workhorse (W) Global (G) Avail Preload (P) date
7453-68U	SL9600	2.13	2GB	12.1" WXGA	LED	Cam	160G 7200	Optional	Optional	Intel 5100 ²⁸	WWAN upg	Yes	Bus 32 G P Sep 09
7453-69U	SL9600	2.13	2GB	12.1" WXGA	LED	Cam	160G 7200	Optional	Optional	Intel 5100	WWAN upg	Yes	Bus 32 G P Sep 09
7453-6AU	SL9600	2.13	2GB	12.1" WXGA	LED	Cam	160G 7200	Optional	Optional	Intel 5300 ²⁸	WWAN upg	Yes	XP Tab G P Sep 09
7453-6BU	SL9600	2.13	2GB	12.1" WXGA	LED	Cam	160G 7200	Optional	Optional	11n ²⁸	WWAN upg	Yes	Bus 32 G P Sep 09
• These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty													
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache											Preloaded operating system²⁰ - Some: Windows® XP Tablet PC Edition 2005 preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ⇨ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader®	
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase												
Widescreen display	<i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	Some: camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)												
Graphics controller Graphics - external	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None												
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy												
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice Multicard Reader ExpressCard/54 Ports	<i>Optional: X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
Mini PCI Express Intel 5100 ²⁸ Intel 5300 ²⁸ 11n ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet	Three Mini PCI Express slots <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless, Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 <i>Some:</i> 11b/g/n wireless, Mini-PCIe Adapter II Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator <i>Non-vPro model:</i> Intel 82567LF Gigabit Network Connection (Boazman), PHY, PCIe x1 <i>vPro model:</i> Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT Audio support	Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole												
Security Security chip Fingerprint reader	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available												
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-X200-T sheet	55Y3706 55Y3707	ThinkPad Battery 12 (4-cell) ThinkPad Battery 12++ (8-cell) Other accessories at lenovo.com/accessories	43R9256 43R9257										

See footnotes for important warranty information
 US models announced September 15, 2009
 US models withdrawn effective June 2010

⇨ Intel Centrino® 2 with vPro™ technology

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 (CML2-2) June 2010

ThinkPad® X200 Tablet (7453) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Widescreen display	Disk SATA GB ⁹	Optical in rpm	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery cells	Workhorse (W) Global (G) Avail (P) date
7453-DDU	SL9600	2.13	2GB	12.1" WXGA MultiTouch	160G	7200	Optional	Optional	❖ Intel 5300 ²⁸	WWAN upg	None	8 Pro 64 G P Oct 09

• **This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**

Processor	Intel® Core™ 2 Duo processor SL9600 with low voltage, dual-core, Intel HD Boost, 1066MHz system bus, and 6MB L2 cache							Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64					
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available							Preloaded applications ¹⁴ (only some listed)					
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std X200 UltraBase							<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Lenovo Online Data Backup • Skype™ for Windows • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) 					
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 270 nits, 16:10 aspect ratio, 500:1 contrast ratio, IPS, MultiView (indoor/outdoor), enhanced MultiTouch (touchscreen support pen & two-finger touch), WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)							Supports ThinkVantage® technologies					
Camera	Camera on top of screen, 1.3-megapixel, digital zoom (focus range: 33 - 330cm)							ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 					
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45												
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA)												
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None							<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 					
Dimensions ³	without X200 UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm without X200 UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm 4-cell: from 3.5 lb (1.6kg); 8-cell: from 3.88 lb (1.76kg) Color: black; Material: magnesium alloy												
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell 4-cell: up to 4.4 hr; 8-cell: up to 10.3 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)												
Media slice Multicard Reader ExpressCard/54 Ports	Optional: X200 UltraBase media slice (see right side) 5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)							Other features:					
Mini PCI Express Intel 5300 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3 Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack							<ul style="list-style-type: none"> • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 					
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip							65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Limited warranty ¹²	3-years/1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available												
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM Other accessories on O-X200-T sheet	55Y3706 55Y3707		ThinkPad Battery 12 (4-cell) ThinkPad Battery 12++ (8-cell) Other accessories at lenovo.com/accessories			43R9256 43R9257							

See footnotes for important warranty information
US model announced October 22, 2009
US model withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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ThinkPad® X200 Tablet (7450) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁹	Optical rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB Blue/ or Turbo Fing	Bat- tery cells	Workhorse (W) Global (G) Avail date
7450-2DU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	8 Bus 32 W Oct 08
7450-2KU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	7200	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8 Ult 32 W Feb 09
7450-2PU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	5400	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8 Bus 32 W Mar 09

- **These models have an EasyServ™,19 depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Ultimate 32 ❖ Vista Premium logo						
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director)						
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>																
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) Camera on top of screen, 1.3-megapixel, fixed focus																
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45																
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536@75Hz</i>										Supports ThinkVantage® technologies						
Keyboard TrackPoint® Touch pad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass None None										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411						
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy																
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 8-cell <i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr																
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)																
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)																
Multicard Reader ExpressCard slot Ports	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC) One ExpressCard/34 or ExpressCard/54 Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g						
Mini PCI Express Intel 5100 ²⁸ WWAN upg 2G Turbo UWB Modem Bluetooth™ Ethernet Intel AMT Audio support	Three Mini PCI Express slots 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack																
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip										65-watt (GMA graphics) AC Adapter Climate Savers® certified EPEAT Silver rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378						
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available																
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706		ThinkPad Battery 12 (4-cell)				43R9256										
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707		ThinkPad Battery 12++ (8-cell)				43R9257										
Other accessories on O-X200-T sheet										Other accessories at lenovo.com/accessories							

See footnotes for important warranty information ❖ Intel Centrino® 2 with vPro™ technology
US models announced September 23, 2008, February 17, 2009, or March 24, 2009
US models withdrawn effective September 2009, December 2009, or June 2010

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ThinkPad® X200 Tablet (7453) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Widescreen display	Cam	Disk SATA GB ⁵	Optical rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Blue/ Fing	Bat- tery cells	Workhorse (W) Global (G) Avail date
7453-2DU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	5400	Optional	Optional	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	8	Bus 32 W Oct 08
7453-2KU	SL9400	1.86	2GB	12.1" WXGA	Cam	160G	7200	Optional	Optional	❖ Intel 5100	WWAN upg	None	Yes	8	Ult 32 W Feb 09

- **These models have a limited onsite service²⁴ 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ 2 Duo processor SL9400 with low voltage, dual-core , Intel HD Boost, 1066MHz system bus, and 6MB L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® Vista® Business 32 - <i>Some:</i> Genuine Windows Vista Ultimate 32 ❖ Vista Premium logo				
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										- <i>Some:</i> Genuine Windows Vista Ultimate 32 ❖ Vista Premium logo				
SATA DVD±RW Ultrabay Slim SATA disk	None Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 or 7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, ThinkPad Shock Mounted Hard Drive, Active Protection System™, supports 2nd disk in optional or std <i>X200 UltraBase</i>										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader®				
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, CCFL backlight, 190 nits, 16:10 aspect ratio, 500:1 contrast ratio, FFS, frameless screen, WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in front base, rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)														
Camera	Camera on top of screen, 1.3-megapixel, fixed focus														
Graphics controller	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45														
Graphics - external	External monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; <i>Maximum external resolution: 2048x1536@75Hz</i>										Supports ThinkVantage® technologies				
Keyboard	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys										ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 Series • Easily connects to the bottom of the X200 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 Other features: <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass														
Touch pad	None														
ThinkLight™	None														
Dimensions ³	<i>without X200 UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33mm <i>without X200 UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33mm <i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)														
Weight ²	<i>4-cell:</i> from 3.5 lb (1.6kg); <i>8-cell:</i> from 3.88 lb (1.76kg)														
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy														
Battery - type	Lithium Ion 8-cell														
Battery - life ¹⁰	<i>4-cell:</i> up to 4.4 hr; <i>8-cell:</i> up to 10.3 hr														
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub), ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC)														
Media slice	<i>Optional: X200 UltraBase media slice</i> (see right side)														
Multicard Reader	5-in-1 reader (MultiMediaCard, Memory Stick, Mem Stick Pro, Secure Digital, SDHC)														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54														
Ports	Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)														
Mini PCI Express	Three Mini PCI Express slots														
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)														
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)														
2G Turbo	None														
UWB	None														
Modem	56K V.92 ⁶ modem														
Bluetooth™	Bluetooth 2.1 wireless, LED indicator														
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, Conexant CX20561 codec / stereo speakers, 1 watt / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on right base of display / used in tablet or notebook mode / 2-way swipe sensor, LED indicator / supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available														
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 12 (4-cell)				43R9256									
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 12++ (8-cell)				43R9257									
Other accessories on O-X200-T sheet		Other accessories at lenovo.com/accessories				24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378									

See footnotes for important warranty information
 US model announced September 23, 2008 or February 17, 2009
 US model withdrawn effective June 2010

❖ Intel Centrino® 2 with vPro™ technology

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Storage and removable storage

160GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	41N5692	ann 03/20/07
160GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	41N5737	ann 10/16/07
250GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43R8152	ann 01/15/08
250GB Disk FDE SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3410	ann 01/20/09
320GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3403	ann 08/05/08
320GB Disk SATA 1.5Gb/s (7200 rpm) ⁴¹	43N3411	ann 01/20/09
500GB Disk SATA 1.5Gb/s (5400 rpm) ⁴¹	43N3420	ann 06/23/09
500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III 43N3412* in X200 UltraBase (43R8781)

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann 08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Ultra Secure Memory Key 1GB	45J5915	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann 01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

Wireless WAN (Mini PCI Express)

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann 08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann 08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB Port Replicator with Digital Video	45K1610	ann 07/28/09
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.		
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Mini Optical Mouse - Black (USB)	55Y9308	ann 05/19/09
Lenovo Mini Optical Mouse - White (USB)	55Y9309	ann 05/19/09
Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10
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Tablet

ThinkPad Digitizer Pen	41U3143	ann 11/14/06
ThinkPad Tablet Tether (3-pack)	41U4820	ann 11/14/06

Batteries

ThinkPad Battery 12 (4-cell)	43R9256	ann 09/23/08
ThinkPad Battery 12++ (8-cell)	43R9257	ann 09/23/08

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

- BlackBerry charge tip (L8a) 41R4478 ann 12/18/07
- iPod and iPhone Charge Tip (L10a) 41R4481 ann 12/18/07
- Generic Micro USB charge tip (L18) 41R4490 ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

X200 Tablet:

ThinkPad X200 Tablet Sleeve	43R9115	ann 09/23/08
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.4" widescreen models:

Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
Checkpoint Friendly Business Topload Case	51J0418	ann 05/05/09
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann 06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

- www.lenovo.com/support/accessories
- www.lenovo.com/support/notebookaccessories
- www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X201
(TrackPoint model)



Lenovo ThinkPad X201 with
ThinkPad Battery 47++ (9-cell)
43R9255



Lenovo ThinkPad X201
(UltraNav model)



Lenovo ThinkPad X201
(TrackPoint model)



ThinkPad 65W AC Adapter
40Y7696



Lenovo ThinkPad X201
(UltraNav model)

ThinkPad® X201 (3249) - TopSeller (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Intel vPro	Preload	Avail date
3249-2RU	i5-540M	2.53 3.06	2GB	12.1" WXGA	2.0M	250G 5400	DVD±RW	UltraBase	Intel 6200 ²⁸	WWAN upg		vPro	XP Pro	Mar 10
3249-2PU	i5-540M	2.53 3.06	2GB	12.1" WXGA	2.0M	320G 7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	AT&T ²³	vPro	XP Pro	Mar 10
3249-2SU	i5-540M	2.53 3.06	2GB	12.1" WXGA		250G 5400			Intel 6200	WWAN upg		vPro	XP Pro	Mar 10
3249-38U	i5-520M	2.40 2.93	2GB	12.1" WXGA		250G 5400			Intel 6200	WWAN upg		vPro	XP Pro	Apr 10

• **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update			
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>													
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)													
Weight ² Case Battery - type Battery - life ¹⁰	<i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr													
Chipset	Mobile Intel QM57 Express Chipset													
Media slice Multicard reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>Some:</i> AT&T®, contract required with service provider 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US models announced March 2 or April 6, 2010
US models withdrawn effective October 2010

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(MOC3-7) October 2010

ThinkPad® X201 (3249) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁵	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Carrier	Intel vPro Preload	Avail date
3249-2EU	i5-540M	2.53	3.06	2GB	12.1" WXGA		250G	5400	DVD±RW	UltraBase	Intel 6200 ²⁸	WWAN upg		vPro Pro 32	Mar 10
3249-2FU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro Pro 32	Mar 10
3249-2GU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	Verizon ¹⁶	vPro Pro 32	Mar 10
3249-2HU	i5-520M	2.40	2.93	4GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro Pro 32	Mar 10
3249-2TU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	WiMAX	WWAN upg		vPro Pro 64	Mar 10
3249-2UU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	Intel 6200	Gobi 2000	AT&T ²³	vPro Pro 64	Mar 10
3249-2VU	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro Pro 64	Mar 10
3249-C2U	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	160G	7200			Intel 6200	WWAN upg		vPro Pro 64	Apr 10
3249-C3U	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	320G	7200			Intel 6200	WWAN upg		vPro Pro 64	Apr 10
3249-EPU	i5-560M	2.66	3.20	2GB	12.1" WXGA	2.0M	320G	7200	DVD±RW	UltraBase	Intel 6200	WWAN upg		vPro Pro 64	Sep 10
3249-ERU	i5-560M	2.66	3.20	2GB	12.1" WXGA		160G	7200			Intel 6200	WWAN upg		vPro Pro 64	Sep 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning	An ultraportable for the executive on the move; one spindle											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
Processor	Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core. DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase											
Widescreen display	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus											
Camera												
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP) @60Hz; 2048x1536(VGA) @75Hz											
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy											
Weight ² Case												
Battery - type	Lithium Ion 6-cell											
Battery - life ¹⁰	<i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr											
Chipset	Mobile Intel QM57 Express Chipset											
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)											
Multicard reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)											
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)											
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											
PCIe Mini Card	Two PCI Express Mini Card slots											
Intel 6200 ²⁸ WiMAX	<i>Some:</i> 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX											
WWAN upg	<i>Some:</i> Wireless WAN upgradable											
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider											
Carrier	<i>Some:</i> AT&T® or Verizon®, contract required with service provider											
Modem	56K V.92 ⁶ modem											
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available											

See footnotes for important warranty information
 US models announced February 23, March 2, April 20, or September 28, 2010
 US models withdrawn effective August 2011

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 (MOC3-1) August 2011

ThinkPad® X201 (3249) - TopSeller (Windows 7) - Jan 2011 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Intel vPro	Preload	Avail date
3249-1FU	i5-480M	2.66	2.93	2GB	12.1" WXGA	2.0M	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Jan 11

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-480M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch			
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>													
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz													
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)													
Weight ² Case Battery - type Battery - life ¹⁰	Color: black; Material: magnesium alloy Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr													
Chipset	Mobile Intel QM57 Express Chipset													
Media slice Multicard reader ExpressCard/54 Ports	Option: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable 56K V.92 ⁶ modem None Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										Supports ThinkVantage® technologies			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced January 11, 2011
US model withdrawn effective August 2011

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(MOC3-8) August 2011

ThinkPad® X201 (3626) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Finger print reader	Battery Intel vPro Preload	Workhorse (W) Global (G) Avail date
3626-R3U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200		Intel 6200 ²⁸	upg	Fing	Blue	6 vPro Pro 32	Mar 10
3626-11U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200		Intel 6200	upg	Fing	Blue	6 vPro Pro 32	G Mar 10
3626-F2U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200		Intel 6200	upg		Blue	6 vPro Pro 32 W	Mar 10
3626-F3U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G 7200		Intel 6200	Gobi	Fing	Blue	6 vPro Pro 64 W	Mar 10
3626-F4U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 5400	DVD±RW UltraB	Intel 6200	upg	Fing	Blue	9 vPro Pro 32 W	Mar 10
3626-F5U	i5-540M	2.53	3.06	4GB	12.1" WXGA	2.0M	320G 7200	DVD±RW UltraB	Intel 6200	upg	Fing	Blue	6 vPro Pro 64 W	Mar 10
3626-F6U	i5-540M	2.53	3.06	3GB	12.1" WXGA	2.0M	128G SSD		Intel 6200	upg	Fing	Blue	6 vPro Pro 32 W	Mar 10
3626-F7U	i5-540M	2.53	3.06	4GB	12.1" WXGA		320G 7200		Intel 6300 ²⁸	upg	Fing	Blue	9 vPro Pro 32 W G	Mar 10
3626-F8U	i5-540M	2.53	3.06	2GB	12.1" WXGA		250G 5400		Intel 6200			Blue	4 vPro Pro 32 W G	Mar 10
3626-F9U	i5-540M	2.53	3.06	2GB	12.1" WXGA		320G 7200	DVD±RW UltraB	Intel 6200	upg	Fing	Blue	6 vPro Pro 32 W G	Mar 10
3626-FAU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M	320G 7200		Intel 6200	upg	Fing	Blue	9 vPro Pro 32 W G	Mar 10
3626-FBU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	250G 5400		Intel 6200	upg	Fing	Blue	6 vPro Pro 32 W G	Mar 10
3626-HUU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	320G 7200		Intel 6300	upg	Fing	Blue	6 vPro Pro 32 W G	Apr 10
3626-F5U	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200		Intel 6200	upg		Blue	6 vPro Pro 32 W G	Apr 10
3626-12U	i5-520M	2.40	2.93	2GB	12.1" WXGA		160G 7200		Intel 6200	Gobi	Fing	Blue	6 vPro Pro 64 W	Apr 10
3626-13U	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M	160G 7200	DVD±RW UltraB	Intel 6200	upg	Fing	Blue	6 vPro Pro 64 W	Apr 10
3626-14U	i5-520M	2.40	2.93	2GB	12.1" WXGA		320G 7200		Intel 6200	upg	Fing	Blue	9 vPro Pro 64 W G	Apr 10
3626-PVU	i5-560M	2.66	3.20	2GB	12.1" WXGA		320G 7200		Intel 6200	upg	Fing	Blue	6 vPro Pro 32	Sep 10
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M, i5-540M, or i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache													
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available													
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) <i>Some:</i> 128GB ⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high <i>Some:</i> 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (5400 rpm or 7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ <i>All:</i> removable, upgradable, shock mounted storage, supports 2nd disk in optional or standard X200 UltraBase													
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus													
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz													
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)													
Weight ² Case Battery - type Battery - life ¹⁰	<i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr													
Chipset	Mobile Intel QM57 Express Chipset													
Media slice Multicard reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
PCIe Mini Card Intel 6200 ²⁸ Intel 6300 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	<i>F3U/12U models:</i> Verizon®, contract required with service provider 56K V.92 ⁶ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													
Supports ThinkVantage® technologies														
65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378														

See footnotes for important warranty information
 US models announced February 23, April 6, April 20, or September 28, 2010
 US models withdrawn effective June 2010 or August 2011

ThinkPad® X201 (3626) - Education (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Fing	Intel vPro	Preload	Avail date
3626-N2U	i5-540M	2.53 3.06	2GB	12.1" WXGA	2.0M	250G 5400	Optional	Optional	Intel 6200 ²⁸	WWAN upg	Yes	vPro	Pro 32	Mar 10

- **This model has a depot repair service 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32			
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Education software - Microsoft Office OneNote® 2007 (and CD) • Rescue and Recovery™ • Microsoft Office 2010 preloaded; purchase product key to activate			
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies			
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</i>										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy													
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr													
Chipset	Mobile Intel QM57 Express Chipset													
Media slice Multicard reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for important warranty information
US model announced February 23, 2010
US models withdrawn effective April 2011

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(MOC3-5) April 2011

ThinkPad® X201 (3680) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 Mini Card 802.11	PCIe Mini Card WWAN	Bat- tery Intel vPro	Workhorse (W) Global (G) Preload GMP (P)	Avail date
3680-F7U	i5-540M	2.53	3.06	4GB	12.1" WXGA	320G 7200		Intel 6300 ²⁸	upg	Yes	9 vPro Pro 32	W G P Mar 10
3680-F8U	i5-540M	2.53	3.06	2GB	12.1" WXGA	250G 5400		Intel 6200 ²⁸		Yes	4 vPro Pro 32	W G P Mar 10
3680-F9U	i5-540M	2.53	3.06	2GB	12.1" WXGA	320G 7200	DVD±RW UltraB	Intel 6200	upg	Yes	6 vPro Pro 32	W G P Mar 10
3680-FAU	i5-540M	2.53	3.06	2GB	12.1" WXGA	2.0M 320G 7200		Intel 6200	upg	Yes	9 vPro Pro 32	W G P Mar 10
3680-FBU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M 250G 5400		Intel 6200	upg	Yes	6 vPro Pro 32	W G P Mar 10
3680-11U	i5-540M	2.53	3.06	2GB	12.1" WXGA	320G 7200		Intel 6200	upg	Yes	6 vPro Pro 32	G P Mar 10
3680-PKU	i5-520M	2.40	2.93	2GB	12.1" WXGA	2.0M 320G 7200		Intel 6300	upg	Yes	6 vPro Pro 32	W G P Apr 10
3680-PLU	i5-520M	2.40	2.93	2GB	12.1" WXGA	320G 7200		Intel 6200	upg	6	vPro Pro 32	W G P Apr 10
3680-14U	i5-520M	2.40	2.93	2GB	12.1" WXGA	320G 7200		Intel 6200	upg	Yes	9 vPro Pro 64	W G P Apr 10

- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520M or i5-540M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase	
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus	
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz	
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)	
Weight ² Case Battery - type Battery - life ¹⁰	<i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr	
Chipset	Mobile Intel QM57 Express Chipset	
Media slice Multicard reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ Intel 6300 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable 56K V.92 ⁵ modem <i>Some:</i> Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	Supports ThinkVantage® technologies
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time/ service upgrades ²² available	

See footnotes for important warranty information
US models announced February 23, April 6, or April 20, 2010
US models withdrawn effective August 2011

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ThinkPad® X201 (3680) - Education (Onsite) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	Max Base turbo (GHz)(GHz)	Memory	Wide- screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Fing Intel vPro	Preload	Avail date
3680-N2U	i5-540M	2.53 3.06	2GB	12.1" WXGA	2.0M	250G 5400	Optional	Optional	Intel 6200 ²⁸	WWAN upg	Yes	vPro Pro 32	Mar 10

- **This model has a limited onsite service²⁴ 3-year limited warranty**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-540M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Education software - Microsoft Office OneNote® 2007 (and CD) - Adobe Digital School Collection • Rescue and Recovery™ • Microsoft Office 2010 preloaded; purchase product key to activate		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁹ (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>												
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy												
Weight ² Case Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr												
Chipset	Mobile Intel QM57 Express Chipset										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g		
Media slice Multicard reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												

See footnotes for important warranty information
US model announced February 23, 2010
US model withdrawn effective April 2011

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(MOC3-6) April 2011

ThinkPad® X201i (3249) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Intel vPro	Preload	Avail date
3249-J2U	i3-330M	2.13	2GB	12.1" WXGA	None	250G 5400	Optional	Optional	Intel 1000	WWAN upg	No	Pro 32	Mar 10
3249-MCU	i3-330M	2.13	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Apr 10
3249-MDU	i3-370M	2.40	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Jul 10
3249-1HU	i3-390M	2.66	2GB	12.1" WXGA	None	160G 7200	Optional	Optional	Intel 1000	WWAN upg	No	Pro 64	Jan 11

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3 processor i3-330M, i3-370M, or i3-390M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Hyper-Threading technology; 3MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed)		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm) or 250GB (5400 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • ThinkVantage Toolbox • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch 		
Widescreen display Camera	12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 250:1 contrast ratio None												
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</i>												
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 233.8mm x 20.7-35.3mm <i>4-cell:</i> from 2.89 lb (1.31kg); <i>6-cell:</i> from 3.18 lb (1.44kg); <i>9-cell:</i> from 3.52 lb (1.60kg)												
Weight ² Case Battery - type Battery - life ¹⁰	<i>Color:</i> black; <i>Material:</i> magnesium alloy Lithium Ion 6-cell <i>4-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 6.7 hr; <i>9-cell:</i> up to 11.3 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice Multicard reader ExpressCard/54 Ports	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card Intel 1000 WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11b/g/n wireless ⁴ , PCIe Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable 56K V.92 ⁶ modem None Intel 82577LC Gigabit Network Connection (Hanksville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack										Supports ThinkVantage® technologies		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

See footnotes for important warranty information
US models announced February 23, April 20, or July 6, 2010, or January 11, 2011
US models withdrawn effective July or August 2011

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ThinkPad®



Lenovo® ThinkPad X201s
(TrackPoint model)



Lenovo ThinkPad X201s



Lenovo ThinkPad X201s
(UltraNav model)



Lenovo ThinkPad X201s
(TrackPoint model)



Lenovo ThinkPad X201s
(UltraNav model)



ThinkPad Battery 47++ (9-cell)
43R9255

ThinkPad® X201s (5143) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Disk SATA GB ³	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Fing	Bat- tery cells	Intel vPro	Preload	Avail date
5143-28U	i7-640LM	2.13	2.93	4GB	12.1" WXGA+	320G	7200	Optional	Optional	Intel 6200 ²⁸	None	Yes	6	vPro	Pro 32	Mar 10
5143-4KU	i5-520UM	1.06	1.86	4GB	12.1" WXGA+	320G	7200	Optional	Optional	Intel 6200	None	Yes	6	vPro	Pro 32	Jun 10

- Compared to the X201, the X201s has lighter weight, low voltage processors, and roll cage in display cover
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520UM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i7 processor i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate					
Memory	4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available															
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>															
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None										Supports ThinkVantage® technologies					
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</i>										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411					
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g					
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 20.7-28.7mm <i>without UltraBase; 6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 20.7-35.3mm <i>4-cell:</i> from 2.51 lb (1.1kg); <i>6-cell:</i> from 2.79 lb (1.23kg); <i>9-cell:</i> from 3.13 lb (1.39kg)															
Weight ² Case color Case material	black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378					
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell <i>4-cell:</i> up to 3.7 hr; <i>6-cell:</i> up to 7.4 hr; <i>9-cell:</i> up to 12.3 hr															
Chipset	Mobile Intel QM57 Express Chipset															
Media slice	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side)															
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)															
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced February 23, 2010 or May 25, 2010
US models withdrawn effective July 2010

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(PEC-3-2) July 2010

ThinkPad® X201s (5397) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- Intel vPro	Workhorse (W) Global (G) Avail date
5397-FDU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400	DVD±RW	UltraB	Intel 6200 ²⁸	None	Yes 4	vPro Pro 32 W G Mar 10
5397-FEU	i7-640LM	2.13	2.93	3GB	12.1" WXGA+	320G 7200			Intel 6200	None	Yes 9	vPro Pro 32 W G Mar 10
5397-FGU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400			Intel 6200	None	Yes 6	vPro Pro 32 W G Mar 10
5397-GBU	i5-520UM	1.06	1.86	2GB	12.1" WXGA+	250G 5400			Intel 6200	None	Yes 6	vPro Pro 32 Jun 10
5397-GCU	i5-520UM	1.06	1.86	3GB	12.1" WXGA+	320G 7200	DVD±RW	UltraB	Intel 6200	None	Yes 9	vPro Pro 32 Jun 10
5397-GEU	i5-520UM	1.06	1.86	4GB	12.1" WXGA+	320G 7200			Intel 6200	None	Yes 6	vPro Pro 64 Jun 10
5397-GFU	i5-520UM	1.06	1.86	2GB	12.1" WXGA+	250G 5400			Intel 6200	None	Yes 4	vPro Pro 32 W G Jun 10
5397-GGU	i5-520UM	1.06	1.86	2GB	12.1" WXGA+	320G 7200	DVD±RW	UltraB	Intel 6200	None	Yes 9	vPro Pro 32 W G Jun 10

- Compared to the X201, the X201s has lighter weight, low voltage processors, and roll cage in display cover
- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache	Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • Microsoft Office 2010 preloaded; purchase product key to activate
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase	
Widescreen display Camera	12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio None	Supports ThinkVantage® technologies
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536 (VGA)@75Hz	ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD Burner Ultrabay Slim SATA 1.5Gb/s 43N3214 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 20.7-28.7mm <i>without UltraBase; 6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 20.7-35.3mm <i>4-cell:</i> from 2.51 lb (1.1kg); <i>6-cell:</i> from 2.79 lb (1.23kg); <i>9-cell:</i> from 3.13 lb (1.39kg)	
Weight ² Case color Case material	black <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell, 6-cell, or 9-cell <i>4-cell:</i> up to 3.7 hr; <i>6-cell:</i> up to 7.4 hr; <i>9-cell:</i> up to 12.3 hr	
Chipset	Mobile Intel QM57 Express Chipset	
Media slice Multicard Reader ExpressCard/54 Ports	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)	
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 None 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced February 23, 2010 or May 25, 2010
US models withdrawn effective July 2010

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(PEC3-3) July 2010

ThinkPad® X201s (5413) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Disk SATA GB ²	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat- Intel vPro	Whorse (W) Gbl (G) GMP (P)	Avail date
5413-FDU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400		Intel 6200 ²⁸	None	Yes	4 vPro	Pro 32 W G P	Mar 10
5413-FEU	i7-640LM	2.13	2.93	3GB	12.1" WXGA+	320G 7200	DVD±RW	Intel 6200	None	Yes	9 vPro	Pro 32 W G P	Mar 10
5413-FFU	i7-640LM	2.13	2.93	4GB	12.1" WXGA+	320G 7200		Intel 6200	None	Yes	6 vPro	Pro 64 W G P	Mar 10
5413-FGU	i7-640LM	2.13	2.93	2GB	12.1" WXGA+	250G 5400		Intel 6200	None	Yes	6 vPro	Pro 32 W G P	Mar 10
5413-L6U	i5-520UM	1.06	1.86	4GB	12.1" WXGA+	320G 7200		Intel 6200	None	Yes	6 vPro	Pro 64	Jun 10
5413-L7U	i5-520UM	1.06	1.86	3GB	12.1" WXGA+	320G 7200	DVD±RW	Intel 6200	None	Yes	9 vPro	Pro 32	Jun 10
5413-LAU	i5-520UM	1.06	1.86	2GB	12.1" WXGA+	250G 5400		Intel 6200	None	Yes	4 vPro	Pro 32 W G P	Jun 10
5413-LBU	i5-520UM	1.06	1.86	2GB	12.1" WXGA+	320G 7200	DVD±RW	Intel 6200	None	Yes	9 vPro	Pro 32 W G P	Jun 10

- Compared to the X201, the X201s has lighter weight, low voltage processors, and roll cage in display cover
- These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed)		
Memory	2GB, 3GB, or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Microsoft Office 2010 preloaded; purchase product key to activate 		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner (43N3214), SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase												
Widescreen display	12.1" (308mm) WXGA+ (1440x900) color , anti-glare, LED backlight , 250 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	None										Supports ThinkVantage® technologies		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</i>										ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD Burner Ultrabay Slim - Serial ATA Hard Drive - Bay Adapter III • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 8.3" x 0.8-1.1"; 295mm x 210mm x 20.7-28.7mm <i>without UltraBase; 6-cell:</i> 11.6" x 8.3" x 0.8-1.4"; 295mm x 210mm x 20.7-35.3mm <i>without UltraBase; 9-cell:</i> 11.6" x 9.2" x 0.8-1.4"; 295mm x 234mm x 20.7-35.3mm <i>4-cell:</i> from 2.51 lb (1.1kg); <i>6-cell:</i> from 2.79 lb (1.23kg); <i>9-cell:</i> from 3.13 lb (1.39kg)												
Weight ²													
Case color	black												
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Ion 4-cell, 6-cell, or 9-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.7 hr; <i>6-cell:</i> up to 7.4 hr; <i>9-cell:</i> up to 12.3 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54 Ports	One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	None												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / mono speaker, 1 watt / volume up, down, mute buttons / digital microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	3-years/1-year - battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												

See footnotes for important warranty information
US models announced February 23, 2010 or May 25, 2010
US models withdrawn effective July 2010

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09

Storage and removable storage

500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10
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⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive Bay Adapter III 43N3412* in X200 UltraBase (43R8781)

256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
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USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann 01/07/10
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

⁵³ USB-only attach.

Wireless WAN (Mini PCI Express)

Only X201 WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Batteries

ThinkPad Battery 47 (4-cell)	43R9253	ann 08/05/08
ThinkPad Battery 47+ (6-cell)	43R9254	ann 08/05/08
ThinkPad Battery 47++ (9-cell)	43R9255	ann 08/05/08
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05

⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 12" widescreen models:

ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

More information at www.lenovo.com/support/cases
 Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet



Lenovo ThinkPad X201 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115



Lenovo ThinkPad X201 Tablet with
ThinkPad X200 Tablet Sleeve
43R9115

ThinkPad® X201 Tablet (2985) - TopS (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁸ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card WWAN	Battery Intel vPro	Carrier	Preload	Avail date
2985-EUU	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry		250G 5400			WWAN upg		4 vPro	XP Pro	Mar 10
2985-EVU	i7-640LM	2.13	2.93	4GB	12.1" WXGA Entry	2.0M	320G 7200	DVD±RW	UltraB	Gobi 2000	AT&T ²³	8 vPro	XP Pro	Mar 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i7 processor i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Power Manager • Presentation Director • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software • Lenovo System Toolbox			
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411			
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)													
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</i>													
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)													
Weight ²	<i>Color:</i> black; <i>Material:</i> magnesium alloy										Limited warranty ¹² 3-years/1-yr battery & digitizer pen - depot repair service / service upgrades ²² available			
Case	Lithium Ion 4-cell or 8-cell <i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr													
Battery - type	Mobile Intel QM57 Express Chipset										See footnotes for important warranty information US models announced March 2, 2010 US models withdrawn effective October 2010			
Battery - life ¹⁰	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) <i>Some:</i> Wireless WAN upgradable One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0, external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)													
Chipset	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable										© Lenovo (CML3-7) October 2010			
Media slice	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider													
Multicard Reader	<i>Some:</i> AT&T®, contract required with service provider										24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
ExpressCard/54 Ports	56K V.92 ⁶ modem													
Ports	Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT)													
PCle Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Carrier Modem	56K V.92 ⁶ modem													
Bluetooth™	Bluetooth 2.1 wireless, LED indicator													
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Security	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Security chip	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip													

See footnotes for important warranty information
US models announced March 2, 2010
US models withdrawn effective October 2010

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(CML3-7) October 2010

ThinkPad® X201 Tablet (2985) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	Max Base turbo (GHz)	Memory	Widescreen display	Camera (Mega-pixel)	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat-tery Intel vPro Preload	Avail date
2985-C2U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry	250G 5400		Intel 6200 ²⁸	upg	4 vPro Pro 32	Mar 10
2985-C3U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro Pro 32	Mar 10
2985-C4U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi Verizon ¹⁶	8 vPro Pro 32	Mar 10
2985-C5U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Outdoor	2.0 320G 7200		Intel 6200	upg	8 vPro Pro 32	Mar 10
2985-C6U	i7-640LM	2.13	2.93	2GB	12.1" WXGA	Multi	2.0 250G 5400		Intel 6200	upg	8 vPro Pro 32	Mar 10
2985-C7U	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Multi	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro Pro 32	Mar 10
2985-EWU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi Verizon	8 vPro Pro 64	Mar 10
2985-EXU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Entry	2.0 320G 7200	DVD±RW	UltraB Intel 6200	Gobi AT&T ²³	8 vPro Pro 64	Mar 10
2985-EYU	i7-640LM	2.13	2.93	4GB	12.1" WXGA	Multi	2.0 320G 7200	DVD±RW	UltraB Intel 6200	upg	8 vPro Pro 64	Mar 10
<ul style="list-style-type: none"> • These small and medium business (SMB) models are part of the US TopSeller™ Program • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR) 												
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64	
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 	
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase											
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)											
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus											
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</i>										Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 500GB Disk 7200 rpm 43N3423 	
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None											
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)											
Weight ²	Color: black; Material: magnesium alloy											
Battery - type	Lithium Ion 4-cell or 8-cell											
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr											
Chipset	Mobile Intel QM57 Express Chipset											
Media slice	Some: ThinkPad X200 UltraBase media slice (see right side)											
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)											
PCIe Mini Card	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider											
Carrier Modem	Some: AT&T® or Verizon®, contract required with service provider 56K V.92 ⁹ modem											
Bluetooth™	Bluetooth 2.1 wireless, LED indicator											
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378	
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available											

See footnotes for important warranty information
 US models announced February 23 or March 2, 2010
 US models withdrawn effective January 2011 or June 2011

ThinkPad® X201 Tablet (2985) - TopSeller (Win 7) - April 2010 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory	Widescreen display	Camera (Mega-pixel)	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Battery Intel vPro	Preload	Avail date
2985-F2U	i7-620LM	2.00	2.80 2GB	12.1" WXGA <i>Entry</i>	2.0	160G 7200	DVD±RW	UltraB	Intel 6200 ²⁸	Gobi Verizon ¹⁶	8 vPro	Pro 64	Apr 10
2985-F3U	i7-620LM	2.00	2.80 2GB	12.1" WXGA <i>Outdoor</i>	2.0	160G 7200			Intel 6200 upg		8 vPro	Pro 64	Apr 10
2985-F4U	i7-620LM	2.00	2.80 2GB	12.1" WXGA <i>Multi</i>	2.0	320G 7200	DVD±RW	UltraB	Intel 6200	upg	8 vPro	Pro 64	Apr 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning	<i>Convertible tablet ultraportable; one spindle</i>												
Processor	Intel® Core™ i7 processor i7-620LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache												
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁹ (7200 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>												
Widescreen display	<p><i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless</p> <p><i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS</p> <p><i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch)</p> <p><i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)</p>												
Camera	Camera on top of screen, 2.0-megapixel, fixed focus												
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz												
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm												
Weight ²	<i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)												
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Battery - type	Lithium Ion 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2												
WWAN upg	<i>Some:</i> Wireless WAN upgradable												
Gobi™ 2000	<i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider												
Carrier	<i>Some:</i> Verizon®, contract required with service provider												
Modem	56K V.92 ⁶ modem												
Bluetooth™	Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available												
	<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p> <p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Windows Live™ Toolbar • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch <p>Supports ThinkVantage® technologies</p> <p>ThinkPad X200 UltraBase™</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 500GB Disk 7200 rpm 43N3423 <p>Other features:</p> <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g <p>65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>												

See footnotes for important warranty information
US models announced April 20, 2010
US models withdrawn effective January or June 2011

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ThinkPad® X201 Tablet (2985) - TopSeller (Win 7) - June 2010 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	Max Base turbo (GHz)	Memory	Widescreen display	Camera (Mega-pixel)	Disk SATA GB ^s rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Bat-tery Intel vPro Preload	Avail date
2985-F7U	i5-520UM	1.06	1.86 4GB	12.1" WXGA <i>Multi</i>	2.0M	320G 7200	DVD±RW	UltraB	Intel 6200 ²⁸	WWAN upg	8 vPro Pro 32 Jun 10	
2985-FAU	i5-520UM	1.06	1.86 2GB	12.1" WXGA <i>Entry</i>	2.0M	320G 7200			Intel 6200	WWAN upg	4 vPro Pro 64 Jun 10	
2985-FBU	i5-520UM	1.06	1.86 2GB	12.1" WXGA <i>Outdoor</i>	2.0M	320G 7200			Intel 6200	WWAN upg	8 vPro Pro 64 Jun 10	
2985-FCU	i5-520UM	1.06	1.86 2GB	12.1" WXGA <i>Multi</i>	2.0M	250G 5400			Intel 6200	WWAN upg	8 vPro Pro 64 Jun 10	
2985-FSU	i5-560M	2.66	3.20 2GB	12.1" WXGA <i>Entry</i>		160G 7200			Intel 6200	WWAN upg	4 vPro Pro 64 Sep 10	
2985-FYU	i5-560M	2.66	3.20 2GB	12.1" WXGA <i>Outdoor</i>	2.0M	160G 7200			Intel 6200	WWAN upg	8 vPro Pro 64 Sep 10	

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Convertible tablet ultraportable; one spindle</i></p> <p>Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i5 processor i5-560M with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache</p>								<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 <p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch 			
Memory	<p>2GB or 4GB std / 8GB max⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets;</p> <p><i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											
SATA DVD±RW Ultrabay Slim SATA disk	<p><i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm), 250GB⁸ (5400 rpm), or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i></p>											
Widescreen display	<p><i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless</p> <p><i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS</p> <p><i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch)</p> <p><i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)</p>											
Camera	<p><i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus</p>								<p>Supports ThinkVantage® technologies</p> <p>ThinkPad X200 UltraBase™</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 500GB Disk 7200 rpm 43N3423 <p>Other features:</p> <ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 			
Integrated graphics	<p>Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display;</p> <p><i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</p>											
Keyboard TrackPoint® Touchpad ThinkLight™	<p>Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys</p> <p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch</p> <p>None</p>											
Dimensions ³	<p><i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm</p> <p><i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm</p> <p><i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)</p>											
Weight ²	<p><i>Color:</i> black; <i>Material:</i> magnesium alloy</p>											
Case	<p>Lithium Ion 4-cell or 8-cell</p> <p><i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr</p>											
Battery - type												
Battery - life ¹⁰												
Chipset	<p>Mobile Intel QM57 Express Chipset</p>											
Media slice	<p><i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)</p>											
Multicard Reader	<p>5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)</p>											
ExpressCard/54	<p>One slot (ExpressCard/34, ExpressCard/54)</p>											
Ports	<p>Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)</p>											
PCIe Mini Card	<p>Two PCI Express Mini Card slots</p>											
Intel 6200 ²⁸ WWAN upg	<p>11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable</p>											
Modem	<p>56K V.92⁶ modem</p>											
Bluetooth™	<p>Bluetooth 2.1 wireless, LED indicator</p>											
Ethernet	<p>Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1</p>											
Intel AMT	<p>Intel Active Management Technology (iAMT)</p>											
Audio support	<p>High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack</p>											
Security	<p>Power-on password, hard disk password, supervisor password, security keyhole</p>											
Security chip	<p>Trusted Platform Module, TCG 1.2-compliant</p>											
Fingerprint reader	<p>UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>											
Limited warranty ¹²	<p>3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available</p>								<p>65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>			

See footnotes for important warranty information
US models announced May 25 or September 28, 2010
US models withdrawn effective January or June 2011

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ThinkPad® X201 Tablet (3093) - Windows 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	Max Base turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card 802.11	PCIe Mini Card WWAN	Blue/ Intel vPro	Pre-load	Workhorse (W) Gbl (G) Avail date
3093-R5U	i7-620LM	2.00	2.80 2GB	12.1" WXGA <i>Entry</i>		160G 5400		Intel 6200 ²⁸	upg	vPro	Pro 32	Mar 10	
3093-R6U	i7-640LM	2.13	2.93 4GB	12.1" WXGA <i>Outdoor</i>	2.0M	320G 7200	DVD±RW	Intel 6200	upg	Yes vPro	Pro 32	Mar 10	
3093-92U	i7-640LM	2.13	2.93 2GB	12.1" WXGA <i>Entry</i>	2.0M	320G 7200	DVD±RW	Intel 6200	upg	Yes vPro	Pro 32	Mar 10	
3093-93U	i7-640LM	2.13	2.93 2GB	12.1" WXGA <i>Entry</i>		250G 5400		Intel 6200	upg	Yes vPro	Pro 32	Mar 10	
3093-94U	i7-620LM	2.00	2.80 2GB	12.1" WXGA <i>Entry</i>		250G 5400		Intel 6200	upg	vPro	Pro 32	Mar 10	
3093-95U	i7-640LM	2.13	2.93 4GB	12.1" WXGA <i>Outdoor</i>	2.0M	320G 7200		Intel 6200	upg	Yes vPro	Pro 32	Mar 10	
3093-96U	i7-640LM	2.13	2.93 4GB	12.1" WXGA <i>Multi</i>	2.0M	320G 7200		Intel 6200	upg	Yes vPro	Pro 32	Mar 10	

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i7 processor i7-620LM or i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW)		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (5400 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>												
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 500GB Disk 7200 rpm 43N3423		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)												
Weight ²													
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Battery - type	Lithium Ion 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54	One slot (ExpressCard/34, ExpressCard/54)												
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸ WWAN upg	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable												
Modem	56K V.92 ⁶ modem												
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available												

See footnotes for important warranty information
US models announced February 23, 2010
US models withdrawn effective March 2010, January 2011, or June 2011

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ThinkPad® X201 Tablet (3093) - Windows 7 (February 2010) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Widescreen Memory display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card WWAN	Carrier	Bat-Blue/ tery Intel vPro	Workhorse (W) Gbl (G) Avail date
3093-21U	i7-620LM	2.00	2.80 2GBx1	Entry	250G 5400			WWAN upg		4 vPro Pro 32	G Mar 10
3093-22U	i7-640LM	2.13	2.93 2GBx2	Outdoor	320G 7200			WWAN upg	Yes	8 vPro Pro 32	G Mar 10
3093-23U	i7-640LM	2.13	2.93 2GBx2	Multi	2.0M 320G 7200			WWAN upg	Yes	8 vPro Pro 32	G Mar 10
3093-24U	i7-640LM	2.13	2.93 2GBx2	Entry	2.0M 320G 7200	DVD±RW	UltraB	Gobi 2000	Verizon ¹⁶	Yes 8 vPro Pro 32	W Mar 10
3093-25U	i7-640LM	2.13	2.93 2GBx2	Outdoor	2.0M 320G 7200			Gobi 2000	Verizon	Yes 8 vPro Pro 32	W Mar 10
3093-26U	i7-640LM	2.13	2.93 2GB+1	Multi	2.0M 128G SSD	DVD±RW	UltraB	WWAN upg	Yes	8 vPro Pro 32	W Mar 10
3093-27U	i7-640LM	2.13	2.93 2GBx1	Entry	2.0M 320G 7200	DVD±RW	UltraB	WWAN upg	Yes	8 vPro Pro 32	W G Mar 10
3093-28U	i7-640LM	2.13	2.93 2GBx1	Entry	250G 5400			WWAN upg	Yes	8 vPro Pro 32	W G Mar 10
3093-42U	i7-620LM	2.00	2.80 2GBx1	Entry	2.0M 160G 7200			WWAN upg	Yes	8 vPro Pro 64	W G Apr 10
3093-3ZU	i7-620LM	2.00	2.80 2GBx1	Multi	2.0M 160G 7200			WWAN upg	Yes	8 vPro Pro 64	W G Apr 10
<p>• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)</p>											
Positioning Processor	<p>Convertible tablet ultraportable; one spindle Intel® Core™ i7 processor i7-620LM or i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache</p>									<p>Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64</p>	
Memory	<p>2GB, 3GB, or 4GB std / 8GB max⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets</p>									<p>Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)</p>	
SATA DVD±RW Ultrabay Slim SATA disk	<p>Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) Some: 128GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high Some: 160GB (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports second disk in opt or std X200 UltraBase</p>										
Widescreen display	<p>Entry: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless Outdoor: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)</p>										
Camera	<p>Some: camera on top of screen, 2.0-megapixel, fixed focus</p>										
Integrated graphics	<p>Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz</p>									<p>Supports ThinkVantage® technologies ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 500GB Disk 7200 rpm 43N3423</p>	
Keyboard TrackPoint® Touchpad ThinkLight™	<p>Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None</p>										
Dimensions ³	<p>without UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm without UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm 4-cell: from 3.57 lb (1.62kg); 8-cell: from 3.96 lb (1.8kg)</p>										
Weight ²	<p>Color: black; Material: magnesium alloy</p>										
Case	<p>Lithium Ion 4-cell or 8-cell</p>										
Battery - type	<p>4-cell: up to 3.5 hr; 8-cell: up to 7.9 hr</p>										
Battery - life ¹⁰											
Chipset	<p>Mobile Intel QM57 Express Chipset</p>										
Media slice	<p>Some: ThinkPad X200 UltraBase media slice (see right side)</p>										
Multicard Reader	<p>5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)</p>										
ExpressCard/54	<p>One slot (ExpressCard/34, ExpressCard/54)</p>										
Ports	<p>Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)</p>										
PCIe Mini Card	<p>Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider</p>										
Carrier	<p>Some: Verizon®, contract required with service provider</p>										
Modem	<p>56K V.92⁶ modem</p>										
Bluetooth™	<p>Some: Bluetooth 2.1 wireless, LED indicator</p>										
Ethernet	<p>Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1</p>										
Intel AMT	<p>Intel Active Management Technology (iAMT)</p>										
Audio support	<p>High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack</p>										
Security	<p>Power-on password, hard disk password, supervisor password, security keyhole</p>										
Security chip	<p>Trusted Platform Module, TCG 1.2-compliant</p>										
Fingerprint reader	<p>Some: UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>										
Limited warranty ¹²	<p>3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available</p>									<p>65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>	

See footnotes for important warranty information
 US models announced February 23 or April 20, 2010
 US models withdrawn effective March 2010, January 2011, or June 2011

ThinkPad® X201 Tablet (3093) - Windows 7 (June 2010) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Widescreen Memory	display	Camera	Disk SATA GB ³	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCle Mini Card WWAN	Carrier	Bat-tery Blue/ Fing cells	Intel vPro	Workhorse (W) Gbl (G) Avail	Preload GMP (P) date
3093-45U	i5-520UM	1.06	1.86	4GB	Multi	2.0M	320G	7200			upg		Yes	8 vPro	Pro 32	Jun 10
3093-46U	i5-520UM	1.06	1.86	4GB	Outdoor	2.0M	320G	7200			upg		Yes	8 vPro	Pro 32	Jun 10
3093-47U	i5-520UM	1.06	1.86	2GB	Entry	2.0M	320G	7200	DVD±RW	UltraB	upg		Yes	8 vPro	Pro 32	Jun 10
3093-48U	i5-520UM	1.06	1.86	2GB	Entry		250G	5400			upg		Yes	8 vPro	Pro 32	Jun 10
3093-4AU	i5-520UM	1.06	1.86	2GB	Entry		250G	5400			upg		Yes	8 vPro	Pro 32	Jun 10
3093-4CU	i5-520UM	1.06	1.86	2GB	Entry		160G	7200			upg		Yes	4 vPro	Pro 64	G Jun 10
3093-4DU	i5-520UM	1.06	1.86	2GB	Multi	2.0M	160G	7200			upg		Yes	8 vPro	Pro 64	G Jun 10
3093-4EU	i5-520UM	1.06	1.86	2GB	Entry	2.0M	320G	7200	DVD±RW	UltraB	Gobi	Verizon ¹⁶	Yes	8 vPro	Pro 64	W Jun 10
3093-4FU	i5-520UM	1.06	1.86	2GB	Outdoor	2.0M	320G	7200			Gobi	Verizon	Yes	8 vPro	Pro 64	W Jun 10
3093-4GU	i5-520UM	1.06	1.86	2GB	Outdoor	2.0M	160G	7200			upg		Yes	8 vPro	Pro 64	W G Jun 10
<ul style="list-style-type: none"> • These models have a depot repair service 3-year limited warranty • These systems are Microsoft® Office 2010 Product Key Ready (O10PKR) 																
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5 processor i5-520UM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache												Preloaded operating system ²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64			
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo SimpleTap (Multi-Touch models) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW)			
SATA DVD±RW Ultrabay Slim SATA disk	Some: DVD burner, SATA 1.5Gb/s, removable from X200 UltraBase Supports Ultrabay Slim devices in optional or standard X200 UltraBase (43R8781) 160GB ⁸ (7200 rpm), 250GB (5400 rpm), or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std X200 UltraBase															
Widescreen display	Entry: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless Outdoor: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS MultiTouch: 12.1" (308mm) WXGA (1280x800) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)															
Camera	Some: camera on top of screen, 2.0-megapixel, fixed focus												Supports ThinkVantage® technologies			
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; Maximum external resolution: 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz												ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 500GB Disk 7200 rpm 43N3423			
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None															
Dimensions ³	without UltraBase; 4-cell: 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm without UltraBase; 8-cell: 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm															
Weight ²	4-cell: from 3.57 lb (1.62kg); 8-cell: from 3.96 lb (1.8kg)															
Case Battery - type Battery - life ¹⁰	Color: black; Material: magnesium alloy Lithium Ion 4-cell or 8-cell 4-cell: up to 3.5 hr; 8-cell: up to 7.9 hr															
Chipset	Mobile Intel QM57 Express Chipset															
Media slice Multicard Reader ExpressCard/54 Ports	Some: ThinkPad X200 UltraBase media slice (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g			
PCle Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider															
Carrier Modem Bluetooth™ Ethernet Intel AMT Audio support	Some: Verizon®, contract required with service provider 56K V.92 ⁹ modem Some: Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack															
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant Some: UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip												65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades ²² available															

See footnotes for important warranty information
US models announced May 25, 2010
US models withdrawn effective January or June 2011

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(CML3-10) June 2011

ThinkPad® X201 Tablet (3093) - Windows 7 (October 2010) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ⁹	rpm	Optical in UltraBase	ThinkPad X200 UltraBase	PCIe Mini Card WWAN	Carrier	Blue/ Fing	Intel vPro	Preload	Avail date
3093-4MU	i5-560M	2.66	3.20	4GB	Entry	2.0M	320G	7200	DVD±RW	UltraBase	Gobi 2000	Verizon ¹⁶	Yes	vPro	Pro 32	Sep 10
3093-4PU	i5-560M	2.66	3.20	2GB	Entry		250G	5400			WWAN upg		Yes	vPro	Pro 64	Sep 10

- These models have a depot repair service 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i5 processor i5-560M with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache											Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64				
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software • ThinkVantage Toolbox • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate				
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 250GB⁸ (5400 rpm) or 320GB (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>															
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock) <i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus															
Camera												Supports ThinkVantage® technologies				
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP) @60Hz; 2048x1536(VGA) @75Hz											ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 500GB Disk 7200 rpm 43N3423				
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None															
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy															
Weight ² Case																
Battery - type	Lithium Ion 8-cell															
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr															
Chipset	Mobile Intel QM57 Express Chipset															
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)															
Multicard Reader ExpressCard/54	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54)															
Ports	Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)															
PCIe Mini Card Intel 6200 ²⁸ WWAN upg Gobi™ 2000	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, contract required with service provider															
Carrier Modem	<i>Some:</i> Verizon®, contract required with service provider 56K V.92 ⁶ modem															
Bluetooth™	Bluetooth 2.1 wireless, LED indicator															
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	Trusted Platform Module, TCG 1.2-compliant															
Fingerprint reader	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip															
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades ²² available											65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378				

See footnotes for important warranty information
US models announced September 28
US models withdrawn effective June 2011

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(CML3-11) June 2011

ThinkPad® X201 Tablet (3093) - Education (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (GHz)	Widescreen display	Camera	Disk SATA GB ³	Optical in rpm	ThinkPad X200 UltraBase	PCle Mini Card 802.11	PCle Mini Card WWAN	Intel vPro	Workhorse (W) Global (G) Avail date
3093-N2U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200 ²⁸	WWAN upg	vPro Pro 32 W Mar 10
3093-N3U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200	WWAN upg	vPro Pro 32 W Mar 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i7 processor i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • <i>N2U model:</i> Education software - Microsoft® Office OneNote® 2007 (and CD) • <i>N3U model:</i> Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Education software - Adobe Digital School Collection • Microsoft Office 2010 preloaded; purchase product key to activate
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>										
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										Supports ThinkVantage® technologies
Camera	Camera on top of screen, 2.0-megapixel, fixed focus										ThinkPad X200 UltraBase™ • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										Other features: • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None										
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg) <i>Color:</i> black; <i>Material:</i> magnesium alloy										
Weight ² Case	Lithium Ion 8-cell <i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr										
Battery - type	Mobile Intel QM57 Express Chipset										
Battery - life ¹⁰	<i>Option: ThinkPad X200 UltraBase media slice</i> (see right side) 5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)										
Chipset	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth™ 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on right base of display, used in tablet or notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Media slice Multicard Reader ExpressCard/54 Ports	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth™ 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on right base of display, used in tablet or notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										
PCle Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth™ 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on right base of display, used in tablet or notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on right base of display, used in tablet or notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery & digitizer pen - depot repair service / service upgrades²² available										

See footnotes for important warranty information
US models announced February 23, 2010
US models withdrawn effective January 2011

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(CML3-5) January 2011

ThinkPad® X201 Tablet (3113) - Onsite (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Base (GHz)	Max turbo (GHz)	Memory	Widescreen display	Camera	Disk SATA GB ^s rpm	Optical in UltraBase	ThinkPad X200 UltraBase	Blue/ Intel Fing cells vPro	Battery Intel vPro	Workhorse (W) Gbl (G) GMP (P)	Avail date
3113-92U	i7-640LM	2.13	2.93	2GBx1	12.1" WXGA <i>Entry</i>	2.0M	320G 7200	DVD±RW	UltraB	Yes	8 vPro	Pro 32	W G P Mar 10
3113-93U	i7-640LM	2.13	2.93	2GBx1	12.1" WXGA <i>Entry</i>		250G 5400			Yes	8 vPro	Pro 32	W G P Mar 10
3113-94U	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA <i>Entry</i>		250G 5400				8 vPro	Pro 32	W G P Mar 10
3113-95U	i7-640LM	2.13	2.93	2GBx2	12.1" WXGA <i>Outdoor</i>	2.0M	320G 7200			Yes	8 vPro	Pro 32	W G P Mar 10
3113-96U	i7-640LM	2.13	2.93	2GBx2	12.1" WXGA <i>Multi</i>	2.0M	320G 7200			Yes	8 vPro	Pro 32	W G P Mar 10
3113-42U	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA <i>Entry</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64	W G P Apr 10
3113-3ZU	i7-620LM	2.00	2.80	2GBx1	12.1" WXGA <i>Multi</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64	W G P Apr 10
3113-98U	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Entry</i>	2.0M	320G 7200	DVD±RW	UltraB	Yes	8 vPro	Pro 32	Jun 10
3113-9AU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Entry</i>		160G 7200				4 vPro	Pro 64	W G P Jun 10
3113-9BU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Multi</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64	W G P Jun 10
3113-9CU	i5-520UM	1.06	1.86	2GBx1	12.1" WXGA <i>Outdoor</i>	2.0M	160G 7200			Yes	8 vPro	Pro 64	W G P Jun 10

• These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i5 processor i5-520UM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 800MHz), Intel Turbo Boost, Hyper-Threading technology; 3MB cache or Intel Core i7 processor i7-620LM or i7-640LM with dual-core, DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64 Preloaded applications¹⁴ (only some listed)		
Memory	2GB or 4GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> Rescue and Recovery™ Access Connections™ Password Manager ThinkVantage Power Manager ThinkVantage System Update Fingerprint Software (fingerprint models) ThinkVantage Toolbox Lenovo SimpleTap (Multi-Touch models) Adobe® Reader® Adobe Flash® Player Skype™ for Windows Microsoft Office 2010 preloaded; purchase product key to activate Microsoft Research AutoCollage Touch 		
SATA DVD±RW Ultrabay Slim SATA disk	<i>Some:</i> DVD burner, SATA 1.5Gb/s, removable from <i>X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 160GB⁸ (7200 rpm), 250GB⁸ (5400 rpm), or 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>												
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless <i>Outdoor:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 400 nits, 16:10 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, PVA or IPS <i>MultiTouch:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, enhanced MultiTouch (touchscreen support pen & two-finger touch) <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)												
Camera	<i>Some:</i> camera on top of screen, 2.0-megapixel, fixed focus										Supports ThinkVantage® technologies		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										ThinkPad X200 UltraBase™ <ul style="list-style-type: none"> Provides desktop expansion and cable management for X200 and X201 Series Easily connects to the bottom of the X200 or X201 Series for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> 500GB Disk 7200 rpm 43N3423 		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None										Other features: <ul style="list-style-type: none"> Power button (front) Stereo speakers (2 watt) Security key lock, security keyhole, and optional security screw Analog DB-15 monitor port DisplayPort (supports single-link DVI-D via cable 45J7915) Four USB 2.0 ports Gigabit ethernet port Microphone in and headphone out Second battery charger Requires 65 or 90 watt AC adapter 1.6 lb; 730g 		
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)												
Weight ²													
Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Battery - type	Lithium Ion 4-cell or 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Chipset	Mobile Intel QM57 Express Chipset												
Media slice	<i>Some:</i> ThinkPad X200 UltraBase media slice (see right side)												
Multicard Reader	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC)												
ExpressCard/54 Ports	One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCIe Mini Card	Two PCI Express Mini Card slots												
Intel 6200 ²⁸ WWAN upg	11a/b/g/n wireless, PCIe Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable												
Modem	56K V.92 ⁶ modem												
Bluetooth™	<i>Some:</i> Bluetooth 2.1 wireless, LED indicator												
Ethernet	Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	3-years/1-year battery & digitizer pen, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri, excluding holidays, next business day response / service upgrades²² available												

See footnotes for important warranty information
US models announced February 23, April 20, or May 25, 2010
US models withdrawn effective January or June 2011

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ThinkPad® X201 Tablet (3113) - Onsite (Education) - Win 7 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Max Base turbo (GHz)	Memory (GHz)	Widescreen display	Camera	Disk SATA GB ⁵	Optical in rpm	ThinkPad X200 UltraBase	PCle Mini Card 802.11	PCle Mini Card WWAN	Intel vPro	Workhorse (W) Global (G) Preload	Availability date
3113-N2U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200 ²⁸	WWAN upg	vPro Pro 32 W	Mar 10
3113-N3U	i7-640LM	2.13	2.93	2GB	12.1" WXGA Entry	2.0M	320G 7200	Optional	Opt	Intel 6200	WWAN upg	vPro Pro 32 W	Mar 10

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**
- **Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.**

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i7 processor i7-640LM with dual-core , DMI (Direct Media Interface), integrated DDR3 memory controller (up to 1066MHz), Intel Turbo Boost, Hyper-Threading technology; 4MB cache										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 32		
Memory	2GB std / 8GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ (only some listed) • <i>N2U model:</i> Education software - Microsoft® Office OneNote® 2007 (and CD) • <i>N3U model:</i> Education software - Microsoft Office Ultimate 2007 Academic Edition (and CD) • Education software - Adobe Digital School Collection • Microsoft Office 2010 preloaded; purchase product key to activate		
SATA DVD±RW Ultrabay Slim SATA disk	Option for <i>ThinkPad X200 UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X200 UltraBase</i> (43R8781) 320GB⁸ (7200 rpm) / SATA 3.0Gb/s, 2.5" wide, 9.5mm high, removable, upgradable, Shock Mounted Hard Drive, Active Protection System™, supports second disk in opt or std <i>X200 UltraBase</i>												
Widescreen display	<i>Entry:</i> 12.1" (308mm) WXGA (1280x800) TFT color , anti-glare, LED backlight , 200 nits, 16:10 aspect ratio, 500:1 contrast ratio, PVA or IPS, frameless WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotatable dual swivel hinge for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user), buttons on display bottom (power with slide-lock, reset, rotation, menu, all button lock)										Supports ThinkVantage® technologies		
Camera	Camera on top of screen, 2.0-megapixel, fixed focus										ThinkPad X200 UltraBase™		
Integrated graphics	Intel HD Graphics in processor, external monitor support via analog VGA DB-15 connector / DisplayPort via UltraBase; supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DP)@60Hz; 2048x1536(VGA)@75Hz										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for X200 and X201 Series • Easily connects to the bottom of the X200 or X201 Series for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 - Serial ATA Hard Drive Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 250GB FDE 7200 rpm 43N3410 • 320GB Disk 7200 rpm 43N3411 		
Keyboard TrackPoint® Touchpad ThinkLight™	Full-size, 89-key, ThinkVantage button, spill-resistant, mm Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touchpad below keyboard, Tap Zones, scrolling regions, multi-touch None												
Dimensions ³	<i>without UltraBase; 4-cell:</i> 11.6" x 9" x 1-1.3"; 295mm x 228mm x 26.5-33.3mm <i>without UltraBase; 8-cell:</i> 11.6" x 10.1" x 1-1.3"; 295mm x 257mm x 26.5-33.3mm <i>4-cell:</i> from 3.57 lb (1.62kg); <i>8-cell:</i> from 3.96 lb (1.8kg)												
Weight ² Case	<i>Color:</i> black; <i>Material:</i> magnesium alloy												
Battery - type	Lithium Ion 8-cell												
Battery - life ¹⁰	<i>4-cell:</i> up to 3.5 hr; <i>8-cell:</i> up to 7.9 hr												
Chipset	Mobile Intel QM57 Express Chipset										Other features:		
Media slice	<i>Option:</i> ThinkPad X200 UltraBase media slice (see right side)										<ul style="list-style-type: none"> • Power button (front) • Stereo speakers (2 watt) • Security key lock, security keyhole, and optional security screw • Analog DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet port • Microphone in and headphone out • Second battery charger • Requires 65 or 90 watt AC adapter • 1.6 lb; 730g 		
Multicard Reader ExpressCard/54 Ports	5-in-1 reader (MMC, Memory Stick, Mem Stick Pro, SD, SDHC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15), modem (RJ-11), ethernet (RJ-45)												
PCle Mini Card Intel 6200 ²⁸ WWAN upg Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n wireless, PCle Mini Card, Intel Centrino® Advanced-N 6200, 2x2 Wireless WAN upgradable 56K V.92 ⁶ modem Bluetooth 2.1 wireless, LED indicator Intel 82577LM Gigabit Network Connection (Hanksville), PHY, PCle x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20585 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, 2-way swipe sensor, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
Limited warranty ¹²	3-years/1-year - battery & digitizer pen, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri, excluding holidays, next business day response / service upgrades ²² available												

See footnotes for important warranty information
US models announced February 23, 2010
US models withdrawn effective January 2011

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Memory

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann 06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann 06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann 06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann 06/23/09
4GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3708	ann 06/23/09

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad X200 UltraBase

Serial ATA Hard Drive Bay Adapter III	43N3412	ann 06/23/09
DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s	43N3292	ann 08/03/10
DVD Burner Ultrabay Slim Drive II SATA 1.5G/s	43N3229	ann 06/23/09

Storage and removable storage

500GB Disk SATA 3.0Gb/s (7200 rpm) ⁴¹	43N3423	ann 01/07/10
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⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive Bay Adapter III 43N3412 in X200 UltraBase (43R8781)

256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann 06/23/09
USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive ⁵³	57Y4400	ann 01/07/10
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

⁵³ USB-only attach.

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ 2000 Broadband Option	78Y1399	ann 01/07/10
ThinkPad AT&T® Gobi 2000 Broadband Option	78Y1398	ann 01/07/10

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09
USB 2.0 Port Replicator with Digital Video	0A33942	ann 03/22/11
ThinkPad X200 UltraBase	43R8781	ann 08/05/08

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultralim Wireless Keyboard and Mouse ⁵²	57Y4700	ann 09/15/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann 01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Tablet

ThinkPad Digitizer Pen	41U3143	ann 11/14/06
ThinkPad Tablet Tether (3-pack)	41U4820	ann 11/14/06

Batteries

ThinkPad Battery 12 (4-cell)	43R9256	ann 09/23/08
ThinkPad Battery 12++ (8-cell)	43R9257	ann 09/23/08

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 65W AC Adapter with USB Hub	57Y4600	ann 09/07/10
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

X200 Tablet:

ThinkPad X200 Tablet Sleeve	43R9115	ann 09/23/08
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Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.6" widescreen models:

Lenovo Business Messenger Case	51J0475	ann 08/18/09
Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance BackPack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08

More information at www.lenovo.com/support/cases
Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" Monitor	5047HB2	ann 10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann 10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann 10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann 10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann 10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann 06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08

More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable ⁵⁰	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable ⁵⁰	45J7915	ann 08/05/08

⁵⁰ Can only be used via ThinkPad X200 UltraBase (43R8781)

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad X220



Lenovo ThinkPad X220 with
ThinkPad Ultrabase Series 3
0A33932



ThinkPad 65W AC Adapter
40Y7696



Lenovo ThinkPad X220



Lenovo ThinkPad X220



Lenovo ThinkPad X220

ThinkPad® X220 (4287) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Battery cells	Intel AMT	Intel vPro	Preload
4287-3KU	i5-2520M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Optional	Intel 6205	Gobi	selectable	9	iAMT	vPro	Pro 64
4287-2WU	i5-2520M	4GBx1	12.5" HD	720p	320G 7200	DVD±RW	UltraB	Intel 6205	upg	None	6	No	No	Pro 64
4287-2VU	i5-2410M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 1000	upg	None	6	No	No	Pro 64
4287-42U	i7-2620M	4GBx1	12.5" HD	720p	128G SSD	DVD±RW	UltraB	Intel 6205	upg	None	6	iAMT	vPro	Pro 64
4287-43U	i5-2430M	4GBx1	12.5" HD	720p	128G SSD	Optional	Optional	Intel 1000	upg	None	6	No	No	Pro 64
4287-57U	i7-2640M	4GBx1	12.5" HD	720p	128G SSD	Optional	Optional	Intel 6205	upg	None	6	iAMT	vPro	Pro 64
Positioning Processor	<p>An ultraportable for the executive on the move; one spindle</p> <p>Intel® Core™ i5-2410M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (2.90GHz), HT technology</p> <p>Intel Core i5-2430M processor (dual-core, 2.40GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.0GHz), HT technology</p> <p>Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p> <p>Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology</p> <p>Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p>										<p>Preloaded operating system²⁰</p> <p>Genuine Windows® 7 Professional 64</p> <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage® System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo® Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Optical Ultrabay Disk	<p>Some: DVD burner, removable from ThinkPad Ultrabase Series 3</p> <p>Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932)</p> <p>Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high</p> <p>Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™</p> <p>All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3</p>													
mSATA™ SSD	None													
Display	<p>Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio</p> <p>Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)</p>													
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	<p>Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort™ (supports single-link DVI-D via cable 45J7915); supports dual independent display;</p> <p>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>													
Keyboard TrackPoint® Touchpad ThinkLight™	<p>7 row, 89-key, ThinkVantage® button, spill-resistant, multimedia Fn keys</p> <p>TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p> <p>UltraNav™, buttonless touchpad below keyboard, multi-touch</p> <p>Illuminates the keyboard to improve visibility in low-light conditions</p>													
Dimensions ³ Weight ² Case material Standard Battery Extended Battery Battery - life ¹⁰	<p>without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm</p> <p>4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg)</p> <p>Display cover: Magnesium + PCABS; Bottom: Magnesium alloy</p> <p>Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery</p> <p>None</p> <p>4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr; external battery (64Whr): up to 9.4 hr; 9-cell plus external battery: up to 23.2 hr</p>										<p>Supports ThinkVantage technologies</p> <p>ThinkPad Ultrabase Series 3</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 <p>Disks supported (some):</p> <ul style="list-style-type: none"> • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 			
Chipset Ultrabase Multicard reader ExpressCard Ports	<p>Mobile Intel QM67 Express Chipset</p> <p>Some: ThinkPad Ultrabase Series 3 (see right side)</p> <p>4-in-1 reader (SD, SDHC, SDXC, MMC)</p> <p>One slot (ExpressCard/34, ExpressCard/54)</p> <p>i7 model: One USB 3.0, two USB 2.0 (one powered)</p> <p>other model: Three USB 2.0 (one powered)</p> <p>external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>													
PCIe Mini Card PCIe WLAN ⁴ PCIe WWAN	<p>Two PCI Express® Mini Card slots</p> <p>Some: 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2</p> <p>Some: 11a/b/g/n²⁸, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2</p> <p>Some: Wireless WAN upgradable</p> <p>Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS</p>													
Carrier	Some: User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider													
Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>None</p> <p>Bluetooth 3.0 wireless, LED indicator</p> <p>Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1</p> <p>Some: Intel Active Management Technology (iAMT)</p> <p>High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack</p>													
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Trusted Platform Module, TCG 1.2-compliant</p> <p>UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>													
Limited Warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available										<p>65W AC Adapter</p> <p>ENERGY STAR® 5.0-compliant</p> <p>ROHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>			

See footnotes for more detailed information

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US model(s) announced March 1, May 3, August 2, October 4, or October 18, 2011

(DSH1-1) February 2013

US model(s) withdrawn effective March or December 2012

ThinkPad® X220 (4287) - TopSeller (January 2012) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Battery cells	Intel AMT	Intel vPro	Preload	Ann Date (mm/yy)
4287-67U	i7-2640M	4GBx1	12.5" HD	720p	128G SSD	DVD±RW	UltraBase	Intel 6205	WWAN upg	6	iAMT	vPro	Pro 64	01/12
4287-5UU	i5-2520M	4GBx1	12.5" HD	720p	128G SSD	Optional	Optional	Intel 6205	WWAN upg	6	No	No	Pro 64	01/12
4287-5TU	i5-2520M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 6205	WWAN upg	6	No	No	Pro 64	01/12

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system ²⁰ Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed)			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage® System Update • ThinkVantage Power Manager • ThinkVantage Toolbox 			
Optical Ultrabay Disk	Some: DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3													
mSATA™ SSD	None													
Display	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio										Preloaded applications ¹⁴ (only some listed)			
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus										<ul style="list-style-type: none"> • Adobe® Reader® • Microsoft® Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo® Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW) 			
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort™ (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</i>										Supports ThinkVantage technologies			
Keyboard TrackPoint®	7 row, 89-key, ThinkVantage® button, spill-resistant, multimedia Fn keys										ThinkPad Ultrabase Series 3 Provides desktop expansion and cable management for X220 and X220 Tablet Easily connects to the bottom of the X220 or X220 Tablet for traveling Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632			
Touchpad	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without UltraBase; 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm</i>													
Weight ²	<i>4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg)</i>													
Case material	Magnesium + PCABS; <i>Bottom: Magnesium alloy</i>													
Standard Battery	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery													
Extended Battery	None													
Battery - life ¹⁰	<i>4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr; external battery (64Whr): up to 9.4 hr; 9-cell plus external battery: up to 23.2 hr</i>													
Chipset	Mobile Intel QM67 Express Chipset													
Ultrabase	Some: ThinkPad Ultrabase Series 3 (see right side)													
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)													
Ports	<i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card	Two PCI Express® Mini Card slots													
PCIe WLAN ⁴	11a/b/g/n ²⁸ , PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2													
PCIe WWAN	Wireless WAN upgradable													
Carrier	None													
Modem	None													
Bluetooth™	Bluetooth 3.0 wireless, LED indicator													
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT	Some: Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort™ (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g			
Security	Power-on password, hard disk password, supervisor password, security keyhole										65W AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited Warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available													

See footnotes for more detailed information
 US model(s) announced January 3 or January 17, 2012
 US model(s) withdrawn effective December 2012

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 (DSH1-6) February 2013

ThinkPad® X220 (4290) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat- tery Blue- tooth cells	Global Intel (G) vPro	Pre- load (P) load
4290-2WU	i5-2540M	4GBx1	12.5" HD Prem	720p	320G 7200	DVD±RW	UltraB	Intel 6205 ²⁸	WWAN upg	Fing	Blue	9 vPro	G Pro 64
4290-2XU	i5-2540M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Intel 6205	WWAN upg	Fing	Blue	9 vPro	G Pro 64
4290-37U	i5-2540M	4GBx1	12.5" HD		320G 7200	Optional	Opt	Intel 6300 ²⁸	WWAN upg	Fing	Blue	6 vPro	Pro 64
4290-36U	i5-2540M	4GBx1	12.5" HD		320G 7200	Optional	Opt	Intel 6205	WWAN upg	Fing	Blue	9 vPro	Pro 64
4290-35U	i7-2620M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	Intel 6205	WWAN upg	Fing	Blue	9 vPro	Pro 64
4290-34U	i5-2520M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	Intel 6300	WWAN upg	Fing	Blue	6 vPro	Pro 64
4290-33U	i5-2540M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	Intel 6205	WWAN upg	Fing	Blue	6 vPro	Pro 64
4290-32U	i5-2540M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Intel 6205	WWAN upg	Fing	Blue	9 vPro	Pro 64
4290-2ZU	i5-2520M	2GBx1	12.5" HD		320G 7200	Optional	Opt	Intel 6205	WWAN upg	Fing	Blue	6 vPro	Pro 64
4290-4XU	i7-2640M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	Intel 6205	WWAN upg	Fing	Blue	9 vPro	G Pro 64

- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p>An ultraportable for the executive on the move; one spindle</p> <p>Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p> <p>Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</p> <p>Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology</p> <p>Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Genuine Windows® 7 Professional 64 <p>Ready to install applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox <p>Preloaded applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	
Optical Ultrabay SATA disk	<p><i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3</p> <p>Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932)</p> <p><i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high</p> <p><i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™</p> <p><i>All:</i> removable, upgradeable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3</p>	
mSATA™ SSD	None	
Widescreen display	<p><i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio</p> <p><i>Some:</i> (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)</p>	
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	<p>Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display;</p> <p><i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>	
Keyboard TrackPoint® Touchpad ThinkLight™	<p>7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys</p> <p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p> <p>UltraNav™, buttonless touchpad below keyboard, multi-touch</p> <p>Illuminates the keyboard to improve visibility in low-light conditions</p>	<p>Supports ThinkVantage® technologies</p> <p>ThinkPad Ultrabase Series 3</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 <p>Other features:</p> <ul style="list-style-type: none"> • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<p><i>without UltraBase:</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm</p> <p>4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg)</p> <p><i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy</p> <p>Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery</p> <p>None</p> <p>4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr; <i>external battery (64Whr): up to 9.4 hr; 9-cell plus external battery: up to 23.2 hr</i></p>	
Chipset	Mobile Intel QM67 Express Chipset	
Ultrabase Multicard reader ExpressCard Ports	<p><i>Some:</i> ThinkPad Ultrabase Series 3 (see right side)</p> <p>4-in-1 reader (SD, SDHC, SDXC, MMC)</p> <p>One slot (ExpressCard/34, ExpressCard/54)</p> <p><i>17 model:</i> One USB 3.0, two USB 2.0 (one powered)</p> <p><i>other model:</i> Three USB 2.0 (one powered)</p> <p>external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>	
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots</p> <p><i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2</p> <p><i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3</p> <p>Wireless WAN upgradable</p> <p>None</p> <p><i>Some:</i> Bluetooth 3.0 wireless, LED indicator</p> <p>Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1</p> <p>Intel Active Management Technology (iAMT)</p> <p>High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack</p>	
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Trusted Platform Module, TCG 1.2-compliant</p> <p><i>Some:</i> UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>	<p>65-watt AC Adapter</p> <p>ENERGY STAR® 5.0-compliant</p> <p>ROHS-compliant</p> <p>International Warranty Service¹⁷</p> <p>24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
 US model(s) announced March 1 or October 4, 2011
 US model(s) withdrawn effective March or December 2012

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 (DSH1-2) February 2013

ThinkPad® X220 (4290) - May 2011 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase Series 3	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Battery cells	Intel vPro	Global (G) Pre-load	Ann Date (mm/yy)
4290-4FU	i5-2520M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Opt	Intel 6205 ²⁸	Gobi 3000	select	9	vPro	Pro 64	05/11
4290-48U	i7-2620M	4GBx1	12.5" HD Prem		160G SSD	Optional	Opt	Intel 6300 ²⁸	WWAN upg		9	vPro	G	Pro 64 05/11
4290-47U	i7-2620M	4GBx1	12.5" HD Prem		320G 7200	Optional	Opt	Intel 6300	WWAN upg		6	vPro	G	Pro 64 05/11
4290-46U	i5-2520M	4GBx1	12.5" HD		320G 7200	Optional	Opt	Intel 6300	WWAN upg		6	vPro	G	Pro 64 05/11
4290-45U	i7-2620M	4GBx1	12.5" HD		320G 7200	Optional	Opt	Intel 6300	WWAN upg		9	vPro	G	Pro 64 05/11
4290-44U	i5-2520M	4GBx1	12.5" HD	720p	320G 7200	Optional	Opt	Intel 6205	WWAN upg		6	vPro	G	Pro 64 05/11
4290-43U	i5-2520M	4GBx1	12.5" HD	720p	128G SSD	Optional	Opt	Intel 6205	WWAN upg		6	vPro	G	Pro 64 05/11
4290-42U	i5-2540M	4GBx1	12.5" HD Prem		128G SSD	Optional	Opt	Intel 6300	WWAN upg		6	vPro	G	Pro 64 05/11
4290-5HU	i5-2520M	4GBx1	12.5" HD	720p	500G 5400	Optional	Opt	Intel 6205	WWAN upg		6	vPro		Pro 64 01/12
4290-5FU	i5-2520M	4GBx1	12.5" HD	720p	320G 5400	Optional	Opt	Intel 6205	WWAN upg		6	vPro		Pro 64 01/12
4290-5EU	i5-2520M	4GBx1	12.5" HD	720p	160G SSD	Optional	Opt	Intel 6205	WWAN upg		6	vPro		Pro 64 01/12
Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system ²⁰ - Genuine Windows [®] 7 Professional 64			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox			
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)			
mSATA™ SSD	None													
Widescreen display	<i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> (Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing) <i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus													
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm										Supports ThinkVantage® technologies			
Weight ²	<i>4-cell:</i> from 2.97 lb (1.35kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg)													
Case material	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632			
Standard Battery	Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery													
External Battery	None										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g			
Battery - life ¹⁰	<i>4-cell (28Whr):</i> up to 4.1 hr; <i>6-cell (62.4Whr):</i> up to 9.2 hr; <i>9-cell (99.9Whr):</i> up to 13.8 hr; <i>external battery (64Whr):</i> up to 9.4 hr; <i>9-cell plus external battery:</i> up to 23.2 hr													
Chipset	Mobile Intel QM67 Express Chipset										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Ultrabase	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side)													
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)													
ExpressCard	One slot (ExpressCard/34, ExpressCard/54)													
Ports	<i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3													
WWAN	<i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider													
Modem	None													
Bluetooth™	Bluetooth 3.0 wireless, LED indicator													
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, TCG 1.2-compliant													
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
US model(s) announced May 3, 2011 or January 3, 2012
US model(s) withdrawn effective March or December 2012

ThinkPad® X220 (4291) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4291-33U	i5-2540M	4GBx1	12.5" HD		320G 7200			Intel 6300 ²⁸	WWAN upg	Fing	Blue	6	vPro		Pro 64
4291-32U	i5-2540M	4GBx1	12.5" HD		320G 7200			Intel 6205 ²⁸	WWAN upg			9	vPro		Pro 64
4291-2ZU	i5-2520M	4GBx1	12.5" HD Prem	720p	320G 7200			Intel 6205	WWAN upg			9	vPro		Pro 64
4291-2YU	i5-2540M	2GBx1	12.5" HD	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	vPro		Pro 64
4291-2XU	i5-2540M	4GBx1	12.5" HD	720p	320G 7200			Intel 6205	WWAN upg			6	vPro	G P	Pro 64
4291-2WU	i5-2540M	4GBx1	12.5" HD Prem	720p	320G 7200	DVD±RW	UltraB	Intel 6205	WWAN upg	Fing	Blue	9	vPro	G P	Pro 64
4291-2VU	i7-2620M	4GBx1	12.5" HD Prem		320G 7200			Intel 6205	WWAN upg	Fing	Blue	9	vPro		Pro 64
4291-2UU	i5-2540M	2GBx1	12.5" HD Prem	720p	320G 7200			Intel 6205	WWAN upg			9	vPro		Pro 64
4291-2TU	i5-2520M	2GBx1	12.5" HD		320G 7200			Intel 6205	WWAN upg	Fing	Blue	9	vPro		Pro 64

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p>An ultraportable for the executive on the move; one spindle</p> <p>Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology</p> <p>Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology</p> <p>Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology</p>	<p>Preloaded operating system²⁰</p> <ul style="list-style-type: none"> - Genuine Windows® 7 Professional 64 <p>Ready to install applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	<p>Preloaded applications¹⁴ (only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Optical Ultrabay SATA disk	<p>Some: DVD burner, removable from ThinkPad Ultrabase Series 3</p> <p>Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932)</p> <p>Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high</p> <p>Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™</p> <p>All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3</p>	
mSATA™ SSD	None	
Widescreen display	<p>Some: 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio</p> <p>Some: (Premium) 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)</p>	
Camera	Some: HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	<p>Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display;</p> <p><i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>	
Keyboard TrackPoint® Touchpad ThinkLight™	<p>7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys</p> <p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass</p> <p>UltraNav™, buttonless touchpad below keyboard, multi-touch</p> <p>Illuminates the keyboard to improve visibility in low-light conditions</p>	<p>Supports ThinkVantage® technologies</p> <p>ThinkPad Ultrabase Series 3</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 <p>Other features:</p> <ul style="list-style-type: none"> • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<p><i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm</p> <p><i>4-cell:</i> from 2.97 lb (1.35kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg)</p> <p><i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy</p> <p>Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery</p> <p>None</p> <p><i>4-cell (28Whr):</i> up to 4.1 hr; <i>6-cell (62.4Whr):</i> up to 9.2 hr; <i>9-cell (99.9Whr):</i> up to 13.8 hr; <i>external battery (64Whr):</i> up to 9.4 hr; <i>9-cell plus external battery:</i> up to 23.2 hr</p>	
Chipset	Mobile Intel QM67 Express Chipset	
Ultrabase Multicard reader ExpressCard Ports	<p>Some: ThinkPad Ultrabase Series 3 (see right side)</p> <p>4-in-1 reader (SD, SDHC, SDXC, MMC)</p> <p>One slot (ExpressCard/34, ExpressCard/54)</p> <p><i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered)</p> <p><i>other model:</i> Three USB 2.0 (one powered)</p> <p>external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>	
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>Two PCI Express Mini Card slots</p> <p>Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2</p> <p>Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3</p> <p>Wireless WAN upgradable</p> <p>None</p> <p>Some: Bluetooth 3.0 wireless, LED indicator</p> <p>Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1</p> <p>Intel Active Management Technology (iAMT)</p> <p>High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack</p>	
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole</p> <p>Trusted Platform Module, TCG 1.2-compliant</p> <p>Some: UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip</p>	<p>65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²</p>
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information
 US models announced March 1, 2011
 US model(s) withdrawn effective March or December 2012

ThinkPad® X220 (4291) - Onsite (May 2011) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ² rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat- tery Blue- tooth cells	Global Intel (G) vPro GMP (P)	Pre- load
4291-48U	i7-2620M	4GBx1	12.5" HD Prem		160G SSD	Optional	Optional	Intel 6300 ²⁸	WWAN upg	Fing Blue	9	vPro G P	Pro 64
4291-47U	i7-2620M	4GBx1	12.5" HD Prem		320G 7200	Optional	Optional	Intel 6300	WWAN upg	Fing Blue	6	vPro G P	Pro 64
4291-46U	i5-2520M	4GBx1	12.5" HD		320G 7200	Optional	Optional	Intel 6300	WWAN upg	Fing Blue	6	vPro G P	Pro 64
4291-45U	i7-2620M	4GBx1	12.5" HD		320G 7200	Optional	Optional	Intel 6300	WWAN upg	Fing Blue	9	vPro G P	Pro 64
4291-43U	i5-2520M	4GBx1	12.5" HD	720p	128G SSD	Optional	Optional	Intel 6205 ²⁸	WWAN upg	Fing Blue	6	vPro G P	Pro 64
4291-44U	i5-2520M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 6205	WWAN upg	Fing Blue	6	vPro G P	Pro 64
4291-42U	i5-2540M	4GBx1	12.5" HD Prem		128G SSD	Optional	Optional	Intel 6300	WWAN upg	Fing Blue	6	vPro G P	Pro 64
4291-4XU	i7-2640M	4GBx1	12.5" HD Prem	720p	320G 7200	Optional	Optional	Intel 6205	WWAN upg	Fing Blue	9	vPro G P	Pro 64
4291-5EU	i5-2520M	4GBx1	12.5" HD	720p	160G SSD	Optional	Optional	Intel 6205	WWAN upg	Fing Blue	6	vPro	Pro 64

- Some models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i5-2540M processor (dual-core, 2.60GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.30GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology	Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets	Preloaded applications ¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) • Corel DVD MovieFactory® Lenovo Edition (DVD±RW)
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3	
mSATA™ SSD	None	
Widescreen display	<i>Some:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio <i>Some:</i> (Premium) 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, WideView (170° viewing)	
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)	
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions	Supports ThinkVantage® technologies
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase:</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm 4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery None 4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr; <i>external battery (64Whr): up to 9.4 hr; 9-cell plus external battery: up to 23.2 hr</i>	ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632
Chipset	Mobile Intel QM67 Express Chipset	
Ultrabase Multicard reader ExpressCard Ports	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) <i>17 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack	Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	3-years /1-year battery, limited onsite service ²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced May 3 or October 4, 2011, or January 3, 2012
US model(s) withdrawn effective March or December 2012

ThinkPad® X220i (4286) - TopSeller (withdrawn)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Bat-tery cells	Intel vPro	Preload
4286-2AU	i3-2310M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 1000	WWAN upg	None	None	6	None	Pro 64

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This system is Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology										Preloaded operating system ²⁰ - Genuine Windows® 7 Professional 64			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications ¹⁴ (all OSEs; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox			
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Preloaded applications ¹⁴ (all OSEs; only some listed) • Skype™ for Windows			
mSATA™ SSD	None													
Widescreen display	12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB 2.5" SSD II 0A33984			
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g			
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase; 4/6-cell:</i> 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm <i>4-cell:</i> from 2.97 lb (1.35kg); <i>6-cell:</i> from 3.31 lb (1.50kg); <i>9-cell:</i> from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery None <i>4-cell (28Whr):</i> up to 4.1 hr; <i>6-cell (62.4Whr):</i> up to 9.2 hr; <i>9-cell (99.9Whr):</i> up to 13.8 hr; <i>external battery (64Whr):</i> up to 9.4 hr; <i>9-cell plus external battery:</i> up to 23.2 hr										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
Chipset	Mobile Intel QM67 Express Chipset													
Ultrabase Multicard reader ExpressCard Ports	Option: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) <i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Limited warranty ¹² 1-year - depot repair service / service upgrades ²² available			
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Wireless WAN upgradable None None Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													

See footnotes for more detailed information
US model(s) announced March 1, 2011
US model(s) withdrawn effective March 2012

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ThinkPad® X220i (4287) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Wide-screen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Intel vPro	Preload
4287-2UU	i3-2310M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 1000	WWAN upg	None	None	6	None	Pro 64
4287-3ZU	i5-2520M	4GBx1	12.5" HD	720p	320G 7200	Optional	Optional	Intel 6205	WWAN upg	None	None	6	None	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	An ultraportable for the executive on the move; one spindle Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache) , DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox			
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows			
mSATA™ SSD	None													
Widescreen display Camera	12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 200 nits, 16:9 aspect ratio, 300:1 contrast ratio HD720p resolution, wider view angle, low light sensitive, fixed focus										Supports ThinkVantage® technologies			
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch Illuminates the keyboard to improve visibility in low-light conditions										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632			
Dimensions ³ Weight ² Case material Standard Battery External Battery Battery - life ¹⁰	<i>without UltraBase:</i> 4/6-cell: 12.0" x 8.13" x 0.75-1.36"; 305mm x 206.5mm x 19.0-34.6mm 4-cell: from 2.97 lb (1.35kg); 6-cell: from 3.31 lb (1.50kg); 9-cell: from 3.67 lb (1.67kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 4-cell, 6-cell, or 9-cell, supports optional external battery (0A36280) as 2nd battery None 4-cell (28Whr): up to 4.1 hr; 6-cell (62.4Whr): up to 9.2 hr; 9-cell (99.9Whr): up to 13.8 hr; <i>external battery (64Whr):</i> up to 9.4 hr; 9-cell <i>plus external battery:</i> up to 23.2 hr										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g			
Chipset	Mobile Intel QM67 Express Chipset										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹²			
Ultrabase Multicard reader ExpressCard Ports	Option: ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) <i>i7 model:</i> One USB 3.0, two USB 2.0 (one powered) <i>other model:</i> Three USB 2.0 (one powered) external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Wireless WAN upgradable None None Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 None High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant None													
Limited warranty ¹² 3-years /1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information
US model(s) announced March 1 or October 4, 2011
US model(s) withdrawn effective March or December 2012

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Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad Ultrabase Series 3

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann 06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann 06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann 06/05/12

Storage and removable storage

500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12

250GB 7200rpm SATA 3.0Gb/s OPAL-capable FDE HDD II ⁴¹	0A33985	ann 02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann 02/22/11

⁴¹ Can be used as the main HDD or with *Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412* in ThinkPad Ultrabase Series 3

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

ThinkPad Ultrabase Series 3	0A33932	ann 03/01/11
ThinkPad Port Replicator Series 3 with USB 3.0	433615W	ann 06/05/12
ThinkPad USB 3.0 Dock	0A33970	ann 05/15/12
ThinkPad Mini Dock Series 3 - 90W	433710U	ann 06/23/09
ThinkPad Mini Dock Series 3 w/ USB 3.0 - 90W	433715U	ann 06/05/12
TP Mini Dock Plus Series 3 w/ USB 3.0 - 90W	433815U	ann 06/05/12
Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultrasmil Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Security

3M 12.5W Privacy Filter from Lenovo	0A61770	ann 04/05/11
Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Batteries

ThinkPad Battery 44 (4-cell)	0A36305	ann 06/05/12
ThinkPad Battery 44+ (6-cell)	0A36306	ann 06/05/12
ThinkPad Battery 44+++ (9-cell)	0A36307	ann 06/05/12
ThinkPad Battery 19+ (6-cell, Slim External) ⁴³	0A36280	ann 03/01/11

⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using Series 3 Port Replicator, Ultrabase, or Docks)

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultralim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultralim AC/DC Combo Adapter 41R4493

• iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
• Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 12.5" widescreen models:

ThinkPad 12W Case Sleeve	51J0476	ann 08/18/09
ThinkPad 12.5" Ultrabook Topload ⁷²	0B47416	ann 12/04/12

⁷² Not compatible when using *ThinkPad Battery 44+++ (9-cell) 0A36307*

Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance BackPack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

More information at www.lenovo.com/support/cases

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included; use optional *DisplayPort to DisplayPort Monitor Cable 0A36537*.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann 09/13/11
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad®



Lenovo® ThinkPad X220 Tablet



Lenovo ThinkPad X220 Tablet



Lenovo ThinkPad X220 Tablet



Lenovo ThinkPad Battery 19+ (6-cell, Slim External)
0A36280



Lenovo ThinkPad X220 Tablet



Lenovo ThinkPad X220 Tablet

ThinkPad® X220 Tablet (4294) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat- tery Blue tooth cells	Intel vPro	Preload
4294-23U	i5-2520M	4+2GB	12.5" HD Multi	720p	160G SSD	DVD±RW	UltraBase	WiMAX	WWAN upg	Finger	Blue	6	vPro Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap		
Optical Ultrabay SATA disk	DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)		
mSATA™ SSD	None												
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom										Supports ThinkVantage® technologies		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632		
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)												
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch None										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g		
Dimensions ³ Weight ²	<i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg)												
Case material Battery - type Extended Battery Battery - life ¹⁰	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery None <i>3-cell (30Whr):</i> up to 4.0 hr; <i>6-cell (66Whr):</i> up to 8.8 hr; <i>external battery (64Whr):</i> up to 9.0 hr; <i>6-cell plus external battery:</i> up to 17.8 hr												
Chipset	Mobile Intel QM67 Express Chipset												
Ultrabase Multicard Reader ExpressCard Ports	ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
PCIe Mini Card WLAN ⁴	Two PCI Express Mini Card slots 11a/b/g/n and WiMAX wireless, PCIe Half Mini Card, Intel Centrino® Advanced-N + WiMAX 6250, 2x2 AGN + 1x2 WiMAX												
WWAN Modem	Wireless WAN upgradable None												
Bluetooth™ Ethernet Intel AMT	Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	1-year - depot repair service / service upgrades ²² available												

See footnotes for more detailed information
US model(s) announced May 10, 2011
US model(s) withdrawn effective December 2012

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ThinkPad® X220 Tablet (4296) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth cells	Battery cells	Ext Battery Intel vPro	Preload
4296-38U	i7-2620M	4GBx2	12.5" HD <i>Multi</i>	720p	160G SSD	DVD±RW	UltraB	Intel 6205 ²⁸	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-37U	i7-2620M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraB	Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-36U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraB	Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-35U	i7-2620M	4GBx2	12.5" HD <i>Outdoor</i>	720p	160G SSD			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-34U	i7-2620M	4GBx2	12.5" HD <i>Multi</i>	720p	160G SSD			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-33U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>		320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Prem 64
4296-32U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>		320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-2ZU	i7-2620M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-2YU	i7-2620M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-2XU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64
4296-2WU	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200			Intel 6205	WWAN upg	Fing	Blue	6	None vPro	Pro 64

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning	<i>Convertible tablet ultraportable; one spindle</i>										Preloaded operating system²⁰			
Processor	Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										- <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 64			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (all OSEs; only some listed)			
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap 			
mSATA™ SSD	None										<ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) 			
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotate and swivel hinge, power, reset, and rotation buttons on display bottom										Preloaded applications¹⁴ (all OSEs; only some listed)			
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus										<ul style="list-style-type: none"> • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW) 			
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies			
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None										<ul style="list-style-type: none"> • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 • Disks supported (some): <ul style="list-style-type: none"> • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632 			
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery None <i>3-cell (30Whr):</i> up to 4.0 hr; <i>6-cell (66Whr):</i> up to 8.8 hr; <i>external battery (64Whr):</i> up to 9.0 hr; <i>6-cell plus external battery:</i> up to 17.8 hr										<ul style="list-style-type: none"> • Other features: <ul style="list-style-type: none"> • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 			
Chipset	Mobile Intel QM67 Express Chipset										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Ultrabase Multicard Reader ExpressCard Ports	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
US model(s) announced March 22, 2011
US model(s) withdrawn effective November 2011 or December 2012

ThinkPad® X220 Tablet (4296) - TopSeller (May 2011) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Battery cells	Intel vPro	Preload
4296-3BU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200	Optional	Optional	Intel 6205 ²⁸	Gobi 3000	selectable	6	vPro	Pro 64
4296-3MU	i7-2640M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraBase	Intel 6205	WWAN upg		6	vPro	Pro 64
4296-3LU	i7-2640M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Optional	Intel 6205	WWAN upg		6	vPro	Pro 64
4296-3VU	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	DVD±RW	UltraBase	Intel 6205	WWAN upg		6	vPro	Pro 64
4296-3UU	i7-2640M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	DVD±RW	UltraBase	Intel 6205	WWAN upg		6	vPro	Pro 64

- **Small and medium business (SMB) model(s), part of the US TopSeller™ Program**
- **A depot repair service 3-year limited warranty**
- **Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap		
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)		
mSATA™ SSD	None												
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632		
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus												
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g		
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, Tap Zones, multi-touch None												
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery None <i>3-cell (30Whr):</i> up to 4.0 hr; <i>6-cell (66Whr):</i> up to 8.8 hr; <i>external battery (64Whr):</i> up to 9.0 hr; <i>6-cell plus external battery:</i> up to 17.8 hr										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
Chipset	Mobile Intel QM67 Express Chipset												
Ultrabase Multicard Reader ExpressCard Ports	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider												
Modem Bluetooth™ Ethernet Intel AMT Audio support	None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip												
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades²² available												

See footnotes for more detailed information
US model(s) announced May 10 or October 4, 2011, or January 3, 2012
US model(s) withdrawn effective December 2012

ThinkPad® X220 Tablet (4298) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Ext Battery cells	Global Intel vPro GMP (P)	Pre-load
4298-44U	i7-2620M	4GBx1	12.5" HD Outdoor	720p	320G 7200	DVD±RW	UltraB	Intel 6205 ²⁸	upg	Fing	Blue	6		vPro	Pro 64
4298-43U	i7-2620M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4298-42U	i5-2520M	4GBx1	12.5" HD Multi	720p	320G 7200	DVD±RW	UltraB	Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4298-3ZU	i5-2520M	4GBx1	12.5" HD Outdoor	720p	320G 7200	DVD±RW	UltraB	Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4298-3YU	i7-2620M	4GBx1	12.5" HD Multi	720p	128G SSD			Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4298-3XU	i7-2620M	4GBx1	12.5" HD Outdoor	720p	128G SSD			Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4298-3WU	i5-2520M	4GBx1	12.5" HD Outdoor	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro	Pro 64
4298-3VU	i5-2520M	4GBx1	12.5" HD Multi	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro	Pro 64
4298-3UU	i7-2620M	4GBx1	12.5" HD Multi	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro	G Pro 64
4298-3TU	i7-2620M	4GBx1	12.5" HD Outdoor	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro	G Pro 64
4298-3SU	i5-2520M	4GBx1	12.5" HD Outdoor	720p	320G 7200			Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4298-3RU	i5-2520M	4GBx1	12.5" HD Multi	720p	320G 7200			Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4298-3QU	i5-2520M	4GBx1	12.5" HD Outdoor		320G 7200			Intel 6205	upg			6		vPro	Pro 64
4298-3PU	i5-2520M	4GBx1	12.5" HD Multi		320G 7200			Intel 6205	upg			6		vPro	Pro 64
4298-27U	i5-2520M	2GBx1	12.5" HD Outdoor		320G 7200			Intel 6205	upg	Fing	Blue	6		vPro	G Pro 64
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows [®] 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)				
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3														
mSATA™ SSD	None														
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom														
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632				
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch None										Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g				
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery <i>Some:</i> Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280) <i>3-cell (30Whr):</i> up to 4.0 hr; <i>6-cell (66Whr):</i> up to 8.8 hr; <i>external battery (64Whr):</i> up to 9.0 hr; <i>6-cell plus external battery:</i> up to 17.8 hr														
Chipset	Mobile Intel QM67 Express Chipset														
Ultrabase Multicard Reader ExpressCard Ports	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)														
PCIe Mini Card WLAN ⁴ WWAN ⁴ Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available														

See footnotes for more detailed information

US model(s) announced March 22, 2011

US model(s) withdrawn effective November 2011 or December 2012

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(CMT1-2) February 2013

ThinkPad® X220 Tablet (4298) - May 2011 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	Optical in UltraBase Series 3	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Battery Carrier	Ext Battery cells	Intel vPro	Global (G) GMP (P)load	Pre-load
4298-4BU	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Opt Intel 6205 ²⁸	WWAN upg		6		vPro	G	Pro 64
4298-4GU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200	Optional	Opt Intel 6205	Gobi 3000		selectable	6		vPro	Pro 64
4298-4CU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	128G SSD	Optional	Opt Intel 6205	WWAN upg		6		vPro	G	Pro 64
4298-26U	i7-2620M	2GBx2	12.5" HD <i>Multi</i>		320G 7200	Optional	Opt Intel 6300 ²⁸	WWAN upg		6	6	vPro	G	Pro 64
4298-4TU	i7-2640M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Opt Intel 6205	WWAN upg		6		vPro	G	Pro 64
4298-56U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	160G SSD	Optional	Opt Intel 6205	WWAN upg		6		vPro	G	Pro 64
4298-55U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	500G 5400	Optional	Opt Intel 6205	WWAN upg		6		vPro		Pro 64
4298-54U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 5400	Optional	Opt Intel 6205	WWAN upg		6		vPro		Pro 64
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)			
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets													
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3													
mSATA™ SSD	None													
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotate and swivel hinge, power, reset, and rotation buttons on display bottom													
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort)@60Hz; 2048x1536 (VGA)@75Hz; 1920x1200@60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch None										Supports ThinkVantage® technologies			
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery <i>Some:</i> Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280) <i>3-cell (30Whr):</i> up to 4.0 hr; <i>6-cell (66Whr):</i> up to 8.8 hr; <i>external battery (64Whr):</i> up to 9.0 hr; <i>6-cell plus external battery:</i> up to 17.8 hr										ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632			
Chipset	Mobile Intel QM67 Express Chipset													
Ultrabase Multicard Reader ExpressCard Ports	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider													
Modem Bluetooth™ Ethernet Intel AMT Audio support	None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip										65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²			
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available													

See footnotes for more detailed information
 US model(s) announced May 3, May 10, July 12, or October 4, 2011, or January 3, 2012
 US model(s) withdrawn effective November 2011 or December 2012

ThinkPad® X220 Tablet (4299) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁹ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Battery cells	Ext Battery cells	Global Intel vPro GMP (P)	Pre-load
4299-36U	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200	DVD±RW	UltraB	Intel 6205 ²⁸	upg	Fing	Blue	6		vPro G P	Pro 64
4299-35U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraB	Intel 6205	upg	Fing	Blue	6		vPro G P	Pro 64
4299-34U	i7-2620M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	DVD±RW	UltraB	Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4299-33U	i7-2620M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200	DVD±RW	UltraB	Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4299-32U	i7-2620M	4GBx1	12.5" HD <i>Outdoor</i>	720p	128G SSD			Intel 6205	upg	Fing	Blue	6		vPro G P	Pro 64
4299-2ZU	i7-2620M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD			Intel 6205	upg	Fing	Blue	6		vPro G P	Pro 64
4299-2YU	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro	Pro 64
4299-2XU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro	Pro 64
4299-2WU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>		320G 7200			Intel 6205	upg			6		vPro	Pro 64
4299-2ZU	i7-2620M	4GBx1	12.5" HD <i>Multi</i>		320G 7200			Intel 6205	upg			6		vPro	Pro 64
4299-2UU	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200			Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4299-2TU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200			Intel 6205	upg	Fing	Blue	6		vPro	Pro 64
4299-2SU	i7-2620M	4GBx1	12.5" HD <i>Outdoor</i>	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro G P	Pro 64
4299-2RU	i7-2620M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200			Intel 6205	upg	Fing	Blue	6	6	vPro G P	Pro 64
4299-27U	i5-2520M	2GBx1	12.5" HD <i>Outdoor</i>		320G 7200			Intel 6205	upg	Fing	Blue	6		vPro G P	Pro 64
Positioning Processor	<i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology										Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)				
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB HDD 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Optical Ultrabay SATA disk	<i>Some:</i> DVD burner, removable from ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3														
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom														
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus														
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB HDD 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch None														
Dimensions ³ Weight ² Case material Battery - type Extended Battery Battery - life ¹⁰	<i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg) <i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery <i>Some:</i> Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280) <i>3-cell (30Whr):</i> up to 4.0 hr; <i>6-cell (66Whr):</i> up to 8.8 hr; <i>external battery (64Whr):</i> up to 9.0 hr; <i>6-cell plus external battery:</i> up to 17.8 hr														
Chipset	Mobile Intel QM67 Express Chipset														
Ultrabase Multicard Reader ExpressCard Ports	<i>Some:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: – Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB HDD 7200 rpm 0A65632 Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g 65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²				
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 Wireless WAN upgradable None <i>Some:</i> Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant <i>Some:</i> UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip														
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri, excluding holidays, next business day response / service upgrades²² available														

See footnotes for more detailed information

US model(s) announced March 22, 2011

US model(s) withdrawn effective November 2011 or December 2012

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(CMT1-3) February 2013

ThinkPad® X220 Tablet (4299) - Onsite (May 2011) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Battery cells	Ext Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
4299-4BU	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Opt	Intel 6205 ²⁸	WWAN upg	6		vPro	G P	Pro 64
4299-4CU	i5-2520M	4GBx1	12.5" HD <i>Outdoor</i>	720p	128G SSD	Optional	Opt	Intel 6205	WWAN upg	6		vPro	G P	Pro 64
4299-26U	i7-2620M	2GBx2	12.5" HD <i>Multi</i>		320G 7200	Optional	Opt	Intel 6300 ²⁸	WWAN upg	6	6	vPro	G P	Pro 64
4299-4TU	i7-2640M	4GBx1	12.5" HD <i>Multi</i>	720p	128G SSD	Optional	Opt	Intel 6205	WWAN upg	6		vPro	G P	Pro 64
4299-56U	i5-2520M	4GBx1	12.5" HD <i>Multi</i>	720p	160G SSD	Optional	Opt	Intel 6205	WWAN upg	6		vPro		Pro 64
<ul style="list-style-type: none"> • Part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty • Microsoft® Office 2010 Product Key Ready (O10PKR) 														
Positioning Processor	Convertible tablet ultraportable; one spindle Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology Intel Core i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology											Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64 Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap		
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets											Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)		
Optical Ultrabay SATA disk	Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3											Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)		
mSATA™ SSD	None													
Widescreen display	<i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color , anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture <i>All:</i> WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen , pen holder in side base (right), rotate and swivel hinge , power, reset, and rotation buttons on display bottom											Supports ThinkVantage® technologies		
Camera	<i>Some:</i> HD720p resolution, wider view angle, low light sensitive, fixed focus													
Graphics	Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; Maximum external resolution: 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)													
Keyboard TrackPoint® Touchpad ThinkLight™	7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch None											ThinkPad Ultrabase Series 3 • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: - Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 Disks supported (some): • 128GB SSD 6.0Gb/s 0A65629 • 180GB SSD 6.0Gb/s 0A65630 • 500GB Disk 7200 rpm 0A65632		
Dimensions ³ Weight ²	<i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg)													
Case material Battery - type Extended Battery Battery - life ¹⁰	<i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery <i>Some:</i> Slim external Lithium Ion 6-cell battery (ThinkPad Battery 19+, 0A36280) <i>3-cell (30Whr):</i> up to 4.0 hr; <i>6-cell (66Whr):</i> up to 8.8 hr; <i>external battery (64Whr):</i> up to 9.0 hr; <i>6-cell plus external battery:</i> up to 17.8 hr													
Chipset	Mobile Intel QM67 Express Chipset													
Ultrabase Multicard Reader ExpressCard Ports	<i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)													
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											Other features: • Power button (front) • Security key lock, security keyhole • Analog VGA DB-15 monitor port • DisplayPort (supports single-link DVI-D via cable 45J7915) • Four USB 2.0 ports • Gigabit ethernet (RJ-45) port • Microphone in and headphone out • Requires 65W or 90W AC adapter • 1.39 lb; 630g		
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip											65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri, excluding holidays, next business day response / service upgrades²² available													

See footnotes for more detailed information

US model(s) announced May 3, May 10, July 12, or October 4, 2011, or January 3, 2012

US model(s) withdrawn effective November 2011 or December 2012

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(CMT1-5) February 2013

ThinkPad® X220i Tablet (4294) - TopSeller (withdrawn)

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	Optical in UltraBase	ThinkPad Ultrabase Series 3	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Bat-tery Blue-tooth cells	Intel vPro	Preload	
4294-2EU	i3-2310M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Optional	Intel 1000	WWAN upg	Fing	Blue	6	None	Pro 64
4294-2DU	i3-2310M	4GBx1	12.5" HD <i>Multi</i>	720p	320G 7200	Optional	Optional	Intel 6205 ²⁸	WWAN upg	Fing	Blue	6	None	Pro 64

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<p><i>Convertible tablet ultraportable; one spindle</i> Intel® Core™ i3-2310M processor (dual-core, 2.10GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology</p>											<p>Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64</p>
Memory	<p>8GB max⁷ / PC3-10600 1333MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets</p>											<p>Ready to install applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Optical Ultrabay SATA disk	<p>Option for ThinkPad Ultrabase Series 3 Supports Ultrabay Slim devices in optional or standard ThinkPad Ultrabase Series 3 (0A33932) <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive, supports the second disk in optional or standard ThinkPad Ultrabase Series 3</p>											<p>Preloaded applications¹⁴ (all OSes; only some listed)</p> <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Corel® WinDVD® (DVD±RW) • Corel Burn.Now™ Lenovo Edition (DVD±RW)
mSATA™ SSD	None											
Widescreen display	<p><i>Outdoor:</i> 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare display with scratch resistant Corning® Gorilla® Glass, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, 1.2% reflectivity, multiple anti-reflectivity layers, IPS <i>MultiTouch:</i> 12.5" (317.5mm) HD (1366x768) TFT color, anti-glare, LED backlight, 300 nits, 16:9 aspect ratio, 500:1 contrast ratio, IPS, MultiTouch screen supports pen & five-finger gesture All: WideView (170° viewing), anti-reflective and anti-glare protective coatings, write on screen with standard digitizer pen, pen holder in side base (right), rotate and swivel hinge, power, reset, and rotation buttons on display bottom</p>											
Camera	HD720p resolution, wider view angle, low light sensitive, fixed focus											
Graphics	<p>Intel HD Graphics 3000 in processor, external analog monitor support via VGA DB-15 connector and digital monitor support via DisplayPort (supports single-link DVI-D via cable 45J7915); supports dual independent display; <i>Maximum external resolution:</i> 2560x1600 (DisplayPort) @60Hz; 2048x1536 (VGA) @75Hz; 1920x1200 @60Hz (single-link DVI-D via cable 45J7915)</p>											<p>Supports ThinkVantage® technologies</p> <p>ThinkPad Ultrabase Series 3</p> <ul style="list-style-type: none"> • Provides desktop expansion and cable management for X220 and X220 Tablet • Easily connects to the bottom of the X220 or X220 Tablet for traveling • Converts ThinkPad to a two-spindle system with optional Ultrabay Slim accessories in right side: <ul style="list-style-type: none"> – DVD-ROM Ultrabay Slim Drive II SATA 1.5G/s 43N3292 – Serial ATA Hard Drive Bay Adapter III 43N3412 Disks supported (some): <ul style="list-style-type: none"> • 128GB 2.5" SSD II 0A33984 • 500GB Disk 7200 rpm 43N3423
Keyboard TrackPoint® Touchpad ThinkLight™	<p>7 row, 89-key, ThinkVantage button, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar¹³, magnifying glass UltraNav™, buttonless touchpad below keyboard, multi-touch None</p>											
Dimensions ³ Weight ²	<p><i>without UltraBase; 3-cell:</i> 12.0" x 9" x 1.1-1.23"; 305mm x 228.7mm x 27-31.3mm <i>3-cell:</i> from 3.67 lb (1.66kg); <i>6-cell:</i> from 3.97 lb (1.80kg)</p>											
Case material	<p><i>Display cover:</i> Magnesium + PCABS; <i>Bottom:</i> Magnesium alloy</p>											
Battery - type	Lithium Ion 3-cell or 6-cell, supports optional external battery (0A36280) as 2nd battery											
Extended Battery	None											
Battery - life ¹⁰	<p><i>3-cell:</i> up to 4.0 hr; <i>6-cell:</i> up to 8.8 hr; <i>slice battery:</i> up to 9.0 hr; <i>6-cell plus slice battery:</i> up to 17.8 hr</p>											
Chipset	Mobile Intel QM67 Express Chipset											
Ultrabase Multicard Reader ExpressCard Ports	<p><i>Option:</i> ThinkPad Ultrabase Series 3 (see right side) 4-in-1 reader (SD, SDHC, SDXC, MMC) One slot (ExpressCard/34, ExpressCard/54) Three USB 2.0 (one powered), external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)</p>											
PCIe Mini Card WLAN ⁴	<p>Two PCI Express Mini Card slots <i>Some:</i> 11b/g/n, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2</p>											
WWAN Modem	Wireless WAN upgradable											
Bluetooth™	None											
Ethernet	Bluetooth 3.0 wireless, LED indicator											
Intel AMT	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1											
Audio support	None											
Security Security chip	High Definition (HD) Audio, Conexant 20672 codec / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, combo audio/mic jack											
Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole											
Limited warranty ¹²	Trusted Platform Module, TCG 1.2-compliant											
	UPEK Fingerprint reader (right base of display), used in tablet/notebook mode, LED indicator, Power On Authentication, supports the security chip											<p>65-watt AC Adapter ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378</p>

See footnotes for more detailed information
 US models announced March 22, 2011
 US models withdrawn effective November 30, 2011

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 (CMT1i-1) December 2011

ThinkPad® X220 Tablet Accessories - withdrawn

Personal Systems Reference (PSREF)

Memory

2GB PC3-10600 DDR3 L-H SODIMM	55Y3710	ann 03/02/10
2GB PC3-10600 DDR3 L-H SODIMM (25Pack)	57Y4416	ann 03/02/10
4GB PC3-10600 DDR3 L-H SODIMM	55Y3711	ann 03/02/10

Ultrabay Slim 9.5mm

Most Ultrabay Slim accessories supported in ThinkPad Ultrabase Series 3

Serial ATA Hard Drive 9.5mm Bay Adapter III	43N3412	ann 06/23/09
DVD ROM Ultrabay Slim Drive III	0A65628	ann 06/05/12
DVD Burner Ultrabay Slim Drive III	0A65626	ann 06/05/12

Storage and removable storage

500GB 5400rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65631	ann 06/05/12
500GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65632	ann 06/05/12
320GB 7200rpm SATA 3.0Gb/s 7mm 4K HDD ⁴¹	0A65635	ann 06/05/12
128GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65629	ann 06/05/12
180GB SATA 6.0Gb/s 7mm Solid State Drive ⁴¹	0A65630	ann 06/05/12
256GB 2.5" SATA 6.0Gb/s OPAL-capable SSD ⁴¹	0A65620	ann 05/15/12

250GB 7200rpm SATA 3.0Gb/s OPAL-capable FDE HDD II ⁴¹	0A33985	ann 02/22/11
320GB 5400rpm SATA 3.0Gb/s Hard Drive II ⁴¹	0A33987	ann 02/22/11

⁴¹ Can be used as the main HDD or with Serial ATA Hard Drive 9.5mm Bay Adapter III 43N3412 in ThinkPad Ultrabase Series 3

USB 2.0 Portable 320GB Hard Disk	45K1689	ann 03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann 05/26/09
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 3.0 Secure 500GB Hard Drive	0A65619	ann 11/29/11
USB 3.0 Secure 750GB Hard Drive	0A65616	ann 11/29/11
USB 3.0 Secure 1TB Hard Drive	0A65621	ann 08/28/12
Lenovo Slim USB Portable DVD Burner	0A33988	ann 06/14/11

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:

ThinkPad Gobi™ Mobile Broadband Option	0A36185	ann 04/12/11
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ThinkPad Expansion

ThinkPad Ultrabase Series 3	0A33932	ann 03/01/11
Lenovo® Essential Notebook Stand	45J9292	ann 05/12/09

Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
Ultraslim Plus Wireless Keyboard and Mouse ⁵²	0A34032	ann 04/05/11
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann 08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann 05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann 12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann 06/04/02
ThinkPad Bluetooth Laser Mouse	0A36407	ann 06/26/12
Lenovo Wireless Laser Mouse ⁵²	0A36188	ann 12/20/11

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06

Multimedia

ThinkPad In-Ear Headphones with mic	57Y4488	ann 01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann 02/26/08
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Tablet

ThinkPad Digitizer Pen	41U3143	ann 11/14/06
ThinkPad Tablet Tether (3-pack)	41U4820	ann 11/14/06

Batteries

ThinkPad Battery 67 (3-cell)	0A36316	ann 06/05/12
ThinkPad Battery 67+ (6-cell)	0A36317	ann 06/05/12
ThinkPad Battery 19+ (6-cell, Slim External) ⁴³	0A36280	ann 03/01/11

⁴³ To be used along with system battery for all-day computing; attaches under ThinkPad using docking connector (not supported when using ThinkPad Ultrabase Series 3 0A33932).

ThinkPad External Battery Charger^{44, 47} 40Y7625 ann 09/20/05

⁴⁴ Requires the ThinkPad 90W AC Adapter 40Y7659 or the adapter provided with the system.

⁴⁷ Only supports ThinkPad Battery 67 (3-cell) 0A36316.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann 01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
90W Ultraslim AC/DC Combo Adapter	41R4493	ann 09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W Ultraslim AC/DC Combo Adapter 41R4493

•iPod and iPhone Charge Tip (L10a)	41R4481	ann 12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann 01/06/09

More information at www.lenovopowertips.com

Carrying Cases

Up to 12.5" widescreen models:

ThinkPad 12W Case Sleeve ⁷¹	51J0476	ann 08/18/09
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⁷¹ Not compatible with ThinkPad Battery 67+ (6-cell) 0A36317.

ThinkPad X220 Tablet Sleeve	0A33883	ann 03/22/11
ThinkPad 12.5" Ultrabook Topload	0B47416	ann 12/04/12

Up to 13.3" widescreen models:

ThinkPad Ultraportable Case	41U5062	ann 05/13/08
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Up to 15.6" widescreen models:

Lenovo Messenger Max	41U5253	ann 05/01/07
Lenovo Performance Backpack	41U5254	ann 05/01/07
ThinkPad Business Topload Case	43R2476	ann 05/13/08
ThinkPad Business Backpack	43R2482	ann 05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann 05/13/08
ThinkPad Executive Leather Case	43R2480	ann 05/13/08
Lenovo Sport Backpack - Red	0A33896	ann 02/28/12
Lenovo Sport Slimcase - Red	0A33897	ann 02/28/12
Lenovo Sport Messenger - Red	0A33898	ann 02/28/12

More information at www.lenovo.com/support/cases

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

ThinkVision® L1711p 17" (VGA, DVI-D)	5047HB2	ann 10/20/09
ThinkVision L1900p 19" (VGA, DVI-D)	4431HE1	ann 11/11/08
ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D) ⁶⁹	2448MB6	ann 09/13/11
ThinkVision L2250p Wide 22" (VGA, DVI-D)	2572HB6	ann 10/20/09
ThinkVision L2251x Wide 22" (VGA, DP)	2578HB6	ann 10/20/09
ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D) ⁶⁹	2572MB6	ann 09/13/11
ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D) ⁶⁹	4420MB2	ann 09/13/11

⁶⁹ DisplayPort cable is not included; use optional DisplayPort to DisplayPort Monitor Cable 0A36537.

ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0)	1452DS6	ann 08/16/11
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More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann 08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann 08/05/08
DisplayPort to DisplayPort Monitor Cable	0A36537	ann 09/13/11
Lenovo USB Soundbar	0A36190	ann 05/01/12
Kensington MicroSaver Cable Lock	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Lenovo Security Cable Lock	57Y4303	ann 08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann 09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad® X300 (6478) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Finger print reader	Battery cells	Preload	Avail date
6478-1HU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n ²⁸			Fing	3	Business	32 Feb 08
6478-1JU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	Verizon+GPS	UWB	Fing	6	Business	32 Feb 08
6478-1TU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n			Fing	3	XP Pro	Feb 08
6478-1VU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	Verizon+GPS		Fing	6	XP Pro	Feb 08

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **Thinnest (starting at under .75") and lightest (starting at 2.93 lb) notebook**
- **Latest connectivity options including WLAN, WWAN, UWB, and GPS**
- **Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD**
- **Environmentally-friendly EPEAT Gold rating**

Positioning Processor	<i>Thinnest and lightest; two spindles</i> Intel® Core™ 2 Duo processor SL7100 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo			
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in													
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high													
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s (system limited to SATA 1.5Gb/s), 1.8" wide, 8mm high, removable, upgradable, shock mounted storage													
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GS965, external monitor support via analog VGA DB-15 connector, no DVI-out support													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)													
Weight ²														
Case material	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell ; supports optional Option Bay 3-cell battery (for two batteries)													
Battery - life ¹⁰	<i>3-cell:</i> up to 4.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>6-cell and Option Bay battery:</i> up to 10 hr													
Chipset	Mobile Intel GS965 Express Chipset (Graphics Memory Controller Hub); ICH8M-SFF-Enhanced I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, USB, LPC bus, Bluetooth, fingerprint) / LPC bus (Atmel® 97SC3203 TPM)													
ExpressCard slot	None													
Multicard Reader	None													
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)													
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios										Supports ThinkVantage® technologies			
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable													
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)										65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378			
WWAN upg	None													
Verizon+GPS ¹⁶	<i>Some:</i> Wireless WAN with GPS, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract required with Verizon®										ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
Turbo Memory	None													
UWB	<i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter													
Modem	None (use optional USB-based modem)													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE													
Intel AMT	Intel Active Management Technology (IAMT)													
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999					X300 LiPolymer Battery 3-cell					43R1965			
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000					X300 Li-Ion Battery 6-cell					43R1967			
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406					X300 LiPolymer Bay Battery 3-cell					43R1966			
USB 2.0 Portable Secure 320GB Hard Disk	43R2019					90W Slim AC/DC Combo Adapter					41N8460			
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkPad Executive Leather Case					43R2480			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770					ThinkPad Ultraportable Case					41U5062			
ThinkPad Adjustable Notebook Stand	40Y7676					ThinkVision® L2440p Wide 24" Monitor					4420HB2			
Other accessories on O-X300 sheet											Other accessories at lenovo.com/accessories			

See footnotes for important warranty information
US models announced February 26, 2008
US models withdrawn effective May 2009

* Intel Centrino with vPro™ technology

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(KOD1-1) May 2009

ThinkPad® X300 (6477) - withdrawn

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Finger print reader	Battery cells	Vista preload	Avail date
6477-1TU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n ²⁸			Finger	6	Business 32	Feb 08
6477-1UU	SL7100	1.20	4GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n			Finger	6	Ultimate 32	Feb 08
6477-1ZU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	Verizon+GPS ¹⁶	UWB	Finger	6	Business 32	Feb 08
6477-01U	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	* Intel 11n	AT&T ²³	UWB	Finger	6	Business 32	Apr 08

Italic MTM: not a base model for building a custom model

- **Thinnest (starting at under .75") and lightest (starting at 2.93 lb) notebook**
- **Latest connectivity options including WLAN, WWAN, UWB, and GPS**
- **Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD**
- **Environmentally-friendly EPEAT Gold rating**

Positioning Processor	<i>Thinnest and lightest; two spindles</i> Intel® Core™ 2 Duo processor SL7100 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Ultimate Edition (32-bit) ◇ <i>2GB Vista models:</i> Vista Basic logo ◇ <i>1UU model:</i> Vista Premium logo			
Memory	2GB or 4GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskkeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate model) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in													
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high													
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s (system limited to SATA 1.5Gb/s), 1.8" wide, 8mm high, removable, upgradable, shock mounted storage													
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GS965, external monitor support via analog VGA DB-15 connector, no DVI-out support													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)													
Weight ²	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Case material	Lithium Polymer 3-cell or Lithium Ion 6-cell ;													
Battery - type	supports optional Option Bay 3-cell battery (for two batteries)													
Battery - life ¹⁰	<i>3-cell:</i> up to 4.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>6-cell and Option Bay battery:</i> up to 10 hr													
Chipset	Mobile Intel GS965 Express Chipset (Graphics Memory Controller Hub); ICH8M-SFF-Enhanced I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, USB, LPC bus, Bluetooth, fingerprint) / LPC bus (Atmel® 97SC3203 TPM)													
ExpressCard slot	None													
Multicard Reader	None													
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)													
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios													
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable													
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)													
WWAN upg	None													
Verizon+GPS ¹⁶	<i>Some:</i> Wireless WAN with GPS, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract required with <u>Verizon</u>													
AT&T ²³	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, service contract required with <u>AT&T</u> ®													
Turbo Memory	None													
UWB	<i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter													
Modem	None (use optional USB-based modem)													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE													
Intel AMT	Intel Active Management Technology (IAMT)													
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip													
Limited warranty ¹²	3-years /1-yr battery - EasyServ™ ¹⁹ depot repair service / service upgrades ²² available													
1GB PC2-5300 DDR2 SODIMM	40Y7734				X300 Li-Ion Battery 6-cell				43R1967					
2GB PC2-5300 DDR2 SODIMM	40Y7735				X300 LiPolymer Bay Battery 3-cell				43R1966					
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406				ThinkPad 90W AC Adapter				40Y7659					
USB 2.0 Portable Secure 320GB Hard Disk	43R2019				ThinkPad Ultraportable Case				41U5062					
Other accessories on O-X300 sheet											Other accessories at lenovo.com/accessories			
											ThinkPlus™. ²² 2-year LOR ²⁴ 9x5 NBD 41C9175			
											ThinkPlus 3-year LOR 9x5 NBD 41C9176			
											ThinkPlus 4-year LOR 9x5 NBD 41C9177			
											ThinkPlus 5-year LOR 9x5 NBD 41C9179			
											ThinkPlus 4-year P&L P/U Depot 41C9178			
											ThinkPlus 5-year P&L P/U Depot 41C9180			
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced February 26 or April 14, 2008
US models withdrawn effective May 2009

* Intel Centrino with vPro™ technology

ThinkPad® X300 (4052) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage processor GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Finger print reader	Battery cells	Vista preload	GMP (P)	Avail date
4052-1TU	SL7100	1.20	2GB	13.3" WXGA+	Cam	64GB	SSD DVD±RW	*Intel 11n ²⁸	None	None	Finger 6	Business	32	P Apr 08
<ul style="list-style-type: none"> • This model is part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty • Thinnest (starting at under .75") and lightest (starting at 2.93 lb) notebook • Latest connectivity options including WLAN, WWAN, UWB, and GPS • Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD • Environmentally-friendly EPEAT Gold rating 														
Positioning Processor	<i>Thinnest and lightest; two spindles</i> Intel® Core™ 2 Duo processor SL7100 with low voltage, dual-core , Intel 64 Technology, Enhanced Intel SpeedStep® technology ¹ , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Basic logo		
Memory	2GB std / 4GB max ⁷ / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications¹⁴ <ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate model) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) 		
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in													
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high													
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s (system limited to SATA 1.5Gb/s), 1.8" wide, 8mm high, removable, upgradable, shock mounted storage													
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio													
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0													
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100) , integrated in GS965, external monitor support via analog VGA DB-15 connector, no DVI-out support													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass													
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	<i>3-cell: (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm</i> <i>6-cell: (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm</i>													
Weight ²	<i>3-cell: from 3.16 lb (1.43kg); 6-cell: from 3.35 (1.52kg)</i>													
Case material	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy													
Battery - type	Lithium Ion 6-cell ;													
Battery - life ¹⁰	supports optional Option Bay 3-cell battery (for two batteries) <i>3-cell:</i> up to 4.3 hr; <i>6-cell:</i> up to 6.5 hr; <i>6-cell and Option Bay battery:</i> up to 10 hr													
Chipset	Mobile Intel GS965 Express Chipset (Graphics Memory Controller Hub); ICH8M-SFF-Enhanced I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, USB, LPC bus, Bluetooth, fingerprint) / LPC bus (Atmel® 97SC3203 TPM)													
ExpressCard slot	None													
Multicard Reader	None													
Ports	Three USB 2.0, external monitor (VGA DB-15), ethernet (RJ-45)													
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios													
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable											Supports ThinkVantage® technologies		
Intel 11n ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)													
WWAN upg	None													
Turbo Memory	None													
UWB	None													
Modem	None (use optional USB-based modem)													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE													
Intel AMT	Intel Active Management Technology (IAMT)													
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant													
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip											ThinkPlus™.22 2-year LOR ²⁴ 9x5 NBD 41C9175		
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available											ThinkPlus 3-year LOR 9x5 NBD 41C9176		
1GB PC2-5300 DDR2 SODIMM	40Y7734			X300 LiPolymer Battery 3-cell			43R1965			ThinkPlus 4-year LOR 9x5 NBD 41C9177				
2GB PC2-5300 DDR2 SODIMM	40Y7735			X300 Li-Ion Battery 6-cell			43R1967			ThinkPlus 5-year LOR 9x5 NBD 41C9179				
128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406			X300 LiPolymer Bay Battery 3-cell			43R1966			ThinkPlus 4-year P&L P/U Depot 41C9178				
USB Portable Diskette Drive	05K9276			ThinkPad 90W AC Adapter			40Y7659			ThinkPlus 5-year P&L P/U Depot 41C9180				
USB 2.0 Lenovo Modem	43R1814			90W Slim AC/DC Combo Adapter			41N8460			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
USB 2.0 Portable Secure 320GB Hard Disk	43R2019			ThinkPad Executive Leather Case			43R2480							
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Ultraportable Case			41U5062							
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkVision® L2240p Wide 22" Monitor			4422HB6							
ThinkPad Adjustable Notebook Stand	40Y7676			ThinkVision L2440x Wide 24" Monitor			4421HB2							
Other accessories on O-X300 sheet														

See footnotes for important warranty information
 US model announced April 8, 2008
 US model withdrawn effective May 2009

* Intel Centrino with vPro™ technology

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ThinkPad®



Lenovo® ThinkPad X301



Lenovo ThinkPad X301



Lenovo ThinkPad X301



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USB Port Replicator with Digital Video
45K1610

ThinkPad® X301 (2776) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc-essor	GHz	Memory	Wide-screen display	Cam-era	Disk SATA GB ⁸	SSD/RPM	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat-tery Blue/ Fing cells	Preload	Avail date	
2776-TMU	SU9400	1.40	4GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	Intel 5100 ²⁸	AT&T ²³		Yes	6	Bus 32	Aug 08
2776-L9U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	Intel 5100	WWAN upg		Yes	3	Bus 32	Aug 08
2776-LAU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	Intel 5100	AT&T		Yes	6	Bus 32	Aug 08
2776-P4U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	Intel 5100	WWAN upg		Yes	3	XP Pro	Sep 08
2776-P5U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB	SSD	DVD±RW	Intel 5100	AT&T		Yes	6	XP Pro	Sep 08
2776-P6U	SU9400	1.40	4GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	Intel 5100	AT&T		Yes	6	XP Pro	Sep 08
2776-V1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	Intel 5300 ²⁸	WWAN upg		Yes	6	Bus 32	Oct 08
2776-V2U	SU9400	1.40	2GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	Intel 5300	WWAN upg		Yes	6	Bus 64	Nov 08
2776-TKU	SU9400	1.40	2GB	13.3" WXGA+	Cam	80GB	SSD	DVD±RW	Intel 5100	WWAN upg		Yes	3	Bus 32	Nov 08
2776-TLU	SU9400	1.40	2GB	13.3" WXGA+	Cam	80GB	SSD	DVD±RW	Intel 5100	AT&T		Yes	6	Bus 32	Nov 08
2776-H1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	120GB	5400	DVD±RW	Intel 5100	WWAN upg	2G Turbo	Yes	6	Bus 32	Dec 08
2776-27U	SU9600	1.60	2GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	Intel 5100	WWAN upg		Yes	6	XP Pro	Apr 09

• **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9400 or SU9600 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - <i>Some:</i> Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - <i>Some:</i> Genuine Windows Vista Business 32 - <i>Some:</i> Genuine Windows Vista Business 64 ⇨ <i>Vista models:</i> Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available		
Diskette drive	None (use optional USB-based diskette drive)		
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in		
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high		
Serial ATA disk	<i>Some:</i> 64GB⁸ , 80GB , or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s <i>Some:</i> 120GB⁸ (5400 rpm) / SATA 1.5Gb/s, Active Protection System™ <i>All:</i> 1.8" wide, 8mm high, removable, upgradable, shock mounted storage		
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label <i>27U model:</i> touch pad supports multi-touch function		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)		
Weight ²			
Case color	Black		
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy		
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell , supports optional Option Bay 3-cell battery (for two batteries)		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)		
ExpressCard	None		
Multicard reader	None		
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios		
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak) <i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T		
Turbo Memory UWB	<i>Some:</i> Intel Turbo Memory, Half-Mini PCIe adapter, 2GB flash, disk-cache accelerator		
Modem	None (use optional USB-based modem)		
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™¹⁹ depot repair service / service upgrades²² available		
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	X300 LiPolymer Battery 3-cell	43R1965
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	X300 Li-Ion Battery 6-cell	43R1967
Other accessories on O-X300 sheet		Other accessories at lenovo.com/accessories	
		Supports ThinkVantage® technologies	65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
			ThinkPlus 3-year LOR 9x5 NBD 41C9176
			ThinkPlus 4-year LOR 9x5 NBD 41C9177
			ThinkPlus 5-year LOR 9x5 NBD 41C9179
			ThinkPlus 4-year P&L P/U Depot 41C9178
			ThinkPlus 5-year P&L P/U Depot 41C9180
			Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced Aug 26, Sep 2, Oct 14, Nov 18, Nov 25, or December 2, 2008 or April 21, 2009
 US models withdrawn effective July, September, or December 2009

✦ Intel Centrino® 2 with vPro™ technology

ThinkPad® X301 (2776) - TopSeller (July 2009) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ SSD/RPM	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Preload	Avail date
2776-32U	SU9600	1.60	2GB	13.3" WXGA+	Cam	250GB 5400	DVD±RW	Intel 5100 ²⁸	WWAN upg	None	Yes	6 XP Pro	Jul 09
2776-33U	SU9600	1.60	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	Intel 5100	WWAN upg	None	Yes	6 XP Pro	Jul 09
2776-34U	SU9600	1.60	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	Intel 5100	WWAN upg	None	Yes	6 Bus 32	Jul 09
2776-35U	SU9600	1.60	2GB	13.3" WXGA+	Cam	80GB SSD	DVD±RW	Intel 5100	WWAN upg	None	Yes	6 XP Pro	Jul 09
2776-36U	SU9600	1.60	4GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	Intel 5100	AT&T ²³	None	Yes	6 Bus 64	Jul 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning	<i>Thin and light; two spindles</i>										Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 - Some: Genuine Windows Vista Business 64 ♦ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Processor	Intel® Core™ 2 Duo processor SU9600 with ultra low voltage, dual-core, Intel HD Boost, 800MHz system bus, and 3MB L2 cache										
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3, non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
Diskette drive	None (use optional USB-based diskette drive)										
EIDE DVD±RW	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in										
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high										
Serial ATA disk	Some: 64GB ⁸ , 80GB, or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s Some: 250GB (5400 rpm) / SATA 1.5Gb/s, Active Protection System™ All: 1.8" wide, 8mm high, removable, upgradable, shock mounted storage										
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color, anti-glare, LED backlight, 300 nits, 16:10 aspect ratio, 250:1 contrast ratio										
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0										
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD), in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); Maximum external resolution: 2048x1536@75Hz (VGA, DisplayPort)										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, supports multi-touch function										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	3-cell: (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm 6-cell: (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm 3-cell: from 3.16 lb (1.43kg); 6-cell: from 3.35 (1.52kg)										
Weight ²											
Case color	Black										
Case material	Display cover: Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); Base: Magnesium alloy										
Battery - type	Lithium Ion 6-cell, supports optional Option Bay 3-cell battery (for two batteries)										
Battery - life ¹⁰	3-cell: up to 3.4 hr; 6-cell: up to 5.5 hr; 6-cell and Option Bay battery: up to 9.5 hr										
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)										
ExpressCard	None										
Multicard reader	None										
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios										
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable										
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)										
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										
AT&T ²³	Some: Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T										
Turbo Memory	None										
UWB	None										
Modem	None (use optional USB-based modem)										
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator										
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available										
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	X300 LiPolymer Battery 3-cell						43R1965			
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	X300 Li-Ion Battery 6-cell						43R1967			
USB Port Replicator with Digital Video	45K1610	X300 LiPolymer Bay Battery 3-cell						43R1966			
Other accessories on O-X300 sheet		Other accessories at lenovo.com/accessories									

See footnotes for important warranty information
US models announced July 7, 2009
US models withdrawn effective December 2009

♦ Intel Centrino® 2 with vPro™ technology

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lenovo.com/thinkplus/warranty

ThinkPad® X301 (2776) - TopSeller (XP with Win 7 License) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ³	RPM	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Bat- tery Blue/ Fing cells	Preload	Avail date
2776-3AU	SU9600	1.60	2GB	13.3" WXGA+	Cam	250GB	5400	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	6 XP Pro	Oct 09
2776-3BU	SU9600	1.60	2GB	13.3" WXGA+	Cam	80GB	SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	6 XP Pro	Oct 09
2776-3CU	SU9600	1.60	4GB	13.3" WXGA+	Cam	128GB	SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	6 XP Pro	Oct 09

• These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9600 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache	Preloaded operating system ²⁰ - Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional 32 Preloaded applications ¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	
EIDE DVD±RW Option Bay Serial ATA disk	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in Modular bay for devices (DVD burner, battery), 7mm high <i>Some:</i> 80GB⁸ or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s <i>Some:</i> 250GB (5400 rpm) / SATA 1.5Gb/s, Active Protection System™ <i>All:</i> 1.8" wide, 8mm high, removable, upgradable, shock mounted storage	
Widescreen display Camera	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)	
TrackPoint® Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, supports multi-touch function	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm	
Weight ²	<i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)	
Case color	Black	
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy	
Battery - type	Lithium Ion 6-cell , supports optional Option Bay 3-cell battery (for two batteries)	
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr	
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)	
ExpressCard Multicard reader Ports	None None Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)	
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios	
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable	
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)	
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)	
Turbo Memory	None	
UWB	None	
Modem	None (use optional USB-based modem)	
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator	
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for important warranty information
US models announced October 22, 2009
US models withdrawn effective September 2010

❖ Intel Centrino® 2 with vPro™ technology

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(KOD2-7) September 2010

ThinkPad® X301 (2776) - TopSeller (Windows 7) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ RPM	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Mini PCIe UWB or Turbo	Battery Blue/ Fing cells	Preload	Avail date
2776-3DU	SU9600	1.60	4GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	❖ Intel 5100 ²⁸	AT&T ²³	None	Yes	6 Pro 64	Oct 09
2776-3NU	SU9600	1.60	2GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	❖ WiMAX	WWAN upg	None	Yes	6 Pro 32	Nov 09
2776-3PU	SU9600	1.60	2GB	13.3" WXGA+	Cam	128GB SSD	DVD±RW	❖ Intel 5100	Verizon ¹⁶	None	Yes	6 Pro 32	Nov 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9600 with ultra low voltage, dual-core, Intel HD Boost, 800MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Some: Genuine Windows® 7 Professional 32 - Some: Genuine Windows 7 Professional 64		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Password Manager • ThinkVantage Power Manager • ThinkVantage System Update • Fingerprint Software (fingerprint models) • ThinkVantage Toolbox • Lenovo Online Data Backup • Norton™ Internet Security 2009 (30 days of virus definitions) • Adobe® Reader® • Adobe Flash® Player • Skype™ for Windows • Microsoft Office 2010 preloaded; purchase product key to activate • Microsoft Research AutoCollage Touch • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)		
EIDE DVD±RW Option Bay Serial ATA disk	Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in Modular bay for devices (DVD burner, battery), 7mm high 128GB⁹ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage												
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz (VGA, DisplayPort)												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)												
TrackPoint® Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label, supports multi-touch function												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)												
Weight ²													
Case color	Black												
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Ion 6-cell , supports optional Option Bay 3-cell battery (for two batteries)												
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)												
ExpressCard Multicard reader	None												
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										Supports ThinkVantage® technologies		
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable												
Intel 5100 ²⁸ WiMAX	<i>Some:</i> 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) <i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5150, 1x2 (300Mbps) WiFi + 1x2 WiMAX (Echo Peak)										65-watt (GMA graphics) AC Adapter EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378		
WWAN upg Verizon ¹⁶	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) <i>Some:</i> Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon												
AT&T ²³	<i>Some:</i> Wireless WAN, Ericsson chipset, Mini PCIe adapter and SIM, GPRS/WCDMA/HSPA, GPS, service contract required with AT&T												
Turbo Memory UWB	None										ThinkPlus™.22 3-year LOR ²⁴ 9x5 NBD 41C9176		
Modem	None (use optional USB-based modem)										ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator										ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										ThinkPlus 4-year P&L P/U Depot 41C9178		
Intel AMT	Intel Active Management Technology (iAMT)										ThinkPlus 5-year P&L P/U Depot 41C9180		
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years /1-yr battery - depot repair service / service upgrades ²² available												

See footnotes for important warranty information
US models announced October 22 or November 3, 2009
US models withdrawn effective September 2010

❖ Intel Centrino® 2 with vPro™ technology

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(KOD2-8) September 2010

ThinkPad® X301 (2774) - withdrawn

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Camera	Disk SATA GB ⁸ SSD	EIDE optical or battery	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Blue/ Fing	Battery cells	Workhorse (W) Global (G)	Preload	Avail date
2774-17U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg		Yes	3	Bus 32	G	Aug 08
2774-18U	SU9400	1.40	4GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes	6	Bus 32	G	Aug 08
2774-LCU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	Battery	❖ Intel 5100	WWAN upg		Yes	6+3	Bus 32		Aug 08
2774-LDU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes	3	XP Pro		Aug 08
2774-PBU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	Battery	❖ Intel 5100	WWAN upg		Yes	6+3	XP Pro		Sep 08
2774-PCU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes	3	XP Pro		Sep 08
2774-21U	SU9400	1.40	2GB	13.3" WXGA+	Cam	80GB SSD	Battery	❖ Intel 5100	WWAN upg		Yes	6+3	Bus 32		Nov 08
2774-23U	SU9400	1.40	2GB	13.3" WXGA+	Cam	80GB SSD	DVD±RW	❖ Intel 5100	Verizon ¹⁶		Yes	6	Bus 32		Nov 08
2774-HBU	SU9400	1.40	2GB	13.3" WXGA+	Cam	128G SSD	DVD±RW	❖ WiMAX	WWAN upg	UWB	Yes	3	Bus 32		Dec 08
2774-HCU	SU9400	1.40	4GB	13.3" WXGA+	Cam	128G SSD	DVD±RW	❖ WiMAX	WWAN upg	UWB	Yes	6	Bus 32		Dec 08
2774-HDU	SU9400	1.40	2GB	13.3" WXGA+	Cam	128G SSD	DVD±RW	❖ Intel 5100	WWAN upg		Yes	6	Bus 32		Dec 08

• Latest connectivity options including WLAN, WWAN, UWB, and GPS
 • Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache	Preloaded operating system²⁰ - Some: Windows® XP Professional preinstalled through downgrade rights in Genuine Windows Vista® Business - Some: Genuine Windows Vista Business 32 ⇨ Vista models: Vista Premium logo Preloaded applications¹⁴ (all OSEs; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • Lenovo System Toolbox • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD±RW)	
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available		
EIDE DVD±RW	<i>Some:</i> Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in		
Option Bay battery	<i>Some:</i> 3-cell Li-Polymer second battery in Option Bay		
Option Bay Serial ATA disk	Modular bay for devices (DVD burner, battery), 7mm high 64GB⁸, 80GB⁸, or 128GB Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage		
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio		
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536@75Hz		
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass		
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm		
Weight ²	<i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)		
Case color	Black		
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy		
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell ; supports standard or optional Option Bay 3-cell battery (for two batteries)		
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr		
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)		
ExpressCard	None		
Multicard reader	None		
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)		
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios		
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable		
Intel 5100 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak)		
WiMAX	<i>Some:</i> 11a/b/g/n and WiMAX wireless ⁴ , Mini PCIe adap, Intel WiMAX/WiFi Link 5350, 3x3 (450Mbps) WiFi + 1x2 WiMAX (Echo Peak)		
WWAN upg	<i>Some:</i> Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)		
Verizon ¹⁶	<i>Some:</i> Wireless WAN, Qualcomm chipset, Mini PCIe adapter and SIM, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS, service contract required with Verizon		
Turbo Memory	None		
UWB	<i>Some:</i> Wireless USB based on Ultra-Wideband (UWB), Half-Mini PCIe adapter		
Modem	None (use optional USB-based modem)		
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator		
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1		
Intel AMT	Intel Active Management Technology (iAMT)		
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack		
Security	Power-on password, hard disk password, supervisor password, security keyhole		
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant		
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip		
Limited warranty ¹²	3-years/1-yr battery - EasyServ™.19 depot repair service / service upgrades ²² available		
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 49 (3-cell)	43R1965
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 49+ (6-cell)	43R1967
Other accessories on O-X300 sheet		Other accessories at lenovo.com/accessories	

Supports ThinkVantage® technologies
 65-watt (GMA graphics) AC Adapter
 Next Generation ThinkPad Roll Cage (in display cover)
 EPEAT™ Gold rating
 ENERGY STAR® 5.0-compliant
 RoHS-compliant
 International Warranty Service¹⁷
 24 hour x 7 day¹⁸ toll-free support during the warranty period¹² via 800-426-7378
 ThinkPlus™.22 3-year LOR²⁴ 9x5 NBD 41C9176
 ThinkPlus 4-year LOR 9x5 NBD 41C9177
 ThinkPlus 5-year LOR 9x5 NBD 41C9179
 ThinkPlus 4-year P&L P/U Depot 41C9178
 ThinkPlus 5-year P&L P/U Depot 41C9180
 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
 US models announced Aug 26, Sep 2, Nov 25 or Dec 2, 2008
 US models withdrawn effective July 2009 or March 2010

ThinkPad® X301 (2774) - Education - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Cam-era	Disk SATA GB ⁸ SSD	EIDE optical or battery	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Bat-tery Blue/ Fing cells	Workhorse (W) Global (G) Avail date
2774-E1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GBSSD	Blank bezel	Intel 5300 ²⁸	WWAN upg	None	Yes 3	Ult 32 No Feb 09

- **These models have an EasyServ™,19 depot repair service 3-year limited warranty**
- Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.
- Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States.

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core, Intel HD Boost, 800MHz system bus, and 3MB L2 cache										
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
EIDE DVD±RW	None										
Option Bay battery	None										
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high										
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage										
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio										
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0										
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort (supports single-link DVI-D via cable 45J7915); <i>Maximum external resolution:</i> 2048x1536 @ 75Hz										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass										
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)										
Weight ²											
Case color	Black										
Case material	<i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy										
Battery - type	Lithium Polymer 3-cell ; supports standard or optional Option Bay 3-cell battery (for two batteries)										
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr										
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)										
ExpressCard	None										
Multicard reader	None										
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)										
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios										
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable										
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel Ultimate N WiFi Link 5300, 3x3										
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)										
Turbo Memory	None										
UWB	None										
Modem	None (use optional USB-based modem)										
Bluetooth™	Bluetooth 2.1 wireless, USB 2.0 interface via ICH, LED indicator										
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip										
Limited warranty ¹²	3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades²² available										
1GB PC3-8500 DDR3 L-H SODIMM	55Y3706	ThinkPad Battery 49 (3-cell)	43R1965								
2GB PC3-8500 DDR3 L-H SODIMM	55Y3707	ThinkPad Battery 49+ (6-cell)	43R1967								
USB Port Replicator with Digital Video	45K1610	ThinkPad Battery 50 (3-cell)	43R1966								
Other accessories on O-X300 sheet	Other accessories at lenovo.com/accessories										
											Supports ThinkVantage® technologies
											65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US model announced February 17, 2009
US model withdrawn effective March 2010

Intel Centrino® 2 with vPro™ technology

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(KOD2-4) March 2010

ThinkPad® X301 (4057) - Onsite - withdrawn

Type-model	Low Voltage proc- essor	GHz	Memory	Wide- screen display	Cam- era	Disk SATA GB ⁸ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Blue/ Fing	Bat- tery cells	Workhorse (W) Gbl (G) Avail date
4057-17U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100 ²⁸	WWAN upg	None	Yes	3	Bus 32 G P Aug 08
4057-18U	SU9400	1.40	4GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	6	Bus 32 G P Aug 08
4057-LDU	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GB SSD	DVD±RW	❖ Intel 5100	WWAN upg	None	Yes	3	XP Pro G P Aug 08

- **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**
- **Latest connectivity options including WLAN, WWAN, UWB, and GPS**
- **Cutting edge technologies including LED backlight, Solid State Drive, and ultrathin DVD**
- **Environmentally-friendly EPEAT Gold rating**

Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business) - <i>Some:</i> Genuine Windows Vista Business 32 ❖ <i>Vista models:</i> Vista Premium logo		
Memory	2GB or 4GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;										Preloaded applications¹⁴ (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition • Roxio MyDVD® (DVD±RW)		
Diskette drive EIDE DVD±RW Option Bay Serial ATA disk	None (use optional USB-based diskette drive) Ultrathin DVD burner, 7mm high, removable from Option Bay, tray-in Modular bay for devices (DVD burner, battery), 7mm high 64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage												
Widescreen display Camera	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0										Supports ThinkVantage® technologies 65-watt (GMA graphics) AC Adapter Next Generation ThinkPad Roll Cage (in display cover) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹² via 800-426-7378 ThinkPlus™. ²² 3-year LOR ²⁴ 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41N8460 ThinkPlus 5-year P&L P/U Depot 41U5062 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort; <i>Maximum external resolution:</i> 2048x1536@75Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)												
TrackPoint® Touch pad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)												
Weight ² Case material	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Polymer 3-cell or Lithium Ion 6-cell ; supports optional Option Bay 3-cell battery (for two batteries)												
Battery - life ¹⁰	<i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)												
ExpressCard slot Multicard Reader Ports	None None Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
Wireless antenna Mini PCI Express Intel 5100 ²⁸ WWAN upg Turbo Memory UWB Modem	UltraConnect™ II Antenna / on-off switch for all wireless radios Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable 11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5100, 1x2 (Shirley Peak) Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152) None None None (use optional USB-based modem)												
Bluetooth™ Ethernet Intel AMT Audio support	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1 Intel Active Management Technology (iAMT) High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack												
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available												
1GB PC3-8500 DDR3 L-H SODIMM 2GB PC3-8500 DDR3 L-H SODIMM 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) USB 2.0 Lenovo® Modem USB 2.0 Portable Secure 320GB Hard Disk USB 2.0 Super Multi-Burner Drive USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Adjustable Notebook Stand Other accessories on O-X300 sheet	55Y3706 55Y3707 43N3400 43N3406 43R1814 43R2019 41N5565 43R8770 40Y7676		X300 LiPolymer Battery 3-cell X300 Li-Ion Battery 6-cell X300 LiPolymer Bay Battery 3-cell 90W Slim AC/DC Combo Adapter USB 2.0 Lenovo Multimedia Headset ThinkPad Ultraportable Case ThinkPad Executive Leather Case ThinkVision® L2240p Wide 22" Monitor ThinkVision L2440p Wide 24" Monitor Other accessories at lenovo.com/accessories				43R1965 43R1967 43R1966 41N8460 40Y8518 41U5062 43R2480 4422HB6 4420HB2		ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180				

See footnotes for important warranty information
US models announced August 26, 2008
US models withdrawn effective July 2009

❖ Intel Centrino® 2 with vPro™ technology

ThinkPad® X301 (4057) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Low Voltage processor	GHz	Memory	Wide-screen display	Cam-era	Disk SATA GB ³ SSD	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Mini PCIe UWB wireless	Blue/Fing	Bat-tery cells	Workhorse (W) Gbl (G) Avail date
4057-E1U	SU9400	1.40	2GB	13.3" WXGA+	Cam	64GBSSD	Blank bezel	Intel 5300 ²⁸	WWAN upg	None	Yes	3	Ult 32 No Feb 09
<ul style="list-style-type: none"> This model has a limited onsite service²⁴ 3-year limited warranty Educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. Microsoft® Office Ultimate 2007 Academic Edition: Only valid for sale to students, faculty and staff of accredited educational institutions in the United States. 													
Positioning Processor	<i>Thin and light; two spindles</i> Intel® Core™ 2 Duo processor SU9400 with ultra low voltage, dual-core , Intel HD Boost, 800MHz system bus, and 3MB L2 cache										Preloaded operating system²⁰ - Genuine Windows® Vista® Ultimate 32 ↳ Vista Premium logo		
Memory	2GB std / 4GB max ⁷ / PC3-8500 1066MHz DDR3 , non-parity, dual-channel capable, two 204-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										Preloaded applications¹⁴ • Education software - Microsoft® Office Ultimate 2007 Academic Edition (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Fingerprint Software (fingerprint models) • McAfee VirusScan® Plus with SiteAdvisor™ (30 days of virus definitions) • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Roxio® Creator® Business Edition		
Diskette drive	None (use optional USB-based diskette drive)												
EIDE DVD±RW	None												
Option Bay	Modular bay for devices (DVD burner, battery), 7mm high												
Serial ATA disk	64GB⁸ Solid State Drive (SSD) / SATA 3.0Gb/s, 1.8" wide, 8mm high, removable, upgradable, shock mounted storage												
Widescreen display	13.3" (338mm) WXGA+ (1440x900) TFT color , anti-glare, LED backlight , 300 nits, 16:10 aspect ratio, 250:1 contrast ratio												
Camera	Camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0												
Integrated graphics	Intel Graphics Media Accelerator 4500MHD (GMA 4500MHD) , in GS45 External monitor support via analog VGA DB-15 connector or DisplayPort; <i>Maximum external resolution:</i> 2048x1536 @75Hz												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, illuminated buttons (Power, ThinkVantage, Mute, and CapsLk)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass												
Touch pad	UltraNav™, wide touch pad below keyboard, Tap Zones, scrolling regions label												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	<i>3-cell:</i> (WxDxH): 12.5" x 9.09" x 0.73-0.92"; 318mm x 231mm x 18.6-23.4mm <i>6-cell:</i> (WxDxH): 12.5" x 9.09" x 0.85-0.92"; 318mm x 231mm x 18.6-25.9mm <i>3-cell:</i> from 3.16 lb (1.43kg); <i>6-cell:</i> from 3.35 (1.52kg)												
Weight ²													
Case material	<i>Color:</i> black; <i>Display cover:</i> Carbon-fiber reinforced plastic (top), glass-fiber reinforced plastic (side walls); <i>Base:</i> Magnesium alloy												
Battery - type	Lithium Polymer 3-cell ;												
Battery - life ¹⁰	supports optional Option Bay 3-cell battery (for two batteries) <i>3-cell:</i> up to 3.4 hr; <i>6-cell:</i> up to 5.5 hr; <i>6-cell and Option Bay battery:</i> up to 9.5 hr												
Chipset	Mobile Intel GS45 Express Chipset (Graphics Memory Controller Hub); ICH9M-SFF-Enhanced I/O Controller Hub (SATA 3.0Gb/s, USB 2.0, PCI Express® 1.1, PCI 2.3, security chip, ethernet MAC), Marvell® SATA-to-EIDE bridge (for optical)												
ExpressCard slot	None												
Multicard Reader	None												
Ports	Three USB 2.0, external monitor (VGA DB-15, DisplayPort), ethernet (RJ-45)												
Wireless antenna	UltraConnect™ II Antenna / on-off switch for all wireless radios												
Mini PCI Express	Three Mini PCI Express slots / 802.11 and WWAN are customer upgradable												
Intel 5300 ²⁸	11a/b/g/n wireless ⁴ , Mini PCIe adapter, Intel WiFi Link 5300, 3x3 (Shirley Peak)												
WWAN upg	Wireless WAN upgradable, requires Verizon® (43R9151) or AT&T® (43R9152)												
Turbo Memory	None												
UWB	None												
Modem	None (use optional USB-based modem)												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH, LED indicator												
Ethernet	Intel 82567LM Gigabit Network Connection (Boazman), PHY, PCIe x1												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, AD1984A codec / stereo speakers, 1 watt / volume up, down, mute buttons / digital microphone, mic input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	Trusted Platform Module, integrated in ICH9M, TCG 1.2-compliant												
Fingerprint reader	Fingerprint reader on palm rest, swipe sensor, supports the security chip												
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US model announced February 17, 2009
US model withdrawn effective July 2009

↳ Intel Centrino® 2 with vPro™ technology

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(KOD2-5) July 2009

Memory**X300:**

1GB PC2-5300 DDR2 SODIMM	40Y7734	ann	01/05/06
1GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0502	ann	03/17/09
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann	11/28/06
2GB PC2-5300 DDR2 SODIMM (25-Pack)	51J0548	ann	03/17/09

X301:

1GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3706	ann	06/23/09
1GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4385	ann	06/23/09
2GB PC3-8500 DDR3 Low-Halogen SODIMM	55Y3707	ann	06/23/09
2GB PC3-8500 DDR3 L-H SODIMM (25-Pack)	57Y4386	ann	06/23/09

Storage and removable storage**X301:**

1.8" 250GB Disk SATA 3.0Gb/s (5400 rpm)	43N3418	ann	06/23/09
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All:

128GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3406	ann	08/26/08
256GB FDE SSD SATA 3Gb/s 1.8"(2.5" cover)	43N3417	ann	06/23/09
USB 2.0 Portable 320GB Hard Disk	45K1689	ann	03/17/09
USB 2.0 Portable 500GB Hard Disk	45K1690	ann	05/26/09
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann	11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann	11/18/08
eSATA/USB 2.0 Secure 500GB Hard Drive	57Y4400	ann	01/07/10
USB 2.0 Portable DVD Burner	43N3264	ann	01/05/10

Wireless WAN (Mini PCI Express)**X301 WWAN upgradable models:**

Verizon® WWAN UNDP Broadband Mini PCIe	43R9151	ann	08/05/08
AT&T® WWAN HSPA Broadband Mini PCIe	43R9152	ann	08/26/08

ThinkPad Expansion

Lenovo® Essential Notebook Stand	45J9292	ann	05/12/09
USB Port Replicator with Digital Video	45K1610	ann	07/28/09

Keyboard

TrackPoint Cap Collection	73P2698	ann	12/16/03
USB Numeric Keypad	33L3225	ann	05/01/00
Preferred Pro USB Keyboard	73P5220	ann	06/21/05
Enhanced Performance USB Keyboard	73P2620	ann	03/23/04
UltraSlim Wireless Keyboard and Mouse ⁵²	57Y4700	ann	09/15/09
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.			
ThinkPad USB Keyboard with TrackPoint	55Y9003	ann	08/18/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann	02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann	03/24/09

Mouse

Lenovo Optical Mouse (USB)	06P4069	ann	05/21/03
Lenovo Laser Mouse (USB)	41U3074	ann	01/23/07
ThinkPad USB Laser Mouse	57Y4635	ann	12/15/09
Lenovo ScrollPoint® Mouse (USB, Optical)	31P7405	ann	08/27/02
ThinkPad Travel Mouse (USB, Optical)	31P7410	ann	06/04/02
ThinkPad Bluetooth Laser Mouse	41U5008	ann	01/22/08

Security

Kensington® MicroSaver® Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10

Multimedia

ThinkPad In-Ear Headphones	57Y4488	ann	01/07/10
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Modem

USB 2.0 Lenovo Modem	43R1814	ann	02/26/08
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Batteries

ThinkPad Battery 49 (3-cell)	43R1965	ann	02/26/08
ThinkPad Battery 49+ (6-cell)	43R1967	ann	02/26/08
ThinkPad Battery 50 (3-cell, bay)	43R1966	ann	02/26/08
ThinkPad External Battery Charger	40Y7625	ann	09/20/05

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter	40Y7696	ann	01/05/06
ThinkPad 90W AC Adapter	40Y7659	ann	09/20/05
90W UltraSlim AC/DC Combo Adapter	41R4493	ann	09/22/09

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W UltraSlim AC/DC Combo Adapter 41R4493

•Palm device charge tip (L7)	41R4315	ann	12/18/07
•BlackBerry charge tip (L8a)	41R4478	ann	12/18/07
•iPod and iPhone Charge Tip (L10a)	41R4481	ann	12/18/07
•Generic Micro USB charge tip (L18)	41R4490	ann	01/06/09

More information at www.lenovopowertips.com

Carrying Cases**Up to 13.3" widescreen models:**

ThinkPad Ultraportable Case	41U5062	ann	05/13/08
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Up to 15.4" widescreen models:

ThinkPad 15W Case Sleeve	51J0477	ann	08/18/09
Lenovo Business Messenger Case	51J0475	ann	08/18/09
Lenovo Messenger Max	41U5253	ann	05/01/07
Lenovo Performance Backpack	41U5254	ann	05/01/07
ThinkPad Business Topload Case	43R2476	ann	05/13/08
ThinkPad Business Backpack	43R2482	ann	05/13/08
ThinkPad Deluxe Expander Case	43R2478	ann	05/13/08
ThinkPad Executive Leather Case	43R2480	ann	05/13/08

More information at www.lenovo.com/support/cases

Lenovo luxury cases at www.lenovoluxurycases.com

Monitors

Lenovo L2230x Wide 21.5" Monitor	5453HB1	ann	06/10/10
ThinkVision® L1711p 17" Monitor	5047HB2	ann	10/20/09
ThinkVision L1900p 19" Monitor	4431HE1	ann	11/11/08
ThinkVision L1951p Wide 19" Monitor	2448HB6	ann	10/20/09
ThinkVision L2250p Wide 22" Monitor	2572HB6	ann	10/20/09
ThinkVision L2251p Wide 22" Monitor	2572HD6	ann	10/20/09
ThinkVision L2251x Wide 22" Monitor	2578HB6	ann	10/20/09
ThinkVision L2321x Wide 23" Monitor	4014HB6	ann	06/10/10
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann	09/17/08

Monitor Accessories⁴⁶

Lenovo DisplayPort to VGA Monitor Cable	57Y4393	ann	08/04/09
DisplayPort to Single-link DVI-D Cable	45J7915	ann	08/05/08

All:

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann	05/12/09
ThinkVision USB Soundbar	40Y7616	ann	08/23/05
ThinkVision Soundbar	45K1263	ann	09/16/08
Kensington MicroSaver Cable Lock	73P2582	ann	12/29/03
Kensington Twin Head Cable Lock	45K1620	ann	09/30/08
Lenovo Security Cable Lock	57Y4303	ann	08/24/10
Lenovo Easy Reach Monitor Stand	55Y9258	ann	09/22/09

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on ThinkPad accessories, please visit:

www.lenovo.com/support/accessories
www.lenovo.com/support/notebookaccessories
www.lenovo.com/support/security

Other accessories at www.lenovo.com/accessories

Accessories Guide pdf at www.lenovo.com/accessoriesguide

ThinkPad®



Lenovo® ThinkPad X1 with
ThinkPad Battery 39+ (6-cell slice)
0A36279



Lenovo ThinkPad X1



Lenovo ThinkPad X1



Lenovo ThinkPad X1



Lenovo ThinkPad X1



Lenovo ThinkPad X1

ThinkPad® X1 (1286) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ³ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Finger print reader	Blue-tooth	Ext Battery cells	Intel AMT	Intel vPro	Preload(mm/yy)	Ann Date
1286-2XU	i7-2620M	4GBx1	13.3" HD Prem	720p	160G SSD	Intel 6300	WWAN upg	Finger	BT	No	iAMT	No	Pro 32	08/11
1286-3LU	i7-2640M	4GBx1	13.3" HD Prem	720p	160G SSD	Intel 6300	WWAN upg	Finger	BT	No	iAMT	vPro	Pro 64	12/11

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning Processor	<i>Premiere mobility, performance, and style; one spindle</i> Intel® Core™ i7-2620M processor (dual-core, 2.70GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.40GHz), HT technology Intel Core i7-2640M processor (dual-core, 2.80GHz, 4MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.50GHz), HT technology										Preloaded operating system²⁰ <i>Some:</i> Genuine Windows® 7 Professional 32 <i>Some:</i> Genuine Windows 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, one 204-pin SO-DIMM socket (8GB is maximum memory for Lenovo® installed only, and 4GB is maximum memory when customer installed using 4GB PC3-10600 DDR3 L-H SODIMM 55Y3711)										Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage® System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo® SimpleTap
Optical Disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive										Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate
mSATA™ SSD	None										
Display	(Premium) 13.3" (338mm) HD (1366x768) TFT color , anti-glare display with glossy infinity Corning® Gorilla® Glass LED backlight, 350 nits, 16:9 aspect ratio, 300:1 contrast ratio										
Camera	HD720p resolution, wide view angle, low light sensitive, fixed focus										
Graphics	Intel HD Graphics 3000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort™ (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution:</i> 2560x1600 (Mini-DisplayPort)@60Hz; 1920x1200 (HDMI)@60Hz										
Keyboard TrackPoint®	6 row, ThinkVantage® button, LED backlit, spill-resistant, multimedia Fn keys										
Touchpad	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³										
ThinkLight™	UltraNav™, buttonless touchpad below keyboard, multi-touch										
Dimensions ³	13.3W" (WxDxH): 13.26" x 9.1" x 0.65-0.84"; 337mm x 231.1mm x 16.5-21.3mm										
Weight ²	<i>Integrated battery:</i> from 3.73 lb (1.69kg); <i>integrated plus slice battery:</i> from 4.52 lb (2.05kg)										
Case material	<i>Display cover:</i> Magnesium/Aluminum + PC/ABS; <i>Bottom:</i> Magnesium/Aluminum										
Standard Battery	Integrated Lithium Polymer 4-cell RapidCharge battery, 1000 cycle, supports standard or optional external 6-cell slice battery (0A36279) as 2nd battery										
Extended Battery	None										
Battery - life ¹⁰	<i>Integrated battery (38.4Whr):</i> up to 5.2 hr; <i>integrated plus slice battery (35.5Whr):</i> up to 10 hr										
Chipset	Mobile Intel QM67 Express Chipset										
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)										
ExpressCard	None										
Ports	One USB 3.0, one USB 2.0, one powered USB 2.0/eSATA combo port, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)										
PCIe Mini Card	Two PCI Express® Mini Card slots										Supports ThinkVantage technologies 90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
PCIe WLAN ⁴	11a/b/g/n ²⁸ , PCIe Half Mini Card, Intel Centrino® Ultimate-N 6300, 3x3										
PCIe WWAN	Wireless WAN upgradable										
Modem	None										
Bluetooth™	Bluetooth 3.0 wireless, LED indicator										
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1										
Intel AMT	Intel Active Management Technology (iAMT)										
Audio support	HD Audio, Conexant 20672 codec, Dolby® Home Theater® v4 / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch										
Security chip	Trusted Platform Module, TCG 1.2-compliant										
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip										
Limited Warranty ¹²	1-year - depot repair service / service upgrades ²² available										For compatible accessories, please go to O-X1 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information

US model(s) announced August 2 or December 13, 2011

US model(s) withdrawn effective December 2012

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(NGNT1-4) February 2013

ThinkPad® X1 (1291) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ^s rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN	Carrier	Finger print reader	Blue-tooth	Ext Battery cells	Intel AMT	Intel vPro	Preload
1291-2UU	i5-2520M	4GBx1	13.3" HD Prem	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	No	iAMT	vPro	Prem 64
1291-2TU	i5-2520M	4GBx1	13.3" HD Prem	720p	160G SSD	Intel 6205	Gobi 3000 selectable		Finger	BT	No	iAMT	vPro	Pro 64
1291-27U	i5-2520M	4GBx1	13.3" HD Prem	720p	160G SSD	Intel 6300	WWAN upg	None	Finger	BT	No	iAMT	vPro	Pro 64
1291-26U	i5-2520M	4GBx1	13.3" HD Prem	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	No	iAMT	vPro	Pro 64
1291-22U	i5-2520M	4GBx1	13.3" HD Prem	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	BT	6	iAMT	vPro	Pro 64
1291-3CU	i5-2520M	8GBx1	13.3" HD Prem	720p	160G SSD	Intel 1000	WWAN upg	None	Finger	BT	No	No	No	Pro 64
1291-3DU	i3-2350M	4GBx1	13.3" HD Prem	720p	128G SSD	Intel 1000	WWAN upg	None	Finger	BT	No	No	No	Pro 64

- Small and medium business (SMB) model(s), part of the US TopSeller™ Program
- A depot repair service 3-year limited warranty
- Microsoft® Office 2010 Product Key Ready (O10PKR)

Positioning	<i>Premiere mobility, performance, and style; one spindle</i>											Preloaded operating system ²⁰
Processor	Intel® Core™ i3-2350M processor (dual-core, 2.30GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), HT technology Intel Core i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology											Some: Genuine Windows® 7 Home Premium 64 Some: Genuine Windows 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, one 204-pin SO-DIMM socket (8GB is maximum memory for Lenovo® installed only, and 4GB is maximum memory when customer installed using 4GB PC3-10600 DDR3 L-H SODIMM 55Y3711)											Ready to install applications ¹⁴ (only some listed)
Optical Disk	None Some: Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high Some: Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ All: removable, upgradable, Shock Mounted Hard Drive											<ul style="list-style-type: none"> • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage® System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo® SimpleTap
mSATA™ SSD	None											
Display	(Premium) 13.3" (338mm) HD (1366x768) TFT color, anti-glare display with glossy infinity Corning® Gorilla® Glass LED backlight, 350 nits, 16:9 aspect ratio, 300:1 contrast ratio											
Camera	HD720p resolution, wide view angle, low light sensitive, fixed focus											
Graphics	Intel HD Graphics 3000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort™ (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; Max external resolution: 2560x1600 (Mini-DisplayPort)@60Hz; 1920x1200 (HDMI)@60Hz											Preloaded applications ¹⁴ (only some listed) <ul style="list-style-type: none"> • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft® Office 2010 preloaded; purchase product key to activate
Keyboard	6 row, ThinkVantage® button, LED backlit, spill-resistant, multimedia Fn keys											
TrackPoint®	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar ¹³											
Touchpad	UltraNav™, buttonless touchpad below keyboard, multi-touch											
ThinkLight™	None											
Dimensions ³	13.3W" (WxDxH): 13.26" x 9.1" x 0.65-0.84"; 337mm x 231.1mm x 16.5-21.3mm											
Weight ²	Integrated battery: from 3.73 lb (1.69kg); integrated plus slice battery: from 4.52 lb (2.05kg)											
Case material	Display cover: Magnesium/Aluminum + PC/ABS; Bottom: Magnesium/Aluminum											
Standard Battery	Integrated Lithium Polymer 4-cell RapidCharge battery, 1000 cycle, supports standard or optional external 6-cell slice battery (0A36279) as 2nd battery											
Extended Battery Battery - life ¹⁰	Some: Lithium Polymer 6-cell slice battery (ThinkPad Battery 39+, 0A36279), RapidCharge Integrated battery (38.4Whr): up to 5.2 hr; integrated plus slice battery (35.5Whr): up to 10 hr											
Chipset	Mobile Intel QM67 Express Chipset											
Multicard reader	4-in-1 reader (SD, SDHC, SDXC, MMC)											
ExpressCard	None											
Ports	One USB 3.0, one USB 2.0, one powered USB 2.0/eSATA combo port, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)											
PCIe Mini Card	Two PCI Express® Mini Card slots											
PCIe WLAN ⁴	Some: 11b/g/n wireless, PCIe Half Mini Card, Intel Centrino® Wireless-N 1000, 1x2 Some: 11a/b/g/n ²⁸ , PCIe Half Mini Card, Intel Centrino Advanced-N 6205, 2x2 Some: 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3											
PCIe WWAN	Some: Wireless WAN upgradable Some: Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS Some: User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider											Supports ThinkVantage technologies
Modem	None											
Bluetooth™	Bluetooth 3.0 wireless, LED indicator											
Ethernet	Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1											
Intel AMT	Some: Intel Active Management Technology (iAMT)											
Audio support	HD Audio, Conexant 20672 codec, Dolby® Home Theater® v4 / stereo speaker, 1 watt x 2 / volume up, down, mute buttons / dual array mic, mic mute button, combo audio/mic jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole, reset switch											
Security chip	Trusted Platform Module, TCG 1.2-compliant											
Fingerprint reader	UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip											For compatible accessories, please go to O-X1 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited Warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available											

See footnotes for more detailed information

US model(s) announced May 17, May 24, August 2, or October 4, 2011

US model(s) withdrawn effective December 2012

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(NGNT1-1) February 2013

ThinkPad® X1 (1293) - withdrawn

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Finger print reader	Blue-tooth	Ext Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
1293-3EU	i5-2520M	4GBx1	13.3" HD Prem	720p	160G SSD	Intel 6205 ²⁸	WWAN upg		Finger	Blue		vPro		Prem 64
1293-3DU	i5-2520M	4GBx1	13.3" HD Prem	720p	160G SSD	Intel 6300 ²⁸	WWAN upg		Finger	Blue		vPro	G	Pro 64
1293-3CU	i5-2520M	4GBx1	13.3" HD Prem	720p	128G SSD	Intel 6205	Gobi 3000	selectable	Finger	Blue		vPro		Pro 64
1293-2DU	i5-2520M	8GBx1	13.3" HD Prem	720p	160G SSD	Intel 6300	WWAN upg		Finger	Blue		vPro		Pro 64
1293-2CU	i5-2520M	4GBx1	13.3" HD Prem	720p	320G 7200	Intel 6205	WWAN upg		Finger	Blue		vPro	G	Pro 64
1293-2BU	i5-2520M	4GBx1	13.3" HD Prem	720p	128G SSD	Intel 6205	WWAN upg		Finger	Blue		vPro	G	Pro 64
1293-23U	i5-2520M	4GBx1	13.3" HD Prem	720p	320G 7200	Intel 6205	WWAN upg		Finger	Blue	6	vPro	G	Pro 64
1293-22U	i5-2520M	8GBx1	13.3" HD Prem	720p	128G SSD	Intel 6205	WWAN upg		Finger	Blue	6	vPro	G	Pro 64

- **These models have a depot repair service 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere mobility, performance, and style; one spindle</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	Preloaded operating system²⁰ - <i>Some:</i> Genuine Windows® 7 Home Premium 64 - <i>Some:</i> Genuine Windows 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, one 204-pin SO-DIMM socket (8GB is maximum memory for Lenovo installed only, and 4GB is maximum memory when customer installed using <i>4GB PC3-10600 DDR3 L-H SODIMM 55Y3711</i>)	Ready to install applications¹⁴ (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive	Preloaded applications¹⁴ (all OSes; only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
mSATA™ SSD	None	
Widescreen display	(Premium) 13.3" (338mm) HD (1366x768) TFT color, anti-glare display with glossy infinity Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort (supports VGA analog monitor via Mini DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution:</i> 2560x1600 (Mini-DisplayPort)@60Hz; 1920x1200 (HDMI)@60Hz	
Keyboard TrackPoint® Touchpad ThinkLight™	6 row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case material Standard Battery	<i>13.3W" (WxDxH):</i> 13.26" x 9.1" x 0.65-0.84"; 337mm x 231.1mm x 16.5-21.3mm <i>Integrated battery:</i> from 3.73 lb (1.69kg); <i>integrated plus slice battery:</i> from 4.52 lb (2.05kg) <i>Display cover:</i> Magnesium/Aluminum + PC/ABS; <i>Bottom:</i> Magnesium/Aluminum Integrated Lithium Polymer 4-cell RapidCharge battery, 1000 cycle, supports standard or optional external 6-cell slice battery (0A36279) as 2nd battery	
Extended Battery Battery - life ¹⁰	<i>Some:</i> Lithium Polymer 6-cell slice battery (ThinkPad Battery 39+, 0A36279), RapidCharge <i>Integrated battery (38.4Whr):</i> up to 5.2 hr; <i>integrated plus slice battery (35.5Whr):</i> up to 10 hr	
Chipset	Mobile Intel QM67 Express Chipset	
Multicard reader ExpressCard Ports	4-in-1 reader (SD, SDHC, SDXC, MMC) None One USB 3.0, one USB 2.0, one powered USB 2.0/eSATA combo port, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 <i>Some:</i> Wireless WAN upgradable <i>Some:</i> Wireless WAN, Qualcomm® Gobi™ 3000 chipset, PCIe Mini Card, EV-DO Rev. A, GPRS/WCDMA/HSPA, GPS <i>Some:</i> User selectable at first boot, AT&T®, Verizon®, or Sprint®, contract required with service provider	Supports ThinkVantage® technologies
Modem Bluetooth™ Ethernet Intel AMT Audio support	None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Conexant 20672 codec, Dolby® Home Theater® v4 / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole, reset switch	90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Security Security chip Fingerprint reader	Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	For compatible accessories, please go to O-X1 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet
Limited warranty ¹²	3-years/1-yr battery - depot repair service / service upgrades ²² available	

See footnotes for more detailed information
US model(s) announced May 17 or May 24, 2011
US model(s) withdrawn effective December 2012

ThinkPad® X1 (1294) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Memory	Widescreen display	Camera	Disk SATA GB ⁵ rpm	PCIe Mini Card WLAN	PCIe Mini Card WWAN/mSATA	Carrier	Finger print reader	Blue-tooth	Ext Battery cells	Intel vPro	Global (G) GMP (P)	Pre-load
1294-3DU	i5-2520M	4GBx1	13.3" HD Prem	720p	160G SSD	Intel 6300 ²⁸	WWAN upg	None	Finger	Blue		vPro	G P	Pro 64
1294-2CU	i5-2520M	4GBx1	13.3" HD Prem	720p	320G 7200	Intel 6205 ²⁸	WWAN upg	None	Finger	Blue		vPro	G P	Pro 64
1294-2BU	i5-2520M	4GBx1	13.3" HD Prem	720p	128G SSD	Intel 6205	WWAN upg	None	Finger	Blue		vPro	G P	Pro 64
1294-23U	i5-2520M	4GBx1	13.3" HD Prem	720p	320G 7200	Intel 6205	WWAN upg	None	Finger	Blue	6	vPro	G P	Pro 64
1294-22U	i5-2520M	8GBx1	13.3" HD Prem	720p	128G SSD	Intel 6205	WWAN upg	None	Finger	Blue	6	vPro	G P	Pro 64

- **These models are part of the Global Models Plus program with limited onsite service²⁴ 3-year limited warranty**
- **These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)**

Positioning Processor	<i>Premiere mobility, performance, and style; one spindle</i> Intel® Core™ i5-2520M processor (dual-core, 2.50GHz, 3MB Cache), DDR3 memory controller (up to 1333MHz), Intel Turbo Boost 2.0 (3.20GHz), HT technology	Preloaded operating system²⁰ - Genuine Windows® 7 Professional 64
Memory	8GB max ⁷ / PC3-10600 1333MHz DDR3, non-parity, one 204-pin SO-DIMM socket (8GB is maximum memory for Lenovo installed only, and 4GB is maximum memory when customer installed using <i>4GB PC3-10600 DDR3 L-H SODIMM 55Y3711</i>)	Ready to install applications¹⁴ (only some listed) • Rescue and Recovery™ • Access Connections™ • Fingerprint Software (fingerprint models) • Password Manager (fingerprint models) • ThinkVantage System Update • ThinkVantage Power Manager • ThinkVantage Toolbox • Lenovo SimpleTap
Optical SATA disk	None <i>Some:</i> Solid State Drive (SSD) / SATA 3.0Gb/s, 2.5" wide, 7mm high <i>Some:</i> Hard Disk Drive / SATA 3.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ <i>All:</i> removable, upgradable, Shock Mounted Hard Drive	Preloaded applications¹⁴ (only some listed) • Norton™ Internet Security 2011 (30 days of virus definitions) • Adobe® Reader® • Skype™ for Windows • Windows Live™ Essentials • Microsoft Office 2010 preloaded; purchase product key to activate
mSATA™ SSD	None	
Widescreen display	(Premium) 13.3" (338mm) HD (1366x768) TFT color, anti-glare display with glossy infinity Corning® Gorilla® Glass, LED backlight, 350 nits, 16:9 aspect ratio, 300:1 contrast ratio	
Camera	HD720p resolution, wide view angle, low light sensitive, fixed focus	
Graphics	Intel HD Graphics 3000 in processor, external digital monitor support via HDMI™ or Mini DisplayPort (supports VGA analog monitor via Mini-DisplayPort to VGA Monitor Cable 0A36536); supports dual independent display; <i>Max external resolution:</i> 2560x1600 (Mini DisplayPort)@60Hz; 1920x1200 (HDMI)@60Hz	
Keyboard TrackPoint® Touchpad ThinkLight™	6 row, ThinkVantage button, LED backlit, spill-resistant, multimedia Fn keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ UltraNav™, buttonless touchpad below keyboard, multi-touch None	
Dimensions ³ Weight ² Case material Standard Battery	<i>13.3W" (WxDxH):</i> 13.26" x 9.1" x 0.65-0.84"; 337mm x 231.1mm x 16.5-21.3mm <i>Integrated battery:</i> from 3.73 lb (1.69kg); <i>integrated plus slice battery:</i> from 4.52 lb (2.05kg) <i>Display cover:</i> Magnesium/Aluminum + PC/ABS; <i>Bottom:</i> Magnesium/Aluminum Integrated Lithium Polymer 4-cell RapidCharge battery, 1000 cycle, supports standard or optional external 6-cell slice battery (0A36279) as 2nd battery	
Extended Battery Battery - life ¹⁰	<i>Some:</i> Lithium Polymer 6-cell slice battery (ThinkPad Battery 39+, 0A36279), RapidCharge <i>Integrated battery (38.4Whr):</i> up to 5.2 hr; <i>integrated plus slice battery (35.5Whr):</i> up to 10 hr	
Chipset	Mobile Intel QM67 Express Chipset	
Multicard reader ExpressCard Ports	4-in-1 reader (SD, SDHC, SDXC, MMC) None One USB 3.0, one USB 2.0, one powered USB 2.0/eSATA combo port, external monitor (Mini DisplayPort, HDMI), ethernet (RJ-45)	
PCIe Mini Card WLAN ⁴ WWAN Modem Bluetooth™ Ethernet Intel AMT Audio support Security Security chip Fingerprint reader	Two PCI Express Mini Card slots <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino® Advanced-N 6205, 2x2 <i>Some:</i> 11a/b/g/n, PCIe Half Mini Card, Intel Centrino Ultimate-N 6300, 3x3 Wireless WAN upgradable None Bluetooth 3.0 wireless, LED indicator Intel 82579LM Gigabit Network Connection (Lewisville), PHY, PCIe x1 Intel Active Management Technology (iAMT) HD Audio, Conexant 20672 codec, Dolby® Home Theater® v4 / stereo speakers, 1 watt x 2 / volume up, down, mute buttons / dual array microphone, mic mute button, combo audio/mic jack Power-on password, hard disk password, supervisor password, security keyhole, reset switch Trusted Platform Module, TCG 1.2-compliant UPEK Fingerprint reader on palm rest, swipe sensor, LED indicator, Power On Authentication, supports the security chip	Supports ThinkVantage® technologies 90-watt AC Adapter (RapidCharge) ThinkPad Roll Cage (one-piece magnesium frame) EPEAT™ Gold rating ENERGY STAR® 5.0-compliant ROHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free support during the warranty period ¹²
Limited warranty ¹²	3-years/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades ²² available	For compatible accessories, please go to O-X1 sheet; For Lenovo service ²² upgrade options, please go to S-TA sheet

See footnotes for more detailed information
US model(s) announced May 17 or May 24, 2011
US model(s) withdrawn effective December 2012

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ThinkPad® X1 Accessories - withdrawn

Personal Systems Reference (PSREF)

Memory⁶⁵

4GB PC3-10600 DDR3 L-H SODIMM 55Y3711 *ann 03/02/10*
⁶⁵ ThinkPad X1 has only one SO-DIMM socket and doesn't support adding additional memory.

Storage and removable storage

USB 2.0 Portable 320GB Hard Disk 45K1689 *ann 03/17/09*
 USB 2.0 Portable 500GB Hard Disk 45K1690 *ann 05/26/09*
 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 *ann 11/18/08*
 USB 3.0 Secure 500GB Hard Drive 0A65619 *ann 11/29/11*
 USB 3.0 Secure 750GB Hard Drive 0A65616 *ann 11/29/11*
 USB 3.0 Secure 1TB Hard Drive 0A65621 *ann 08/28/12*
 Lenovo Slim USB Portable DVD Burner 0A33988 *ann 06/14/11*

Wireless WAN (Mini PCI Express)

Only WWAN upgradable models:
 ThinkPad Gobi™ Mobile Broadband Option 0A36185 *ann 04/12/11*

ThinkPad Expansion

USB 2.0 Port Replicator with Digital Video 0A33942 *ann 03/22/11*
 ThinkPad USB 3.0 Dock 0A33970 *ann 05/15/12*
 Lenovo® Essential Notebook Stand 45J9292 *ann 05/12/09*

Keyboard

TrackPoint Cap Collection 73P2698 *ann 12/16/03*
 UltraSlim Plus Wireless Keyboard and Mouse⁵² 0A34032 *ann 04/05/11*
 USB Numeric Keypad 33L3225 *ann 05/01/00*
 Preferred Pro USB Keyboard 73P5220 *ann 06/21/05*
 Enhanced Performance USB Keyboard 73P2620 *ann 03/23/04*
 ThinkPad USB Keyboard with TrackPoint 55Y9003 *ann 08/18/09*
 Lenovo® USB Fingerprint Keyboard 73P4730 *ann 02/22/05*
 Lenovo USB Smartcard Keyboard 51J0155 *ann 03/24/09*
⁵² Wireless via 2.4GHz technology using a micro-size USB receiver.

Mouse

Lenovo Optical Mouse (USB) 06P4069 *ann 05/21/03*
 Lenovo Laser Mouse (USB) 41U3074 *ann 01/23/07*
 ThinkPad USB Laser Mouse 57Y4635 *ann 12/15/09*
 Lenovo ScrollPoint® Mouse (USB, Optical) 31P7405 *ann 08/27/02*
 ThinkPad Travel Mouse (USB, Optical) 31P7410 *ann 06/04/02*
 ThinkPad Bluetooth Laser Mouse 0A36407 *ann 06/26/12*
 Lenovo Wireless Laser Mouse⁵² 0A36188 *ann 12/20/11*

Multimedia

ThinkPad In-Ear Headphones with microphone 57Y4488 *ann 01/07/10*

Modem

USB 2.0 Lenovo Modem 43R1814 *ann 02/26/08*

Security

Lenovo Security Cable Lock 57Y4303 *ann 08/24/10*
 USB Gemplus GemPC Smart Card Reader 41N3040 *ann 02/21/06*

Batteries

ThinkPad Battery 39+ (6-cell, slice) 0A36279 *ann 05/24/11*
 ThinkPad External Battery Charger⁴⁴ 40Y7625 *ann 09/20/05*
⁴⁴ Requires the *ThinkPad 90W AC Adapter 40Y7659* or the adapter provided with the system.

More information at www.lenovo.com/alldaycomputing

ThinkPad 65W AC Adapter⁶³ 40Y7696 *ann 01/05/06*
⁶³ *ThinkPad 65W AC Adapter 40Y7696* supports "Rapid Charge" only when ThinkPad X1 system is off.
 ThinkPad 90W AC Adapter 40Y7659 *ann 09/20/05*
 90W UltraSlim AC/DC Combo Adapter 41R4493 *ann 09/22/09*

More info at www.lenovo.com/support/poweradapters

Charging tips for 90W UltraSlim AC/DC Combo Adapter 41R4493
 • iPod and iPhone Charge Tip (L10a) 41R4481 *ann 12/18/07*
 • Generic Micro USB charge tip (L18) 41R4490 *ann 01/06/09*

More information at www.lenovopowertips.com

Carrying Cases

Up to 13.3" widescreen models:
 ThinkPad Ultraportable Case 41U5062 *ann 05/13/08*
Up to 14" widescreen models:
 ThinkPad 14W Case Sleeve 57Y4294 *ann 03/16/10*

Up to 15.6" widescreen models:
 Lenovo Messenger Max 41U5253 *ann 05/01/07*
 Lenovo Performance Backpack 41U5254 *ann 05/01/07*
 ThinkPad Business Topload Case 43R2476 *ann 05/13/08*
 ThinkPad Business Backpack 43R2482 *ann 05/13/08*
 ThinkPad Deluxe Expander Case 43R2478 *ann 05/13/08*
 ThinkPad Executive Leather Case 43R2480 *ann 05/13/08*
 Lenovo Sport Backpack - Red 0A33896 *ann 02/28/12*
 Lenovo Sport Slimcase - Red 0A33897 *ann 02/28/12*
 Lenovo Sport Messenger - Red 0A33898 *ann 02/28/12*

More information at www.lenovo.com/support/cases
 Lenovo luxury cases at www.lenovoluxurycases.com

Monitors⁶⁴

ThinkVision® L1711p 17" (VGA, DVI-D) 5047HB2 *ann 10/20/09*
 ThinkVision L1900p 19" (VGA, DVI-D) 4431HE1 *ann 11/11/08*
 ThinkVision LT1952p Wide 19" (VGA, DP, DVI-D)⁶⁹ 2448MB6 *ann 09/13/11*
 ThinkVision L2250p Wide 22" (VGA, DVI-D) 2572HB6 *ann 10/20/09*
 ThinkVision L2251x Wide 22" (VGA, DP) 2578HB6 *ann 10/20/09*
 ThinkVision LT2252p Wide 22" (VGA, DP, DVI-D)⁶⁹ 2572MB6 *ann 09/13/11*
 ThinkVision LT2452p Wide 24" (VGA, DP, DVI-D)⁶⁹ 4420MB2 *ann 09/13/11*
 Lenovo LS2421p Wide 23.6" (VGA, HDMI) 4015LS1 *ann 08/02/11*

⁶⁴ Requires the *Lenovo Mini-DisplayPort to VGA Monitor Cable 0A36536*
⁶⁹ DisplayPort cable is not included.
 ThinkVision LT1421 Wide 14" Mobile Monitor with Protective Screen Cover (USB 2.0) 1452DS6 *ann 08/16/11*

More information at www.lenovo.com/support/monitors

Monitor Accessories⁴⁶

Lenovo USB-to-DVI Monitor Adapter 45K5296 *ann 05/12/09*
 Lenovo HDMI to VGA Monitor Cable 0B47069 *ann 06/26/12*
 Lenovo Mini-DisplayPort to VGA Monitor Cable 0A36536 *ann 05/17/11*
 Mini-DisplayPort to Single-link DVI Monitor Cable 0B47090 *ann 06/26/12*
 Mini-DisplayPort to DisplayPort Monitor Cable 0B47091 *ann 07/24/12*
 Lenovo USB Soundbar 0A36190 *ann 05/01/12*
 Lenovo Security Cable Lock 57Y4303 *ann 08/24/10*
 Lenovo Easy Reach Monitor Stand 55Y9258 *ann 09/22/09*

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

More information at www.lenovo.com/support/monitoraccessories

For more information on accessories:

www.lenovo.com/accessories

Purchase Lenovo accessories

www.lenovo.com/support/accessories

Product specifications on Lenovo Support

www.lenovo.com/accessoriesguide

Option Compatibility Matrix (OCM) and accessory brochures

www.lenovoquickpick.com

An Options Compatibility Configurator for Lenovo systems

ThinkPad® G40 (January 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Battery	Workhorse (W) or Global (G) or Entry (E)	Avail date
2388-DAU	Celeron®	2.4	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	6-cell Li-Ion	XP Pro Entry	Jan 2004
2388-DGU	Celeron	2.4	256MB	14.1" XGA	30GB	CD	None	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-DMU	Celeron	2.4	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-DVU	Celeron	2.4	256MB	15.0" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-DXU	Celeron	2.4	256MB	15.0" XGA	40GB	Combo	11b Wi-Fi ³²	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-EJU	Pentium® 4	2.8	256MB	15.0" XGA	60GB	Combo	11a/b Wi-Fi ²⁷	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-EKU	Pentium 4	2.8	256MB	15.0" SXGA+	60GB	Combo	11a/b Wi-Fi	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-ENU	Pentium 4	3.0	256MB	15.0" XGA	40GB	Combo	11a/b Wi-Fi	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
Positioning Processor	Powerful desktop replacement; three-spindle system Intel® Celeron 2.4GHz³⁷ with 400MHz system bus or Intel Pentium 4 at 2.8 or 3.0GHz³⁷ with 400MHz system bus										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Access IBM • Access Connections • Adobe Reader • Rapid Restore™ PC • RecordNow and Drive Letter Access (combo models) • InterVideo WinDVD (combo) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ ¹⁵ Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
L2 cache	Celeron: 128KB ; Pentium 4: 512KB ; All: on die (at processor speed) / ECC											
Memory	128 or 256MB std / 1GB max ⁷ / PC2100 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											
Diskette drive	3.5" 1.44MB / fixed, not removable / 12.7mm high											
CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high											
Combo	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / fixed, not removable / 12.7mm											
Disk	20GB⁸ or 40GB or 60GB , 4200 rpm, 9.5mm high / removable / 9.5mm high bay											
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand											
Graphics	Integrated Intel Extreme™ Graphics / Direct AGP / in 852GM GMCH / uses main memory (8 to 32MB with 128MB memory; 8 to 64MB with 256MB+) / 133MHz / DMVT											
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)											
ComfortSlant	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap											
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™											
Dimensions ³	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume : 4 liters											
Weight ²	with optical drive and battery: DAU : 7.64 lb (3.47kg); DGU : 8.24 lb (3.75kg); DMU : 8.36 lb (3.80kg); DVU/DXU/EJU : 8.54 lb (3.88kg); EKU : 8.58 lb (3.90kg); ENU : 8.85 lb (4.02kg);											
Case material	Color : black; All : Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic											
Battery - type	Lithium Ion 6 or 12-cell / intelligent / removable											
Battery - life ¹⁰	DAU : 1.50 hr; DGU/DMU/DVU/DXU : 3.0 hr; EJU/EKU : 2.8 hr; ENU : 2.0 hr											
Architecture	Intel 852GM chipset / 82852GM Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1410A CardBus controller, Mini PCI) / LPC bus 33MHz (PC87393F Super I/O for diskette, parallel, PS/2)											
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared											
Video out	No video out port											
IEEE 1394	None											
Wireless antenna	Some (wireless models): UltraConnect™ Antenna built into the display cover											
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable											
None	Some: empty / not customer upgradable											
11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intel® Prism 2.5 chipset											
11a/b Wi-Fi ²⁷	Some: 11a/b Wi-Fi ²⁷ wireless ⁴ , Mini PCI, Atheros™ AR5001X chipset											
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible											
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset											
Bluetooth	None											
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	None											
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery											
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad G40 Li-Ion Battery 12-cell	08K8178	ServicePac®. ²² 1yr IOR 9x5 NBD	30L9188							
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad 120W AC Adapter	22P9150	ServicePac 2 yr IOR 9x5 NBD	30L9189							
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	H Rate Wireless LAN PC Card 128	09N9904	ServicePac 3 yr IOR 9x5 NBD	30L9195							
USB 2.0 Combo Drive	73P4515	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 4 yr IOR 9x5 NBD	30L9194							
USB 2.0 Portable Multi-Burner	22P9163	ThinkPad Monitor Stand 2001	22P5265	ServicePac 5 yr IOR 9x5 NBD	30L9196							
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Nylon Carrying Case	10K0207	ServicePac 2 yr P&L P/U Depot	30L9191							
USB 2.0 Memory Key 256MB	22P9228	ThinkPad Leather Carrying Case	10K0209	ServicePac 3 yr P&L P/U Depot	30L9192							
USB 2.0 Memory Key 512MB	22P9230	Keyboard/Mouse Connector	07G3793	ServicePac 4 yr P&L P/U Depot	69P9195							
Optical 3-Button Travel Wheel Mouse	31P7410	USB Keyboard with UltraNav	31P8950	ServicePac 5 yr P&L P/U Depot	69P9197							
Optical 3-Button ScrollPoint Pro Mouse	31P8700	Enhanced Performance USB Keyboard	73P2620	Other ServicePac options at								
USB Serial Parallel Adapter	22P5298	ThinkVision® E500 Projector	0038A04	ibm.com/services/its/us/source/wamomxeu.pdf								
TrackPoint Cap Collection	73P2698	Other options at lenovo.com/options		Post-warranty annual maintenance agreements at								
GemPC400 Smart Card Reader/Writer	31P8901			ibm.com/services/its/us/source/maspspleu.pdf								

See footnotes for important warranty information
US models announced January 20, 2004
US models withdrawn effective January or December 2005

ThinkPad® G40 (Express) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Battery	Preload	Small and medium business	Avail date
2384-31U	Celeron®	2.0	256MB	15.0" XGA	20GB	DVD	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	May 2003
2384-32U	Pentium® 4	2.4	256MB	15.0" XGA	40GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	May 2003
2384-33U	Pentium 4	2.4	256MB	15.0" XGA	40GB	Combo	11b Wi-Fi ³²	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	May 2003
2384-34U	Pentium 4	2.2	256MB	15.0" XGA	40GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Aug 2003
2384-89U	Celeron	2.2	256MB	15.0" XGA	30GB	DVD	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-A9U	Pentium 4	2.6	256MB	15.0" XGA	40GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-B9U	Pentium 4	3.0	256MB	15.0" XGA	40GB	Combo	11a/b Wi-Fi ²⁷	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-7NU	Celeron	2.2	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-9JU	Pentium 4	2.6	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-ATU	Pentium 4	2.6	256MB	15.0" XGA	40GB	Combo	11a/b Wi-Fi	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-ANU	Pentium 4	2.6	256MB	15.0" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003

These small and medium business (SMB) models are part of the US Think Express Program

Positioning	Powerful desktop replacement; three-spindle system										SOFTWARE¹⁴		
Processor	Intel® Celeron 2.0 or 2.2GHz ³⁷ with 400MHz system bus or Intel Pentium 4 at 2.2, 2.4, 2.6, or 3.0GHz ³⁷ with 400MHz system bus										Windows XP Professional		
L2 cache	Celeron: 128MB; Pentium 4: 512KB; All: on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰		
Memory	256MB std / 1GB max ⁷ / PC2100 266MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	3.5" 1.44MB / fixed, not removable / 12.7mm high										Preloaded		
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / fixed, not removable / 12.7mm high										• Access IBM		
Combo Disk	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / fixed, not removable / 12.7mm 20GB ⁸ , 30GB, or 40GB / 4200 rpm / 9.5mm high / removable / 9.5mm high bay										- Access Connections		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand										• Adobe Reader		
Graphics	Integrated Intel Extreme™ Graphics / Direct AGP / in 852GM GMCH / uses main memory (8 to 32MB with 128MB memory; 8 to 64MB with 256MB+) / 133MHz / DMVT										• Rapid Restore™ PC		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• RecordNOW and DLA by Veritas (combo models)		
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle										• Norton AntiVirus (OEM edition)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• PC-Doctor™		
ComfortSlant	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort										• ThinkPad Utilities		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Update Connector™ ¹⁵		
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™										Downloadable		
Dimensions ³	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters										• IBM Director Agent		
Weight ²	with optical drive and battery: 34U: 7.9 lb (3.6kg); Others: 8.36 to 8.54 lb (3.79 to 3.87kg)										• Software Delivery Assistant		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic										• System Migration Assistant		
Battery - type	Lithium Ion 12-cell / intelligent / removable										License (CD not included)		
Battery - life ¹⁰	89U: 3.0 hr; 32U/33U: 3.3 hr; Others: 3.0 hr										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Architecture	Intel 852GM chipset / 82852GM Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1410A CardBus controller, Mini PCI) / LPC bus 33MHz (PC87393F Super I/O for diskette, parallel, PS/2)										Universal 120 watt AC adapter		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										Asset ID™ ²⁴ (system-specific info in chip accessed over network)		
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared port										PC 2001 and PXE 2.0-compliant		
Video out	No video out port										ACPI 1.0b and 2.0-compliant		
IEEE 1394	None										CIM and DMI 2.0-compliant		
Wireless antenna	None										ImageUltra™ Services available		
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable										International Warranty Service ¹⁷		
None	Some: empty / not customer upgradable										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)		
11b Wi-Fi ³²	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intersil® Prism 2.5 chipset										ServicePac ²² 1yr IOR 9x5 NBD 30L9188		
11a/b Wi-Fi ²⁷	Some: 11a/b Wi-Fi ²⁷ wireless ⁴ , Mini PCI, Atheros™ AR5001X chipset										ServicePac 2 yr IOR 9x5 NBD 30L9189		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ServicePac 3 yr IOR 9x5 NBD 30L9195		
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset										ServicePac 4 yr IOR 9x5 NBD 30L9194		
Bluetooth	None										ServicePac 5 yr IOR 9x5 NBD 30L9196		
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®										ServicePac 2 yr P&L P/U Depot 30L9191		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ServicePac 3 yr P&L P/U Depot 30L9192		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ServicePac 4 yr P&L P/U Depot 69P9195		
Security chip	None										Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf		
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery										Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/maspspleu.pdf		
Service options	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)												
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828				ThinkPad G40 Li-Ion Battery 12-cell				08K8178				
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830				ThinkPad 120W AC Adapter				22P9150				
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832				11a/b/g Wireless CardBus Adapter				31P9101				
USB Portable Diskette Drive	05K9276				ThinkPad Monitor Stand				22P5265				
USB 2.0 Portable Multi-Burner Drive	22P9163				ThinkPad Nylon Carrying Case				10K0207				
USB 2.0 Portable 80GB Hard Disk	40Y8726				ThinkPad Premiere Leather Carrying Case				10K0209				
USB 2.0 Memory Key 256MB	22P9228				Keyboard/Mouse Connector				07G3793				
USB 2.0 Memory Key 512MB	22P9230				USB Keyboard with UltraNav				31P8950				
Optical 3-Button ScrollPoint Pro Mouse	31P8700				M400 Projector				0037A04				
USB Serial Parallel Adapter	22P5298				Other options at lenovo.com/options								

See footnotes for important warranty information

US models announced May 6, July 29, or October 7, 2003

US models withdrawn effective October 2003, April 2004, January 2005, or December 2005

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(G40B) October 2005

ThinkPad® G41 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB ⁸	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery	Preload	Workhorse (W) Global (G) Avail Entry (E) date
2881-26U	Celeron® D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme™ 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-27U	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	DVD	Extreme 2	None	10/100	12-cell	XP Home	No Oct 04
2881-2GU	Celeron D 320	2.40	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g ³²	10/100	12-cell	XP Pro	No Oct 04
2881-36U	Celeron D 325	2.53	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-3GU	Celeron D 325	2.53	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-3QU	Celeron D 325	2.53	256K	256MB	15.0" XGA	No	40GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
2881-3NU	Celeron D 325	2.53	256K	128MB	15.0" XGA	No	40HS	CD	Extreme 2	None	10/100	6-cell	XP Home	No Oct 04
2881-46U	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-4AU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	6-cell	XP Pro	No Oct 04
2881-4CU	Celeron D 330	2.66	256K	256MB	15.0" XGA	Yes	40HS	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
2881-4FU	Celeron D 330	2.66	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-58U	Pentium® 4 532	3.06	1MB	256MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-59U	Pentium 4 532	3.06	1MB	256MB	14.1" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	6-cell	XP Pro	No Oct 04
2881-5AU	Pentium 4 532	3.06	1MB	256MB	15.0" SXGA+	No	40HS	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-5LU	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-5MU	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-65U	Pentium 4 538	3.2	1MB	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-67U	Pentium 4 538	3.2	1MB	256MB	14.1" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-68U	Pentium 4 538	3.2	1MB	256MB	15.0" SXGA+	No	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
2881-69U	Pentium 4 538	3.2	1MB	256MB	15.0" XGA	Yes	40HS	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-6CU	Pentium 4 538	3.2	1MB	256MB	15.0" XGA	Yes	40HS	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-6JU	Pentium 4 548	3.33	1MB	256MB	14.1" XGA	Yes	40HS	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
Positioning Processor ³⁷	Powerful desktop replacement; two (models without diskette drive) or three-spindle system Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), or 330 (2.66GHz) with 533MHz system bus or Mobile Intel Pentium 4 Processor 532 (3.06GHz), 538 (3.2GHz), or 548 (3.33GHz) with enhanced Intel SpeedStep™ technology ¹ , Hyper-Threading technology, and 533MHz bus											SOFTWARE¹⁴		
L2 cache	Celeron: 256KB ; Pentium 4: 1MB ; All: on die (at processor speed) / ECC											Windows XP Home models		
Memory	128 or 256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											- Microsoft® Windows® XP Home Edition ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high											Windows XP Pro models		
CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high											- Microsoft Windows XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)		
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / fixed, not removable / 12.7mm high											◆ Disk-to-Disk Recovery (in hidden protected area)		
Combo Disk	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / fixed, not removable / 12.7mm											Preloaded (all)		
Display	30GB⁸ (4200 rpm), 40GB (4200 rpm), or 40GB HS (5400 rpm), 9.5mm high / removable / 9.5mm high bay											● Rescue and Recovery™ ● Access IBM ● Access Connections ● Norton AntiVirus (OEM edition) ● PC-Doctor™ ● ThinkPad Utilities ● Adobe Reader ● Update Connector™ ¹⁵ ● RecordNOW and Drive Letter Access powered by Sonic products (combo models) ● InterVideo WinDVD (combo, DVD)		
Graphics	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand											Downloadable (all) ● IBM Director Agent ● Software Delivery Assistant ● System Migration Assistant		
Graphics external EasyPivot	Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT											License (CD not included) (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard ComfortSlant TrackPoint®	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle											Supports ThinkVantage™ technologies; visit thinkpad.com/thinkvantage		
Touch pad	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™											Universal 120 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Dimensions ³	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters											ServicePac®. ²² 1yr IOR 9x5 NBD 30L9188		
Weight ²	with optical drive and battery: 6-cell: up to 7.71 lb (3.5kg); 12-cell: up to 8.31 lb (3.8kg)											ServicePac 3 yr P&L P/U Depot 30L9192		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic											ServicePac 5 yr P&L P/U Depot 69P9197		
Battery - type	Lithium Ion 6-cell or 12-cell / intelligent / removable											Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf		
Battery - life	Not published													
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)													
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared													
Video out or in IEEE 1394	None													
Wireless antenna	None													
Mini PCI	Some (wireless models): UltraConnect™ Antenna built into the display cover Some: empty / not customer upgradable Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset													
Modem	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Ethernet	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset													
Audio support	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®													
Security chip	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Limited warranty ¹²	Power-on password / hard disk password / supervisor password / security keyhole													
	None													
	EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available													

See footnotes for important warranty information
US models announced October 19, 2004
US models withdrawn effective January or December 2005

ThinkPad® G41 (November 2004) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB ⁸	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery	Preload	Workhorse (W) Global (G) Avail Entry (E) date
2881-2CU	Celeron® D 320	2.40	256K	256MB	15.0" XGA	Yes	40GB	Combo	Extreme™ 2	11b/g ³²	10/100	6-cell	XP Pro	No Nov 04
2881-2PU	Celeron D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Nov 04
2881-2QU	Celeron D 325	2.53	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Nov 04
2881-2RU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Nov 04
2881-2SU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Nov 04
2881-A6U	Celeron D 335	2.80	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100	12-cell	XP Pro	No Jan 05
2881-AFU	Celeron D 335	2.80	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Jan 05
2881-5PU	Pentium® 4 532	3.06	1MB	256MB	14.1" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Nov 04
Positioning Processor ³⁷	Powerful desktop replacement; two (models without diskette drive) or three-spindle system											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo) Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
L2 cache	Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), 330 (2.66GHz), or 335 (2.80GHz) with 533MHz system bus or Mobile Intel Pentium 4 Processor 532 (3.06GHz) with enhanced Intel SpeedStep™ technology ¹ , Hyper-Threading technology, and 533MHz system bus													
Memory	Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC 256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high													
CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high													
Combo	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / fixed, not removable / 12.7mm													
Disk	30GB ⁸ (4200 rpm) or 40GB (4200 rpm), 9.5mm high / removable / 9.5mm high bay													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand													
Graphics	Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT													
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B													
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
ComfortSlant	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap													
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™													
Dimensions ³	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters													
Weight ²	with optical drive and battery: 6-cell: up to 7.71 lb (3.5kg); 12-cell: up to 8.31 lb (3.8kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic													
Battery - type	Lithium Ion 6-cell or 12-cell / intelligent / removable													
Battery - life	Not published													
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)													
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared													
Video out or in	None													
IEEE 1394	None													
Wireless antenna	Some (wireless models): UltraConnect™ Antenna built into the display cover													
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable													
None	Some: empty / not customer upgradable													
11b/g ³²	Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset													
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K ⁶ V.90 (V.92 designed ²⁵) modem in CDC / Conexant® chipset													
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	None													
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available													
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad G41 Li-Ion Battery 12-cell	08K8178	ServicePac 4 yr IOR 9x5 NBD	30L9195									
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Multiple Battery Charger II	22P9040	ServicePac 5 yr IOR 9x5 NBD	30L9194									
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad 120W AC Adapter	22P9150	ServicePac 2 yr P&L P/U Depot	30L9191									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 3 yr P&L P/U Depot	30L9192									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	GemPC400 Smart Card Reader/Writer	31P8901	ServicePac 4 yr P&L P/U Depot	69P9195									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Monitor Stand 2001	22P5265	ServicePac 5 yr P&L P/U Depot	69P9197									
USB Numeric Keypad	33L3225	ThinkPad Carrying Case - Expander	73P3597	Post-warranty annual maintenance agreements at										
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Backpack	73P3599	ibm.com/services/us/its/pdf/maspspleu.pdf										
USB 2.0 Combo Drive	73P4515	ThinkPad Carrying Case - Organizer	73P3598											
USB 2.0 Portable Multi-Burner Drive	22P9163	USB Keyboard with UltraNav	31P8950											
USB 2.0 Memory Key 256MB	22P9228	USB Travel Keyboard with UltraNav	31P9490											
USB 2.0 Memory Key 512MB	22P9230	Enhanced Performance USB Keyboard	73P2620											
USB Optical Wheel Mouse	06P4069	M400 Projector	0037A04											
Optical 3-Button ScrollPoint Pro Mouse	31P8700	C400 Projector	0039A04											
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector	0038A05											
SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at lenovo.com/options												

See footnotes for important warranty information
US models announced November 23, 2004 or January 11, 2005
US models withdrawn effective December 2005

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ThinkPad® G41 (NVIDIA Graphics) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB ⁸	Optical	Graphics controller and memory	Mini PCI Comm Bay wireless	Ethernet on planar	Battery Preload	Workhorse (W) Global (G) Avail Entry (E) date
2881-73U	Pentium® 4 538	3.2	1MB	512MB	15.0" SXGA+	No	80HS	Combo	Go5200 128M	11b/g ³²	Gb	12-cell XP Pro	No Oct 04
2881-87U	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	No	30GB	Combo	Go5200 64MB	None	Gb	6-cell XP Pro	No Oct 04
2881-88U	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	No	40GB	Combo	Go5200 64MB	11b/g	Gb	12-cell XP Pro	No Oct 04
2881-8DU	Pentium 4 538	3.2	1MB	256MB	15.0" SXGA+	No	40HS	Combo	Go5200 64MB	11b/g	Gb	12-cell XP Pro	No Oct 04
2881-8JU	Pentium 4 538	3.2	1MB	512MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	None	Gb	12-cell XP Pro	No Oct 04
2881-8MU	Pentium 4 548	3.33	1MB	512MB	15.0" SXGA+	No	80HS	DVD±RW	Go5200 128M	11a/b/g II ³²	Gb	12-cell XP Pro	No Oct 04
2881-8NU	Pentium 4 548	3.33	1MB	256MB	15.0" SXGA+	No	80HS	Combo	Go5200 64MB	None	Gb	12-cell XP Pro	No Oct 04
2881-8PU	Pentium 4 548	3.33	1MB	256MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	11b/g	Gb	12-cell XP Pro	No Oct 04
2881-8QU	Pentium 4 548	3.33	1MB	256MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	None	Gb	12-cell XP Pro	No Oct 04
2881-D2U	Pentium 4 552	3.46	1MB	512MB	15.0" SXGA+	No	80HS	DVD±RW	Go5200 128M	11a/b/g II	Gb	12-cell XP Pro	No Jan 05
2881-D9U	Pentium 4 552	3.46	1MB	256MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	11b/g	Gb	12-cell XP Pro	No Jan 05
Positioning Processor ³⁷	<i>Powerful desktop replacement; two (models without diskette drive) or three-spindle system</i>										SOFTWARE¹⁴		
L2 cache	Mobile Intel® Pentium 4 Processor 532 (3.06GHz), 538 (3.2GHz), 548 (3.33GHz), or 552 (3.46GHz) with enhanced Intel SpeedStep™ technology ¹ , Hyper-Threading technology, and 533MHz system bus										Windows XP Professional		
Memory	1MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)		
Diskette drive	None / use optional USB-based diskette drive										◇ Disk-to-Disk Recovery (in hidden protected area)		
DVD±RW	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / fixed, not removable / 12.7mm										Preloaded		
Disk	Some: DVD and CD burner / writes to + and - formats / Multi-Burner Plus / not removable										• Rescue and Recovery™		
Display	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Access IBM		
Graphics	Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits										• Access Connections		
Graphics external	All: one latch to unlatch and open with one hand										• Norton AntiVirus (OEM edition)		
EasyPivot	External monitor support via analog DB-15 connector / up to 2048x1536 at 72Hz / DDC2B										• PC-Doctor™		
Keyboard	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle										• ThinkPad Utilities		
ComfortSlant	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Adobe Reader		
TrackPoint®	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort										• Update Connector™ ¹⁵		
Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW models)		
Dimensions ³	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™										• InterVideo WinDVD (combo, DVD±RW models)		
Weight ²	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters										• InterVideo WinDVD Creator (DVD±RW models)		
Case material	with optical drive and battery: 6-cell: up to 7.55 lb (3.4kg); 12-cell: up to 8.18 lb (3.7kg)										• Simple Backup (DVD±RW)		
Battery - type	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic										Downloadable		
Battery - life	Lithium Ion 6-cell or 12-cell / intelligent / removable										• IBM Director Agent		
Architecture	Not published										• Software Delivery Assistant		
PC Card Std slots	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) /										• System Migration Assistant		
Ports	PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) /										Licence (CD not included)		
IEEE 1394	LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Wireless antenna	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage		
Mini PCI	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared										Universal 120 watt AC adapter		
None	None										PC 2001 and PXE 2.0-compliant		
11b/g ³²	Some (wireless models): UltraConnect™ Antenna built into the display cover										ACPI 1.0b and 2.0-compliant		
11a/b/g II ³²	One Mini PCI type III slot (Communications Bay) / not customer upgradable										CIM and DMI 2.0-compliant		
CDC	Some: empty / not customer upgradable										ENERGY STAR®-compliant		
Modem	Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset										ImageUltra™ Services available		
Ethernet	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip										International Warranty Service ¹⁷		
Audio support	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Security	56K ⁶ V.90 (V.92-designed ²⁵) modem in CDC / Conexant® chipset										ServicePac®. ²² 1yr IOR 9x5 NBD		
Security chip	Gigabit (Gb) ethernet on planar / Broadcom® BCM5705M (PHY/MAC) / PXE, Wake on LAN®										30L9188		
Limited warranty ¹²	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ServicePac 2 yr IOR 9x5 NBD		
128 MB PC2700 DDR-SDRAM CL2.5 SOD	Power-on password / hard disk password / supervisor password / security keyhole										30L9189		
256 MB PC2700 DDR-SDRAM CL2.5 SOD	None										ServicePac 3 yr IOR 9x5 NBD		
512 MB PC2700 DDR-SDRAM CL2.5 SOD	None										30L9195		
1GB PC2700 DDR-SDRAM CL2.5 SOD	None										ServicePac 4 yr IOR 9x5 NBD		
60GB HS Hard Disk 9.5mm (5400 rpm)	None										30L9194		
80GB HS Hard Disk 9.5mm (5400 rpm)	None										ServicePac 5 yr IOR 9x5 NBD		
USB Portable Diskette Drive	None										30L9196		
USB 2.0 Combo Drive	None										ServicePac 2 yr P&L P/U Depot		
USB 2.0 Portable Multi-Burner Drive	None										30L9191		
USB 2.0 Memory Key 512MB	None										ServicePac 3 yr P&L P/U Depot		
USB Optical Wheel Mouse	None										30L9192		
Optical 3-Button ScrollPoint Pro Mouse	None										ServicePac 4 yr P&L P/U Depot		
Kensington® MicroSaver® Security Cable	None										69P9195		
SonyEricsson® GC83 EDGE PC Card	None										ServicePac 5 yr P&L P/U Depot		
	None										69P9197		
	None										Post-warranty annual maintenance agreements at ibm.com/services/us/its/pdf/maspspleu.pdf		
	None												

See footnotes for important warranty information
US models announced October 19, 2004 or January 11, 2005
US models withdrawn effective December 2005

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ThinkPad® G41 (Education) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB ⁸	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery	Preload software	Education software	Avail date
2882-2TU	Celeron® D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme™ 2	11b/g ³²	10/100	12-cell	XP Pro	No	Oct 04
2882-3TU	Celeron D 325	2.53	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g	10/100	12-cell	XP Pro	No	Oct 04
2882-4UU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g	10/100	12-cell	XP Pro	No	Oct 04
2882-ASU	Celeron D 335	2.80	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g	10/100	12-cell	XP Pro	Yes	Jan 05
2882-8XU	Pentium® 4 532	3.06	1MB	256MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	11b/g	Gigabit	12-cell	XP Pro	No	Oct 04

• **The 2882 has an EasyServ™.19 onsite pickup and delivery 3 year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller.

The model or models for education are not available for resale to any other organization or individual.

Positioning Processor ³⁷	<i>Powerful desktop replacement; two (models without diskette drive) or three-spindle system</i>										SOFTWARE¹⁴			
L2 cache	Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), 330 (2.66GHz), or 335 (2.80GHz) with 533MHz system bus or										Windows XP Professional			
Memory	Mobile Intel Pentium 4 Processor 532 (3.06GHz) with enhanced Intel SpeedStep™ technology ¹ , Hyper-Threading technology, and 533MHz system bus										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)			
Diskette drive	Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC										◆ Disk-to-Disk Recovery (in hidden protected area)			
CD	256MB std / 2GB max⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										Preloaded			
Combo	<i>Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high</i>										• ASU only: Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™			
Disk	<i>Some: CD-ROM / 24X-10X⁹ speed / fixed, not removable / 12.7mm high</i>										• Rescue and Recovery™			
Display	<i>Some: DVD-ROM/CD-RW / 24X/10X/24X/8X²¹ speed / fixed, not removable / 12.7mm</i>										• Access IBM			
	30GB⁸ (4200 rpm) or 40GB HS (5400 rpm), 9.5mm high / removable / 9.5mm high bay										• Access Connections			
	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i>										• Norton AntiVirus (OEM edition)			
	<i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i>										• PC-Doctor™			
	<i>All: one latch to unlatch and open with one hand</i>										• ThinkPad Utilities			
Graphics	<i>Some: Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT</i>										• Adobe Reader			
	<i>Some: NVIDIA® GeForce™ FX Go5200 / NV34M / AGP 4X / 350MHz / 64MB memory</i>										• Update Connector™.15			
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle										• RecordNOW and Drive Letter Access powered by Sonic products (combo model)			
Keyboard ComfortSlant	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• InterVideo WinDVD (combo model)			
TrackPoint®	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort										Downloadable			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• IBM Director Agent			
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™										• Software Delivery Assistant			
Dimensions ³	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; <i>Volume:</i> 4 liters										• System Migration Assistant			
Weight ²	with optical drive and battery: <i>12-cell:</i> up to 8.15 lb (3.7kg)										License (CD not included)			
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Battery - type	Lithium Ion 12-cell / intelligent / removable													
Battery - life	Not published													
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) /													
	PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) /													
	LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)													
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage			
Video out or in	None													
IEEE 1394	None													
Wireless antenna	UltraConnect™ Antenna built into the display cover										Universal 120 watt AC adapter			
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable										PC 2001 and PXE 2.0-compliant			
11b/g ³²	11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset										ACPI 1.0b and 2.0-compliant			
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										CIM and DMI 2.0-compliant			
Modem	56K ^v V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset										ENERGY STAR®-compliant			
Ethernet	<i>Some:</i> 10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / Wake on LAN®										ImageUltra™ Services available			
	<i>Some:</i> Gigabit ethernet on planar / Broadcom® BCM5705M (PHY/MAC) / Wake on LAN										International Warranty Service ¹⁷			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec /										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
	mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone /													
	microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole										ServicePac®.22 2 yr IOR 9x5 NBD			
Security chip	None										30L9190			
Limited warranty ¹²	3 years/1 yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail										ServicePac 3 yr IOR 9x5 NBD			
											30L9197			
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828			ThinkPad G41 Li-Ion Battery 12-cell			08K8178			ServicePac 4 yr IOR 9x5 NBD				
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			ThinkPad Multiple Battery Charger II			22P9040			69P9198				
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad 120W AC Adapter			22P9150			ServicePac 5 yr IOR 9x5 NBD				
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			11a/b/g Wireless CardBus Adapter			31P9101			69P9200				
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357			ThinkPad Carrying Case - Expander			73P3597			ServicePac 4 yr P&L P/U Depot				
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273			ThinkPad Carrying Case - BackPack			73P3599			69P9199				
USB Portable Diskette Drive	05K9276			ThinkPad Carrying Case - Leather			73P3600			ServicePac 5 yr P&L P/U Depot				
USB 2.0 Combo Drive	73P4515			Enh Perf Wireless Keyboard and Mouse			73P4067			69P9201				
USB 2.0 Portable Multi-Burner Drive	22P9163			USB Travel Keyboard with UltraNav			31P9490			ServicePac options at				
USB 2.0 Memory Key 512MB	22P9230			Enhanced Performance USB Keyboard			73P2620			ibm.com/services/its/us/source/wamomxeu.pdf				
USB 2.0 Portable 80GB Hard Disk	40Y8726			M400 Projector			0037A04			Post-warranty annual maintenance				
TrackPoint Cap Collection	73P2698			C400 Projector			0039A04			agreements at				
Kensington® MicroSaver® Security Cable	73P2582			ThinkVision® E500 Projector			0038A05			ibm.com/services/its/us/source/maspspleu.pdf				
SonyEricsson® GC83 EDGE PC Card	26K3393			Other options at lenovo.com/options										

See footnotes for important warranty information
US models announced October 19, 2004 or January 11, 2005
US models withdrawn effective December 2005

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ThinkPad® G41 (TopSeller) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk drive GB ⁸	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on Battery planar cells	Workhorse (W) Global (G) Avail Entry (E)	date
2886-2UU	Celeron® D 320	2.40	256K	256MB	15.0" XGA	No	30GB	Combo	Extreme™ 2	11b/g ³²	10/100 12-c	XP Pro	No Oct 04
2886-23U	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	Combo	Extreme 2	None	10/100 12-c	XP Pro	No Oct 04
2886-2VU	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100 12-c	XP Pro	No Nov 04
2886-2WU	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	DVD	Extreme 2	None	10/100 12-c	XP Pro	No Nov 04
2886-3UU	Celeron D 325	2.53	256K	256MB	15.0" XGA	No	30GB	Combo	Extreme 2	11b/g	10/100 12-c	XP Pro	No Oct 04
2886-5TU	Pentium® 4 532	3.06	1MB	256MB	15.0" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100 6-c	XP Pro	No Oct 04
2886-78U	Pentium 4 538	3.2	1MB	512MB	15.0" SXGA+	No	80HS	Combo	Go5200 128M	11b/g	Gigabit 12-c	XP Pro	No Oct 04
2886-79U	Pentium 4 548	3.33	1MB	512MB	15.0" SXGA+	No	80HS	DVD±RW	Go5200 128M	11b/g	Gigabit 12-c	XP Pro	No Oct 04
2886-92U	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	11b/g	Gigabit 12-c	XP Pro	No Oct 04
2886-93U	Pentium 4 538	3.2	1MB	512MB	15.0" SXGA+	No	40HS	Combo	Go5200 64MB	11b/g	Gigabit 12-c	XP Pro	No Oct 04

These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor ³⁷	Powerful desktop replacement; two (models without diskette drive) or three-spindle system Intel® Celeron D Processor 320 (2.40GHz) or 325 (2.53GHz) with 533MHz system bus or Mobile Intel Pentium 4 Processor 532 (3.06GHz), 538 (3.2GHz), or 548 (3.33GHz) with Enhanced Intel SpeedStep™ technology ¹ , Hyper-Threading technology, and 533MHz bus <i>Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC</i>										SOFTWARE¹⁴		
L2 cache	256 or 512MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										Windows XP Professional		
Memory											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ✦ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high										PRELOADED		
CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high										• Rescue and Recovery™		
DVD	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / fixed, not removable / 12.7mm high										• Access Program		
Combo	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X ²¹ speed / fixed, not removable / 12.7mm										• Access Connections™		
DVD±RW	Some: DVD and CD burner / writes to + and - formats / Multi-Burner Plus / not removable										• Norton AntiVirus (OEM edition)		
Disk	Some: DVD and CD burner / writes to + and - formats / Multi-Burner Plus / not removable 30GB⁸ (4200 rpm), 40GB (4200 rpm), 40GB HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable / 9.5mm high bay										• PC-Doctor™		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand										• ThinkPad Utilities		
Graphics	Some: Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT Some: NVIDIA® GeForce™ FX Go5200 / NV34M / AGP 4X / 64 or 128MB memory										• Adobe® Reader		
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle										• Update Connector™ ¹⁵		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW models)		
ComfortSlant	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort										• InterVideo WinDVD (combo, DVD, DVD±RW models)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• InterVideo WinDVD Creator (DVD±RW models)		
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™										• Simple Backup (DVD±RW)		
Dimensions ³	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; <i>Volume: 4 liters</i>										Downloadable		
Weight ²	with optical drive and battery: 6-cell: up to 7.71 lb (3.5kg); 12-cell: up to 7.67 lb (3.5 kg)										• IBM Director Agent		
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic</i>										• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell or 12-cell / intelligent / removable										• System Migration Assistant		
Battery - life	Not published										License (CD not included)		
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										Supports ThinkVantage™ technologies;		
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared										visit thinkpad.com/thinkvantage		
Wireless antenna	Some (wireless models): UltraConnect™ Antenna built into the display cover										Universal 120 watt AC adapter		
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable										PC 2001 and PXE 2.0-compliant		
None	Some: empty / not customer upgradable										ACPI 1.0b and 2.0-compliant		
11b/g ³²	Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros™ AR5004G chipset										CIM and DMI 2.0-compliant		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ENERGY STAR®-compliant		
Modem	56K ⁶ V.90 (V.92-designed ²³) modem in CDC / Conexant® chipset										ImageUltra™ Services available		
Ethernet	Some: 10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / Wake on LAN® Some: Gigabit ethernet on planar / Broadcom® BCM5705M (PHY/MAC) / Wake on LAN										International Warranty Service ¹⁷		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker, 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166		
Security chip	None										ThinkPlus 2-year LOR 9x5 NBD 41C9167		
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available										ThinkPlus 3-year LOR 9x5 NBD 41C9168		
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830				ThinkPad G41 Li-Ion Battery 12-cell				08K8178				
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832				ThinkPad Multiple Battery Charger II				22P9040				
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834				ThinkPad 120W AC Adapter				22P9150				
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816				ThinkPad Monitor Stand				22P5265				
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357				ThinkPad Carrying Case - Leather				73P3600				
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273				USB Keyboard with UltraNav				31P8950				
USB Portable Diskette Drive	05K9276				USB Travel Keyboard with UltraNav				31P9490				
USB 2.0 Combo Drive	73P4515				Enhanced Performance USB Keyboard				73P2620				
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637				Lenovo M500 Projector				0037A05				
USB 2.0 Memory Key 512KB	22P9230				ThinkVision® L201p 20.1" Monitor (black)				9320HB1				
USB 2.0 Memory Key 1GB	40Y7421				Other options at lenovo.com/options								
											ThinkPlus 4-year LOR 9x5 NBD 41C9172		
											ThinkPlus 5-year LOR 9x5 NBD 41C9173		
											ThinkPlus 2-year P&L P/U Depot 41C9169		
											ThinkPlus 3-year P&L P/U Depot 41C9170		
											ThinkPlus 4-year P&L P/U Depot 41C9171		
											ThinkPlus 5-year P&L P/U Depot 41C9174		
											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US models announced on October 19 or November 23, 2004
US models withdrawn effective October 2006

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ThinkPad® G41 (Entry) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB ⁸	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date
2881-22U	Celeron® D 320	2.40	256K	128MB	14.1" XGA	No	30GB	CD	Extreme™ 2	None	10/100	6-cell	XP Home	Entry	Oct 04
2881-2AU	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Nov 04
2881-28U	Celeron D 320	2.40	256K	128MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Oct 04
2881-2BU	Celeron D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g ³²	10/100	6-cell	XP Pro	Entry	Oct 04
2881-2NU	Celeron D 320	2.40	256K	128MB	15.0" XGA	No	30GB	CD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Oct 04
2881-32U	Celeron D 325	2.53	256K	128MB	14.1" XGA	Yes	30GB	CD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Oct 04
2881-38U	Celeron D 325	2.53	256K	128MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Oct 04
2881-3BU	Celeron D 325	2.53	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	11b/g	10/100	6-cell	XP Pro	Entry	Oct 04
2881-42U	Celeron D 330	2.66	256K	128MB	14.1" XGA	Yes	30GB	CD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Oct 04
2881-47U	Celeron D 330	2.66	256K	128MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Oct 04
2881-57U	Pentium® 4 532	3.06	1MB	128MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100	6-cell	XP Home	Entry	Oct 04
Positioning Processor ³⁷	Powerful desktop replacement; two (models without diskette drive) or three-spindle system Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), or 330 (2.66GHz) with 533MHz system bus or Mobile Intel Pentium 4 Processor 532 (3.06GHz) with enhanced Intel SpeedStep™ technology ¹ , Hyper-Threading technology, and 533MHz system bus <i>Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC</i> 128 or 256MB std / 2GB max ⁷ / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										SOFTWARE¹⁴ Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰ (Service Pack 2) ✦ Disk-to-Disk Recovery (in hidden protected area) Windows XP Pro models - Microsoft Windows XP Professional ²⁰ (Service Pack 2) ✦ Disk-to-Disk Recovery (in hidden protected area) Preloaded (all) • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ ¹⁵ • InterVideo WinDVD (DVD) Downloadable (all) • IBM Director Agent • Software Delivery Assistant • System Migration Assistant License (CD not included) (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
L2 cache Memory															
Diskette drive CD	Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high														
DVD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high														
Disk	Some: DVD-ROM / 24X-8X ⁹ speed / single-layer / fixed, not removable / 12.7mm high 30GB⁸ (4200 rpm) / 9.5mm high / removable / 9.5mm high bay														
Display	Some: 14.1" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand														
Graphics	Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT														
Graphics external EasyPivot	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle														
Keyboard ComfortSlant TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar ¹³ , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap														
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™														
Dimensions ³	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; <i>Volume</i> : 4 liters														
Weight ²	with optical drive and battery: <i>6-cell</i> : up to 7.52 lb (3.4kg)														
Case material	<i>Color</i> : black; <i>All</i> : Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic														
Battery - type	Lithium Ion 6-cell / intelligent / removable														
Battery - life	Not published														
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage				
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										Universal 120 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared										ServicePac®. ²² 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197				
Wireless antenna	Some (<i>wireless models</i>): UltraConnect™ Antenna built into the display cover														
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable														
None	Some: empty / not customer upgradable														
11b/g ³²	Some: 11b/g Wi-Fi ³² wireless ⁴ , Mini PCI, Atheros® AR5004G chipset														
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Conexant® chipset														
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	None														
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available														
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad G41 Li-Ion Battery 12-cell	08K8178												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Multiple Battery Charger II	22P9040												
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad 120W AC Adapter	22P9150												
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	11a/b/g Wireless CardBus Adapter	31P9101												
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	GemPC400 Smart Card Reader/Writer	31P8901												
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Monitor Stand 2001	22P5265												
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Expander	73P3597												
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Organizer	73P3598												
USB 2.0 Combo Drive	73P4515	ThinkPad Carrying Case - Leather	73P3600												
USB 2.0 Portable Multi-Burner Drive	22P9163	USB Keyboard with UltraNav	31P8950												
USB 2.0 Memory Key 512MB	22P9230	USB Travel Keyboard with UltraNav	31P9490												
Optical 3-Button Travel Wheel Mouse	31P7410	Enhanced Performance USB Keyboard	73P2620												
TrackPoint Cap Collection	73P2698	C400 Projector	0039A04												
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector	0038A05												
SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at lenovo.com/options													

See footnotes for important warranty information
US models announced October 19 or November 23, 2004
US models withdrawn effective December 2005

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ThinkPad® Z60m (2529) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB ⁸	Optical	Mini PCI 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger print reader	Bat-Chip set	Pre-load	Limited warranty ¹²	Avail date
2529-E1U	Black	Celeron® M 360J	1.4	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g ³²	None		GM 6	XP Pro	1-yr	Oct 05	
2529-E2U	Black	Celeron M 360J	1.4	512	15.4" WXGA	GMA 60G	DVD±RW	Intel 11a/b/g	None		GM 6	XP Pro	1-yr	Oct 05	
2529-E3U	Black	Pentium® M 740	1.73	512	15.4" WXGA	GMA 40G	Combo	*Intel 11a/b/g	None		GM 6	XP Pro	1-yr	Oct 05	
2529-E6U	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 60G	DVD±RW	*Intel 11a/b/g	None	Finger	GM 6	XP Pro	1-yr	Oct 05	
2529-E7U	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	Combo	*Intel 11b/g ³²	None	Finger	PM 6	XP Pro	1-yr	Oct 05	
2529-E8U	Black	Pentium M 750	1.86	512	15.4" WSXGA+	X300 80G	DVD±RW	*Intel 11b/g	None	Finger	PM 6	XP Pro	1-yr	Oct 05	
2529-E9U	Silver	Pentium M 760	2.00	512	15.4" WSXGA+	X600 80G	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM 9	XP Pro	1-yr	Oct 05	
2529-EAU	Silver	Pentium M 760	2.00	1GB	15.4" WSXGA+	X600 100	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM 9	XP Pro	1-yr	Oct 05	
2529-F1U	Black	Celeron M 360J	1.4	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g	None		GM 6	Home	1-yr	Oct 05	
2529-F3U	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g	None		GM 6	Home	1-yr	Oct 05	
2529-F4U	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g	None		GM 6	XP Pro	1-yr	Oct 05	
2529-F5U	Black	Pentium M 740	1.73	256	15.4" WXGA	GMA 40G	Combo	*Intel 11a/b/g	None		GM 6	Home	1-yr	Oct 05	
2529-FVU	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	CD	Intel 11b/g	None		GM 6	Home	1-yr	Oct 05	
2529-FWU	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	Combo	Intel 11b/g	None		GM 6	XP Pro	1-yr	Oct 05	
2529-FZU	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 60G	DVD±RW	*Intel 11b/g	None		GM 6	XP Pro	1-yr	Oct 05	
2529-01U	Silver	Pentium M 740	1.73	512	15.4" WX MaxB	X300 40G	Combo	*Intel 11a/b/g	None		PM 6	XP Pro	1-yr	Oct 05	
2529-02U	Silver	Pentium M 750	1.86	512	15.4" WX MaxB	X300 80G	DVD±RW	*Intel 11a/b/g	None		PM 6	Home	1-yr	Oct 05	
2529-03U	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 40G	Combo	*Intel 11a/b/g	None		GM 6	Home	1-yr	Oct 05	
2529-04U	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 80G	DVD±RW	*Intel 11a/b/g	None		GM 6	Home	1-yr	Oct 05	

• These small and medium business (SMB) models are part of the US TopSeller™ Program
• These 2529 models have a 1-year limited warranty

Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system Intel® Celeron M Processor 360J or 370 with XD Bit and 400MHz system bus or Intel Pentium M Processor 740, 750, or 760 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software (some) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache Memory	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC 256MB, 512MB, or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
CD Combo DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay™ Enhanced <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 40GB⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	
Widescreen display	<i>Some:</i> 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391.0mm) WXGA (1280x800) TFT color / MaxBright™ / 300 nits / 16:10 <i>Some:</i> 15.4" (391.0mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches / secure screen surround	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM <i>Some:</i> ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory <i>Some:</i> ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory	
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell:</i> up to 7.0 lb (3.2kg); <i>9-cell:</i> up to 7.3 lb (3.3kg) <i>Some:</i> black color; Acrylonitrile-Butadiene-Styrene (ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, ABS	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr	
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)	
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna Mini PCI Intel 11b/g ³² Intel 11a/b/g ³² Mini PCI Express WWAN ¹⁶ Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios One Mini PCI slot / customer upgradable <i>Some:</i> 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Mini PCI Express slot / not customer upgradable 56K ⁵ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.1-compliant <i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip 1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available	

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced September 20 or October 19, 2005
US models withdrawn effective June 2006

ThinkPad® Z60m (2529) - TopSeller (November 2005) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Olympic logo on cover	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB ⁶	Optical	Mini PCI 802.11 wireless	Finger print reader	Battery Pre-load	Limited wnty ¹²	Avail date
2529-FYU	Black		Celeron® M 360J	1.4	256	15.4" WXGA	GMA 40G	40G	CD	Intel 11b/g ³²		GM 6 Home	1-yr	Nov 05
2529-EEU	Black		Pentium® M 740	1.73	256	15.4" WXGA	GMA 40G	40G	CD	* Intel 11b/g		GM 6 Home	1-yr	Nov 05
2529-EFU	Silver		Pentium M 740	1.73	512	15.4" WX MaxB	X600	60G	DVD±RW	* Intel 11a/b/g ³²	Blue Finger	PM 6 Pro	1-yr	Nov 05
2529-EHU	Silver		Celeron M 370	1.5	512	15.4" WXGA	GMA 40G	60G	DVD±RW	Intel 11b/g		GM 6 Home	1-yr	Nov 05
2529-EJU	Silver		Pentium M 740	1.73	256	15.4" WXGA	GMA 40G	40G	Combo	* Intel 11b/g		GM 6 Home	1-yr	Nov 05
2529-EKU	Silver		Pentium M 740	1.73	512	15.4" WXGA	GMA 40G	40G	Combo	* Intel 11a/b/g		GM 6 Pro	1-yr	Nov 05
2529-ELU	Silver		Pentium M 740	1.73	512	15.4" WXGA	GMA 40G	60G	DVD±RW	* Intel 11a/b/g		GM 6 Pro	1-yr	Nov 05
2529-EMU	Silver		Pentium M 740	1.73	1GB	15.4" WX MaxB	X300	100	DVD±RW	* Intel 11a/b/g	Blue Finger	PM 6 Pro	1-yr	Nov 05
2529-EZU	Silver	Logo	Pentium M 740	1.73	512	15.4" WX MaxB	X300	80G	DVD±RW	* Intel 11b/g	Blue Finger	PM 6 Home	1-yr	Jan 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These 2529 models have a 1-year limited warranty

Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system Intel® Celeron M Processor 360J or 370 with Execute Disable Bit and 400MHz bus or Intel Pentium M Processor 740 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) Preloaded (all; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • Fingerprint Software (some) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and - Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)		
L2 cache Memory	Celeron M: 1 MB ; Pentium M: 2MB ; All: on die (at processor speed) / ECC 256MB, 512MB, or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available			
CD Combo DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	Some: CD-ROM / 24X-10X ⁹ speed / removable from Ultrabay™ Enhanced Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 40GB⁸, 60GB, 80GB, or 100GB (all 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™			
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / MaxBright™ / 300 nits / 16:10 All: stainless steel hinges / one hand activates dual latches / secure screen surround			
Olympic logo	Some: Olympic logo on titanium top cover			
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory			
Keyboard TrackPoint™ ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ² Case material	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell : up to 7.0 lb (3.2kg) Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell : up to 4.0 hr; optional 9-cell : up to 6.0 hr; 9-cell plus Ultrabay battery : up to 8.0 hr			
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)			
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)			
Wireless antenna Mini PCI Intel 11b/g ³² Intel 11a/b/g ³² Mini PCI Express WWAN ¹⁶ Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios One Mini PCI slot / customer upgradable Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset None 56K ⁵ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole			
Security Security chip Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.1-compliant Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip			
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available			
256MB PC2-4200 DDR2 NP CL4 SOD 512MB PC2-4200 DDR2 NP CL4 SOD 1GB PC2-4200 DDR2 NP CL4 SOD Super Multi-Burner Ultrabay Enh Dvr (curved) Serial Hard Drive Ultrabay Slim Adptr (flat) 100GB Disk 9.5mm SATA150 (5400 rpm) Other options on O-Z60M sheet	73P3840 73P3842 73P3844 40Y8624 40Y8725 40Y8721		Z60m/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery 3-cell ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other options at lenovo.com/options	40Y6795 40Y6797 40Y6789 250510W 250410U 250310U

See footnotes for important warranty information

* Powered by Intel Centrino™ mobile technology

US models announced November 22, 2005 or January 24, 2006

US models withdrawn effective May or September 2006

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(WR6) August 2006

ThinkPad® Z60m (2529) - TopSeller (January 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB ⁵	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth reader	Finger print	Battery Chip set	Pre-load cells	Limited warranty ¹²	Avail date
2529-H2U	Black	Celeron® M 380	1.6	256	15.4" WXGA	GMA 40G	40G	Combo	Intel 11b/g ³²	None			GM 6	Home	1-yr	Jan 06
2529-H3U	Black	Pentium® M 760	2.00	512	15.4" WXGA	GMA 100	100	DVD±RW	11a/b/g ³²	None			GM 6	Pro	1-yr	Jan 06
2529-HMU	Black	Celeron M 380	1.6	512	15.4" WXGA	GMA 40G	40G	Combo	11a/b/g	None			GM 6	Home	1-yr	Jan 06
2529-HPU	Black	Pentium M 760	2.00	512	15.4" WXGA	GMA 80G	80G	DVD±RW	11a/b/g	None	Finger		GM 9	Pro	1-yr	Jan 06
2529-HUU	Black	Pentium M 770	2.13	512	15.4" WXGA	X600	100	DVD±RW	11a/b/g	Verizon Blue	Finger		PM 9	Pro	1-yr	Jan 06
2529-HWU	Black	Pentium M 770	2.13	512	15.4" WXGA	X600	100	DVD±RW	11a/b/g	Verizon Blue	Finger		PM 6	Pro	1-yr	Jan 06
2529-R2U	Black	Celeron M 380	1.6	256	15.4" WXGA	GMA 40G	40G	Combo	Intel 11b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R3U	Silver	Pentium M 750	1.86	512	15.4" WX	MaxB X600	80G	DVD±RW	* Intel 11a/b/g ³²	None	Finger		PM 6	Pro	1-yr	Jan 06
2529-R5U	Black	Celeron M 380	1.6	512	15.4" WXGA	GMA 60G	60G	DVD±RW	Intel 11b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R6U	Silver	Celeron M 380	1.6	256	15.4" WXGA	GMA 40G	40G	Combo	Intel 11b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R7U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	60G	Combo	* Intel 11a/b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R8U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	80G	DVD±RW	* Intel 11a/b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R9U	Silver	Pentium M 750	1.86	512	15.4" WX	MaxB X300	60G	Combo	* Intel 11a/b/g	None			PM 6	Pro	1-yr	Jan 06
2529-RAU	Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	Combo	* Intel 11a/b/g	None			PM 6	Pro	1-yr	Jan 06
2529-RCU	Silver	Pentium M 770	2.13	1GB	15.4" WX	MaxB X600	100	DVD±RW	* Intel 11a/b/g	None	Blue Finger		PM 9	Pro	1-yr	Jan 06
2529-RBU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	80G	Combo	* Intel 11a/b/g	None			GM 6	Pro	1-yr	Feb 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2529 models have a 1-year limited warranty

Positioning	Stylish notebooks for work and life; widescreen display; two-spindle system											SOFTWARE¹⁴			
Processor	Intel® Celeron M Processor 380 with XD Bit and 400MHz system bus or Intel® Pentium M Processor 750, 760, or 770 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											Windows XP Professional models			
L2 cache	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)			
Memory	256MB, 512MB, or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											◇ Disk-to-Disk Recovery			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enh											Windows XP Home models			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh											- Microsoft Windows XP Home Edition ²⁰ (Service Pack 2)			
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											◇ Disk-to-Disk Recovery			
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 100GB (H3U: 5400 rpm; others: 7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											Preloaded (all)			
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio											• Rescue and Recovery™			
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM											• Access Connections™			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											• Client Security Solution™			
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)											• ThinkVantage Productivity Center			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• ThinkVantage System Update			
Dimensions ³	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm											• Symantec® Client Security			
Weight ²	with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg)											• Diskeeper Lite			
Case material	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											• PC-Doctor™			
Battery - type	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enh											• ThinkPad utilities			
Battery - life ¹⁰	6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr											• Adobe® Reader			
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub											• Fingerprint Software (some)			
PC Card slot	Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub											• Multimedia Center for Think Offerings			
ExpressCard slot	All: 82801F8M ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)			
Ports	CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)											• InterVideo WinDVD (combo, DVD±RW models)			
Wireless antenna	One Type I or Type II slot / CardBus 32-bit / integrated door											• InterVideo WinDVD Creator (DVD±RW models)			
Mini PCI	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											License - CD not included (all)			
Intel 11b/g ³²	3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) /											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Intel 11a/b/g ³²	S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 /											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
11a/b/g II ³²	external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) /											Universal 90 watt AC adapter			
Mini PCI Express WWAN ¹⁶	docking connector / no keyboard or mouse or parallel or serial ports (use USB)											ThinkPad Roll Cage			
Modem	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											PC 2001-compliant			
Bluetooth™	One Mini PCI slot / customer upgradable											ACPI 1.0b and 2.0-compliant			
Ethernet	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											CIM and DMI 2.0-compliant			
Audio	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											PXE 2.1-compliant			
Security	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip											ENERGY STAR®-compliant			
Security chip	One Mini PCI Express slot / not customer upgradable											RoHS-compliant			
Fingerprint reader	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless											International Warranty Service ¹⁷			
Limited warranty ¹²	56K ⁹ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator											ThinkPlus™.22 1-year LOR 9x5 NBD			
	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											41C9166			
	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											ThinkPlus 3-year LOR 9x5 NBD			
	Power-on password / hard disk password / supervisor password / security keyhole											41C9168			
	Trusted Platform Module / Atmel chip / TCG 1.1-compliant											Other ThinkPlus services at lenovo.com/thinkplus/warranty			
	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip														

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced January 31 or February 28, 2006
US models withdrawn effective October 2006

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(WR7) October 2006

ThinkPad® Z60m (2530) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	SATA GB ⁸	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Battery Pre-load	Limited warranty ¹²	Avail date
2530-11U	Black	Pentium® M 740	1.73	512	15.4" WXGA	X300	40G	Combo	*Intel 11b/g ³²			PM 6	XP Pro 1-yr	Oct 05
2530-13U	Black	Pentium M 740	1.73	256	15.4" WXGA	GMA 60G	60G	Combo	*Intel 11b/g			GM 6	XP Pro 1-yr	Oct 05
2530-34U	Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	DVD±RW	*Intel 11b/g		Blue	PM 9	XP Pro 1-yr	Oct 05
2530-35U	Black	Pentium M 750	1.86	512	15.4" WXGA	X600	80G	Combo	*Intel 11a/b/g ³²			PM 9	XP Pro 1-yr	Oct 05
2530-36U	Black	Pentium M 760	2.00	1GB	15.4" WXGA	X600	80G	DVD±RW	*Intel 11a/b/g	Verizon	Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-37U	Black	Pentium M 760	2.00	1GB	15.4" WXGA	X600	80G	DVD±RW	11a/b/g II ³²	Verizon	Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-38U	Silver	Pentium M 760	2.00	1GB	15.4" W MaxB	X600	100	DVD±RW	11a/b/g II		Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-E4U	Black	Celeron® M 360J	1.4	256	15.4" WXGA	GMA 40G	40G	DVD	Intel 11b/g			GM 6	Home 1-yr	Oct 05
2530-E9U	Silver	Pentium M 760	2.00	512	15.4" WSXGA+	X600	80G	DVD±RW	*Intel 11a/b/g		Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-ELU	Silver	Pentium M 740	1.73	512	15.4" WXGA	GMA 60G	60G	DVD±RW	*Intel 11a/b/g			GM 6	XP Pro 1-yr	Nov 05
2530-EMU	Silver	Pentium M 740	1.73	1GB	15.4" W MaxB	X300	100	DVD±RW	*Intel 11a/b/g		Blue Finger	PM 6	XP Pro 1-yr	Nov 05
2530-R7U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	60G	Combo	*Intel 11a/b/g			GM 6	XP Pro 1-yr	Jan 06
2530-R8U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	80G	DVD±RW	*Intel 11a/b/g			GM 6	XP Pro 1-yr	Jan 06
Positioning Processor	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i>											SOFTWARE¹⁴		
L2 cache	Intel® Celeron M Processor 360J (1.4GHz) with XD Bit and 400MHz system bus or Intel Pentium M Processor 740, 750, or 760 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											Windows XP Professional models		
Memory	Celeron M: 1MB; Pentium M: 2MB; All: on die (at processor speed) / ECC											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)		
EIDE DVD	Some: DVD-ROM / 8X-3.3X ⁹ speed / single-layer / removable from Ultrabay™ Enhanced											Windows XP Home models		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced											- Microsoft Windows XP Home Edition ²⁰ (Service Pack 2)		
EIDE DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced											Reloaded (all)		
EIDE DVD±RW	R8U: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											• Rescue and Recovery™		
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											• Access Connections™		
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											• Client Security Solution™		
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio											• ThinkVantage Productivity Center		
Graphics	Some: ATI Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM											• ThinkVantage System Update		
Keyboard	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / MaxBright™ / 300 nits / 16:10											• Symantec® Client Security		
TrackPoint®	Some: 15.4" (391.0mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect											• Diskeeper Lite		
ThinkLight™	All: stainless steel hinges / one hand activates dual latches / secure screen surround											• PC-Doctor™		
Dimensions ³	Some: Intel® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory											• Fingerprint Software (some)		
Weight ²	Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory											• Multimedia Center for Think Offerings		
Case material	X300/X600: DVI pass-through support to opt Advanced Mini Dock and Advanced Dock											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)		
Battery - type	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											• InterVideo WinDVD (combo, DVD, DVD±RW models)		
Battery - life ¹⁰	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)											• InterVideo WinDVD Creator (DVD±RW models)		
Architecture	Illuminates the keyboard to improve visibility in low-light conditions											License - CD not included (all)		
PC Card slot	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)		
ExpressCard slot	with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg)											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage		
Ports	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											Universal 90-watt AC adapter		
Wireless antenna	Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS											ThinkPad Roll Cage (one-piece magnesium frame)		
Mini PCI	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced											ACPI 1.0b and 2.0-compliant		
Intel 11b/g ³²	6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr											CIM and DMI 2.0-compliant		
Intel 11a/b/g ³²	Architecture											PXE 2.1-compliant		
11a/b/g II ³²	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub											ENERGY STAR®-compliant		
Mini PCI Express	Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub											RoHS-compliant		
WWAN ¹⁶	All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)											International Warranty Service ¹⁷		
Modem	One Type I or Type II slot / CardBus 32-bit / integrated door											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Bluetooth™	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											ThinkPlus™.22 1-yr LOR 9x5 NBD		
Ethernet	3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)											41C9166		
Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											ThinkPlus 3-yr LOR 9x5 NBD		
Security	One Mini PCI slot / customer upgradable											41C9168		
Security chip	Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											ThinkPlus 4-yr LOR 9x5 NBD		
Fingerprint reader	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											41C9171		
Limited warranty ¹²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip											ThinkPlus 5-yr LOR 9x5 NBD		
	One Mini PCI Express slot / not customer upgradable											41C9173		
	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless											ThinkPlus 3-yr P&L P/U Depot		
	56K® V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip											41C9170		
	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator											ThinkPlus 5-yr P&L P/U Depot		
	Gigabit ethernet on systemboard / Broadcom BCM5751A (MAC/PHY) / PCIe x1 / PXE											41C9174		
	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											Other ThinkPlus services at lenovo.com/thinkplus/warranty		
	Power-on password / hard disk password / supervisor password / security keyhole													
	Trusted Platform Module / Atmel chip / TCG 1.1-compliant													
	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available													

See footnotes for important warranty information * Powered by Intel Centrino® mobile technology
US models announced September 20 or November 22, 2005, or January 31, 2006
US models withdrawn effective June, September, or October 2006

ThinkPad® Z60m (2531) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB ⁸	Optical	Mini PCI 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger print reader	Bat-tery cells	Workhorse (W) Limited Gbl	Workhorse (W) (G) Avail date
2531-4HU	Black	Pentium® M 740	1.73	512	15.4" WXGA	X300 60G	Combo	* Intel 11b/g ³²			PM 6	3-yr		Oct 05
2531-4QU	Black	Pentium M 740	1.73	256	15.4" WXGA	GMA 40G	Combo	* Intel 11a/b/g ³²			GM 6	3-yr	W	Oct 05
2531-68U	Black	Pentium M 740	1.73	512	15.4" WSXGA+	GMA 40G	Combo	* Intel 11a/b/g		Finger	GM 6	3-yr	W	Oct 05
2531-6DU	Black	Pentium M 750	1.86	512	15.4" WSXGA+	GMA 40G	Combo	* Intel 11a/b/g		Finger	GM 6	3-yr	W	Oct 05
2531-6EU	Black	Pentium M 760	2.00	512	15.4" WSXGA+	GMA 40G	Combo	* Intel 11a/b/g		Finger	GM 6	3-yr	W	Oct 05
2531-6FU	Black	Pentium M 740	1.73	512	15.4" WXGA	X300 60G	Combo	* Intel 11a/b/g			PM 6	3-yr	W	Oct 05
2531-6GU	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	DVD±RW	* Intel 11a/b/g			PM 6	3-yr	W	Oct 05
2531-6JU	Black	Pentium M 740	1.73	512	15.4" WXGA	X300 60G	Combo	* Intel 11a/b/g		Finger	PM 6	3-yr	W	Oct 05
2531-75U	Black	Pentium M 740	1.73	512	15.4" WXGA	X300 60G	DVD±RW	* Intel 11a/b/g		Finger	PM 6	3-yr	W	Oct 05
2531-76U	Silver	Pentium M 750	1.86	512	15.4" WSXGA+	X600 80G	DVD±RW	* Intel 11a/b/g		Blue Finger	PM 9	3-yr	W	Oct 05
2531-78U	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	DVD±RW	* Intel 11a/b/g		Blue Finger	PM 6	3-yr		Oct 05
2531-E1U	Black	Celeron® M 360J	1.4	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g			GM 6	3-yr	W	Oct 05
2531-81U	Black	Pentium M 750	1.86	512	15.4" WSXGA+	GMA 40G	Combo	* Intel 11a/b/g		Finger	GM 6	3-yr		Oct 05
2531-82U	Black	Pentium M 760	2.00	512	15.4" WSXGA+	GMA 40G	Combo	* Intel 11b/g		Finger	GM 6	3-yr		Oct 05
2531-83U	Black	Pentium M 750	1.86	512	15.4" WXGA	X600 60G	DVD±RW	* Intel 11a/b/g	Verizon Blue		PM 6	3-yr		Oct 05
2531-84U	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	DVD±RW	* Intel 11b/g			PM 6	3-yr		Oct 05
Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system Intel® Celeron M Processor 360J (1.4GHz) with XD Bit and 400MHz system bus or Intel Pentium M Processor 740, 750, or 760 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											SOFTWARE¹⁴		
L2 cache	Celeron M: 1 MB ; Pentium M: 2MB ; All: on die (at processor speed) / ECC											Windows XP Professional models		
Memory	256MB or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)		
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhanced											Preloaded		
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 40GB⁸ (5400 rpm), 60GB (5400 rpm), or 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access • InterVideo WinDVD • InterVideo WinDVD Creator (DVD±RW models)		
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio Some: 15.4" (391.0mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches / secure screen surround											• License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM Some: ATI MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage		
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions											Universal 90 watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR™-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Dimensions ³ Weight ² Case material	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg) Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175		
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr											ThinkPlus 3-year LOR 9x5 NBD 41C9176		
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (RicoH® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)											ThinkPlus 4-year LOR 9x5 NBD 41C9177		
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)											ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Wireless antenna Mini PCI Intel 11b/g ³² Intel 11a/b/g ³² Mini PCI Express WWAN ¹⁶	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios One Mini PCI slot / customer upgradable Some: 11b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Mini PCI Express slot / not customer upgradable Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K® V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH6-M / LED indicator											ThinkPlus 4-year P&L P/U Depot 41C9178		
Modem Bluetooth™ Ethernet Audio	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											ThinkPlus 5-year P&L P/U Depot 41C9180		
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.1-compliant Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip											Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		Z60m/R60 Series Li-Ion Battery 6-cell								40Y6795			
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		Z60m/T60/R60 Li-Ion Battery 9-cell								40Y6797			
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		ThinkPad Essential Port Replicator								250510U			
CD-RW/DVD Combo Ultrabay Enhanced	73P3275		ThinkPad Advanced Mini Dock								250410U			
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkPad Advanced Dock								250310U			
Other options on O-Z60M sheet	Other options at lenovo.com/options													

See footnotes for important warranty information
US models announced September 20, 2005
US models withdrawn effective June or September 2006

* Powered by Intel Centrino® mobile technology

ThinkPad® Z60m (2531) - January 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCI 802.11 wireless	Mini PCle WWAN wireless	Finger print reader	Battery Pre-load	Limited warranty ¹²	Avail date
2531-M7U	Silver	Pentium® M 780	2.26	1GB	15.4" WSXGA+	X600	100G	DVD±RW	* Intel 11a/b/g	None	Blue Finger	9 XP Pro	3-yr	Jan 06
2531-RAU	Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	Combo	* Intel 11a/b/g	None	Finger	6 XP Pro	3-yr	Jan 06
2531-MGU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA	60G	DVD±RW	* Intel 11a/b/g	None	Finger	6 XP Pro	3-yr	Jan 06
2531-R7U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA	60G	Combo	* Intel 11a/b/g	None	Finger	6 XP Pro	3-yr	Jan 06
2531-MJU	Black	Pentium M 750	1.86	512	15.4" WSXGA+	X300	60G	DVD±RW	* Intel 11a/b/g	None	Finger	6 XP Pro	3-yr	Jan 06
2531-MKU	Black	Pentium M 760	2.00	512	15.4" WSXGA+	X300	60G	DVD±RW	* Intel 11a/b/g	None	Finger	6 XP Pro	3-yr	Jan 06
2531-RBU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA	80G	Combo	* Intel 11a/b/g	None	Finger	6 XP Pro	3-yr	Feb 06
Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system										SOFTWARE¹⁴			
L2 cache Memory	Intel Pentium M Processor 750, 760 or 780 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										Windows XP Professional			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance										- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2)			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhance										◆ Disk-to-Disk Recovery (in hidden protected area)			
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel										Preloaded			
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio										• Rescue and Recovery™			
Graphics	Some: 15.4" (391.0mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect										• Access Connections™			
Keyboard	All: stainless steel hinges / one hand activates dual latches / secure screen surround										• Client Security Solution™			
TrackPoint® ThinkLight™	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM										• ThinkVantage Productivity Center			
Dimensions ³	Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory										• ThinkVantage System Update			
Weight ²	Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory										• Symantec® Client Security			
Case material	X300/X600: DVI pass-through support to opt Advanced Mini Dock and Advanced Dock										• Diskeeper Lite			
Battery - type	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										• PC-Doctor™			
Battery - life ¹⁰	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)										• ThinkPad utilities			
Architecture	Illuminates the keyboard to improve visibility in low-light conditions										• Adobe® Reader			
PC Card slot	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm										• Fingerprint Software (fingerprint models)			
ExpressCard slot	with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg)										• Multimedia Center for Think Offerings			
Ports	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										• Sonic RecordNOW and Drive Letter Access			
Wireless antenna	Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS										• InterVideo WinDVD			
Mini PCI	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhance										• InterVideo WinDVD Creator (DVD±RW models)			
Intel 11a/b/g ³²	6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr										License - CD not included			
Mini PCI Express WWAN ¹⁶	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Modem	Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub										ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Bluetooth™	All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)										Universal 90-watt AC adapter			
Ethernet	One Type I or Type II slot / CardBus 32-bit / integrated door										ThinkPad Roll Cage (one-piece magnesium frame)			
Audio	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										PC 2001-compliant			
Security chip	3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)										ACPI 1.0b and 2.0-compliant			
Fingerprint reader	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										CIM and DMI 2.0-compliant			
Limited warranty ¹²	One Mini PCI slot / customer upgradable										PXE 2.1-compliant			
256MB PC2-4200 DDR2 NP CL4 SOD	11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										ENERGY STAR®-compliant			
512MB PC2-4200 DDR2 NP CL4 SOD	One Mini PCI Express slot / not customer upgradable										RoHS-compliant			
1GB PC2-4200 DDR2 NP CL4 SOD	None										International Warranty Service ¹⁷			
DVD-ROM Ultrabay Enhanced Drive	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip										24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
CD-RW/DVD Combo Ultrabay Enhanced	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator										ThinkPlus™ ²² 2-year LOR 9x5 NBD			
Super Multi-Burner Ultrabay Enh Drv (curved)	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										41C9175			
USB Portable Diskette Drive	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack										ThinkPlus 3-year LOR 9x5 NBD			
USB 2.0/Analog Headset by Sennheiser	Power-on password / hard disk password / supervisor password / security keyhole										41C9176			
USB 2.0 Memory Key 1GB	Trusted Platform Module / Atmel chip / TCG 1.1-compliant										ThinkPlus 4-year LOR 9x5 NBD			
USB 2.0 Super Multi-Burner Drive	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip										41C9177			
Serial Hard Drive Ultrabay Slim Adapter	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail										ThinkPlus 5-year LOR 9x5 NBD			
ExpressCard Gemplus Smart Card Reader	256MB R60 Series Li-Ion Battery 6-cell										41C9179			
80GB Disk 9.5mm SATA150 (5400 rpm)	512MB T60/R60 Li-Ion Battery 9-cell										ThinkPlus 4-year P&L P/U Depot			
100GB Disk 9.5mm SATA150 (7200 rpm)	1GB R60 Series Li-Ion Battery 6-cell										41C9178			
Kensington® MicroSaver® Security Cable	2GB R60 Series Li-Ion Battery 6-cell										ThinkPlus 5-year P&L P/U Depot			
Other options on O-Z60M sheet	2GB T60/R60 Li-Ion Battery 9-cell										41C9180			
	ThinkPad Essential Port Replicator										Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty			
	ThinkPad Advanced Mini Dock													
	ThinkPad Advanced Dock													
	ThinkPad External Battery Charger													
	ThinkPad 90W AC Adapter													
	11a/b/g Wireless Mini PCI Adapter II													
	Intel PRO/Wireless 2915ABG Mini PCI													
	Verizon Wireless V620 WWAN PC Card ²⁵													
	ThinkVision® E500 Projector													
	ThinkPad Nylon Carrying Case													
	ThinkPad Carrying Case - BackPack													
	ThinkPad Advanced Mini Dock													
	ThinkVision L201p 20.1" Monitor (black)													
	Other options at lenovo.com/options													

See footnotes for important warranty information
US models announced January 31 or February 28, 2006
US models withdrawn effective October 2006

* Powered by Intel Centrino® mobile technology

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(WR8) October 2006

ThinkPad® Z60m (2531) - Education - withdrawn

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Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB ^a	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Battery cells	Limited warranty ¹²	Avail date
2531-1PU	Black	Pentium® M 750	1.86	512	15.4" WXGA	X300	80G	DVD±RW	* Intel 11a/b/g ³²	None			PM 6	EasyServ	Oct 05	
2531-MWU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	DVD±RW	11a/b/g ³²	None	None	Finger		GM 9	EasyServ	Jan 06	
2531-MSU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	Combo	11a/b/g	None	None			GM 6	EasyServ	Jan 06	
2531-MTU	Black	Pentium M 760	2.00	1GB	15.4" WSXGA+	X600	100G	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	PM 9	EasyServ	Jan 06	
2531-MUW	Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	Combo	11a/b/g	None			PM 6	EasyServ	Jan 06	
<p>• This model has an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																
Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system Intel® Pentium M Processor 750 or 760 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											SOFTWARE¹⁴				
L2 cache	2MB / on die (at processor speed) / ECC											Windows XP Professional models				
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / CL4 / dual channel capable two 200-pin SO-DIMM sockets / std mem in one socket / one socket available											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive											Preloaded				
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance											• Education software from Vital Source Technologies®: vitalSource KEY™ and Personal Portable library™				
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhance											• Rescue and Recovery™				
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhance											• Access Connections™				
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											• Client Security Solution™				
Serial ATA disk (SATA150)	60 or 80 or 100GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											• ThinkVantage Productivity Center				
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio Some: 15.4" (391.0mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches / secure screen surround											• ThinkVantage System Update				
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM Some: ATI MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory X300/X600: DVI pass-through support to opt Advanced Mini Dock and Advanced Dock											• Symantec® Client Security				
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											• Diskeeper Lite				
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)											• PC-Doctor™				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• ThinkPad utilities				
Dimensions ³	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm											• Adobe® Reader				
Weight ²	with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg)											• Multimedia Center for Think Offerings				
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											• Sonic RecordNOW and Drive Letter Access				
Battery - type	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhance											• InterVideo WinDVD				
Battery - life ¹⁰	6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr											• InterVideo WinDVD Creator (DVD±RW models)				
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)											License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door															
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door															
Ports	3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage				
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											Universal 90-watt AC adapter				
Mini PCI	One Mini PCI slot / customer upgradable											ThinkPad Roll Cage (one-piece magnesium frame)				
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											PC 2001-compliant				
11a/b/g II ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X											ACPI 1.0b and 2.0-compliant				
Mini PCI Express	One Mini PCI Express slot / not customer upgradable											CIM and DMI 2.0-compliant				
WWAN	None											PXE 2.1-compliant				
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip											ENERGY STAR®-compliant				
Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip											RoHS-compliant				
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											International Warranty Service ¹⁷				
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant															
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip															
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail															
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		Z60m/R60 Series Li-Ion Battery 6-cell		40Y6795											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Advanced Ultrabay Battery 3-cell		40Y6789											
USB Portable Diskette Drive	05K9276		ThinkPad External Battery Charger		40Y7625											
USB Fingerprint Reader	73P4774		ThinkPad 90W AC Adapter		40Y7659											
USB 2.0 Lenovo Webcam	40Y8519		11a/b/g Wireless Mini PCI Adapter II		73P4301											
USB 2.0 Memory Key 1GB	40Y7421		Intel PRO/Wireless 2915ABG Mini PCI		41N2990											
USB 2.0 Portable 80GB Hard Disk	40Y8726		Verizon Wireless V620 WWAN PC Card ²⁵		40Y9137											
Serial Hard Drive Ultrabay Slim Adapter	40Y8725		ThinkPad Nylon Carrying Case		10K0207											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013		ThinkPad Advanced Mini Dock		250410U											
Kensington® MicroSaver® Security Cable	73P2582		Lenovo L192 Wide 19" Monitor (black)		6920AB1											
Other options on O-Z60M sheet	Other options at lenovo.com/options															

See footnotes for important warranty information
 US models announced September 20, 2005 or January 31, 2006
 US models withdrawn effective June or October 2006

ThinkPad® Z60m (2532) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Battery Chip set	Limited warranty ¹²	Avail date
2532-1PU	Black	Pentium® M 750	1.86	512	15.4" WXGA	X300 80G	DVD±RW	* Intel 11a/b/g ³²	None	None	None	Finger	PM 6	Onsite	Oct 05
2532-MWU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	DVD±RW	11a/b/g ³²	None	None	None	Finger	GM 9	Onsite	Jan 06
2532-MSU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	Combo	11a/b/g	None	None	None	Finger	GM 6	Onsite	Jan 06
2532-MTU	Black	Pentium M 760	2.00	1GB	15.4" WSXGA+	X600 100G	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	PM 9	Onsite	Jan 06	
2532-MUJ	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	Combo	11a/b/g	None	None	None	PM 6	Onsite	Jan 06	

• This model has a limited onsite service²⁴ 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i> Intel® Pentium M Processor 750 or 760 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ✦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access • InterVideo WinDVD • InterVideo WinDVD Creator (DVD±RW models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
L2 cache	2MB / on die (at processor speed) / ECC														
Memory	512MB or 1GB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / CL4 / dual channel capable two 200-pin SO-DIMM sockets / std mem in one socket / one socket available														
Diskette drive	None standard / use optional USB-based diskette drive														
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhan														
EIDE DVD±RW	<i>1PU:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced														
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh														
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel														
Serial ATA disk (SATA150)	60 or 80 or 100GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™														
Widescreen display	<i>Some:</i> 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391.0mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches / secure screen surround														
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM <i>Some:</i> ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory <i>Some:</i> ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory <i>X300/X600:</i> DVI pass-through support to opt Advanced Mini Dock and Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>(WxDxH):</i> 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm														
Weight ²	with optical drive and battery: <i>6-cell:</i> up to 7.0 lb (3.2kg); <i>9-cell:</i> up to 7.3 lb (3.3kg)														
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhan														
Battery - life ¹⁰	<i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr														
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)														
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI	One Mini PCI slot / customer upgradable														
Intel 11a/b/g ³²	<i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset														
11a/b/g II ³²	<i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X														
Mini PCI Express	One Mini PCI Express slot / not customer upgradable														
WWAN	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip														
Bluetooth™	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant														
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip														
Limited warranty ¹²	3-year/1-yr battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			Z60m/R60 Series Li-Ion Battery 6-cell				40Y6795							
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797							
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			Advanced Ultrabay Battery 3-cell				40Y6789							
USB Portable Diskette Drive	05K9276			ThinkPad External Battery Charger				40Y7625							
USB Fingerprint Reader	73P4774			ThinkPad 90W AC Adapter				40Y7659							
USB 2.0 Memory Key 1GB	40Y7421			11a/b/g Wireless Mini PCI Adapter II				73P4301							
USB 2.0 Super Multi-Burner Drive	40Y8638			Intel PRO/Wireless 2915ABG Mini PCI				41N2990							
Serial Hard Drive Ultrabay Slim Adapter	40Y8725			Verizon Wireless V620 WWAN PC Card ²⁵				40Y9137							
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013			ThinkPad Advanced Mini Dock				250410U							
Kensington® MicroSaver® Security Cable	73P2582			ThinkVision® L201p 20.1" Monitor (blk)				9320HB1							
Other options on O-Z60M sheet	Other options at lenovo.com/options														
See footnotes for important warranty information										* Powered by Intel Centrino® mobile technology					
US models announced September 20, 2005 or January 31, 2006										© Lenovo					
US models withdrawn effective June or October 2006										(WR5) October 2006					

Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

ThinkPad® Z61m (9450) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCle WWAN Blue-tooth	Finger print reader	Chip set	Cam-Pre era load	Workhorse (W) Gbl (G) Avail date
9450-32U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 80G	80G Combo		11a/b/g ³²			GM	Home	May06
9450-33U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 60G	60G Combo		*Intel 11a/b/g ³²		Finger	GM	Pro	W May06
9450-32U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 60G	60G Combo		*Intel 11a/b/g		Finger	GM	Pro	W May06
9450-34U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 60G	60G Combo		*Intel 11a/b/g	Verizon Blue	Finger	GM	Pro	W May06
9450-35U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 80G	DVD±RW		*Intel 11a/b/g		Finger	GM	Pro	W May06
9450-36U	Silver	Core Duo T2300E	1.66	512	15.4" WSXGA+	X1400	100	DVD±RW	*Intel 11a/b/g		Finger	PM Cam	Pro	W May06
9450-37U	Silver	Core Duo T2300E	1.66	1GB	15.4" WXGA	GMA 100	DVD±RW		*Intel 11a/b/g	Verizon Blue	Finger	GM	Pro	W May06
9450-38U	Silver	Core Duo T2300E	1.66	1GB	15.4" WSXGA+	X1400	100	DVD±RW	*Intel 11a/b/g	Verizon Blue	Finger	PM Cam	Pro	W May06
9450-39U	Silver	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW	*Intel 11a/b/g	Verizon Blue	Finger	PM Cam	Pro	W May06
9450-3TU	Black	Celeron M 410	1.46	256	15.4" WXGA	GMA 40G	60G Combo		11a/b/g			GM	Pro	Gbl May06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹²

Positioning	Widescreen multimedia; two spindles	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Processor	Intel® Celeron M Processor 410 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2300E or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache	
Memory	256MB, 512MB, or 1GB std / 4GB max ²¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 256/512MB models: std memory in one socket; one socket available / 1GB models: std memory in two sockets; none available	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh	
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh	
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high	
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	
Widescreen display (anti-glare)	Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 / 300:1 contrast 3ZU: 15.4" (391mm) WXGA (1280x800) TFT color / 200 nits / 16:10 / 500:1 contrast Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches	
Graphics	Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz Some: ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm	
Weight ²	with optical drive and battery: 6-cell black: starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); 6-cell titanium: starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)	
Case material	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life ¹⁰	Celeron models: up to 3.7 hr; 6-cell GMA graphics: up to 5.6 hr; 6-cell ATI graphics: up to 4.0 hr; 9-cell: up to 8.3 hr; 9-cell plus Ultrabay batt: up to 10.3	
Architecture	Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Integrated camera	Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX	
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
WWAN	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCle Adapter, EV-DO/xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless	
Modem	56K® V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip	
Bluetooth™	Some: Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE	
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / GMA models: mono microphone; ATI graphics models: stereo microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available	Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90 watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 Other ThinkPlus services at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced May 16 or 30, 2006
US models withdrawn effective February or September 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® Z61m (9450) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Mem-Speed GHz	Mem-ory MB	Wide-screen display	Disk Graphics controller	SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger Blue-tooth reader	Chip set	Cam-era	Note CD	Work-horse Gbl	Avail date
9450-D5U Silver	Core 2 Duo T5500	1.66	1GB	15.4" WXGA	GMA 120	DVD±RW	*Intel 11a/b/g ³²	None	Blue	Finger	GM	CD	No	Oct 06	
9450-D6U Silver	Core 2 Duo T5500	1.66	1GB	15.4" WSXGA+	X1400	120 DVD±RW	*Intel 11a/b/g	None	Blue	Finger	PM	Cam	No	Oct 06	
9450-D9U Silver	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	120 DVD±RW	ThinkPad 11n ²⁸	None	Blue	Finger	PM	Cam	No	Oct 06	

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty²

Positioning Processor	Widescreen multimedia; two spindles Intel® Core™ 2 Duo processor T5500 or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus; T5500 : 2MB shared L2 cache; T7200 : 4MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ✦ Disk-to-Disk Recovery Preloaded • <i>Model D5U</i> : Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>Model D5U</i> : std memory in two sockets; no sockets available; <i>Models D6U/D9U</i> : std memory in one socket; one socket available										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay™ Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 120GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Widescreen display (anti-glare)	<i>Some</i> : 15.4" (391mm) WXGA (1280x800) TFT color / 200 nits / 16:10 / 500:1 contrast <i>Some</i> : 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All</i> : stainless steel hinges / one hand activates dual latches										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Graphics	<i>Some</i> : Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some</i> : ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell titanium</i> : starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg) <i>Top cover</i> : silver color; ABS, aluminum, titanium material; <i>bottom</i> : black, PC/ABS Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics</i> : up to 5.6 hr; <i>6-cell ATI graphics</i> : up to 4.0 hr; <i>9-cell GMA</i> : up to 8.3 hr; <i>9-cell ATI</i> : up to 5.9 hr; <i>9-cell plus Ultrabay batt</i> : up to 10.3										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Architecture	<i>Some</i> : Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some</i> : Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All</i> : 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g ³² ThinkPad 11n ²⁸	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some</i> : camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some</i> : 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some</i> : 11a/b/g/n wireless ⁴ , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3										Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90 watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
WWAN Modem Bluetooth™ Ethernet Audio	None 56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models</i> : mono microphone; <i>ATI graphics models</i> : stereo microphone / microphone input jack / headphone jack										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available										• <i>Model D5U</i> : Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM CD-RW/DVD Combo Ultrabay Enhanced ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter 160GB Disk 9.5mm SATA150 (5400 rpm) USB 2.0 Lenovo Multimedia Headset USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive Other accessories on O-Z60M sheet	40Y7733 40Y7734 40Y7735 73P3275 41N5643 40Y8725 41N5692 40Y8518 41U5120 41N5565	Z60m/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock ThinkPad 90W AC Adapter 11a/b/g Wireless Mini PCI Express Adpr Intel PRO/Wireless 3945ABG Mini PCIe ThinkPad Carrying Case - BackPack Lenovo D221 Wide 22" Monitor (black) Other accessories at lenovo.com/accessories	40Y6795 40Y6797 250510W 250410U 250310U 40Y7659 40Y7026 41N3008 73P3599 6622HB1	41C9166 41C9167 41C9168 41C9171 41C9173 41C9169 41C9170 41C9174	ThinkPlus™.22 1-year LOR 9x5 NBD ThinkPlus 2-year LOR 9x5 NBD ThinkPlus 3-year LOR 9x5 NBD ThinkPlus 4-year LOR 9x5 NBD ThinkPlus 5-year LOR 9x5 NBD ThinkPlus 2-year P&L P/U Depot ThinkPlus 3-year P&L P/U Depot ThinkPlus 5-year P&L P/U Depot Other ThinkPlus services at lenovo.com/thinkplus/warranty										

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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(WR25-1) September 2007

ThinkPad® Z61m (9451) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Cam-era	Pre-load	Workhorse (W) Gbl (G) Avail date
9451-NPU	Black	Celeron® M 420	1.60	256	15.4" WXGA	GMA 40G Combo	40G Combo		11a/b/g ³²	None	None	None	GM	No	XP Pro	G Oct 06
9451-5UU	Black	Core Duo T2400	1.83	512	15.4" WXGA	GMA 60G Combo	60G Combo	*	Intel 11a/b/g ³²	None	None	Finger	GM	No	XP Pro	W May06
9451-5VU	Silver	Core Duo T2400	1.83	512	15.4" WXGA	GMA 60G Combo	60G Combo	*	Intel 11a/b/g	None	None	Finger	GM	No	XP Pro	W May06
9451-5WU	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400 60G Combo	60G Combo	*	Intel 11a/b/g	None	None	Finger	PM	No	XP Pro	W May06

• These models have a 1-year limited warranty¹²

Positioning Processor	Widescreen multimedia; two spindles Intel® Celeron M Processor 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Memory	256MB or 512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available			
EIDE Combo Ultrabay Enhanced Serial ATA disk (SATA150)	DVD-ROM/CD-RW / 24X/24X/24X/8X ³¹ speed / removable from Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB or 60GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™			
Widescreen display (anti-glare)	Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect / 300:1 Some: 15.4" (391mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect / 500:1 Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches			
Graphics	Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz Some: ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock			
Keyboard TrackPoint™ ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³ Weight ²	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell black: starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); 6-cell titanium: starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)			
Case material	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS			
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell Celeron: up to 3.7 hr; 6-cell GMA graphics: up to 5.6 hr; 6-cell ATI graphics: up to 4.0 hr; optional 9-cell GMA graphics: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 10.3 hr			
Architecture	Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)			
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)			
Wireless antenna Integrated camera Mini PCI Express 11a/b/g ³² Intel 11a/b/g ³² WWAN Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None Two Mini PCI Express slots / only 802.11 wireless is customer upgradable Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K ⁵ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / GMA models: mono microphone; ATI graphics models: stereo microphone / microphone input jack / headphone jack			
Security Security chip Fingerprint reader Limited warranty ¹²	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available			
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-4200 DDR2 CL4 SODIMM CD-RW/DVD Combo Ultrabay Enhanced ThinkPad DVD Ultrabay Slim Burner (flat) USB 2.0 Lenovo Multimedia Headset USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive Serial Hard Drive Ultrabay Slim Adapter 100GB Disk 9.5mm SATA150 (7200 rpm) Other accessories on O-Z60M sheet	40Y7733 40Y7734 73P3846 73P3275 41N5643 40Y8518 41U5120 41N5565 40Y8725 41N3013	Z60m/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock ThinkPad 90W AC Adapter 11a/b/g Wireless Mini PCI Express Adpr Intel PRO/Wireless 3945ABG Mini PCIe ThinkPad Carrying Case - Backpack Lenovo D221 Wide 22" Monitor (black) Other accessories at lenovo.com/accessories	40Y6795 40Y6797 250510W 250410U 250310U 40Y7659 40Y7026 41N3008 73P3599 6622HB1	ThinkPlus 2-year P&L P/U Depot ThinkPlus 3-year P&L P/U Depot ThinkPlus 4-year P&L P/U Depot ThinkPlus 5-year P&L P/U Depot Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced May 16 or October 17, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo processor technology

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(WR2-2) September 2007

ThinkPad® Z61m (9451) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Cam-era	Limited warranty ¹²	Workhorse (W) Gbl (G) Avail date
9451-E1U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 60G Combo	60G Combo	Intel 11a/b/g ³²	None	Finger GM	EasyServ	W	May06		
9451-E2U	Black	Celeron M 410	1.46	512	15.4" WXGA	GMA 60G Combo	60G Combo	Intel 11a/b/g	None	Finger GM	EasyServ	W	May06		
9451-E3U	Silver	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400 80G DVD±RW	* Intel 11a/b/g	None	Finger PM	Cam	EasyServ	W	May06		
9451-E4U	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400 80G DVD±RW	* Intel 11a/b/g	None	Finger PM	Cam	EasyServ	W	May06		

• **These models have an EasyServ™.19 onsite pickup and delivery 1-year limited warranty**
These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Category	Specifications	Software ¹⁴
Positioning Processor	Widescreen multimedia; two spindles Intel® Celeron M Processor 410 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh <i>One:</i> modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high	Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	60GB⁸ (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Widescreen display (anti-glare)	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock	
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ²	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <i>6-cell titanium:</i> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)	
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr	
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203) One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
PC Card slot ExpressCard slot Ports	4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g ³² WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None	
Modem Bluetooth™ Ethernet Audio	56K⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack	Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90 watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available	

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846	ThinkPad Essential Port Replicator	250510W
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkPad Advanced Mini Dock	250410U
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Advanced Dock	250310U
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	11a/b/g Wireless Mini PCI Express Adpr	40Y7026
USB Portable Diskette Drive	05K9276	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Backpack	73P3599
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo D221 Wide 22" Monitor (black)	6622HB1
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkVision® L201p 20.1" Monitor (black)	9220HB1
Other accessories on O-Z60M sheet		Other accessories at lenovo.com/accessories	

See footnotes for important warranty information
US models announced May 16 or 30, 2006
US models withdrawn effective February or September 2007

* Powered by Intel Centrino® Duo processor technology

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(WR2-4) September 2007

ThinkPad® Z61m (9452) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Cam-era	Pre-load	Workhorse (W) Gbl (G)	Avail date
9452-5UU	Black	Core Duo T2400	1.83	512	15.4" WXGA	GMA 60G	60G	Combo	* Intel 11a/b/g ³²	None	None	Finger	GM	No	Pro G W	May06
9452-5VU	Silver	Core Duo T2400	1.83	512	15.4" WXGA	GMA 60G	60G	Combo	* Intel 11a/b/g	None	None	Finger	GM	No	Pro G W	May06
9452-9NU	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	Combo	* Intel 11a/b/g	None	None	Finger	PM	No	Pro G W	May06

• These models have a 3-year limited warranty¹²

Positioning	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i>											SOFTWARE¹⁴				
Processor	Intel® Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache (shared)											Windows XP Professional models				
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											- Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery				
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Enhance											Preloaded				
Ultrabay Enhanced Serial ATA disk (SATA150)	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 60GB ⁸ (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director)				
Widescreen display (anti-glare)	Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches											• Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)				
Graphics	Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz Some: ATI® MOBILITY™ RADEON® X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock											• License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³ Weight ²	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell black: starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); 6-cell titanium: starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)															
Case material	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS															
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell GMA graphics: up to 5.6 hr; 6-cell ATI graphics: up to 4.0 hr; optional 9-cell GMA graphics: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 10.3 hr															
Architecture	Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)															
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD Picture Card) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios															
Integrated camera	None															
Mini PCI Express Intel 11a/b/g ³² WWAN	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None															
Modem Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage				
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE															
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / GMA models: mono microphone; ATI graphics models: stereo microphone / microphone input jack / headphone jack											65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage ENERGY STAR®-compliant RoHS-compliant				
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole											International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / integrated with security chip															
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			Z60m/R60 Series Li-Ion Battery 6-cell				40Y6795								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797								
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846			ThinkPad Essential Port Replicator				250510W				ThinkPlus™ ²² 2-year LOR 9x5 NBD 41C9175				
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad Advanced Mini Dock				250410U				ThinkPlus 3-year LOR 9x5 NBD 41C9176				
DVD-ROM Ultrabay Enhanced Drive	39X2642			ThinkPad Advanced Dock				250310U								
CD-RW/DVD Combo Ultrabay Enhanced	73P3275			ThinkPad External Battery Charger				40Y7625				ThinkPlus 4-year LOR 9x5 NBD 41C9177				
Super Multi-Burner Ultrabay Enh Drv (curv)	40Y8624			ThinkPad 90W AC Adapter				40Y7659								
USB Portable Diskette Drive	05K9276			11a/b/g Wireless Mini PCI Express Adpr				40Y7026				ThinkPlus 5-year LOR 9x5 NBD 41C9179				
USB Fingerprint Reader	41U3167			Intel PRO/Wireless 3945ABG Mini PCIe				41N3008								
USB 2.0 Memory Key 1GB	40Y7421			Verizon Wireless V620 WWAN PC Card ²⁵				40Y9137				ThinkPlus 4-year P&L P/U Depot 41C9178				
USB 2.0 Super Multi-Burner Drive	41N5565			Lenovo M500 Projector				0037A05								
Serial Hard Drive Ultrabay Slim Adapter	40Y8725			ThinkPad Nylon Carrying Case				10K0207				ThinkPlus 5-year P&L P/U Depot 41C9180				
ExpressCard Gemplus Smart Card Reader	41N3043			ThinkPad Carrying Case - Expander				73P3597								
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013			ThinkPad Carrying Case - Backpack				73P3599				Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Kensington® MicroSaver® Security Cable	73P2582			Lenovo L192 Wide 19" Monitor (black)				6920AB1								
Other options on O-Z60M sheet																

See footnotes for important warranty information
US models announced May 16, 2006
US models withdrawn effective February 2007

* Powered by Intel Centrino® Duo mobile technology

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(WR2-3) February 2007

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Camera	Workhorse (W) Gbl (G) Avail date
9452-J3U Black	Core 2 Duo T5600	1.83	1GB	15.4" WXGA	GMA	100	DVD±RW	* Intel 11a/b/g ³²	None	Blue	Finger	GM	No	G W Oct 06
9452-J4U Black	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+ X1400	GMA	120	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	PM	No	G W Oct 06
9452-JNU Black	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA	80G	Combo	* Intel 11a/b/g	None	Blue		GM	No	G W Oct 06
9452-JPU Black	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+ X1400	GMA	80G	Combo	* Intel 11a/b/g	None	Blue		PM	No	G W Oct 06

• **These models have a 3-year limited warranty¹²**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Core™ 2 Duo processor T5600 or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus; <i>T5600: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i>											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>J4U/JNU:</i> standard memory in both sockets (512MB each socket); no sockets avail; <i>J3U/JPU:</i> standard memory in 1 socket; 1 socket available											
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 80GB⁸ (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											
Widescreen display (anti-glare)	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect / 500:1 <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches											
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock											
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	<i>(WxDxH):</i> 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr											
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203) One Type I or Type II slot / CardBus 32-bit / integrated door											
PC Card slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)											
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g ³² WWAN Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole											
Security Security chip Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail											
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-4200 DDR2 CL4 SODIMM DVD-ROM Ultrabay Enhanced Drive CD-RW/DVD Combo Ultrabay Enhanced ThinkPad DVD Ultrabay Slim Burner (flat) USB Fingerprint Reader USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive Serial Hard Drive Ultrabay Slim Adapter ExpressCard Gemplus Smart Card Reader 100GB Disk 9.5mm SATA150 (7200 rpm) Other accessories on O-Z60M sheet	40Y7733 40Y7734 73P3846 39X2642 73P3275 41N5643 41U3167 41U5120 41N5565 40Y8725 41N3043 41N3013	Z60m/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock ThinkPad External Battery Charger 11a/b/g Wireless Mini PCI Express Adpr Intel PRO/Wireless 3945ABG Mini PCIe Lenovo M500 Projector Lenovo C500 Projector ThinkPad Carrying Case - Backpack Lenovo L192 Wide 19" Monitor (black) Other accessories at lenovo.com/accessories	40Y6795 40Y6797 250510W 250410U 250310U 40Y7625 40Y7026 41N3008 0037A05 0039A05 73P3599 6920AB1	ThinkPlus™ ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty								

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

ThinkPad® Z61m (9452) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Cam-era	Limited war-ranty ¹²	Workhorse (W) Gbl (G) Avail date
9452-E1U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g ³²	None	Finger	GM		EasyServ	May06
9452-E2U	Black	Celeron M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g	None	Finger	GM		EasyServ	May06
9452-E3U	Silver	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	EasyServ	W May06
9452-E4U	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM		EasyServ	W May06
9452-E7U	Black	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	80G	Combo	Intel 11a/b/g	None	Finger	GM		EasyServ	May06
9452-E8U	Black	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM		EasyServ	W May06
9452-E9U	Black	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM		EasyServ	W May06
9452-EAU	Silver	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	80G	Combo	Intel 11a/b/g	None	Finger	GM		EasyServ	May06
9452-EBU	Silver	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	EasyServ	W May06
9452-ECU	Silver	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	EasyServ	W May06

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Celeron M Processor 410 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 or T2500 with dual-core, Enhanced Intel Speed-Step™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache (shared)											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery			
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 512MB models: std memory in one socket; one socket available / 1GB models: std memory in two sockets; none available											Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director)			
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 60GB ⁸ (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											• Adobe Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Widescreen display (anti-glare)	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches											• CD • Adobe Photoshop Elements plus Adobe Premiere Elements			
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock											• License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ²	<i>(WxDxH):</i> 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <i>6-cell titanium:</i> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)														
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS														
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr														
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203) One Type I or Type II slot / CardBus 32-bit / integrated door														
PC Card slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g ³² WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
Modem Bluetooth™ Ethernet Audio	56K ⁹ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole											Supports ThinkVantage® technologies			
Security Security chip Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip											65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available											ThinkPlus™ services at lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced May 16 or 30, 2006
US models withdrawn effective February or September 2007

* Powered by Intel Centrino® Duo mobile technology

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(WR2-5) September 2007

ThinkPad® Z61m (9453) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Cam-era	Limited warranty ¹²	Workhorse (W) Gbl (G) Avail date	
9453-E1U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g ³²	None	Finger	GM	Onsite		May06	
9453-E2U	Black	Celeron M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g	None	Finger	GM	Onsite		May06	
9453-E3U	Silver	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06
9453-E4U	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06
9453-E7U	Black	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	60G	Combo	Intel 11a/b/g	None	Finger	GM	Onsite		May06	
9453-E8U	Black	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Onsite	W	May06	
9453-E9U	Black	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Onsite	W	May06	
9453-EAU	Silver	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	60G	Combo	Intel 11a/b/g	None	Finger	GM	Onsite		May06	
9453-EBU	Silver	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06
9453-ECU	Silver	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06

• **These models have a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Widescreen multimedia; two spindles Intel® Celeron M Processor 410 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 or T2500 with dual-core, Enhanced Intel Speed-Step™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache (shared)	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 512MB models: std memory in one socket; one socket available / 1GB models: std memory in two sockets; none available	
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay™ Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 60GB⁸ (5400 rpm), 80GB (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	
Widescreen display (anti-glare)	<i>Some:</i> 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio <i>Some:</i> 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches	
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz <i>Some:</i> ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock	
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ²	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <i>6-cell titanium:</i> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)	
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr	
Architecture	<i>Some:</i> Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub <i>Some:</i> Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g ³² WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
Modem Bluetooth™ Ethernet Audio	56K ⁹ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹²	3-year/1-yr battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time	
		Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty

See footnotes for important warranty information

* Powered by Intel Centrino® Duo mobile technology

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US models announced May 16 or 30, 2006

(WR2-6) September 2007

US models withdrawn effective February or September 2007

ThinkPad® Z60m, Z61m, Z61p Accessories - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Partial list of accessories supported on:

- ThinkPad Z60m announced on September 20, 2005
- ThinkPad Z61m announced on May 16, 2006
- ThinkPad Z61p announced on July 18, 2006

Memory (Z60m)

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06

Memory (Z61m and Z61p)

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm (best to use curved bezel options)

Serial Hard Drive Ultrabay Slim Adapter (flat) ⁴⁰	40Y8725	ann 09/20/05
⁴⁰ Supported, but not recommended because flat bezel.		
DVD-ROM Ultrabay Slim Drive (curved bezel)	73P3270	ann 10/07/03
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

Ultrabay Enhanced 12.7mm (best to use curved bezel options)

DVD-ROM Ultrabay Enhanced Drive (curved)	39X2642	ann 03/14/06
CD-RW/DVD Combo Ultrabay Enhanced (cur)	73P3275	ann 10/07/03

Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5692	ann 03/20/07

⁴¹ Can be used as the main HDD or with
ThinkPad Serial ATA Hard Drive Ultrabay Slim
Adapter 40Y8725 in the Ultrabay or in the
ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless LAN (Mini PCI) [Z60m]

11a/b/g Wireless Mini PCI Adapter II ⁴²	73P4301	
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⁴² System must be wireless upgradable.

Wireless LAN (Mini PCI Express) [Z61m and Z61p]

11a/b/g Wireless Mini PCI Express Adpr ⁴²	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad ⁴²	41N3008	ann 01/05/06

⁴² System must be wireless upgradable.

ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock ⁴⁷	250310U	ann 09/20/05

⁴⁷ ThinkPad Advanced Dock supports dual-head graphics adapters:

- ATI® X1300 256MB Dual Head/TV-out 41U5028
- ATI Radeon™ X300 SE 128MB Dual Head 41U4813

Batteries

Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795	ann 09/20/05
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell ⁴³	40Y6789	ann 09/20/05

⁴³ Used in Ultrabay Enhanced bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter ⁴⁵	40Y7696	
⁴⁵ Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin Surge Protector	31P7659	

Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Targus Wireless Keypad and Mouse Combo	40Y7721	
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Other accessories at lenovo.com/accessories

Need to buy accessories no longer marketed by Lenovo? See
www.itxchange.com/lenovo for the Options Continuation Program.

ThinkPad® Z60t (2511) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Olympic logo on cover	Processor	Speed GHz	Memory	Wide-screen display	Disk SATA GB ^a	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-ited warranty ¹²	Avail date
2511-3BU	Silver		Pentium® M 760	2.00	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g ³²		Blue	Finger	7-cell XP Pro	1-yr	Sep 05
2511-E2U	Black		Celeron® M 360J	1.4	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E3U	Black		Celeron M 360J	1.4	512MB	14.0" WXGA	60GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E4U	Black		Pentium M 740	1.73	512MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E5U	Black		Pentium M 740	1.73	512MB	14.0" WXGA	60GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E6U	Black		Pentium M 750	1.86	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E7U	Silver		Pentium M 760	2.00	1GB	14.0" WXGA	100GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-EAU	Black		Celeron M 360	1.4	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	4-cell XP Home	1-yr	Sep 05
2511-EBU	Black		Celeron M 370	1.5	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	4-cell XP Home	1-yr	Sep 05
2511-ECU	Black		Celeron M 370	1.5	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-EDU	Black		Celeron M 370	1.5	512MB	14.0" WXGA	60GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-EEU	Black		Pentium M 740	1.73	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	4-cell XP Home	1-yr	Sep 05
2511-EGU	Black		Pentium M 750	1.86	512MB	14.0" WXGA	60GB	Combo	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-FDU	Silver		Pentium M 750	1.86	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-FEU	Silver		Pentium M 740	1.73	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-FFU	Silver	Logo	Pentium M 760	2.00	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g		Blue	Finger	4-cell XP Pro	1-yr	Jan 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program
 • These 2511 models have a 1-year limited warranty

Positioning	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i>	SOFTWARE¹⁴		
Processor	Intel® Celeron M Processor 360J or 370 with XD Bit and 400MHz system bus or Intel® Pentium M Processor 740 (1.73GHz), 750 (1.86GHz), or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus	Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
L2 cache	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC	Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
Memory	256MB, 512MB, or 1GB std / 2GB max ¹ / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • FingerPrint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Diskette drive	None standard / use optional USB-based diskette drive	License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim	ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage		
EIDE DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame)		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant		
Serial ATA disk (SATA150)	40GB ⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
Display	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround Some: Olympic logo on titanium top cover			
Olympic logo	Some: Olympic logo on titanium top cover			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys			
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm			
Weight ²	with optical drive and battery: 4-cell: up to 4.8 lb (2.2kg); 7-cell: up to 5.15 lb (2.34 kg)			
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP			
Battery - type	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim			
Battery - life ¹⁰	4-cell: up to 3.0 hr; 7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr			
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)			
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door			
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable			
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip			
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless			
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chipset			
Bluetooth™	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE			
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack			
Security	Power-on password / hard disk password / supervisor password / security keyhole			
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant			
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip			
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPlus™ ²² 1-year LOR 9x5 NBD
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793	41C9166
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 2-year LOR 9x5 NBD
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659	41C9167
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Essential Port Replicator	250510W	ThinkPlus 3-year LOR 9x5 NBD
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U	41C9168
100GB Disk 9.5mm SATA150 (5400 rpm)	40Y8721	ThinkPad Advanced Dock	250310U	Other ThinkPlus services at lenovo.com/thinkplus/warranty
Other options on O-Z60T sheet		Other options at lenovo.com/options		

See footnotes for important warranty information
US models announced September 20, 2005 or January 24, 2006
US models withdrawn effective June or October 2006

ThinkPad® Z60t (2511) - TopSeller (January 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Battery Preload	Lim-ited warranty ¹²	Avail date
2511-H1U	Black	Celeron® M 380	1.6	512MB	14.0" WXGA	GMA 40GB	Combo	11a/b/g ³²					4-cell Home	1-yr	Jan 06
2511-H2U	Black	Pentium M 760	2.0	512MB	14.0" WXGA	GMA 80GB	DVD±RW	11a/b/g				Finger	7-cell Pro	1-yr	Jan 06
2511-H8U	Silver	Pentium M 770	2.13	512MB	14.0" WXGA	GMA 100GB	DVD±RW	11a/b/g		Verizon		Blue Finger	7-cell Pro	1-yr	Jan 06
2511-H9U	Silver	Pentium M 750	1.86	512MB	14.0" WXGA	GMA 80GB	DVD±RW	11a/b/g				Blue Finger	7-cell Pro	1-yr	Jan 06
2511-HAU	Silver	Pentium M 740	1.73	512MB	14.0" WXGA	GMA 80GB	DVD±RW	11a/b/g				Blue Finger	7-cell Pro	1-yr	Jan 06
2511-HBU	Black	Celeron M 370	1.5	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg ³⁶		Verizon			4-cell Home	1-yr	Jan 06
2511-HCU	Black	Pentium M 740	1.73	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg		Verizon			4-cell Home	1-yr	Jan 06
2511-HDU	Silver	Pentium M 370	1.5	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg					4-cell Home	1-yr	Jan 06
2511-HEU	Silver	Pentium M 740	1.73	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg					4-cell Home	1-yr	Jan 06
2511-HGU	Silver	Celeron M 370	1.5	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg		Verizon			4-cell Home	1-yr	Jan 06
2511-HHU	Silver	Pentium M 740	1.73	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg		Verizon			4-cell Home	1-yr	Jan 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program
• These 2511 models have a 1-year limited warranty

Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i> Intel® Celeron M Processor 370 or 380 with XD Bit and 400MHz system bus or Intel® Pentium M Processor 740, 750, 760 or 770 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 800MHz system bus	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
L2 cache Memory	<i>Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</i> 256MB, or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Slim</i> <i>Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim</i> One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 40GB⁸ (5400 rpm), 80GB (5400 rpm), 100GB (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskkeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Display	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround	• License - CD not included (all) - Lotus® SmartSuite® Millennium and - Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz	ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Dimensions ³ Weight ² Case material	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell</i> : up to 4.8 lb (2.2kg); <i>7-cell</i> : up to 5.1 lb (2.3 kg) <i>Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material</i> <i>Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP</i>	ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell</i> : up to 3.0 hr; <i>7-cell</i> : up to 5.0 hr; <i>7-cell plus Ultrabay Slim battery</i> : up to 7.0 hr	Other ThinkPlus services at lenovo.com/thinkplus/warranty
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)	
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna Mini PCI Express Wireless upg ³⁶ 11a/b/g ³² WWAN ¹⁶	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some: wireless upgradable with wireless Mini PCI Express options</i> <i>Some: 11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCI Express Adptr, Atheros AR5006EX</i> <i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K⁶ V.90 (V.92-designed²⁹) modem in Comm Daughter Card socket / Conexant® chipset</i> <i>Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator</i> Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Modem Bluetooth™ Ethernet Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole	
Security Security chip Fingerprint reader	Trusted Platform Module / Atmel chip / TCG 1.1-compliant Fingerprint reader on palm rest / swipe sensor / integrated with security chip	
Limited warranty ¹² 1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available		
256MB PC2-4200 DDR2 NP CL4 SOD 512MB PC2-4200 DDR2 NP CL4 SOD 1GB PC2-4200 DDR2 NP CL4 SOD Combo II Ultrabay Slim Drive (flat bezel) Super Multi-Burner Ultrabay Slim Drive (flat) Serial Hard Drive Ultrabay Slim Adptr (flat) 100GB Disk 9.5mm SATA150 (7200 rpm) USB Portable Diskette Drive USB Serial Parallel Adapter USB 2.0 Memory Key 1GB USB 2.0 Super Multi-Burner Drive Other options on O-Z60T sheet	73P3840 73P3842 73P3844 40Y8621 40Y8623 40Y8725 41N3013 05K9276 22P5298 40Y7421 40Y8638	Z60t Series Li-Ion Battery 4-cell 40Y6791 Z60t Series Li-Ion Battery 7-cell 40Y6793 Advanced Ultrabay Battery 3-cell 40Y6789 ThinkPad 90W AC Adapter 40Y7659 ThinkPad Essential Port Replicator 250510W ThinkPad Advanced Mini Dock 250410U ThinkPad Advanced Dock 250310U ThinkVision® L201p 20.1" Monitor (blk) 9320HB1 ThinkPad Adjustable Notebook Stand 40Y7676 ThinkPad Convertible Monitor Stand 40Y7620 Premiere Leather Carrying Case 10K0209 Other options at lenovo.com/options

See footnotes for important warranty information
US models announced January 24, 2005
US models withdrawn effective October 2006

ThinkPad® Z60t (2512) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ^a	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Battery cells	Preload	Lim-ited warranty ¹²	Avail date
2512-11U	Black	Pentium® M 740	1.73	512MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g ³²	None	None	None	4-cell	XP Pro	1-yr	Sep 05
2512-13U	Black	Celeron® M 360J	1.4	256MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g	None	None	None	4-cell	XP Home	1-yr	Sep 05
2512-JGU	Black	Celeron® M 370	1.5	256MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g	None	None	None	4-cell	XP Home	1-yr	Feb 06

Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i> Intel® Celeron M Processor 360J or 370 with XD Bit and 400MHz system bus or Intel® Pentium M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus											SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache Memory	<i>Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</i> 256MB or 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive											Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel															
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™															
Display	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround															
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz															
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys															
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm															
Weight ²	with optical drive and battery: <i>4-cell</i> : up to 4.8 lb (2.2kg)															
Case material	Black color; hybrid carbon fiber reinforced polymer (CFRP) material															
Battery - type	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim															
Battery - life ¹⁰	<i>4-cell</i> : up to 2.4 hr; <i>Opt 7-cell</i> : up to 5.0 hr; <i>7-cell plus Ultrabay Slim battery</i> : up to 7.0 hr															
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)															
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door															
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip															
WWAN	None															
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chipset															
Bluetooth™	None															
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE															
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack															
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant															
Fingerprint reader	None											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage				
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available											Universal 90-watt AC adapter ThinkPad Roll Case (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		Z60t Series Li-Ion Battery 4-cell			40Y6791										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		Z60t Series Li-Ion Battery 7-cell			40Y6793										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Advanced Ultrabay Battery 3-cell			40Y6789										
USB Portable Diskette Drive	05K9276		ThinkPad External Battery Charger			40Y7625										
USB Fingerprint Reader	73P4774		ThinkPad 90W AC Adapter			40Y7659										
USB 2.0/Analog Headset by Sennheiser	40Y8518		ThinkPad 90W AC/DC Combo Adapter			40Y7630			ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166							
USB 2.0 Lenovo Webcam	40Y8519		11a/b/g Wireless Mini PCI Express Adpr			40Y7026			41C9167							
USB 2.0 Super Multi-Burner Drive	40Y8638		ThinkVision® E500 Projector			0038A05			ThinkPlus 3-year LOR 9x5 NBD 41C9168							
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		ThinkVision C400 Wireless Projector			0039WA1			41C9171							
USB 2.0 Portable 80GB Hard Disk	40Y8726		ThinkPad Nylon Carrying Case			10K0207			ThinkPlus 4-year LOR 9x5 NBD 41C9171							
USB 2.0 Memory Key 1GB	40Y7421		Premiere Leather Carrying Case			10K0209			ThinkPlus 5-year LOR 9x5 NBD 41C9173							
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621		ThinkPad Carrying Case - Expander			73P3597			41C9173							
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623		ThinkPad Carrying Case - Backpack			73P3599			ThinkPlus 2-year P&L P/U Depot 41C9169							
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725		ThinkPad Essential Port Replicator			250510W			41C9170							
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662		ThinkPad Advanced Mini Dock			250410U			ThinkPlus 3-year P&L P/U Depot 41C9170							
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013		ThinkPad Advanced Dock			250310U			41C9172							
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008		ThinkPad Adjustable Notebook Stand			40Y7676			ThinkPlus 4-year P&L P/U Depot 41C9172							
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkPad Convertible Monitor Stand			40Y7620			41C9172							
Preferred Pro USB Fingerprint Keyboard	73P4730		Lenovo L192 Wide 19" Monitor (black)			6920AB1			ThinkPlus 5-year P&L P/U Depot 41C9174							
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137		ThinkVision L192p 19" Monitor (black)			9419HB2										
Other options on O-Z60T sheet	Other options at lenovo.com/options															

See footnotes for important warranty information
US models announced September 20, 2005 or February 28, 2006
US models withdrawn effective June or October 2006

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ThinkPad® Z60t (2513) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Disk Graphics controller	SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-Workhorse (W) mited warranty ¹²	Workhorse (W) Gbl (G) Avail date
2513-63U	Black	Pentium® M 740	1.73	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g ³²		Blue	Finger	7-cell	3-yr	Sep 05
2513-6PU	Black	Celeron® M 360J	1.4	256MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g				4-cell	3-yr	Sep 05
2513-6RU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	60GB	DVD±RW	11a/b/g			Finger	7-cell	3-yr	W Sep 05
2513-79U	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g			Finger	7-cell	3-yr	W G Sep 05
2513-7BU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	100GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell	3-yr	W Oct 05
2513-7DU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g	Verizon	Blue	Finger	7-cell	3-yr	W Oct 05
2513-7EU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	60GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell	3-yr	W Oct 05
2513-7FU	Silver	Pentium M 760	2.00	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g			Finger	7-cell	3-yr	W Sep 05
2513-7GU	Silver	Pentium M 760	2.00	512MB	14.0" WXGA	GMA	80GB	DVD±RW	11a/b/g			Finger	7-cell	3-yr	W Sep 05
2513-MCU	Silver	Pentium M 780	2.26	1GB	14.0" WXGA	GMA	100GB	DVD±RW	11a/b/g		Blue	Finger	7-cell	3-yr	Jan 06
2513-MHU	Black	Pentium M 740	1.73	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g				4-cell	3-yr	Jan 06
2513-MJU	Silver	Pentium M 760	2.00	512MB	14.0" WXGA	GMA	80GB	Combo	11a/b/g			Finger	7-cell	3-yr	Feb 06
Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i> Intel® Celeron M Processor 360J (1.4GHz) with XD Bit and 400MHz system bus or Intel® Pentium M Processor 740, 750, 760, or 780 with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 800 MHz system bus											SOFTWARE¹⁴			
L2 cache Memory	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC 256, 512MB or 1GB std / 2GB max⁷ / PC2-4200 533MHz DDR2 / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive EIDE Combo EIDE DVD±RW EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim <i>MCU:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 40GB⁸ (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), 100GB (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Display	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround														
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz														
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³ Weight ² Case material	<i>(WxDxH):</i> 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: 4-cell: up to 4.8 lb (2.2kg); 7-cell: up to 5.1 lb (2.3 kg) <i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP														
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim 4-cell: up to 2.4 hr; 7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr														
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)														
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna Mini PCI Express 11a/b/g ³² WWAN ¹⁶	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage			
Modem Bluetooth™ Ethernet Audio												Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.1-compliant <i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip														
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPlus™.22 2-year LOR 9x5 NBD											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793	41C9175											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 3-year LOR 9x5 NBD											
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter	40Y7659	41C9176											
USB Fingerprint Reader	73P4774	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus 4-year LOR 9x5 NBD											
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Express Adpr	40Y7026	41C9177											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkVision® E500 Projector	0038A05	ThinkPlus 5-year LOR 9x5 NBD											
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Nylon Carrying Case	10K0207	41C9179											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - Expander	73P3597	ThinkPlus 4-year P&L P/U Depot											
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Essential Port Replicator	250510W	41C9178											
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U	ThinkPlus 5-year P&L P/U Depot											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Dock	250310U	41C9180											
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Adjustable Notebook Stand	40Y7676	Post-warranty annual maintenance agreements at											
Kensington® MicroSaver® Security Cable	73P2582	Lenovo L192 Wide 19" Monitor (black)	6920AB1	lenovo.com/thinkplus/warranty											
Other options on O-Z60T sheet															

See footnotes for important warranty information
US models announced September 20, 2005 and January 24 or February 28, 2006
US models withdrawn effective June, September, or October 2006

ThinkPad® Z60t (2513) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-ited warranty ¹²	Education software	Avail date
2513-2GU Black	Pentium® M 750	1.86	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g ³²	None	None	None	7-cell	EasyServ	Yes Sep 05

• **This model has an EasyServ™,19 onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Stylish notebooks for work and life; thin and light; two-spindle system Intel® Pentium M Processor 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
L2 cache	2MB / on die (at processor speed) / ECC													
Memory	512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel													
Serial ATA disk (SATA150)	60GB ⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™													
Display	Widescreen / 14.0" (358.4mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround													
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint™	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm													
Weight ²	with optical drive and battery: 7-cell: up to 5.1 lb (2.3 kg)													
Case material	Black color; hybrid carbon fiber reinforced polymer (CFRP) material													
Battery - type	Lithium Ion 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life ¹⁰	7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr													
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)													
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip													
WWAN	None													
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chipset													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant													
Fingerprint reader	None													
Limited warranty ¹²	3-year/1-yr battery - EasyServ™,19 onsite pickup and delivery / service upgrades ²² avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789											
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625											
USB Fingerprint Reader	73P4774	ThinkPad 90W AC Adapter	40Y7659											
USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Express Adpr	40Y7026											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkVision® E500 Projector	0038A05											
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Nylon Carrying Case	10K0207											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	Premiere Leather Carrying Case	10K0209											
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Carrying Case - Backpack	73P3599											
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	Gemplus GemPC Smart Card Reader	41N3004											
60GB Hard Disk 9.5mm SATA (7200 rpm)	41N3012	ThinkPad Essential Port Replicator	250510W											
100GB Hard Disk 9.5mm SATA (5400 rpm)	40Y8721	ThinkPad Advanced Mini Dock	250410U											
100GB Hard Disk 9.5mm SATA (7200 rpm)	41N3013	ThinkPad Advanced Dock	250310U											
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Adjustable Notebook Stand	40Y7676											
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ThinkPad Convertible Monitor Stand	40Y7620											
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L171 17" Monitor (black)	9417AB1											
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision L192p 19" Monitor (black)	9419HB2											
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkVision L201p 20.1" Monitor (black)	9320HB1											
Other options on O-Z60T sheet	Other options at lenovo.com/options													
ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage														
Universal 90 watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²														
ThinkPlus™,22 2-year LOR 9x5 NBD	41C9175													
ThinkPlus 3-year LOR 9x5 NBD	41C9176													
ThinkPlus 4-year LOR 9x5 NBD	41C9177													
ThinkPlus 5-year LOR 9x5 NBD	41C9179													
ThinkPlus 4-year P&L P/U Depot	41C9178													
ThinkPlus 5-year P&L P/U Depot	41C9180													
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty														

See footnotes for important warranty information
US model announced September 20, 2005
US model withdrawn effective June 2006

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ThinkPad® Z60t (2514) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	3-year Limited warranty ¹²	Avail date
2514-MHU	Black	Pentium® M 740	1.73	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g ³²	None	None	None	4-cell	Onsite Jan 06	
2514-MJU	Silver	Pentium M 760	2.0	512MB	14.0" WXGA	GMA	80GB	Combo	11a/b/g	None	None	Finger	7-cell	Onsite Feb 06	

• **These models have a limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i> Intel® Pentium M Processor 740 or 760 with Enhanced Intel SpeedStep™ Technology ¹ , Execute Disable Bit, and 533MHz system bus										SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache	2MB / on die (at processor speed) / ECC										• Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskkeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, model) • InterVideo WinDVD (combo, model)				
Memory	512MB std / 2GB max ² / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										• License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Diskette drive	None standard / use optional USB-based diskette drive														
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	60 or 80GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™														
Display	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround														
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions ³	<i>(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm</i>														
Weight ²	with optical drive and battery: <i>4-cell: up to 4.8 lb (2.2 kg)</i>														
Case material	<i>Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material</i> <i>Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP</i>														
Battery - type	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim														
Battery - life ¹⁰	<i>4-cell: up to 2.4 hr; 7-cell: up to 5 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr</i>														
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)														
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip														
WWAN	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chipset														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant														
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip</i>														
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPad notebooks implement ThinkVantage® technologies and design; visit thinkpad.com/thinkvantage											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793												
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789												
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625												
USB Serial Parallel Adapter	22P5298	ThinkPad 90W AC Adapter	40Y7659												
USB Fingerprint Reader	73P4774	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Express Adpr	40Y7026												
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkVision® E500 Projector	0038A05												
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Nylon Carrying Case	10K0207												
USB 2.0 Super Multi-Burner Drive	40Y8638	Premiere Leather Carrying Case	10K0209												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - Expander	73P3597												
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Carrying Case - Backpack	73P3599												
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Essential Port Replicator	250510W												
100GB Disk 9.5mm SATA150 (5400 rpm)	40Y8721	ThinkPad Advanced Mini Dock	250410U												
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Advanced Dock	250310U												
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Adjustable Notebook Stand	40Y7676												
USB Travel Keyboard with UltraNav®	31P9490	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HB2												
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkVision L201p 20.1" Monitor (black)	9320HB1												
Other options on O-Z60T sheet		Other options at lenovo.com/options		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											

See footnotes for important warranty information
US models announced January 24 or February 28, 2006
US models withdrawn effective October 2006

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ThinkPad® Z60t (2514) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-ited warranty ¹²	Education software	Avail date
2514-2GU Black	Pentium® M 750	1.86	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g ³²	None	None	None	7-cell	Onsite	Yes Sep 05

• **This model has a limited onsite service²⁴ 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i>												
L2 cache	Intel® Pentium M Processor 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 533MHz system bus												
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max ⁷ / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive Combo	None standard / use optional USB-based diskette drive												
Ultrabay Slim	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim												
Serial ATA disk (SATA150)	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™												
Display	Widescreen / 14.0" (358.4mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround												
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint™	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm												
Weight ²	with optical drive and battery: 7-cell : up to 5.1 lb (2.3 kg)												
Case material	Black color; hybrid carbon fiber reinforced polymer (CFRP) material												
Battery - type	Lithium Ion 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life ¹⁰	7-cell : up to 5.0 hr; 7-cell plus Ultrabay Slim battery : up to 7.0 hr												
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)												
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door												
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip												
WWAN	None												
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant												
Fingerprint reader	None												
Limited warranty ¹²	3-years/1-yr battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit thinkpad.com/thinkvantage									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789										
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625										
USB Serial Parallel Adapter	22P5298	ThinkPad 90W AC Adapter	40Y7659										
USB Fingerprint Reader	73P4774	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Express Adpr	40Y7026										
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkVision® E500 Projector	0038A05										
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Nylon Carrying Case	10K0207										
USB 2.0 Super Multi-Burner Drive	40Y8638	Premiere Leather Carrying Case	10K0209										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - Expander	73P3597										
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Carrying Case - Backpack	73P3599										
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Essential Port Replicator	250510W										
100GB Hard Disk 9.5mm SATA (5400 rpm)	40Y8721	ThinkPad Advanced Mini Dock	250410U										
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Advanced Dock	250310U										
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Adjustable Notebook Stand	40Y7676										
USB Travel Keyboard with UltraNav®	31P9490	ThinkVision L171 17" Monitor (black)	9417AB1										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HB2										
Verizon Wireless V620 WWAN PC Card ²⁵	40Y9137	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
Other options on O-Z60T sheet		Other options at lenovo.com/options		Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty									

See footnotes for important warranty information
US model announced September 20, 2005
US model withdrawn effective June 2006

ThinkPad® Z61t (9440) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Disk SATA GB ⁶	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Camera	Finger print reader	Security 1394 chip	Workhorse (W) Gbl (G) Avail date
9440-25U Silver	Celeron® M 410	1.46	512M	14.1" WXGA	60GB Combo		11a/b/g ³²				Finger 1394	Yes	Home May 06
9440-25U Black	Celeron M 410	1.46	256M	14.1" WXGA	40GB Combo		11a/b/g						Home G May 06
9440-A4U Black	Celeron M 420	1.60	256M	14.0" WXGA	40GB Combo		11a/b/g						Pro WG Oct 06
9440-A5U Black	Celeron M 420	1.60	256M	14.0" WXGA	40GB Combo		11a/b/g				1394 Yes		Pro WG Oct 06
9440-26U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA	60GB Combo		*Intel 11a/b/g ³²				Finger 1394	Yes	Pro W May 06
9440-27U Silver	Core Duo T2300E	1.66	512M	14.0" WXGA	60GB Combo		*Intel 11a/b/g				Finger 1394	Yes	Pro W May 06
9440-27U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA	80GB Combo		*Intel 11a/b/g	Verizon Blue			Finger 1394	Yes	Pro W May 06
9440-28U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA	80GB DVD±RW		*Intel 11a/b/g				Finger 1394	Yes	Pro W May 06
9440-29U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA	+100G DVD±RW		*Intel 11a/b/g		Cam		Finger 1394	Yes	Pro W May 06
9440-2AU Silver	Core Duo T2300E	1.66	1GB	14.1" WXGA	100G DVD±RW		*Intel 11a/b/g	Verizon Blue			Finger 1394	Yes	Pro W May 06
9440-2BU Silver	Core Duo T2300E	1.66	1GB	14.1" WXGA	+100G DVD±RW		*Intel 11a/b/g	Verizon Blue	Cam		Finger 1394	Yes	Pro W May 06
9440-2CU Silver	Core Duo T2500	2.00	1GB	14.1" WXGA	+100G DVD±RW		*Intel 11a/b/g	Verizon Blue	Cam		Finger 1394	Yes	Pro May 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty

Positioning Processor	Widescreen multimedia; two spindles Intel® Celeron M Processor 410 or 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2300E or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache		SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)	
Memory	256MB, 512MB, or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 512MB models: std mem in one socket; 1 socket available / 1GB models: std memory in 2 sockets; none available			
Diskette drive	None standard / use optional USB-based diskette drive			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim			
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel			
Serial ATA disk (SATA150)	40, 60, 80, or 100GB ⁵ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™			
Display (anti-glare)	Some: Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 Some: Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 Some: Widescreen / 14.1" (358mm) WXGA+ (1440x900) TFT color / 200 nits / 16:10 All: stainless steel hinges / one hand activates dual latches			
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys			
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm			
Weight ²	with optical drive and battery: 4-cell black: 4.63 lb (2.1kg); 4-cell titanium: 4.88/4.92 lb (2.2/2.2kg)			
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP			
Battery - type	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim			
Battery - life ¹⁰	Celeron 4-cell: up to 2.3 hr; Core 4-cell: up to 3.7 hr; optional 7-cell: up to 6.25 hr			
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)			
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door			
Ports	3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / some: IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / all except 2SU: infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios			
Integrated camera	Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0			
Mini PCI Express	One (2SU) or two Mini PCI Express slots / only 802.11 wireless is customer upgradable			
11a/b/g ³²	Some: 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX			
Intel 11a/b/g ³²	Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG			
WWAN ¹⁶	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K ⁹ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip			
Modem	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator			
Bluetooth™	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE			
Ethernet	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / 2SU: mono microphone; others: stereo microphone / microphone input jack / headphone jack			
Audio	Power-on password / hard disk password / supervisor password / security keyhole			
Security	Some: Trusted Platform Module / Atmel chip / TCG 1.2-compliant			
Security chip	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip			
Fingerprint reader				
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPlus™ ²² 1-year LOR 9x5 NBD 41C9166
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793	ThinkPlus 2-year LOR 9x5 NBD 41C9167
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 3-year LOR 9x5 NBD 41C9168
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W	
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Mini Dock	250410U	
Other accessories on O-Z60T sheet		ThinkPad Advanced Dock	250310U	Other ThinkPlus services at lenovo.com/thinkplus/warranty

See footnotes for important warranty information * Powered by Intel Centrino® Duo processor technology
US models announced May 16, May 30, or October 17, 2006
US models withdrawn effective February, April, or September 2007

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ThinkPad® Z61t (9440) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Cam-era	Finger print reader	One Note CD	Workhorse Global	Avail date
9440-A8U <i>Silver</i>	Core 2 Duo T5500	1.66	1GB	14.0" WXGA	80GB	Combo	* Intel 11a/b/g ³²		Blue		Finger	CD	No	Oct 06
9440-ACU <i>Silver</i>	Core 2 Duo T5500	1.66	1GB	14.1" WXGA+	120GB	DVD±RW	* Intel 11a/b/g		Blue	Cam	Finger	CD	No	Oct 06
9440-ADU <i>Silver</i>	Core 2 Duo T7200	2.00	2GB	14.1" WXGA+	120GB	DVD±RW	* Intel 11a/b/g	Verizon	Blue	Cam	Finger	CD	No	Oct 06
9440-AMU <i>Silver</i>	Core 2 Duo T7200	2.00	2GB	14.0" WXGA	120GB	DVD±RW	ThinkPad 11n ²⁸		Blue	Cam	Finger		No	Oct 06

• **These small and medium business (SMB) models are part of the US TopSeller™ Program**
• **These models have a 1-year limited warranty**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Core™ 2 Duo processor T5500 or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, and 667MHz system bus; <i>T5500: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i>	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Model A8U/ACU/ADU: Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD included • Model A8U/ACU/ADU: Microsoft Office OneNote 2003 License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / All: std memory in 2 sockets; no sockets available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Slim</i>	
EIDE DVD±RW	<i>Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim</i>	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	80GB or 120GB⁹ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	
Display (anti-glare)	<i>Some: Widescreen / 14.0"</i> (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 <i>Some: Widescreen / 14.1"</i> (358mm) WXGA+ (1440x900) TFT color / 200 nits / 16:10 All: stainless steel hinges / one hand activates dual latches	
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm	
Weight ²	with optical drive and battery: <i>4-cell titanium</i> : starting at 4.88/4.92 lb (2.2/2.2kg)	
Case material	<i>Top cover: silver color; CFRP, aluminum, titanium material; Bottom: black, CFRP</i>	
Battery - type	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - life ¹⁰	<i>4-cell: up to 3.7 hr; optional 7-cell: up to 6.25 hr</i>	
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door	
Ports	3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Integrated camera	<i>Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0</i>	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g ³²	<i>Some: 11a/b/g wireless⁴, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</i>	
ThinkPad 11n ²⁸	<i>Some: 11a/b/g/n wireless⁴, ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3</i>	
WWAN ¹⁶	<i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless</i>	
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip	
Bluetooth™	Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE	
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / 2SU: mono microphone; <i>others</i> : stereo microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹²	1-year - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² available	

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad External Battery Charger	40Y7625
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC/DC Combo Adapter	40Y7630
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr	40Y7026
USB 2.0 Portable 120GB Hard Disk	41N8379	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector	0037A05
USB 2.0 Super Multi-Burner Drive	41N5565	Premiere Leather Carrying Case	10K0209
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Mini Dock	250410U
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Advanced Dock	250310U
Other accessories on O-Z60T sheet		Other accessories at lenovo.com/accessories	

ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166
ThinkPlus 2-year LOR 9x5 NBD 41C9167
ThinkPlus 3-year LOR 9x5 NBD 41C9168
ThinkPlus 4-year LOR 9x5 NBD 41C9171
ThinkPlus 2-year P&L P/U Depot 41C9169
ThinkPlus 3-year P&L P/U Depot 41C9170
Other ThinkPlus services at lenovo.com/thinkplus/warranty

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective April or September 2007

* Powered by Intel Centrino® Duo processor technology

ThinkPad® Z61t (9441) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	1394 port	Security chip	Battery cells	Lim- mited warranty ¹²	Workhorse (W) Gbl (G) Avail date
9441-4FU	Silver	Core™ Duo T2400	1.83	512MB	14.1" WXGA	GMA	60GB	Combo *	Intel 11a/b/g ³²	Finger	1394	Yes	4-cell	1-yr	W May 06
9441-4GU	Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA	80GB	Combo *	Intel 11a/b/g	Finger	1394	Yes	4-cell	1-yr	W May 06
9441-4HU	Silver	Celeron® M 420	1.60	512MB	14.1" WXGA	GMA	60GB	Combo	Intel 11a/b/g				7-cell	1-yr	W May 06
Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Celeron M Processor 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)			
Diskette drive	None standard / use optional USB-based diskette drive											License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											Supports ThinkVantage® technologies			
Serial ATA disk (SATA150)	60 or 80GB ⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™														
Display (anti-glare)	Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches											Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm														
Weight ²	with optical drive and battery: 4-cell black: starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); 4-cell titanium: starting at 4.42/4.81 lb (2.0/2.2kg); 7-cell titanium: starting at 4.77/5.17 lb											ThinkPlus 3-year LOR 9x5 NBD 41C9168			
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP														
Battery - type	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											ThinkPlus 4-year LOR 9x5 NBD 41C9171			
Battery - life ¹⁰	4-cell: up to 3.7 hr; Celeron 7-cell: up to 3.9 hr; 7-cell plus Ultrabay battery: up to 8.0 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)											ThinkPlus 5-year LOR 9x5 NBD 41C9173			
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / 4FU/4GU: IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / 4FU/4GU: infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											ThinkPlus 2-year P&L P/U Depot 41C9169			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Integrated camera	None											ThinkPlus 3-year P&L P/U Depot 41C9170			
Mini PCI Express	One (4HU) or two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											ThinkPlus 4-year P&L P/U Depot 41C9172			
WWAN	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip											ThinkPlus 5-year P&L P/U Depot 41C9174			
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE											Other accessories on O-Z60T sheet			
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / 4HU: mono microphone; others: stereo microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole											Other accessories at lenovo.com/accessories			
Security chip	Some: Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip											See footnotes for important warranty information US models announced May 16, 2006 US models withdrawn effective April or September 2007			
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available														

See footnotes for important warranty information
US models announced May 16, 2006
US models withdrawn effective April or September 2007

* Powered by Intel Centrino® Duo processor technology

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ThinkPad® Z61t (9441) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	1-year limited warranty ¹²	Workhorse (W) Education Gbl	(G) Avail date	
9441-E1U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo	11a/b/g ³²	Finger	EasyServ	Yes	W	May 06	
9441-E2U Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW *	Intel 11a/b/g ³²	Finger	Cam	EasyServ	Yes	May 06	
9441-E3U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo	11a/b/g	Finger	EasyServ	Yes	W	May 06	
9441-E4U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW *	Intel 11a/b/g	Finger	Cam	EasyServ	Yes	May 06	
<p>• These models have an EasyServ™¹⁹ onsite pickup and delivery 1-year limited warranty These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<p>Widescreen multimedia; two spindles Intel® Core Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache</p>									<p>SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery</p>			
Memory	<p>512MB std / 4GB max³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available</p>									<p>Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)</p>			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	<p>None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/8X²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
Display (anti-glare)	<p>Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches</p>									<p>License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Graphics	<p>Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz</p>									<p>Supports ThinkVantage® technologies</p>			
Keyboard TrackPoint™ ThinkLight™	<p>89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions</p>									<p>Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²</p>			
Dimensions ³ Weight ²	<p>(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <i>4-cell titanium:</i> starting at 4.42/4.81 lb (2.0/2.2kg)</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
Case material	<p><i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP</p>									<p>License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Battery - type Battery - life ¹⁰	<p>Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr</p>									<p>License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Architecture	<p>Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PC18412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
PC Card slot Ports	<p>One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door 3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
Wireless antenna Integrated camera	<p>UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
Mini PCI Express 11a/b/g ³² Intel 11a/b/g ³² WWAN	<p>Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX <i>Some:</i> 11a/b/g wireless⁴, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
Modem Bluetooth™ Ethernet Audio	<p>56K⁶ V.90 (V.92-designed²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
Security Security chip Fingerprint reader	<p>Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
Limited warranty ¹²	<p>1-year - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² available</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements</p>			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell					40Y6791						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell					40Y6793	ThinkPlus 2-year LOR 9x5 NBD					
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell					40Y6789	41C9167					
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger					40Y7625	ThinkPlus 3-year LOR 9x5 NBD					
USB Serial Parallel Adapter	22P5298	ThinkPad 90W AC/DC Combo Adapter					40Y7630	41C9168					
USB Gemplus GemPC Smart Card Reader	41N3040	11a/b/g Wireless Mini PCI Express Adpr					40Y7026	ThinkPlus 4-year LOR 9x5 NBD					
USB 2.0 Lenovo Webcam	40Y8519	Intel PRO/Wireless 3945ABG Mini PCIe					41N3008	41C9171					
USB 2.0 Security Memory Key 4GB	41U5120	Lenovo M500 Projector					0037A05	ThinkPlus 5-year LOR 9x5 NBD					
USB 2.0 Super Multi-Burner Drive	41N5565	Premiere Leather Carrying Case					10K0209	41C9173					
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Carrying Case - Expander					73P3597	ThinkPlus 2-year P&L P/U Depot					
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - BackPack					73P3599	41C9169					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator					250510W	ThinkPlus 3-year P&L P/U Depot					
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock					250410U	41C9170					
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ThinkPad Advanced Dock					250310U	ThinkPlus 4-year P&L P/U Depot					
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo L192 Wide 19" Monitor (black)					6920AB1	41C9172					
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L192p 19" Monitor (black)					9419HC2	ThinkPlus 5-year P&L P/U Depot					
Other accessories on O-Z60T sheet	Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
 US models announced May 16 or 30, 2006
 US models withdrawn effective February, April, or September 2007

* Powered by Intel Centrino® Duo processor technology

ThinkPad® Z61t (9442) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Camera	Security chip	Battery cells	Lim- mited warranty ¹²	Workhorse (W) Gbl (G) Avail date
9442-4FU	Silver	Core™ Duo T2400	1.83	512MB	14.1" WXGA	GMA	60GB	Combo *	Intel 11a/b/g ³²	Finger	Yes	Yes	4-cell	3-yr	W May 06
9442-4GU	Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA	80GB	Combo *	Intel 11a/b/g	Finger	Yes	Yes	4-cell	3-yr	W May 06
9442-88U	Black	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA	80GB	Combo *	Intel 11a/b/g	Finger	Yes	Yes	4-cell	3-yr	W May 06
9442-89U	Silver	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA	60GB	Combo *	Intel 11a/b/g	Finger	Yes	Yes	4-cell	3-yr	W May 06

• These models have a 3-year limited warranty

Positioning Processor	Widescreen multimedia; two spindles Intel® Core Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available														
Diskette drive	None standard / use optional USB-based diskette drive										Supports ThinkVantage® technologies				
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel										Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²				
Serial ATA disk (SATA150)	60 or 80GB ⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™														
Display (anti-glare)	Some: Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 Some: Widescreen / 14.1" (358mm) WXGA+ (1440x900) TFT color / 200 nits / 16:10 All: stainless steel hinges / one hand activates dual latches										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										Other accessories at lenovo.com/accessories				
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Other accessories at lenovo.com/accessories				
Dimensions ³	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm														
Weight ²	with optical drive and battery: 4-cell black: starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); 4-cell titanium: starting at 4.42/4.81 lb (2.0/2.2kg)										Other accessories at lenovo.com/accessories				
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP														
Battery - type	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										Other accessories at lenovo.com/accessories				
Battery - life ¹⁰	4-cell: up to 3.7 hr; 7-cell: up to 6.25 hr; 7-cell plus Ultrabay Slim battery: up to 8.25 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)										Other accessories at lenovo.com/accessories				
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)										Other accessories at lenovo.com/accessories				
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Integrated camera	Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0										Other accessories at lenovo.com/accessories				
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										Other accessories at lenovo.com/accessories				
WWAN	None														
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip										Other accessories at lenovo.com/accessories				
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE										Other accessories at lenovo.com/accessories				
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole										Other accessories at lenovo.com/accessories				
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip										Other accessories at lenovo.com/accessories				
Limited warranty ¹²	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades ²² avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			Z60t Series Li-Ion Battery 4-cell			40Y6791			Other accessories at lenovo.com/accessories					
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60t Series Li-Ion Battery 7-cell			40Y6793								
2GB PC2-5300 DDR2 SODIMM	40Y7735			Advanced Ultrabay Battery 3-cell			40Y6789								
USB Portable Diskette Drive	05K9276			ThinkPad External Battery Charger			40Y7625								
USB Fingerprint Reader	41U3167			ThinkPad 65W AC Adapter			40Y7696								
USB Gemplus GemPC Smart Card Reader	41N3040			ThinkPad 90W AC Adapter			40Y7659								
USB 2.0 Lenovo Multimedia Headset	40Y8518			ThinkPad 90W AC/DC Combo Adapter			40Y7630								
USB 2.0 Security Memory Key 2GB	41U5119			11a/b/g Wireless Mini PCI Express Adpr			40Y7026								
USB 2.0 Security Memory Key 4GB	41U5120			Lenovo C500 Projector			0039A05								
USB 2.0 Portable 120GB Hard Disk	41N8379			Premiere Leather Carrying Case			10K0209								
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Carrying Case - Expander			73P3597								
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621			ThinkPad Carrying Case - Backpack			73P3599								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			ThinkPad Essential Port Replicator			250510W								
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725			ThinkPad Advanced Mini Dock			250410U								
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662			ThinkPad Advanced Dock			250310U								
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013			Lenovo L192 Wide 19" Monitor (black)			6920AB1								
Preferred Pro USB Fingerprint Keyboard	73P4730			ThinkVision® L192p 19" Monitor (black)			9419HC2								
Other accessories on O-Z60T sheet															

See footnotes for important warranty information
US models announced May 16, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo processor technology

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(MN2-3) September 2007

ThinkPad® Z61t (9442) - October 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ^a	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Camera	Battery cells	Workhorse (W) Limited Gbl (G) Avail date
9442-P6U	Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	DVD±RW	* Intel 11a/b/g ³²	Finger	Cam	4-cell	3-yr	W G Oct 06
9442-PMU	Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	Combo	* Intel 11a/b/g	Finger	Cam	4-cell	3-yr	W G Oct 06

• These models have a 3-year limited warranty

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)		
Memory	1GB / 4GB max³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 1GB models: std memory in both sockets (512MB each socket); no sockets avail										Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • DiskKeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Diskette drive EIDE Combo	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
EIDE DVD±RW Ultrabay Slim	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												
Serial ATA disk (SATA150)	80GB^a (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™												
Display (anti-glare)	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 / stainless steel hinges / one hand activates dual latches												
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock												
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions ³ Weight ² Case material	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.23 lb/4.63 lb (1.9kg/2.1kg) <i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP												
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr												
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)												
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door 3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Integrated camera	<i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g ³² WWAN	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None												
Modem Bluetooth™	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet Audio	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack												
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip										Supports ThinkVantage® technologies		
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail										Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789										
USB Fingerprint Reader	41U3167	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 65W AC Adapter	40Y7696										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC Adapter	40Y7659										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr	40Y7026										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector	0037A05										
USB 2.0 Super Multi-Burner Drive	41N5565	Premiere Leather Carrying Case	10K0209										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - BackPack	73P3599										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W										
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U										
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad Advanced Dock	250310U										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L192p 19" Monitor (black)	9419HC2										
Other accessories on O-Z60T sheet											Other accessories at lenovo.com/accessories		

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo processor technology

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(MN25-1) September 2007

ThinkPad® Z61t (9442) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	3-year limited warranty ¹²	Education software	Workhorse (W) Gbl (G) Avail date
9442-E1U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	60GB	Combo	11a/b/g ³²	Finger	EasyServ	Yes	W May 06
9442-E2U Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	60GB	DVD±RW	* Intel 11a/b/g ³²	Finger Cam	EasyServ	Yes	May 06
9442-E3U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	60GB	Combo	11a/b/g	Finger	EasyServ	Yes	W May 06
9442-E4U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	60GB	DVD±RW	* Intel 11a/b/g	Finger Cam	EasyServ	Yes	May 06
9442-E5U Black	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	Combo	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-E6U Black	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	DVD±RW	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-E7U Black	Core Duo T2500	2.00	1GB	14.1" WXGA	GMA 100G	100G	DVD±RW	* Intel 11a/b/g	Finger Cam	EasyServ	Yes	May 06
9442-E8U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	Combo	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-E9U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	DVD±RW	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-EAU Silver	Core Duo T2500	2.00	1GB	14.1" WXGA	GMA 100G	100G	DVD±RW	* Intel 11a/b/g	Finger Cam	EasyServ	Yes	May 06

• **These models have an EasyServ™¹⁹ onsite pickup and delivery 3-year limited warranty**
 These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Core Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery Preloaded (only some listed) • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™ ²² 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 40Y6789 ThinkPlus 4-year LOR 9x5 NBD 40Y7625 ThinkPlus 5-year LOR 9x5 NBD 41C9177 ThinkPlus 4-year P&L P/U Depot 250310U ThinkPlus 5-year P&L P/U Depot 41C9180
Memory	512MB or 1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 512MB models: std mem in one socket; one socket available / 1GB models: std memory in two sockets; none available	
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60, 80, or 100GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	
Display (anti-glare)	Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches	
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz	
Keyboard TrackPoint™ ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ²	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <i>4-cell titanium:</i> starting at 4.42/4.81 lb (2.0/2.2kg)	
Case material	<i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP	
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr	
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door 3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna Integrated camera	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0	
Mini PCI Express 11a/b/g ³² Intel 11a/b/g ³² WWAN	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None	
Modem Bluetooth™ Ethernet Audio	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack	
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip	
Limited warranty ¹²	3-year/1-yr battery - EasyServ™¹⁹ onsite pickup and delivery / service upgrades²² avail	

See footnotes for important warranty information
 US models announced May 16 or May 30, 2006
 US models withdrawn effective April or September 2007

* Powered by Intel Centrino® Duo processor technology

ThinkPad® Z61t (9443) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Camera	Battery cells	3-year limited warranty ¹²	Workhorse (W) Gbl (G)	Avail date
9443-96U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo		11a/b/g ³²	Finger		4-cell	Onsite	W	May 06
9443-97U Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW	*	Intel 11a/b/g ³²	Finger	Cam	4-cell	Onsite	G	May 06
9443-98U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo		11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-99U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW	*	Intel 11a/b/g	Finger	Cam	4-cell	Onsite	G	May 06
9443-4FU Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	Combo	*	Intel 11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-4GU Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 80GB	Combo	*	Intel 11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-88U Black	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA 80GB	Combo	*	Intel 11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-89U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA 60GB	Combo	*	Intel 11a/b/g	Finger	Cam	4-cell	Onsite	W	May 06

• **These models have a limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Core Duo processor T2300E or T2400 with dual-core, Enhanced Intel Speed-Step™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Memory	512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available										Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60 or 80GB³ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™													
Display (anti-glare)	<i>Some:</i> Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 <i>Some:</i> Widescreen / 14.1" (358mm) WXGA+ (1440x900) TFT color / 200 nits / 16:10 <i>All:</i> stainless steel hinges / one hand activates dual latches													
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz													
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions ³ Weight ²	<i>(WxDxH):</i> 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <i>4-cell titanium:</i> starting at 4.42/4.81 lb (2.0/2.2kg)													
Case material	<i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP													
Battery - type Battery - life ¹⁰	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr													
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203) One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
PC Card slot Ports	3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)										License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Integrated camera	<i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0													
Mini PCI Express 11a/b/g ³² Intel 11a/b/g ³² WWAN	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX <i>Some:</i> 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
Modem Bluetooth™ Ethernet Audio	None 56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack													
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell								40Y6791				
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell								40Y6793				
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell								40Y6789				
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger								40Y7625	Supports ThinkVantage® technologies			
USB Fingerprint Reader	41U3167	ThinkPad 90W AC Adapter								40Y7659				
USB 2.0 Security Memory Key 2GB	41U5119	11a/b/g Wireless Mini PCI Express Adp								40Y7026	Universal 65-watt AC adapter			
USB 2.0 Security Memory Key 4GB	41U5120	Intel PRO/Wireless 3945ABG Mini PCIe								41N3008	ThinkPad Roll Cage (one-piece magnesium frame)			
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector								0037A05	RoHS-compliant			
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Expander								73P3597	International Warranty Service ¹⁷			
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - BackPack								73P3599	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator								250510W				
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock								250410U				
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Dock								250310U				
Preferred Pro USB Fingerprint Keyboard	73P4730	Lenovo L192 Wide 19" Monitor (black)								6920AB1	Post-warranty annual maintenance agreements at			
Other accessories on O-Z60T sheet	Other accessories at lenovo.com/accessories										lenovo.com/thinkplus/warranty			

See footnotes for important warranty information
US models announced May 16 or May 30, 2006
US models withdrawn effective April or September 2007

* Powered by Intel Centrino® Duo processor technology

ThinkPad® Z61t (9443) - October 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model color	Processor	Speed GHz	Mem-ory	Wide-screen display	Graphics con-troller	Disk SATA GB ⁶	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	3-year limited warranty ¹²	Workhorse (W) Gbl (G)	Avail date
9443-XAU Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	DVD±RW	* Intel	11a/b/g ³²	None	Finger Cam	Onsite	W G	Oct 06
9443-XBU Black	Core 2 Duo T7200	2.00	2GB	14.0" WXGA	GMA 120GB	DVD±RW	* Intel	11a/b/g	None	Finger Cam	Onsite	W G	Oct 06
9443-XCU Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	Combo	* Intel	11a/b/g	None		Onsite	W G	Oct 06
9443-XDU Black	Core 2 Duo T7200	2.00	1GB	14.1" WXGA+	GMA 80GB	Combo	* Intel	11a/b/g	None		Onsite	W G	Oct 06

• **These models have a limited onsite service²⁴ 3-year limited warranty**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										
Memory	1GB or 2GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>1GB models:</i> std memory in both sockets (512MB each socket); no sockets available; <i>2GB model:</i> standard memory in 1 socket; 1 socket available										
Diskette drive	None standard / use optional USB-based diskette drive										
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / removable from Ultrabay Slim										
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim										
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel										
Serial ATA disk (SATA150)	80GB⁸ or 120GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™										
Display (anti-glare)	<i>Some:</i> Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 <i>Some:</i> Widescreen / 14.1" (358mm) WXGA+ (1440x900) TFT color / 200 nits / 16:10 <i>All:</i> stainless steel hinges / one hand activates dual latches										
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock										
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys / TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) / Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions ³	<i>(WxDxH):</i> 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm										
Weight ²	with optical drive and battery: <i>4-cell black:</i> starting at 4.63 lb/4.67 lb (2.1kg/2.1kg)										
Case material	<i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP										
Battery - type	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										
Battery - life ¹⁰	<i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr										
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)										
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										
Ports	3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)										
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										
Integrated camera	<i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0										
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										
WWAN	None										
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip										
Bluetooth™	Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator										
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE										
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip										
Limited warranty ¹²	3-year/1-year battery, limited onsite service²⁴ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time										
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell									40Y6791
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell									40Y6793
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell									40Y6789
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger									40Y7625
USB Fingerprint Reader	41U3167	ThinkPad 90W AC Adapter									40Y7659
USB 2.0 Lenovo Webcam	40Y8519	11a/b/g Wireless Mini PCI Express Adpr									40Y7026
USB 2.0 Security Memory Key 4GB	41U5120	Intel PRO/Wireless 3945ABG Mini PCIe									41N3008
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector									0037A05
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Expander									73P3597
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - BackPack									73P3599
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator									250510W
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock									250410U
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Advanced Dock									250310U
Preferred Pro USB Fingerprint Keyboard	73P4730	Lenovo L192 Wide 19" Monitor (black)									6920AB1
Other accessories on O-Z60T sheet		Other accessories at lenovo.com/accessories									
Supports ThinkVantage® technologies											
Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²											
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											

See footnotes for important warranty information
US models announced October 17, 2006
US models withdrawn effective September 2007

* Powered by Intel Centrino® Duo mobile technology

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ThinkPad® Z61t (9443) - Education - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB ⁸	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	3-year limited warranty ¹²	Education software	Workhorse (W) Gbl (G) Avail date	
9443-E1U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo		11a/b/g ³²	Finger	Onsite	Yes	W May 06	
9443-E2U Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW*		Intel 11a/b/g ³²	Finger Cam	Onsite	Yes	May 06	
9443-E3U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo		11a/b/g	Finger	Onsite	Yes	W May 06	
9443-E4U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW*		Intel 11a/b/g	Finger Cam	Onsite	Yes	May 06	
9443-E5U Black	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	Combo		* Intel 11a/b/g	Finger	Onsite	Yes	May 06	
9443-E6U Black	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	DVD±RW*		Intel 11a/b/g	Finger	Onsite	Yes	May 06	
9443-E7U Black	Core Duo T2500	2.00	1GB	14.1" WXGA	GMA 100G	DVD±RW*		Intel 11a/b/g	Finger Cam	Onsite	Yes	May 06	
9443-E8U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	Combo		* Intel 11a/b/g	Finger	Onsite	Yes	May 06	
9443-E9U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	DVD±RW*		Intel 11a/b/g	Finger	Onsite	Yes	May 06	
9443-EAU Silver	Core Duo T2500	2.00	1GB	14.1" WXGA	GMA 100G	DVD±RW*		Intel 11a/b/g	Finger Cam	Onsite	Yes	May 06	
<p>• This model has a limited onsite service²⁴ 3-year limited warranty These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<p><i>Widescreen multimedia; two spindles</i> Intel® Core Duo processor T2300E, T2400, or T2500 with dual-core, Enhanced Intel SpeedStep™ technology¹, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache</p>									<p>SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional²⁰ (Service Pack 2) ⇨ Disk-to-Disk Recovery</p>			
Memory	<p>512MB or 1GB std / 4GB max³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 512MB models: std mem in one socket; one socket available / 1GB models: std memory in two sockets; none available</p>									<p>Preloaded • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)</p>			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	<p>None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/8X²¹ speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60, 80, or 100GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Display (anti-glare)	<p>Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Graphics	<p>Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Keyboard TrackPoint™ ThinkLight™	<p>89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Dimensions ³ Weight ²	<p>(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: 4-cell black: starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); 4-cell titanium: starting at 4.42/4.81 lb (2.0/2.2kg)</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Case material	<p><i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Battery - type Battery - life ¹⁰	<p>Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim 4-cell: up to 3.7 hr; 7-cell: up to 6.25 hr; 7-cell plus Ultrabay Slim battery: up to 8.25 hr</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Architecture	<p>Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
PC Card slot Ports	<p>One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door 3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Wireless antenna Integrated camera	<p>UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Mini PCI Express 11a/b/g ³² Intel 11a/b/g ³² WWAN	<p>Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless⁴, ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX <i>Some:</i> 11a/b/g wireless⁴, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Modem Bluetooth™ Ethernet	<p>56K⁶ V.90 (V.92-designed²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Audio	<p>High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Security Security chip Fingerprint reader	<p>Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip</p>									<p>CD • Adobe Photoshop Elements plus Adobe Premiere Elements License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Limited warranty ¹²	<p>3-years/1-yr battery, limited onsite service²⁴, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time</p>									<p>Supports ThinkVantage® technologies</p>			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell					40Y6791						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell					40Y6793						
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell					40Y6789						
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter					40Y7659						
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr					40Y7026						
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Essential Port Replicator					250510W						
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Advanced Mini Dock					250410U						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Advanced Dock					250310U						
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkVision® L192p 19" Monitor (black)					9419HC2						
Other accessories on O-Z60T sheet	<p>Other accessories at lenovo.com/accessories</p>												

See footnotes for important warranty information
 US models announced May 16 or May 30, 2006
 US models withdrawn effective April or September 2007

* Powered by Intel Centrino® Duo processor technology

ThinkPad® Z60t and Z61t Accessories - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Partial list of accessories supported on ThinkPad Z60t (and Z61t) originally announced on September 20, 2005 (and May 16, 2006)

Memory (Z60t)

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06

Memory (Z61t)

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm (best to use flat bezel options)

Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ann 09/20/05
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

Ultrabay Enhanced 12.7mm

None

Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) ⁴¹	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) ⁴¹	41N5692	ann 03/20/07

⁴¹ Can be used as the main HDD or with
ThinkPad Serial ATA Hard Drive Ultrabay Slim
Adapter 40Y8725 in the Ultrabay or in the
ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless LAN (Mini PCI Express)

11a/b/g Wireless Mini PCI Express Adpr ⁴²	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad ⁴²	41N3008	ann 01/05/06

⁴² System must be wireless upgradable.

Kensington WiFi Finder Plus	40Y7717	
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ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock ⁴⁷	250310U	ann 09/20/05

⁴⁷ ThinkPad Advanced Dock supports dual-head graphics adapters:

- ATI® X1300LE 256MB Dual Head/TV-out 41U5028
- ATI Radeon™ X300 SE 128MB Dual Head 41U4813

External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Targus Wireless Keypad and Mouse Combo	40Y7721	
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

Batteries

ThinkPad Z60t Series Li-Ion Battery 4-cell	40Y6791	ann 09/20/05
ThinkPad Z60t Series Li-Ion Battery 7-cell	40Y6793	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell ⁴³	40Y6789	ann 09/20/05

⁴³ Used in Ultrabay Slim bay.

ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
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⁴⁴ Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).		
ThinkPad 65W AC Adapter ⁴⁵	40Y7696	
⁴⁵ Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin Surge Protector	31P7659	

Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	
ThinkPad Convertible Back Pack	22P8859	

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Other accessories at lenovo.com/accessories

Need to buy accessories no longer marketed by Lenovo? See www.itxchange.com/lenovo for the Options Continuation Program.

ThinkPad® Z61e (0672) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Camera	Pre-load	Workhorse (W) Gbl (G)	Avail date
0672-21U	Black	Celeron® M 410	1.46	256MB	15.4" WXGA	GMA	40GB	Combo	11a/b/g ³²	No	No	No	GM	No	XP Home	Gbl	May06
0672-23U	Black	Celeron M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06
0672-24U	Silver	Celeron M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06
0672-B3U	Black	Celeron M 420	1.60	256MB	15.4" WXGA	GMA	40GB	CD	11a/b/g	No	No	No	GM	No	XP Pro	Gbl	Oct 06
0672-25U	Black	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home		May06
0672-26U	Silver	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home		May06
0672-2UU	Black	Core Solo T1400	1.83	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home		May06
0672-2VU	Silver	Core Solo T1400	1.83	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home		May06

• These small and medium business (SMB) models are part of the US TopSeller™ Program
• These models have a 1-year limited warranty¹²

Positioning Processor	Widescreen multimedia; two spindles Intel® Celeron M Processor 410 or 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Solo processor T1300 or T1400 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache	SOFTWARE¹⁴ Windows XP Professional models - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery Windows XP Home models - Microsoft Windows XP Home Edition ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery Preloaded (all) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)	
Memory	256MB or 512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available		
EIDE CD	Some: CD-ROM / 24X-10X ⁹ speed / fixed, not removable / 12.7mm high		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7mm		
Ultrabay Enhanced	None / no support for removable Ultrabay™ options		
Serial ATA disk (SATA150)	40GB⁸ (5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / no support for 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™		
Widescreen display	15.4" (391mm) WXGA (1280x800) TFT color / 16:10 aspect ratio / anti-glare / <i>Model B3U</i> : 200 nits, 500:1 contrast ratio; <i>Other models</i> : 150 nits, 300:1 contrast ratio / stainless steel hinges / one hand activates dual latches		
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz		
Keyboard (7-row) TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys / TrackPoint® pointing device		
Touch pad	No UltraNav® multi-pointing system		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions ³	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm		
Weight ²	with optical drive and battery: 6-cell : starting at 5.3 lb/5.8 lb (2.40kg/2.64kg)		
Case material	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS		
Battery - type	Lithium Ion 6-cell / intelligent / no support for 2nd battery in Ultrabay Enhanced		
Battery - life ¹⁰	6-cell : up to 5.6 hr; <i>optional 9-cell</i> : up to 8.3 hr		
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)		
Docking station	No port replicator or docking station support		
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	None		
Ports	4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no infrared port / no docking connector / no keyboard or mouse or parallel or serial ports (use USB)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Integrated camera	None		
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable		
11a/b/g ³²	11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros® AR5006EX		
WWAN	None		
Modem	56K® V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip		
Bluetooth™	None		
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE		
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	None		
Fingerprint reader	None		
Limited warranty ¹²	1-year - EasyServ™¹⁹ onsite pickup and delivery / service upgrades ²² available		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter	40Y7659
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301
USB 2.0 Security Memory Key 4GB	41U5120	Lenovo M500 Projector	0037A05
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo C500 Projector	0039A05
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo D221 Wide 22" Monitor (black)	6622HB1
Kensington® MicroSaver® Security Cable	73P2582	ThinkPad Carrying Case - Backpack	73P3599
Other accessories on O-Z60M sheet		Other accessories at lenovo.com/accessories	

See footnotes for important warranty information
US models announced May 16, May 30, or October 17, 2006
US models withdrawn effective February, April, or September 2007

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ThinkPad® Z61e (0673) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Camera	Pre-load	Workhorse (W) Gbl (G)	Avail date
0673-23U	Black	Celeron® M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g ³²	No	No	No	GM	No	XP Home	No	May06
0673-24U	Silver	Celeron M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	No	May06
0673-25U	Black	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	No	May06
0673-26U	Silver	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	No	May06

• **These models have a 1-year limited warranty¹²**

Positioning Processor	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i> Intel® Celeron M Processor 410 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Solo processor T1300 with single-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz bus, and 2MB L2 cache	SOFTWARE¹⁴ Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰ (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Memory	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7 mm high None / no support for removable Ultrabay™ options 256MB or 512MB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available	
EIDE Combo Ultrabay Enhanced Serial ATA disk (SATA150)	60GB ⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / no support for 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	
Widescreen display	15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio / anti-glare / stainless steel hinges / one hand activates dual latches	
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz	
Keyboard (7-row) TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device No UltraNav® multi-pointing system Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions ³ Weight ² Case material	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell</i> : starting at 5.3 lb/5.8 lb (2.40kg/2.64kg) <i>Some</i> : black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some</i> : top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS	
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / no support for 2nd battery in Ultrabay Enhanced <i>6-cell</i> : up to 5.6 hr; <i>optional 9-cell</i> : up to 8.3 hr	
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
Docking station PC Card slot ExpressCard slot Ports	No port replicator or docking station support One Type I or Type II slot / CardBus 32-bit / integrated door None 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD Picture Card) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no infrared port / no docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna Integrated camera Mini PCI Express 11a/b/g ³² WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None One Mini PCI Express slot / 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros® AR5006EX None	
Modem Bluetooth™ Ethernet Audio	56K® V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack	
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole None None	
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available	
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-4200 DDR2 CL4 SODIMM 2GB PC2-5300 DDR2 SODIMM USB Portable Diskette Drive USB Fingerprint Reader USB 2.0 Memory Key 1GB USB 2.0 CD-RW/DVD-ROM Combo II Drv USB 2.0 Super Multi-Burner Drive 100GB Disk 9.5mm SATA150 (7200 rpm) USB Keyboard with UltraNav Kensington® MicroSaver® Security Cable USB Optical Wheel Mouse Optical 3-Button ScrollPoint® Mouse Optical 3-Button ScrollPoint Pro Mouse Optical 3-Button Travel Wheel Mouse Other options on O-Z60M sheet	Z60m/R60 Series Li-Ion Battery 6-cell 40Y6795 Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797 ThinkPad External Battery Charger 40Y7625 ThinkPad 90W AC Adapter 40Y7659 11a/b/g Wireless Mini PCI Adapter II 73P4301 Intel PRO/Wireless 2915ABG Mini PCI 41N2990 Verizon Wireless V620 WWAN PC Card ²⁵ 40Y9137 ThinkVision® E500 Projector 0038A05 Lenovo M500 Projector 0037A05 ThinkPad Nylon Carrying Case 10K0207 ThinkPad Carrying Case - Expander 73P3597 ThinkPad Carrying Case - Backpack 73P3599 Lenovo L171 17" Monitor (black) 9227AC1 Lenovo L192 Wide 19" Monitor (black) 6920AB1 ThinkVision L171p 17" Monitor (black) 9417HC2 ThinkVision L201p 20.1" Monitor (black) 9220HB1 Other options at lenovo.com/options	
ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166		
ThinkPlus 2-year LOR 9x5 NBD 41C9167		
ThinkPlus 3-year LOR 9x5 NBD 41C9168		
ThinkPlus 4-year LOR 9x5 NBD 41C9171		
ThinkPlus 5-year LOR 9x5 NBD 41C9173		
ThinkPlus 2-year P&L P/U Depot 41C9169		
ThinkPlus 3-year P&L P/U Depot 41C9170		
ThinkPlus 4-year P&L P/U Depot 41C9172		
ThinkPlus 5-year P&L P/U Depot 41C9174		
Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty		

See footnotes for important warranty information
US models announced May 16 or 30, 2006
US models withdrawn effective February 2007

ThinkPad® Z61e (0673) - October 2006 - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Cam-era	Pre-load	Workhorse Global	Avail date
0673-BHU	Black	Core™ 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA	80GB	Combo	*Intel 11a/b/g ³²	No	No	GM	No	XP Pro	No	Oct 06

• This model has a 1-year limited warranty¹²

Positioning Processor	<i>Widescreen multimedia; two spindles</i> Intel® Core 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models) License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)					
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in both sockets (512MB each socket) / no sockets available															
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X ²¹ speed / fixed, not removable / 12.7 mm high										Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty					
Ultrabay Enhanced Serial ATA disk (SATA150)	None / no support for removable Ultrabay™ options 80GB⁸ (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / no support for 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™															
Widescreen display	15.4" (391mm) WXGA (1280x800) TFT color / 200 nits / 500:1 / 16:10 / anti-glare / stainless steel hinges / one hand activates dual latches															
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz															
Keyboard (7-row)	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys															
TrackPoint®	TrackPoint® pointing device															
Touch pad	No UltraNav® multi-pointing system															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions ³	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm															
Weight ²	with optical drive and battery: 6-cell: starting at 5.3 lb/5.8 lb (2.40kg/2.64kg)															
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion 6-cell / intelligent / no support for 2nd battery in Ultrabay Enhanced															
Battery - life ¹⁰	6-cell: up to 5.6 hr; optional 9-cell: up to 8.3 hr															
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)															
Docking station	No port replicator or docking station support															
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door															
ExpressCard slot	None															
Ports	4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no infrared port / no docking connector / no keyboard or mouse or parallel or serial ports (use USB)															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios															
Integrated camera	None															
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable															
Intel 11a/b/g ³²	11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG															
WWAN	None															
Modem	56K ⁶ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip															
Bluetooth™	None															
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE															
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack															
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	None															
Fingerprint reader	None															
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795													
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797													
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625													
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter	40Y7659													
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301													
USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo M500 Projector	0037A05													
USB 2.0 Security Memory Key 4GB	41U5120	Lenovo C500 Projector	0039A05													
USB 2.0 CD-RW/DVD-ROM Combo II Drv	40Y8637	ThinkPad Nylon Carrying Case	10K0207													
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Expander	73P3597													
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad Carrying Case - Organizer	73P3598													
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Backpack	73P3599													
USB Keyboard with UltraNav	31P8950	Lenovo L171 17" Monitor (black)	9227AC1													
Kensington® MicroSaver® Security Cable	73P2582	Lenovo L192 Wide 19" Monitor (black)	6920AB1													
USB Optical Wheel Mouse	06P4069	Lenovo D221 Wide 22" Monitor (black)	6622HB1													
Optical 3-Button ScrollPoint® Pro Mouse	31P8700	ThinkVision® L171p 17" Monitor (black)	9417HC2													
Lenovo Laser Mouse (USB, PS/2)	41U3074	ThinkVision L201p 20.1" Monitor (black)	9220HB1													
Other accessories on O-Z60M sheet	Other accessories at lenovo.com/accessories															

See footnotes for important warranty information
US model announced October 17, 2006
US model withdrawn effective September 2007

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(WR25E-1) September 2007

ThinkPad® Z61e Accessories - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Partial list of accessories supported on ThinkPad Z61e originally announced on May 16, 2005

Memory

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

Ultrabay Slim 9.5mm

None (no removable bay options)

Ultrabay Enhanced 12.7mm

None (no removable bay options)

Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ann 03/20/07

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Wireless LAN (Mini PCI Express)

11a/b/g Wireless Mini PCI Adapter II ⁴²	73P4301	ann 09/20/05
⁴² System must be wireless upgradable. Kensington WiFi Finder Plus	40Y7717	

ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
USB 2.0 Port Replicator with Video	40Y8132	ann 02/23/06
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05

External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Targus Wireless Keypad and Mouse Combo	40Y7721	
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Batteries

Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795	ann 09/20/05
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad External Battery Charger ⁴⁴	40Y7625	ann 09/20/05
⁴⁴ Requires the <i>ThinkPad 90W AC Adapter</i> 40Y7659.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin Surge Protector	31P7659	

Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
USB Fingerprint Reader	41U3167	ann 10/24/06

Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

Monitor Accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

⁴⁶ Compatible on selected Lenovo and ThinkVision monitors.

Other accessories at lenovo.com/accessories

Need to buy accessories no longer marketed by Lenovo? See www.itxchange.com/lenovo for the Options Continuation Program.

ThinkPad® Z61p (9450) - TopSeller - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed	Mem-ory	Wide-screen display	Disk controller	SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Bat-tery cells	One Note CD	Work-horse Gbl	Avail date
9450-3AU	Black	Core Duo T2500	2.00	1GB	15.4"	WUXGA	256MB	100G	DVD±RW*	Intel 11a/b/g ³²	None	Blue Finger	6		No	Jul 06
9450-A1U	Black	Core 2 Duo T7200	2.00	1GB	15.4"	WUXGA	256MB	100G	DVD±RW	ThinkPad 11n ²⁸	None	Blue Finger	9	CD	No	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty¹²

Positioning Processor	Widescreen multimedia; two spindles Intel® Core™ Duo processor T2500 with dual-core, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache											SOFTWARE¹⁴ Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◇ Disk-to-Disk Recovery				
Memory	1GB std / 4GB max ³¹ / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 3AU: standard memory in both sockets (512MB each socket); no sockets available; A1U: standard memory in 1 socket; 1 socket available											Preloaded • Model A1U: Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 100GB⁸ (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											CD included • Model A1U: Microsoft Office OneNote 2003				
Widescreen display (anti-glare)	15.4" (391mm) WUXGA (1920x1200) TFT color / 175 nits / 500:1 contrast ratio / 16:10 aspect ratio / stainless steel hinges / one hand activates dual latches											License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Graphics	ATI® MOBILITY™ FireGL™ V5200 M56 / PCI Express x16 / 256MB memory / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock											Supports ThinkVantage® technologies				
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions											90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service¹⁷ 24 hour x 7 day¹⁸ toll-free warranty support during the warranty¹²				
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg) Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhan 6-cell ATI graphics: up to 4.0 hr; 9-cell ATI graphics: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty				
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)															
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)															
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g ³² ThinkPad 11n ²⁸ WWAN Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None Two Mini PCI Express slots / only 802.11 wireless is customer upgradable Some: 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG Some: 11a/b/g/n wireless ⁴ , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3 None 56K ⁹ V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / ATI graphics models: stereo microphone / microphone input jack / headphone jack															
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip															
Limited warranty ¹²	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades ²² available															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell				40Y6795										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797										
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad Essential Port Replicator				250510W										
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkPad Advanced Mini Dock				250410U										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Advanced Dock				250310U										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger				40Y7625										
USB Fingerprint Reader	41U3167	ThinkPad 90W AC Adapter				40Y7659										
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr				40Y7026										
USB 2.0 Super Multi-Burner Drive	41N5565	Intel PRO/Wireless 3945ABG Mini PCIe				41N3008										
Serial Hard Drive Ultrabay Slim Adapter	40Y8725	Lenovo M500 Projector				0037A05										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Backpack				73P3599										
USB Keyboard with UltraNav	31P8950	Lenovo L192 Wide 19" Monitor (black)				6920AB1										
Kensington® MicroSaver® Security Cable	73P2582	Lenovo D221 Wide 22" Monitor (black)				6622HB1										
Other accessories on O-Z60M sheet																

See footnotes for important warranty information
US models announced July 18 or October 17, 2006
US models withdrawn effective April or September 2007

* Powered by Intel Centrino® Duo processor technology

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(WR2W-1) September 2007

ThinkPad® Z61p (9452) - withdrawn

Created by Lenovo Training Solutions
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger-print reader	Bat-tery Pre-load	Work-horse Gbl	Avail date
9452-JRU	Black	Core 2 Duo T7200	2.00	1GB	15.4" WUXGA	256MB	100GB	DVD±RW*	Intel 11a/b/g ³²	None	Blue Finger	9	Pro W G	Oct06

• This model has a 3-year limited warranty¹²

Positioning Processor	<i>Widescreen multimedia; two spindles</i>										SOFTWARE¹⁴			
Memory	Intel® Core™ 2 Duo processor T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology ¹ , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache [Virtualization Technology not supported]										Windows XP Professional - Microsoft® Windows® XP Professional ²⁰ (Service Pack 2) ◆ Disk-to-Disk Recovery			
EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 100GB⁵ (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™										Preloaded • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director)			
Widescreen display (anti-glare)	15.4" (391mm) WUXGA (1920x1200) TFT color / 175 nits / 500:1 contrast ratio / 16:10 aspect ratio / stainless steel hinges / one hand activates dual latches										• Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models)			
Graphics	ATI® MOBILITY™ FireGL™ V5200 M56 / PCI Express x16 / 256MB memory / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock										• Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions										License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 9-cell: up to 7.3 lb (3.3kg) Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell ATI graphics: up to 4.0 hr; 9-cell ATI graphics: up to 5.9 hr; 9-cell plus Ultrabay battery: up to 7.9 hr													
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)													
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)													
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g ³² WWAN Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless ⁴ , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K® V.90 (V.92-designed ²⁹) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / ATI graphics models: stereo microphone / microphone input jack / headphone jack										Supports ThinkVantage® technologies			
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip										90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²			
Limited warranty ¹²	3-year/1-yr battery - EasyServ™ ¹⁹ onsite pickup and delivery / service upgrades ²² avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad Essential Port Replicator	250510W											
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkPad Advanced Mini Dock	250410U											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Advanced Dock	250310U											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625											
USB Fingerprint Reader	41U3167	ThinkPad 90W AC Adapter	40Y7659											
USB 2.0 Lenovo Multimedia Headset	40Y8518	11a/b/g Wireless Mini PCI Express Adpr	40Y7026											
USB 2.0 Security Memory Key 4GB	41U5120	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008											
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo M500 Projector	0037A05											
Serial Hard Drive Ultrabay Slim Adapter	40Y8725	Lenovo C500 Projector	0039A05											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - BackPack	73P3599											
USB Keyboard with UltraNav	31P8950	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
Kensington® MicroSaver® Security Cable	73P2582	Lenovo D221 Wide 22" Monitor (black)	6622HB1											
Lenovo Laser Mouse (USB, PS/2)	41U3074	ThinkVision® L201p 20.1" Monitor (black)	9220HB1											
Other accessories on O-Z60M sheet		Other accessories at lenovo.com/accessories												

See footnotes for important warranty information
US model announced October 17, 2006
US model withdrawn effective September 2007

* Powered by Intel Centrino® Duo processor technology

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(WR25W-1) September 2007

ThinkPad T series Multiple Monitor Configurations with *ThinkPad Mini Dock Series 3 (4337)* using NVIDIA® Optimus™ technology

For more information see: <http://www.lenovo.com/support/thinkpad/optimus-monitors>

Triple Monitor configurations: ThinkPad T420, T420s, and T520 Dual Core with "ThinkPad Mini Dock Series 3 (4337)"

ThinkPad T420, T420s, T520 Dual Core			ThinkPad Mini Dock Series 3 (4337)		
ThinkPad Display (1920 x 1080)	ThinkPad VGA (2048 x 1600)	ThinkPad DisplayPort (2560 x 1600)	Dock VGA (2048 x 1536)	Dock DisplayPort (2560 x 1600)	Dock DVI-D (1920 x 1200)
1st	2nd	3rd			
1st			2nd	3rd	
1st			2nd		3rd
1st		2nd	3rd		
1st		2nd		3rd	
1st		2nd			3rd

Quad Monitor configurations: ThinkPad T420, T420s, and T520 Dual Core with "ThinkPad Mini Dock Series 3 (4337)"

ThinkPad T420, T420s, T520 Dual Core			ThinkPad Mini Dock Series 3 (4337)		
ThinkPad Display (1920 x 1080)	ThinkPad VGA (2048 x 1600)	ThinkPad DisplayPort (2560 x 1600)	Dock VGA (2048 x 1536)	Dock DisplayPort # 1 (2560 x 1600)	Dock DVI-D # 1 (1920 x 1200)
1st		2nd	3rd	4th	
1st		2nd	3rd		4th
1st			2nd	3rd	4th

Rear view of *ThinkPad Mini Dock Series 3 (4337)*



ThinkPad Mini Dock Series 3 - 90W 433710U

ThinkPad® Multiple Monitor Configurations with *Mini Dock Plus Series 3* Personal Systems Reference (PSREF)

ThinkPad T and W series Multiple Monitor Configurations with *ThinkPad Mini Dock Plus Series 3 (4338)* using NVIDIA® Optimus™ technology

For more information see: <http://www.lenovo.com/support/thinkpad/optimus-monitors>

Triple Monitor configurations: ThinkPad T420, T420s, T520, and W520 with "ThinkPad Mini Dock Plus Series 3 (4338)"

ThinkPad T420, T420s, T520, W520			ThinkPad Mini Dock Plus Series 3 (4338)				
ThinkPad Display (1920 x 1080)	ThinkPad VGA (2048 x 1600)	ThinkPad DisplayPort (2560 x 1600)	Dock VGA (2048 x 1536)	Dock DisplayPort # 1 (2560 x 1600)	Dock DVI-D # 1 (1920 x 1200)	Dock DisplayPort # 2 (2560 x 1600)	Dock DVI-D # 2 (1920 x 1200)
1st	2nd	3rd					
1st			2nd	3rd			
1st			2nd		3rd		
1st			2nd			3rd	
1st			2nd				3rd
1st		2nd	3rd				
1st		2nd		3rd			
1st		2nd			3rd		
1st		2nd				3rd	
1st		2nd					3rd
1st				2nd		3rd	
1st				2nd			3rd
1st					2nd	3rd	
1st					2nd		3rd

Quad Monitor configurations: ThinkPad T420, T420s, and T520 with "ThinkPad Mini Dock Plus Series 3 (4338)"

ThinkPad T420, T420s, T520			ThinkPad Mini Dock Plus Series 3 (4338)				
ThinkPad Display (1920 x 1080)	ThinkPad VGA (2048 x 1600)	ThinkPad DisplayPort (2560 x 1600)	Dock VGA (2048 x 1536)	Dock DisplayPort # 1 (2560 x 1600)	Dock DVI-D # 1 (1920 x 1200)	Dock DisplayPort # 2 (2560 x 1600)	Dock DVI-D # 2 (1920 x 1200)
1st		2nd	3rd	4th			
1st		2nd	3rd		4th		
1st		2nd	3rd			4th	
1st		2nd	3rd				4th
1st			2nd	3rd		4th	
1st			2nd	3rd			4th
1st			2nd		3rd	4th	
1st			2nd		3rd		4th

Rear view of *ThinkPad Mini Dock Plus Series 3 (4338)*



ThinkPad Mini Dock Plus Series 3 - 90W 433810U
ThinkPad Mini Dock Plus Series 3 - 170W 433830U

Compatible with ThinkPad T420, T420s, and T520 Dual Core
 Compatible with ThinkPad T420, T420s, T520, and W520

Availability: All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, go to http://support.lenovo.com/en_US/product-service/warranty-status/WarrantyPolicies.page. Lenovo makes no representation or warranty regarding third party products or services.

Footnotes:

- ¹ Power management, including Intel® SpeedStep® Technology, reduces processor speed when in battery mode.
- ² **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.
- ³ **Thinness** may vary at certain points on the system.
- ⁴ **Wireless capability:** Requires compatible wireless-enabled options sold separately.
- ⁵ **TAA:** ThinkPad notebook is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model.
- ⁶ **Public network download modem speeds** are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- ⁷ **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by a 32-bit operating system will be limited to 3GB. This limitation does not exist with 64-bit operating systems.
- ⁸ **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- ⁹ **CD/DVD drive speeds** list maximum rates; rates are variable and are often less than the maximum.
- ¹⁰ **Battery:** These model numbers achieved the battery life based on MobileMark® 2007 during testing. For the ThinkPad X300, battery life is based on Business Winstone Battery Mark 2002. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.
- ¹¹ **External monitor:** This system supports a maximum of two external monitors. The integrated display(s) must be disabled to support two external monitors.
- ¹² **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- ¹³ **Internet access not included.**
- ¹⁴ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.
- ¹⁶ **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service, airtime, and early termination charges may apply. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at www.verizonwireless.com.
- ¹⁷ **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.
- ¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with Depot or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.
- ¹⁹ **Depot repair service:** The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the limited warranty period.
- ²⁰ **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to lenovo.com/pc/support and enter your machine type and model number for more information.
- ²¹ **For combination drives,** maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.

²² **Lenovo Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See Lenovo Warranty Services terms and conditions for complete details and restrictions.

²³ **Activating AT&T Wireless Service:** Requires separate agreement with AT&T, subject to service agreement, rate plan and coverage maps. AT&T, not Lenovo, is solely responsible for service. Coverage not available in all areas; AT&T BroadbandConnect available in select metropolitan markets. Special credit and tenure restrictions and additional charges may apply to international roaming. A network connection, third-party software, additional hardware, and/or subscription to a third-party service may be required for certain solutions/applications. Additional restrictions apply, including early termination fee; see www.wireless.att.com for details. To activate call Lenovo Wireless Activation Hot Line at 1-877-299-4710.

²⁴ **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.

²⁶ **Full-size keyboard:** As defined by ISO/IEC 15412.

²⁷ **Based on IEEE 802.11a and 802.11b.** A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.

²⁸ **The IEEE 802.11n specification (MIMO)** has been finalized and is currently in IEEE 802.11n-2009 release. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, 11b/g/n, or 11a/b/g/n can communicate on any of its supported formats.

³⁰ **Measures only maximum** data transfer rate, not application performance. Many factors affect application performance.

³² **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

³⁶ **Wireless upgradable** allows the system to be wireless-enabled with an optional wireless Mini PCI or Mini PCI Express card. Designed to operate only with Lenovo options.

³⁷ **Optimus graphics** Optimus only switches in Windows 7 environment. It performs as discrete graphics in Windows Vista or Windows XP Professional environment.

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December 2013
ltwbook_2013.pdf