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Lenovo® recommends Windows 7.

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## BRILLIANT BUSINESS DESKTOPS — POWERFUL. STABLE. SECURE.

### THE LENOVO® THINKCENTRE® M90 / M90p DESKTOP

The Lenovo ThinkCentre M90 / M90p desktop is designed for Enterprise Businesses seeking optimum performance with maximum investment returns. This best-in-class desktop meets your sophisticated computing needs with industry-leading performance. The ThinkCentre M90 / M90p desktop is available in three standard form factors—Tower, Small Form Factor (SFF) and Eco Ultra-Small Form Factor (USFF).

Experience ultimate performance and multi-tasking of applications with the latest family of Intel® Core™ i series processors, offering Intel® Turbo Boost and Intel® Hyper-Threading technologies. The ThinkCentre M90 / M90p gives excellent graphics experience and has a clear edge over existing desktops. Productivity gets a real boost with the preloaded new Windows® 7 Lenovo Enhanced Experience which has very fast boot-up and shutdown times with multi-touch support.

Get a full PC experience, data security, remote data management and worry-free storage with the latest Secure Managed Client (SMC) 2.0 and Intel® vPro™ technologies. These in turn drive down costs, downtime and desk-side visits. The Active Management Tool, a part of Intel® vPro™ technology is designed to work independently of the operating system.

Data security is of prime importance for all leading businesses. ThinkCentre M90 / M90p configured with the available Hardware Password Manager tool reduces password-reset time of the hard drive significantly. Optional PS/2 ports prevent unauthorized data access and virus attacks through USB peripheral devices.

Save on power costs with the Energy Star® compliant Power Supply Unit and the Lenovo Power Manager tool. The ThinkCentre® M90 / M90p re-affirms its commitment towards a green environment. The desktop is now built with up to 42% Post Consumed Content <sup>1</sup> (PCC), which is the industry's highest, with the minimum use of plastic.

Ergonomically designed ThinkCentre M90 / M90p offers the Power button on top, thus avoiding the need to bend to turn your PC on. The tilted front design of I/O ports allows to plug-and-play devices easily and the top carry handle offers easy portability.

The amazing ThinkCentre M90 / M90p is a smart choice for all businesses requiring high-performance, excellent data security and quick returns on investment.

### THINKCENTRE M90 / M90p—TOP REASONS TO OWN

- INCREDIBLE PERFORMANCE WITH INTEL® CORE™ PROCESSORS
- NEW WINDOWS® 7 LENOVO ENHANCED EXPERIENCE PRELOAD
- COST-SAVING REMOTE PC MANAGEMENT TOOLS
- NO-COMPROMISE SECURITY
- BOOSTS PRODUCTIVITY
- GREEN FEATURES—HEALTHY ENVIRONMENT
- ENERGY-EFFICIENT DESKTOPS
- ERGONOMIC INDUSTRIAL DESIGN



### LENOVO ENHANCED EXPERIENCE FOR WINDOWS® 7. FAST. SECURE. BUILT FOR BUSINESS.

Discover a better way of doing business with the new Lenovo Enhanced Experience for Windows® 7 on Think PCs. Faster, more durable and greener Think PCs are optimized for Windows® 7 to deliver improved ease of use. It enhances productivity and security that your business cannot do without.

<sup>1</sup> Recycled plastic percentage varies on form factors (including optional Fingerprint Keyboard): Tower - 42.10%, SFF - 39.63%, Eco USFF - 36.45%. Calculation based on EPEAT standard as reference.



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### HIGH-PERFORMANCE FEATURES

- 81%<sup>2</sup> better performance with Intel® Core™ i series processors
- 35 Second Boot Up with Lenovo Windows® 7 Enhanced Experience
- ThinkVision™ L2461x Monitor with Multi-touch

### ENVIRONMENT-FRIENDLY FEATURES

- Uses up to 42% Post Consumed Content<sup>1</sup> (PCC) for the system (industry's highest) and 65% for the monitor
- Saves up to \$43<sup>3</sup> on energy costs
- Energy Star® 5.0, EPEAT® Gold and GREENGUARD® compliant form factors
- Packed in a reusable bag (Eco USFF only)
- Reduces noise with the cat-foot cushion (Tower only)

### LATEST MANAGEABILITY AND SECURITY FEATURES

- Supports the latest SMC 2.0 and Intel® vPro™ technologies
- Reduces password-reset time of hard drives—Hardware Password Manager tool
- Preloaded ThinkVantage® Technology (TVT) tools
- Prevents data theft—USB individual disable, PS/2® ports and Intrusion switch

### ERGONOMIC-INDUSTRIAL DESIGN

- Easy-to-carry top handle
- Power button on top of chassis
- Tilted front I/O ports design

## SERVICE OFFERINGS

### BASE WARRANTY

- 3 years

### UPGRADE OPTIONS

- 3-year onsite service 9 x 5 with 4-hour average response<sup>4</sup>
- 3-year onsite service 24 x 7 with 4-hour average response<sup>4</sup>
- 4-year onsite service 9 x 5 NBD<sup>5</sup>
- 4-year onsite service 9 x 5 with 4-hour average response<sup>4</sup>
- 4-year onsite service 24 x 7 with 4-hour average response<sup>4</sup>

### POST WARRANTY

- 1-year onsite service 9 x 5 NBD<sup>5</sup>
- 2-year onsite service 9 x 5 NBD<sup>5</sup>
- 1-year onsite service 9 x 5 with 4-hour average response<sup>4</sup>
- 2-year onsite service 9 x 5 with 4-hour average response<sup>4</sup>
- 1-year onsite service 24 x 7
- 2-year onsite service 24 x 7

### VALUE-ADDED SERVICES

- Online Data Backup (OLDB)
- ThinkPlus™ Priority Support
- Non-return Hard Drive Service
- 3-year onsite service + Hard Drive Retention



<sup>1</sup> Recycled plastic percentage varies on form factors (including optional Fingerprint Keyboard): Tower - 42.10%, SFF - 39.63%, Eco USFF - 36.45%. Calculation based on EPEAT standard as reference.

<sup>2</sup> Comparing ThinkCentre M90p with a typical 3-year-old PC (ThinkCentre M55p) in PC Mark Vantage - Productivity

<sup>3</sup> Comparing a ThinkCentre M90p with ThinkVision L2251x versus a ThinkCentre M52 and ThinkVision E74 without Power Manager deployed and idle screen on. Based on energy cost of \$0.103 kWh, Energy Information Administration, Annual Energy Outlook 2009 (early release edition)

<sup>4</sup> 4-Hour response is available in select countries only: US, Canada, Japan and Singapore. Malaysia, Philippines and Indonesia have 9x5x4 response.

<sup>5</sup> Next Business Day



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# LENOVO® THINKCENTRE® M90 / M90p DESKTOP SPECIFICATIONS

## MODEL NAME – THINKCENTRE M90 / M90p

### Processors

- Intel® Quad Core™ i7-8x0<sup>1</sup>  
1333MHz 8T \ 4 Core™ \ 8M \ 95W \ Turbo LGA 1156
- Intel® Quad Core™ i5-7x0<sup>1</sup>  
1333MHz 8T \ 4 Core™ \ 8M \ 95W \ Turbo LGA 1156
- Intel® Core™ i5-6x0  
1333MHz 4T \ Dual Core™ \ 4M \ 73W \ Turbo LGA 1156
- Intel® Core™ i3-5x0  
1333MHz 4T \ Dual Core™ \ 4M \ 73W LGA 1156
- Intel® Pentium® G6950  
1066MHz Dual Core™ \ 3M \ 73W LGA 1156

### Preloaded Operating System

- Genuine Windows® 7 Professional 32 bit
- Genuine Windows® 7 Professional 64 bit
- Genuine Windows® 7 Home Premium 32 bit
- Genuine Windows® 7 Home Basic 32 bit<sup>2</sup>
- Genuine Windows Vista® Business 32 bit<sup>3</sup>
- Genuine Windows Vista® Home Basic 32 bit<sup>3</sup>
- Genuine Windows® XP Professional preinstalled through downgrade rights from Genuine Windows® 7

### Chipset

- Intel® Q57 Chipset

### Machine Type

#### M90p

- TWR: 3282, 3652, 5498, 5852
- SFF: 3269, 3627, 5536, 5864
- Eco USFF: 3257, 3557, 3853, 5296

#### M90:

- TWR: 3246, 3544, 5474
- SFF: 3245, 3491, 5485
- Eco USFF: 3244, 3467, 3692

### Serial ATA Hard Drive

- 160GB, 250GB, 320GB, 500GB 7200RPM SATA
- 1TB<sup>3</sup> 7200RPM SATA
- 80 GB Flash Solid State Drive<sup>2</sup>
- 150 GB 10k RPM<sup>2,3</sup>

### Memory

#### TWR / SFF:

- 1GB / 2GB DDR3 1066MHz / 1333MHz (4 DIMM slots)

#### Eco USFF:

- 1GB / 2GB DDR3 1066MHz / 1333MHz (2 SoDIMM slots)

### Optical Drive

- DVD-ROM, DVD Recordable

### Integrated Communications

- Intel® 82578DM, 10M / 100M / 1000M Gigabit Ethernet

### Dimensions (DxWxH)

- TWR: 442 x 175 x 414 (mm)
- SFF: 355 x 317 x 99 (mm)
- Eco USFF: 238 x 275 x 79 (mm)

### Keyboard

- Lenovo Preferred Pro Full Size Keyboard
- Preferred Pro Fingerprint Keyboard

### Mouse

- USB Optical Wheel Mouse

### Ports

#### TWR

- (10) USB Ports (2 front, 6 rear, 2, internal)
- (1) Parallel (optional by cable)
- (2) Serial (1 standard, 1 optional via punch out)
- (2) PS/2 (optional via punch out)
- (1) eSATA (optional)
- (1) VGA
- (1) Display Port
- (1) RJ45
- (2) Front audio ports: headphone and microphone
- (3) Rear audio ports: line in, line out and microphone

#### SFF

- (10) USB Ports (2 front, 6 rear, 2, internal)
- (1) Parallel (optional by parallel card)
- (2) Serial (1 standard, 1 optional via punch out)
- (2) PS/2 (optional via punch out)
- (1) eSATA (optional)
- (1) VGA
- (1) Display Port
- (1) RJ45
- (2) Front audio ports: headphone and microphone
- (3) Rear audio ports: line in, line out and microphone

#### Eco USFF

- (10) USB Ports (2 front, 6 rear, 2, internal)
- (1) Parallel (optional by parallel card)
- (1) Serial (optional via punch out)
- (2) PS/2 (optional via punch out)
- (1) eSATA (optional)
- (1) VGA
- (1) Display Port
- (1) RJ45
- (2) Front audio ports: headphone and microphone
- (3) Rear audio ports: line in, line out and microphone

### Slots

#### TWR

- (2) PCI slots (Full Height)
- (1) PCI-e x1 slot (Full Height)
- (1) PCI-e x16 slot (Full Height)

#### SFF

- (1) PCI slot (Low Profile)
- (1) PCI-e x16 slot (Low Profile)

#### Eco USFF

- (1) PCI slot (Low Profile)

### Bays

#### TWR

- Internal (2) 3.5"
- External (1) 3.5" and (2) 5.25"

### SFF

- Internal: (1) 3.5"
- External: (1) 3.5" and (1) 5.25"

### Eco USFF

- Internal: (1) 3.5"
- External: (0) 3.5" and (1) 5.25"

### Power Supply

#### TWR

- 320W 88% Efficiency Active PFC<sup>3</sup>
- 280W 85% Efficiency Active PFC<sup>3</sup>

#### SFF

- 240W 85% Efficiency Active PFC

#### Eco USFF

- 130W 87% Efficiency Active PFC

### Graphic Card

#### Integrated

- Intel® HD Graphics

#### Discrete

- NVIDIA® GeForce 310 512MB DDR3 (VGA + DP)
- NVIDIA® Quadro® FX380 (DVI + DP)<sup>3</sup>

### Security

- Raid 0, 1
- TPM 1.2 chip
- USB Individual Disable/Enable
- eSATA port disablement
- Kensington Slot
- Computrace Support

### Limited Warranty

- Up to 3 years

### Preloaded Software (in Windows® 7)

- Adobe® Acrobat® Reader®
- Acrobat® Flash Player
- Skype® voice and video calling
- PC-Doctor for WinPE
- SUN™ JRE™
- Corel Burn. Now SE Lenovo Edition
- Corel DVD MovieFactory 7 Lenovo Edition
- Intervideo WinDVD® (Home Basic only)
- Microsoft® Office Professional 2007 60-Day Trial Version
- Norton® Internet Security 2009 with 30 days of virus definitions
- ThinkVantage® Rescue and Recovery®
- ThinkVantage Product Recovery
- ThinkVantage Password Manager
- ThinkVantage Power Manager
- Lenovo Message Center Plus
- Lenovo ThinkVantage Toolbox
- ThinkVantage System Update

1. For Tower & SFF Only

2. For Select Countries

3. For Special Bid Only



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# LENOVO® THINKCENTRE® M90 / M90p DESKTOP OPTIONS

## MONITORS AND MONITOR ACCESSORIES



### Lenovo ThinkVision™ L2440p Monitor (4420HB2)

- 24" Wide with 1920 x 1200 resolution for productivity
- VGA + DVI-D interfaces and USB Hub for connection flexibility
- EPEAT® Gold\*, TCO Displays 5.0 certified



### Lenovo ThinkVision L2251p Monitor (2572HD6)

- 22" Wide with 1680 x 1050 resolution
- VGA + DisplayPort interfaces for easy dual monitor display
- Full function ergonomic stand
- 29% more efficient than ENERGY STAR® 5.0 Standard



### Lenovo ThinkVision L1951p Monitor (2248HB6)

- 19" Wide with 1440 x 900 resolution
- VGA + DVI-D interfaces
- Lift and Tilt stand
- 16% more efficient than ENERGY STAR® 5.0 Standard



### ThinkVision Soundbar (45K1263)

- Add stereo audio sound without sacrificing valuable desk space
- Dual Speaker support with 3+3 total watts of output
- Integrated headphone, microphone jacks
- External AC power adapter
- Compatible with the following monitors: L2440p Wide, L2440x Wide, L2251x Wide, L2251p Wide, L2250p Wide, L1951p Wide, L1900p, L1711p, L215p Wide, L215 Wide, D185 Wide

[www.lenovo.com/support/monitoraccessories](http://www.lenovo.com/support/monitoraccessories)

## PRODUCTIVITY ACCESSORIES



### Lenovo 512MB NVIDIA GeForce 310 DisplayPort, VGA Graphics Card (57Y4397)

- DisplayPort supports 2560 x 1600 and VGA analog supports 2048 x 1536 resolution
- Attach DVI digital or VGA analog monitors to DisplayPort using optional DisplayPort Cables



### Lenovo USB-to-DVI Monitor Adapter (45K5296)

- HD Resolution and multiple monitors, is a simple USB connection
- Attach up to six analog or digital monitors to a single system, each monitor requires a USB-to-DVI Adapter
- Supports 1920 x 1200 or 2048 x 1152 resolution; includes HD 1080p



### NVIDIA Quadro FX 380 Low-Profile DisplayPort, DVI Graphics Card (57Y4396)

- Small Form Factor (SFF) only low-profile graphics card
- Supports DisplayPort and DVI 2560 x 1600 resolution
- Attach DVI digital or VGA analog monitors to DisplayPort using optional DisplayPort Cables

[www.lenovo.com/support/graphicscards](http://www.lenovo.com/support/graphicscards)



### Low-cost method to boost overall system performance using DDR3 Memory

- 57Y4389** 1GB DDR3-1333 for Desktop, Tower
- 57Y4390** 2GB DDR3-1333 for Desktop, Tower
- 55Y3709** 1GB DDR3-1333 for SFF
- 55Y3710** 2GB DDR3-1333 for SFF

## SECURITY ACCESSORIES



### Lenovo Fingerprint USB Keyboard (73P4730)

- Replace Windows passwords with fast, secure access using your fingerprint
- Software configurable for simple fingerprint only log-in or more secure authentication

[www.lenovo.com/support/security](http://www.lenovo.com/support/security)



### Kensington Microsaver Security Cable Lock by Lenovo (73P2582)

- Secure your ThinkCentre or ThinkVision Flat Panel monitor
- Super-strong, steel composite cable with carbon tempered steel core



### Kensington Twin Head Security Cable Lock by Lenovo (45K1620)

- Secures two devices: ThinkCentre and ThinkVision flat panel monitor
- 2nd lock moves along the cable for user adjustment and preference

## ADDITIONAL ACCESSORIES



### Vertical PC and Monitor Stand II (41R4474)

- Compact, minimal footprint PC and monitor solution for space constrained environments
- Height, Tilt and Swivel Adjustments
- Compatible to Ultra Small Form Factor (USFF)

[www.lenovo.com/think](http://www.lenovo.com/think)

**lenovo**  
CREATORS OF THINKPAD

**ThinkCentre**

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