QuickSpecs

Overview

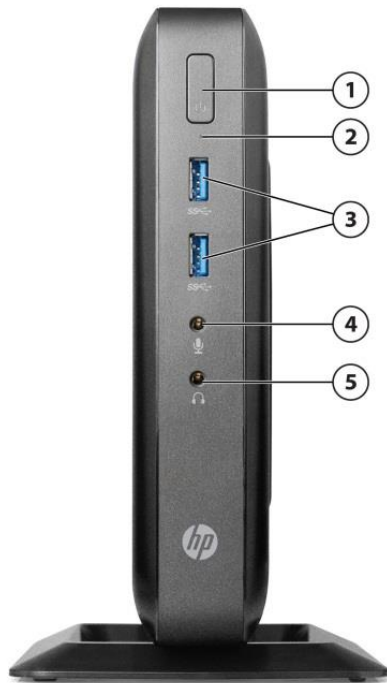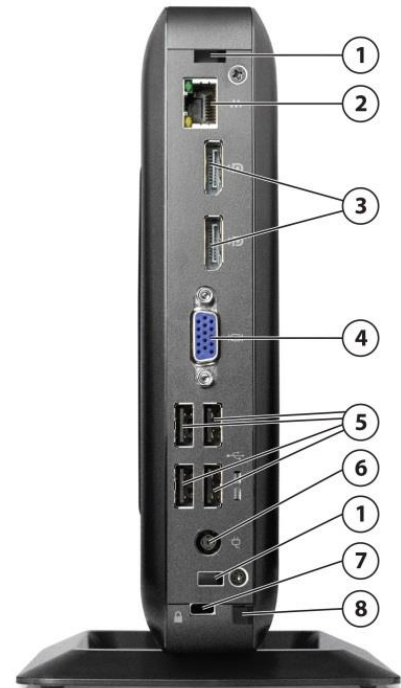## HP t520 Flexible Series Thin Client

FRONT

1. Power button (with integrated power indicator light)
2. Flash drive activity indicator light
3. USB 3.0 connectors (two)
4. Audio connector (mic/line in)
5. Audio connector (headphone/line out)

BACK

1. Rear Port Cover attach points
2. Ethernet RJ-45 connector
3. DisplayPort w/ multi stream digital video outputs (2)
4. VGA analog video output (1)
5. Universal Serial Bus (USB) 2.0 ports (4)
6. DC power input
7. Cable lock slot
8. Power cord retention clip

Overview

Hardware features:

- Compact thin client chassis; able to easily orient horizontally or vertically
- AMD G-Series System-on-Chip (SOC); 1.2GHz dual core APU; AMD Radeon HD GPU[1]
- DDR3-1600 SODIMM SDRAM (one slot); up to 8 GB supported[2]
- M.2 Solid State Drives
- Active thermal management monitors component operating temperatures, throttles SOC operation if appropriate, and prevents unit thermal shutdown
- Integrated Gigabit Ethernet LAN module
- Optional Wireless 802.11 a/g/n 2x2 Dual Band Mini Card with Bluetooth NIC[3]
- Dual DisplayPort with multi stream digital video outputs; single VGA analog video output. Note the system will only support up to two displays using any combination of the three available video outputs.
- USB ports: 2 SuperSpeed USB 3.0 front access ports and 4 Hi-Speed USB 2.0 rear access ports. Two of the rear access ports are utilized by the keyboard and mouse.
- Headphone and microphone ports on the front
- Security features: BIOS designed to address NIST SP 800-147 guidelines, cable lock slot, and power cord retention clip to prevent accidental disconnects
- Energy Star® certified[4] and EPEAT® Gold registered[4] in the United States. See http://www.epeat.net for registration status in other countries.
- Post-consumer recycled plastics content greater than 25% total unit plastics (by weight)
- Low halogen[5]
- All models TAA Compliant (in North America)

1 This system requires a 64-bit operating system and 64-bit software products to take advantage of the 64-bit processing capabilities of AMD technology. Multi-core processing available with AMD technology is designed to improve performance of this system. Given the wide range of software applications available, performance of a system including a 64-bit operating system will vary.
2 Graphics chipset uses part of the total system memory (RAM) for graphics performance. System memory dedicated to graphics performance is not available for other use by other programs.
3 802.11 is an optional or add on feature. Use of Wi-Fi module requires Wi-Fi access point and Internet service. Availability of public Wi-Fi access points is limited.
4 ENERGY STAR certification and EPEAT registration planned but not yet obtained.
5 External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.

Software features for HP t520 with HP ThinPro and HP Smart Zero Core software:

- HP ThinPro and HP Smart Zero Core are HP's purpose-built Linux based thin client operating systems
- HP ThinPro offers an easy-to–use, easy-to-configure, locked-down interface -- HP Connection Manager -- that allows administrators to quickly create server connections for end users.
- HP Smart Zero Clients using Smart Zero Core boot directly into a user log-in on the server or portal for which they are configured. No local thin client user interface means the end-user can get to work without special training on the access device. The Smart Zero Core reduces the administrative burden by enabling the IT administrator to perform the configuration settings on the server and the settings will be automatically applied to HP thin clients plugged in to the network.
- ICA and RDP support for accessing Citrix and Windows resources
- VMware Horizon View PCoIP support for accessing VMware Horizon View sessions
- VDI broker support includes VMware Horizon View, Citrix XenDesktop (with CDA mode utility),
- Multimedia and USB redirection support
    - Citrix HDX MediaStream (multimedia redirection)
    - Citrix HDX Plug-n-Play (USB redirection)

Overview

- Improved quality of experience for end users using HP Velocity
  - Available only on HP thin clients
  - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
  - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for end users located off the LAN

Software features for Genuine Windows® Embedded Standard 7E (32-bit):

- Microsoft® Windows® Embedded Standard 7E SP1 (WES 7E) with support for RemoteFX and local applications, providing a richer user experience
- Internet Explorer 9 (IE9) for genuine Internet Explorer browsing and Web-application interfaces
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Latest protocol support from Citrix On-Line Plug in (ICA) 4.0, RDP 8 w/RemoteFX, and VMware Horizon View Mgr 5.4
- Enhanced Write Filter and File-Based Write Filter provide complete flexibility to protect the entire SSD, or configure areas of the drive for persistent access by local applications
- Microsoft Firewall for enhanced data security
- Support 802.1x LAN-based authentication for greater security
- HP Universal Print Driver provides instant access to a range of HP print devices without downloading separate
- Improved quality of experience for end users using HP Velocity
  - Available only on HP thin clients
  - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
  - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for end users located off the LAN

Software features for Genuine Windows® Embedded 8 Standard (64-bit):

- The newest Microsoft embedded software based on Windows 8
- A 64-bit OS for improved performance and support for larger memory installations (up to 8GB)
- Smooth, immersive experiences with technologies like advanced Multi Touch and Windows 8 applications
- The latest RDP8 and Remote FX client software
- WE8S offers a secure platform that is intelligent systems ready
- Latest Internet Explorer 10 (IE10) for genuine Internet Explorer browsing, HTML 5 support and Web-application interfaces
- Latest protocol support from Citrix Receiver Standard 4.0 with Storefront support, RDP 8 w/RemoteFX, and VMware Horizon View Manager 5.3
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Integrated 802.11a/b/g/n with dual internal antennas configurations available
- Standard configurations: 16 GB SSD and 4 GB SDRAM
- Improved quality of experience for end users using HP Velocity
  - Available only on HP thin clients
  - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
  - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user

All Windows Embedded 8 Standard devices must be activated. Customers have the option via Internet connection, telephone, or indirectly through a proxy for large deployments.

Warranty:

HP Total Care Warranty and Services: limited three-year hardware warranty in most regions. HP Care Pack Services extend service contracts beyond your standard warranties. For more details visit http://www.hp.com/go/lookuptool.

Technical Specifications

OPERATING SYSTEMS

Windows® Embedded 8 Standard (64-bit)

Windows® Embedded Standard 7E (32-bit)

HP Smart Zero Core (32-bit)

HP ThinPro (32-bit)

PROCESSOR / CHIPSET

AMD GX-212JC 1.2GHz dual-core SOC APU with AMD Radeon HD Graphics.[1]

[1] This system requires a 64-bit operating system and 64-bit software products to take advantage of the 64-bit processing capabilities of AMD technology. Multi-core processing available with AMD technology is designed to improve performance of this system. Given the wide range of software applications available, performance of a system including a 64-bit operating system will vary.

MEMORY[2]

Type	DDR3-1600 SODIMM SDRAM
Data Rate	1600 MT/s
Peak Transfer Rate	12800 MB/s
Number of slots	1 SODIMM slot
Available Capacities	4GB, 8GB

[2] Graphics chipset uses part of the total system memory (RAM) for graphics performance. System memory dedicated to graphics performance is not available for other use by other programs.

STORAGE

Type	Flash memory based solid state drive
Number of slots	1 slot
Slot type	M.2
Capacities	8GB MLC
	16GB MLC
	32GB MLC
	64 GB MLC

GRAPHICS

AMD Radeon HD graphics		
Mode	**Color depth**	**Refresh rate (Hz)**
800 x 600	8/16/32 bit	60, 75, 85
1024 x 600	8/16/32 bit	60, 75, 85
1024 x 768	8/16/32 bit	60, 70, 75, 85

Technical Specifications

1152 x 864	8/16/32 bit	60, 75, 85
1280 x 720	8/16/32 bit	60, 75, 85
1280 x 768	8/16/32 bit	60, 75, 85
1280 x 800	8/16/32 bit	60
1280 x 960	8/16/32 bit	60, 75, 85
1280 x 1024	8/16/32 bit	60, 75, 85
1366 x 768	8/16/32 bit	60
1400 x 1050	8/16/32 bit	60, 75, 85
1440 x 900	8/16/32 bit	60, 75, 85
1600 x 900	8/16/32 bit	60
1600 x 1200	8/16/32 bit	60, 75 ,85
1680 x 1050	8/16/32 bit	60
1920 x 1080	8/16/32 bit	60, 75, 85
1920 x 1200	8/16/32 bit	60, 75
2048 x 1536 (DisplayPort, only)	8/16/32 bit	60
2560 x 1600 (DisplayPort, only)	8/16/32 bit	60

NOTE: This table represents a sample of possible modes that this controller is capable of displaying but various factors such as the capability and EDID information returned by the attached monitor, the interface used (DVI-I/DisplayPort or optional D-SUB with dongle), and dual monitor mode may limit the availability of modes, color depth, and/or refresh rate.

INPUT/OUTPUT

USB 3.0	(2) ports, front access
USB 2.0	(4) ports, rear access Keyboard and mouse utilize two ports
Video	(2) Digital DisplayPort1.2 with multi stream video outputs (1) Analog VGA video output **NOTE:** only two video streams are provided by the system. Any combination of two from the three available video outputs can be utilized at one time.
Audio	(1) 1/8-inch stereo mini jack on front panel marked as headphone (1) 1/8-inch stereo mini jack on front panel marked as microphone
Network	(1) Gigabit Ethernet network interface

HARDWARE SECURITY

Security lock slot (cable lock sold separately)
Built-in power cord retention clip
Optional Rear Port Cover

NETWORKING

Hardware networking
Gigabit Ethernet10/100/1000 GbE Wake on LAN (WOL) PXE TCP/IP with DNS and DHCP
Software networking

QuickSpecs

Technical Specifications

	HP ThinPro	HP Smart Zero Core	WES 7E	WE 8S
Point-to-Point Protocol (PPP)			X	X
Point-to-Point over Ethernet (PPPoE)			X	X
Direct Connection through RS-232	X	X	X	X
Point-to-Point Tunneling Protocol (PPTP)	X	X	X	X
Layer-2 Tunneling Protocol (L2TP)	X	X	X	X
Server Network Time Protocol (SNTP)	X	X	X	X

WI-Fi LAN (select models)

Adapter	Broadcom 802.11a/g/n 2x2 Wi-Fi Network Interface with Bluetooth® (optional)[3]
Form Factor	PCI Express Half Mini Card with dual, internal antennas
Security	Supports 64- and 128-bit WEP, WPA, WPA2, AES, TKIP HP ThinPro and HP Smart Zero Technology: 802.1x authentication types: EAP-TLS, EAP-TTLS, EAP-PEAP, LEAP WES 7E and WE 8S,: 802.1x authentication types: EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, LEAP

[3] 802.11 is an optional or add on feature. Use of Wi-Fi module requires WiFi access point and Internet service. Availability of public WiFi access points is limited.

SERVER OS COMPATIBILITY/SUPPORT

Citrix XenApp 5 and later
Citrix XenDesktop 3 and later
Citrix Presentation Server 4.0 and later
Windows Server 2003
Windows Server 2008r2 Terminal Services (WES only)
Windows 2012 Server Remote Desktop services
VMware Horizon View Virtual Desktop Infrastructure

DIMENSIONS (WxDxH)

Vertical orientation without stand
4.51 x 20.00 x 20.01 cm
1.78 x 7.87 x 7.87 in.

WEIGHT

Without stand:
1.04 kgs
2.29 lbs

Note: Options and add-ins will increase weight.

QuickSpecs

Technical Specifications

POWER SUPPLY

65W external power adapter Worldwide auto-sensing 100-240 VAC, 50-60 Hz Energy-saving automatic power-down Surge-tolerant	
The HP t520 Thin Client external power adapters are sourced from a number of suppliers in order to ensure adequate supply and availability is maintained. The actual dimensions of the power brick will vary by supplier.	
Chicony	126 x 50 x 30 mm
Delta	108 x 46 x 29.5 mm
Bestec	116 x 50 x 30 mm
LiteOn	113.5 x 55 x 30 mm

COUNTRY OF ORIGIN

Varies per region:

Americas	Mexico
Europe, Middle East & Africa(EMEA)	Czech Republic
Asia Pacific & Japan (APJ)	China

QuickSpecs

Software

SOFTWARE for HP t520

Host Environment	Protocol	Smart Zero	ThinPro	WES 7E	WE 8S
Microsoft Remote Desktop Services	RemoteFX (RFX)	✓	✓	✓	✓
	RDP	✓	✓	✓	✓
Citrix	ICA	✓	✓	✓	✓
	HDX	✓	✓	✓	✓
VMware Horizon View	RDP	✓	✓	✓	✓
	PCoIP	✓	✓	✓	✓
Protocol Clients		Smart Zero	ThinPro	WES 7E	WE 8S
Citrix Receiver*		13.01	13.01	4.0	4.0
Microsoft Remote Desktop Client				8	8
VMware Horizon View Client*		2.3	2.3	2.3	2.3
Remote Graphics Software (RGS)		via add-on	via add-on	6.0	6.0
HP TeemTalk Terminal Emulator		7.3.4	7.3.4	7.3	7.3
Free RDP		1.1	1.1		
Browser Support		Smart Zero	ThinPro	WES 7E	WE 8S
Mozilla Firefox		27	27		
Internet Explorer				9	10
Security		Smart Zero	ThinPro	WES 7E	WE 8S
Smart Card		✓	✓	✓	✓
logon Manager				✓	✓
Read Only Operating System				✓	✓
802.1x		✓	✓	✓	✓
Enhanced Write Filter (EWF) File-Based Write Filter (FBWF) Unified Write Filter (UWF)				EWF FBWF	UWF
Microsoft Firewall				✓	✓
Microsoft AntiMalware & Windows Defender					
Session brokers		Smart Zero	ThinPro	WES 7E	WE 8S
Citrix XenDesktop		✓	✓	✓	✓
VMware Horizon View		2.3	2.3	2.3	2.3
Leostream Desktop Connection broker (available from vendor website)				from vendor site	from vendor site
Management Tools		Smart Zero	ThinPro	WES 7E	WE 8S
HP Device Manager		✓	✓	✓	✓
HP ThinState		✓	✓	✓	✓
HP Easy Tools		✓	✓	✓	
HP Smart Zero Client Services		✓	✓		
Microsoft SCCM/EDM agent				✓	✓
Additional Components		Smart Zero	ThinPro	WES 7E	WE 8S
HP Velocity		✓	✓	✓	✓
HP Connection Manager/ HP Cloud		✓	✓	✓	✓

QuickSpecs

Software

	Smart Zero	ThinPro	WES 7E	WE 8S
Connection Manager				
HP Universal Print Driver			✓	✓
Windows Media Player			12	12
Windows Touch (Multi-touch support)				
Multilanguage support				
Microsoft DirectAccess				
Microsoft BranchCache				
Microsoft AppLocker				
Microsoft Sideloading				
Audio CODECs included	**Smart Zero**	**ThinPro**	**WES 7E**	**WE 8S**
MP3	✓	✓	✓	✓
WMA stereo	✓	✓	✓	✓
AAC stereo & HE AAC	✓	✓		
Microsoft AC3 encoder			✓	✓
Video CODECs included	**Smart Zero**	**ThinPro**	**WES 7E**	**WE 8S**
MPEG-1	✓	✓		
MPEG-4 part 2 (DivX, Xvid, H.263)	✓	✓	✓	✓
MPEG-4 part 10 (H.264, AVC)	✓	✓	✓	✓
WMV 7/8/9/ VC-1 & ASF Demuxer	✓	✓	✓	✓

NOTE: Protocols are dependent on operating system installed. Other add-on software available (see: www.hp.com/support for latest list of available add-ons). Software performance and support may vary depending on customer environment and backend.

TEXT AND GRAPHICS TERMINAL EMULATIONS
(provided by HP TeemTalk 7 in HP ThinPro, WES 7 and WE 8S operating systems)

Emulation	Terminal ID
ADDS A2	
AIXTerm	
ANSI BBS	
AT 386	
ATT4410	
HP 700-92/96	70092, 70094, 70096, 2392A, 2622A
HZ1500	
IBM3151	Mod11, Mod31
IBM3270	3278-2 (24x80), 3278-3 (32x80), 3278-4 (43x80), 3278-5 (27x132), 3278-2-E (24x80), 3278-3-E (32x80), 3278-4-E (43x80), 3278-5-E (27x132), 3279-2 (24x80), 3279-3 (32x80), 3279-4 (43x80), 3279-5 (27x132), 3287-1
IBM5250	5291-1, 5292-2, 5251-11, 3179-2, 3196-A1, 3180-2, 3477-FC (27x132), 3477-FG (24x80), 3486-BA, 3487-HA, 3487-HC, 3812-1
SCO Console	
Stratus V102	
TA6530	
TVI910	
TVI920	
TVI925	
TVI950	

Software

TVI955	
VT52, VT100, VT100+, VT500 (7- or 8-bit)	VT100, VT101, VT102, VT125, VT131, VT132, M2200, VT220, VT240, VT320, VT340, VT420, VT510, VT520, VT525
VT HP220, VT UTF8	VT100, VT101, VT102, VT125, VT220, VT240, VT320, VT340, VT420, VT131, VT132, M2200, VT510, VT520, VT525
VT PCTerm	
Wyse PCTerm	
WY50	
WY50+	
WY60	

NOTE: Wireless features, performance and support may vary depending on environmental variables such placement, settings and firmware of your access points. Please contact your wireless vendor for support of your wireless environment.

LANGUAGES (Local User Interface)

The following local user interface languages are available for Windows Embedded Standard 7:

English, French, German, Spanish, Dutch, Norwegian, Korean, Simplified Chinese, Traditional Chinese, Japanese, Russian, and Arabic

The following local user interface languages are available for HP ThinPro and HP Smart Zero Technology:

English, French, German, Spanish, Korean, Simplified Chinese, Traditional Chinese, and Japanese

Options and Accessories (sold separately)

<table>
<tr>
<td rowspan="2">Environmental Data</td>
<td>Eco-Label Certifications & declarations</td>
<td colspan="3">This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

US ENERGY STAR®
EPEAT <Gold> registered in the United States. See http://www.epeat.net for registration status in your country.
IT ECO declaration

</td>
</tr>
<tr>
<td>Energy Consumption (in accordance with US ENERGY STAR® test method)</td>
<td>115VAC, 60Hz</td>
<td>230VAC, 50Hz</td>
<td>100VAC, 60Hz</td>
</tr>
</table>

		115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
	Normal Operation (Short idle)	6.72 W	6.84 W	6.73 W
	Normal Operation (Long idle)	6.43 W	6.54 W	6.43 W
	Sleep	N/A W	N/A W	N/A W
	Off	0.75 W	0.84 W	0.75 W
	Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
	Normal Operation (Short idle)	23 BTU/hr	23 BTU/hr	23 BTU/hr
	Normal Operation (Long idle)	22 BTU/hr	22 BTU/hr	22 BTU/hr
	Sleep	N/A BTU/hr	N/A BTU/hr	N/A BTU/hr
	Off	3 BTU/hr	3 BTU/hr	3 BTU/hr

*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive -2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the <gold> level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 19% post-consumer recycled plastic (by wt.)
- This product is 95% recycle-able when properly disposed of at end of life.

Packaging Materials	**External:**	PAPER/Corrugated	547.7 g
		PAPER/Paper	140.7 g
	Internal:	PLASTIC/EPE (Expanded Polyethylene)	40.2 g
		PLASTIC/Polyethylene high density	7.6 g

Options and Accessories (sold separately)

	RoHS Compliance	Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).
	Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Options and Accessories (sold separately)

	Packaging	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

	Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment:
		
		Global Citizenship Report
		    http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html
		Eco-label certifications
		    http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html
		 ISO 14001 certificates:
		    http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html

Options and Accessories (sold separately)

		Part #
Accessories	HP Quick Release Kit	EM870AA
	HP Integrated Work Center Stand	LH526AA
	HP Business Headset	QK550AA
	HP USB 720P Business Webcam	D8Z08AA
Memory Upgrade	4 GB DDR3-1600 SODIMM Kit	B4U39AA/AT
	8 GB DDR3-1600 SODIMM Kit	B4U40AA/AT
Communications	Belkin USB-to-Serial Adapter[6]	EM449AA
Input Devices	HP USB Standard Keyboard	DT528A
	HP USB CCID Smartcard Keyboard	BV813AA
	HP USB Optical Mouse	DC172B
Graphics	DisplayPort to DVI-D Adapter	FH973AA/AT
	DisplayPort to VGA Adapter	AS615AA
	DisplayPort to HDMI Adapter	BP937AA
	DisplayPort Cable Kit	VN567AA
Storage	16GB MLC M.2 Solid State Drive[7]	F3V77AA
	32GB MLC M.2 Solid State Drive[7]	F3V78AA
	64GB MLC M.2 Solid State Drive[7]	F3V79AA
Security	HP Keyed Cable Lock	BV411AA
Care Pack Services[8]	9x5 Next-Business-Day Advanced Exchange - 3 Years	331653-001; U4847E[9]
	9x5 Next-Business-Day On-Site Coverage - 3 Years	331655-001; U4849E[9]
	Hardware Installation	331686-001; UJ865E

[6] Option, drivers, warranty, and support are available directly from third party.
[7] M.2 Solid State Drives available Spring, 2014
[8] Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Restrictions and limitations apply. For details, visit: www.hp.com/go/carepack.
[9] U4847E is available in all regions; U4849E is available in Latin America and Asia-Pacific/Japan.

Options and Accessories (sold separately)

QuickSpecs

Summary of Changes

Date of change:	Version History:		Description of change:
May 28, 2014	June v1	Changed	Energy Star compliances and power specifications
		Added	Part numbers
August 28, 2014	From v2 to v2	Added	Environmental data