



# *Personal Systems Reference Lenovo® ThinkCentre Desktops*

*March 2010 - Version 373*

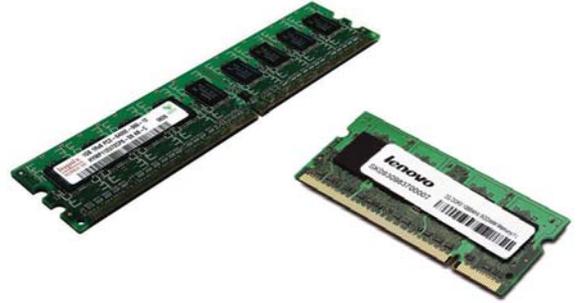


Lenovo ThinkCentre M90/M90p  
(Eco Ultra Small, Small, Tower Form Factors)

Visit [www.lenovo.com/psref](http://www.lenovo.com/psref) for the latest version



Kensington® MicroSaver® Cable Lock  
73P2582  
Kensington Twin Head Cable Lock  
45K1620



1GB PC2-6400 NP DDR2 UDIMM 41U2977  
2GB PC2-6400 NP DDR2 UDIMM 41U2978  
1GB PC3-8500 DDR3 UDIMM 45J5434  
2GB PC3-8500 DDR3 UDIMM 45J5435  
1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987  
2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988  
(UDIMM for SFF, Tower only; SODIMM for Eco USFF only)



ATI™ Radeon™ HD 3470 256MB (DP, VGA)  
45K1636



Lenovo® USB-to-DVI Monitor Adapter  
45K5296



Ultraslim Wireless Keyboard and Mouse  
57Y4700



Lenovo Laser Mouse (USB)  
41U3074



Lenovo ThinkCentre M58e Small and  
Lenovo ThinkCentre M58e Tower



Lenovo ThinkCentre M58e Small  
with dual Lenovo ThinkVision monitors



Lenovo ThinkCentre M58e Small



Lenovo ThinkCentre M58e Small  
with Lenovo ThinkVision monitor



Lenovo ThinkCentre M58e Tower



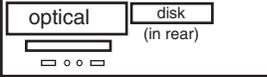
Lenovo ThinkCentre M58e Tower  
with Lenovo ThinkVision monitor

# ThinkCentre® M58e Small (7259) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
<b>M58e</b>	7259-B1U	2x3	Pentium E6300	2.80	2MB	2	1GB	250GB <sup>2</sup>	DVD	GMA	XP Pro	None	Nov 09
<b>M58e</b>	7259-B2U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro	None	Nov 09
<b>M58e</b>	7259-B3U	2x3	Pentium E6300	2.80	2MB	2	3GB	500GB	DVD±RW	GMA	XP Pro	None	Nov 09

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

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> <b>Intel® Pentium® Processor E6300 with dual-core,</b> 1066MHz system bus, and 2MB L2 cache		<b>Small</b> 
Implementation	Processor in LGA775 socket		
Memory	<b>1GB, 2GB, or 3GB std,</b> 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2,</b> non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500),</b> integrated graphics in G41, uses main memory (up to 512MB [ <i>1GB models</i> ], 1GB [ <i>2GB or 3GB models</i> ]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 • Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation
SATA disk	<b>250GB or 500GB,</b> SATA 3.0Gb/s 7200 rpm, vibration dampening		<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		GREENGUARD® certified RoHS-compliant
Power supply	280 watts with variable speed fan, autosensing		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		<p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>1-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>1-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9189)</li> <li>• <b>2-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9187)</li> <li>• <b>2-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9190)</li> <li>• <b>3-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9188)</li> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9191)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort™ to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB FX 370 LP 55Y9275 NVIDIA Quadro 256MB NVS 290 43R1765 More accessories on O-M58E sheet		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader®			
• Windows Live™ Toolbar			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD, DVD±RW)			

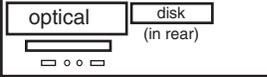
See footnotes for important warranty information  
US models announced November 3, 2009

# ThinkCentre® M58e Small (7259) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
<b>M58e</b>	7259-D3U	2x3	Celeron E3200	2.40	1MB	2	1GB	250GB <sup>2</sup>	DVD±RW	GMA	Pro 32	None	Jan 10
<b>M58e</b>	7259-D2U	2x3	Pentium E5400	2.70	2MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10
<b>M58e</b>	7259-D1U	2x3	Pentium E5400	2.70	2MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Jan 10

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

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> <b>Intel® Celeron® Processor E3200</b> with dual-core, 800MHz system bus, and 1MB L2 cache or <b>Intel Pentium® Processor E5400</b> with dual-core, 800MHz system bus, and 2MB L2 cache Processor in LGA775 socket	<b>Small</b>  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 • Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation
Implementation	Processor in LGA775 socket	
Memory	<b>1GB, 2GB, or 3GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available	<b>Security</b> • Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons • Power-on password • Administrator password • Hard disk password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • Parallel port I/O control • USB port disablement  Supports ThinkVantage® technologies
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 253MB [ <i>1GB models</i> ], 765MB [ <i>2GB models</i> ], or 1277MB [ <i>3GB models</i> ]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter	
SATA disk	<b>250GB or 320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	<b>Limited Warranty<sup>1</sup></b> ↔ <b>1-year parts and labor</b> ↔ <b>International Warranty Service<sup>9</sup></b> ↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b> ↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> • <b>1-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9189) • <b>2-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9187) • <b>2-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9190) • <b>3-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9188) • <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9191) ↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b> ↔ <b>Post warranty maintenance services available</b> ↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	One internal speaker for business audio	
IEEE 1394	None	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®	
Intel AMT	None	
Modem	None	
Security chip	None	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	GREENGUARD® certified RoHS-compliant
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, autosenesing	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® 7 Professional 32	1GB PC2-6400 DDR2 UDIMM	41U2977
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	2GB PC2-6400 DDR2 UDIMM	41U2978
• Rescue and Recovery™	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015
• Password Manager	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
• ThinkVantage System Update	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
• ThinkVantage Power Manager	Super Multi-Burner DL DVD±RW SATA Drive	41N5620
• ThinkVantage Toolbox	DisplayPort™ to Single-link DVI-D Cable	45J7915
• Lenovo Online Data Backup	ADD2 DVI-D Monitor Connection (HDCP)	43R1985
• Norton™ Internet Security 2009 (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636
• Adobe® Reader®	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275
• Adobe Flash® Player	NVIDIA Quadro 256MB NVS 290	43R1765
• Skype™ for Windows	More accessories on O-M58E sheet	
• Microsoft® Office 2007 Trial (60-day)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Roxio® Creator® Business Edition (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• Roxio MyDVD® (DVD±RW)		

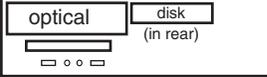
See footnotes for important warranty information  
US models announced December 15, 2009

# ThinkCentre® M58e Small (7269) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Chassis intr switch	Preload	Global Educ	Avail date
M58e	7269-E5U	2x3	Pentium E5400	2.70	2MB	2	1GB	250GB <sup>2</sup>	DVD	GMA		XP Pro	None	Jan 10
M58e	7269-D5U	2x3	Pentium E6300	2.80	2MB	2	1GB	250GB	DVD	GMA	Switch	XP Pro	None	Nov 09
M58e	7269-D6U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	Switch	XP Pro	None	Nov 09
M58e	7269-D7U	2x3	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	DVD±RW	GMA		XP Pro	None	Nov 09
M58e	7269-D8U	2x3	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	DVD±RW	GMA		XP Pro	None	Nov 09
M58e	7269-F1U	2x3	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	DVD±RW	GMA		XP Pro	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Mainstream enterprise stability and manageability <b>Intel® Pentium® Processor E5400</b> with dual-core, 800MHz system bus, and 2MB L2 cache or <b>Intel Pentium Processor E6300</b> with dual-core, 1066MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Quad Processor Q9400 or Q9500</b> with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket	<b>Small</b>	
Implementation		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Memory	<b>1GB, 2GB, or 3GB std, 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available	Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3	
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 512MB [ <i>1GB models</i> ], 1GB [ <i>2GB or 3GB models</i> ]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter	• Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation	
SATA disk	<b>250GB, 320GB, or 500GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive		• Power-on password
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		• Administrator password
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		• Hard disk password
eSATA port	None		• Boot sequence control
Diskette drive	None		• Boot without keyboard, mouse, diskette
Media reader	None		• Serial port I/O control
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		• Parallel port I/O control
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		• USB port disablement
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		• <i>Some:</i> Chassis intrusion switch
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALCC662 codec		Supports ThinkVantage® technologies
Speaker	One internal speaker for business audio		
IEEE 1394	None		GREENGUARD® certified
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		RoHS-compliant
Intel AMT	None		<b>Limited Warranty<sup>1</sup></b>
Modem	None		↪ 3-year parts and labor
Security chip	None		↪ International Warranty Service <sup>9</sup>
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts <sup>3</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		↪ Onsite service upgrade options (in eligible locations): <sup>7</sup>
Power supply	280 watts with variable speed fan, autosensing		• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)
<b>Preloaded operating system<sup>20</sup></b>	- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional		• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	• Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Power Manager • McAfee® VirusScan® Plus (30 days of virus definitions) • Lenovo System Toolbox • Adobe® Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD, DVD±RW)	<b>Accessories</b> 1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort™ to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB FX 370 LP 55Y9275 NVIDIA Quadro 256MB NVS 290 43R1765 More accessories on O-M58E sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194) • 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195) • 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)
			↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
			↪ Post warranty maintenance services available
			↪ 24 hour x 7 day <sup>14</sup> toll-free support during the warranty period <sup>1</sup> via 800-426-7378

See footnotes for important warranty information

Ⓜ US model announced March 2, 2010; previous models on November 3 or December 15, 2009

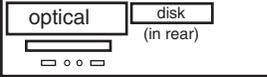
Ⓜ US models withdrawn effective January 2010

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(MIAM3-8) March 2010

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7269-E6U	2x3	Pentium E5400	2.70	2MB	2	1GB	250GB <sup>2</sup>	DVD	GMA	Pro 32	None	Jan 10
M58e	7269-E7U	2x3	Pentium E5400	2.70	2MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7269-E8U	2x3	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7269-E9U	2x3	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	DVD±RW	GMA	Pro 32	None	Jan 10
ES	M58e	7269-F2U	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	DVD±RW	GMA	Pro 32	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

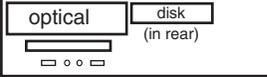
Positioning Processor	<p><i>Mainstream enterprise stability and manageability</i>  <b>Intel® Pentium® Processor E5400 with dual-core</b>, 800MHz system bus, and 2MB L2 cache or  <b>Intel Core™ 2 Duo Processor E7500 with dual-core</b>, 1066MHz system bus, and 3MB L2 cache or  <b>Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core</b>, 1333MHz system bus, and 6MB L2 cache                      Processor in LGA775 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 3.5", 1" high, no access, std disk                      Bay ③ 3.5", .5" high, access, open (reader)</p>
Implementation	Processor in LGA775 socket		<p>Slot 1: Low Profile, PCI Express x16 (35w max)                      Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Memory	<p><b>1GB, 2GB, or 3GB std</b>, 4GB max<sup>8</sup>, <b>PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, two 240-pin DIMM sockets;  <i>Italics:</i> standard memory in both sockets; no sockets avail;  <i>Non-italics:</i> standard memory in one socket; one socket available</p>		
Graphics	<p><b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b>, integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models], or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul> <p>Supports ThinkVantage® technologies</p> <p>GREENGUARD® certified RoHS-compliant</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
SATA disk	<p><b>250GB, 320GB, or 500GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive		
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<p><b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)</p>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		
<b>Preloaded operating system<sup>20</sup></b>	<p>- Genuine Windows® 7 Professional 32</p>		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<p>• Rescue and Recovery™</p> <p>• Password Manager</p> <p>• ThinkVantage System Update</p> <p>• ThinkVantage Power Manager</p> <p>• ThinkVantage Toolbox</p> <p>• Norton™ Internet Security 2009 (30 days of virus definitions)</p> <p>• Adobe® Reader®</p> <p>• Adobe Flash® Player</p> <p>• Skype™ for Windows</p> <p>• Microsoft® Office 2007 Trial (60-day)</p> <p>• Roxio® Creator® Business Edition (DVD±RW)</p> <p>• Roxio MyDVD® (DVD±RW)</p>		
<b>Accessories</b>	<p>1GB PC2-6400 DDR2 UDIMM 41U2977</p> <p>2GB PC2-6400 DDR2 UDIMM 41U2978</p> <p>250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015</p> <p>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</p> <p>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</p> <p>DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618</p> <p>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</p> <p>DisplayPort™ to Single-link DVI-D Cable 45J7915</p> <p>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</p> <p>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</p> <p>NVIDIA® Quadro® 256MB FX 370 LP 55Y9275</p> <p>NVIDIA Quadro 256MB NVS 290 43R1765</p> <p>More accessories on O-M58E sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		

See footnotes for important warranty information

ES US model announced March 2, 2010; previous models on January 12, 2010

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date	
⚠	<b>M58e</b>	7279-B1U	2x3	Pentium E2220	2.40	1MB	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	Business32	Basic	None	Apr 09
⚠	<b>M58e</b>	7279-A9U	2x3	Core 2 Duo E7300	2.66	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
	<b>M58e</b>	7279-A8U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09

• These models have a 1-year limited warranty<sup>1</sup>

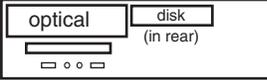
Positioning Processor	<p><i>Mainstream enterprise stability and manageability</i>  <b>Intel® Pentium® Processor E2220 with dual-core</b>, 800MHz system bus, and 1MB L2 cache or  <b>Intel Core™ 2 Duo Processor E7300 with dual-core</b>, 1066MHz system bus, and 3MB L2 cache or  <b>Intel Core 2 Duo Processor E8400 with dual-core</b>, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache</p>		<p><b>Small</b></p> 
Implementation	<p>Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket</p>		
Memory	<p><b>2GB std</b>, 4GB max<sup>8</sup>, <b>PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, two 240-pin DIMM sockets;  <i>Non-italics</i>: standard memory in one socket; one socket available</p>		<p>Slot 1: Low Profile, PCI Express x16 (35w max)                  Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> </ul>
Graphics	<p><b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b>, integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter</p>		
SATA disk	<p><b>160GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul> <p>Supports ThinkVantage® technologies</p>
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH7</p>		
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
SATA cables	<p>Two SATA cables (each 1-drop to device), two SATA connectors</p>		
eSATA port	<p>None</p>		
Diskette drive	<p>None</p>		
Media reader	<p>None</p>		
Chipset	<p><b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)</p>		
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		
Rear ports	<p>Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)</p>		
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)</p>		
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>		
Speaker	<p>One internal speaker for business audio</p>		
IEEE 1394	<p>None</p>		
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®</p>		
Intel AMT	<p>None</p>		
Modem	<p>None</p>		
Security chip	<p>None</p>		
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>		<p>GREENGUARD® certified RoHS-compliant</p>
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>		
Power supply	<p>280 watts with variable speed fan, autosenesing</p>		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>1-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>1-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9189)</li> <li>• <b>2-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9187)</li> <li>• <b>2-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9190)</li> <li>• <b>3-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9188)</li> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9191)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p>		
- Genuine Windows® Vista® Business 32	<p>1GB PC2-6400 DDR2 UDIMM 41U2977                  2GB PC2-6400 DDR2 UDIMM 41U2978                  160GB SATA 3.0Gb/s Disk (7200 rpm) 09N4254                  250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015                  500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990                  1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918                  Super Multi-Burner DL DVD±RW SATA Drive 41N5620                  DisplayPort to Single-link DVI-D Cable 45J7915                  ADD2 DVI-D Monitor Connection (HDCP) 43R1985                  ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636                  NVIDIA® Quadro® 256MB FX 370 LP 55Y9275                  NVIDIA Quadro 256MB NVS 290 43R1765</p>		
<b>Preloaded applications<sup>5</sup></b>	<p>More accessories on O-M58E sheet</p>		
• Rescue and Recovery™	<p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p>		
• Client Security Solution™	<p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• 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)			

See footnotes for important warranty information  
 US models announced March 10, 2009

⚠ US models withdrawn effective June or August 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Floor stand	Preload	Global Educ	Avail date
⚡	M58e	7303-F9U	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB <sup>2</sup>	DVD	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-C6U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-G8U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD±RW	GMA	Stand	XP Pro	Educ Apr 09
⚡	M58e	7303-C7U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-C8U	2x3	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-D1U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-C9U	2x3	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	DVD	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-D2U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-D3U	2x3	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-D5U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-G7U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Stand	XP Pro	Educ Apr 09
⚡	M58e	7303-D4U	2x3	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-D6U	2x3	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09
⚡	M58e	7303-G9U	2x3	Core 2 Quad Q8200	2.33	4MB	4	2GB	250GB	DVD±RW	GMA	Stand	XP Pro	Apr 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning	<b>Mainstream enterprise stability and manageability</b>																																		
Processor	Intel® Pentium® Processor E5200 or E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core, 1333MHz system bus, and 4MB L2 cache	<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express x16 (35w max)                  Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• Some: system floor stand for vertical orientation</li> </ul>																																	
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket																																		
Memory	1GB or 2GB std, 4GB max <sup>8</sup> , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available																																		
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																																		
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>																																	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																		
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive																																		
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																																		
eSATA port	None																																		
Diskette drive	None																																		
Media reader	None																																		
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																																		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																		
Speaker	One internal speaker for business audio																																		
IEEE 1394	None																																		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																		
Intel AMT	None																																		
Modem	None																																		
Security chip	None																																		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																		
Power supply	280 watts with variable speed fan, autosensing																																		
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p> <table border="0"> <tr> <td>- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</td> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td></td> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td></td> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td></td> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td></td> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td></td> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td></td> <td>ADD2 DVI-D Monitor Connection (HDCP)</td> <td>43R1985</td> </tr> <tr> <td></td> <td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td></td> <td>NVIDIA® Quadro® 256MB FX 370 LP</td> <td>55Y9275</td> </tr> <tr> <td></td> <td>NVIDIA Quadro 256MB NVS 290</td> <td>43R1765</td> </tr> <tr> <td></td> <td>More accessories on O-M58E sheet</td> <td></td> </tr> </table> <p>• <b>Preloaded applications<sup>5</sup></b> (only some listed)</p> <ul style="list-style-type: none"> <li>• Some: Education software</li> <li>• VitalSource Library School Edition</li> <li>• Adobe® Elements                             <ul style="list-style-type: none"> <li>- Photoshop Elements 7</li> <li>- Premiere Elements 7</li> </ul> </li> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-6400 DDR2 UDIMM	41U2977		2GB PC2-6400 DDR2 UDIMM	41U2978		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918		Super Multi-Burner DL DVD±RW SATA Drive	41N5620		DisplayPort to Single-link DVI-D Cable	45J7915		ADD2 DVI-D Monitor Connection (HDCP)	43R1985		ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636		NVIDIA® Quadro® 256MB FX 370 LP	55Y9275		NVIDIA Quadro 256MB NVS 290	43R1765		More accessories on O-M58E sheet	
- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-6400 DDR2 UDIMM	41U2977																																	
	2GB PC2-6400 DDR2 UDIMM	41U2978																																	
	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																																	
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	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																																	
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	NVIDIA Quadro 256MB NVS 290	43R1765																																	
	More accessories on O-M58E sheet																																		
		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ 3-year parts and labor</li> <li>↔ International Warranty Service<sup>9</sup></li> <li>↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↔ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↔ Post warranty maintenance services available</li> <li>↔ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>																																	

See footnotes for important warranty information  
 US models announced March 10 or March 24, 2009

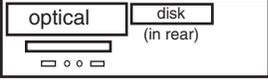
⚡ US models withdrawn effective October or December 2009

# ThinkCentre® M58e Small (7303) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7303-R1U	2x3	Pentium E6300	2.80	2MB	2	1GB	250GB <sup>2</sup>	DVD	GMA	XP Pro		Oct 09
M58e	7303-R2U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro		Oct 09
M58e	7303-R3U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro	Educ	Oct 09
M58e	7303-Q9U	2x3	Core 2 Quad Q8400	2.66	4MB	4	2GB	250GB	DVD±RW	GMA	XP Pro		Oct 09

• **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> <b>Intel® Pentium® Processor E6300 with dual-core</b> , Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Quad Processor Q8400 with quad-core</b> , Virtualization Technology, 1333MHz system bus, and 4MB L2 cache	<b>Small</b>	
Implementation	Processor in LGA775 socket	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Memory	<b>1GB</b> or <b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available	Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3	
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 512MB [ <i>1GB models</i> ], 1GB [ <i>2GB models</i> ]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive		
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		GREENGUARD® certified RoHS-compliant
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		<b>Limited Warranty<sup>1</sup></b>
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort™ to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB FX 370 LP 55Y9275 NVIDIA Quadro 256MB NVS 290 43R1765 More accessories on O-M58E sheet		<ul style="list-style-type: none"> <li>⇒ <b>3-year parts and labor</b></li> <li>⇒ <b>International Warranty Service<sup>9</sup></b></li> <li>⇒ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>⇒ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>⇒ <b>Post warranty maintenance services available</b></li> <li>⇒ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• <i>Some</i> : Education software			
- VitalSource Library School Edition			
- Adobe® Elements			
- Photoshop Elements 7			
- Premiere Elements 7			
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe Reader®			
• Windows Live™ Toolbar			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD, DVD±RW)			

See footnotes for important warranty information  
US models announced October 22, 2009  
⚠ US model withdrawn effective December 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global Educ	Avail date
M58e	7303-D8U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB <sup>2</sup>	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-D9U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E1U	2x3	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-E3U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E2U	2x3	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	DVD	GMA	Business32	Basic	None	Apr 09
M58e	7303-E4U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E5U	2x3	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E7U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E6U	2x3	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09
M58e	7303-E8U	2x3	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	DVD±RW	GMA	Business32	Basic	None	Apr 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning	<b>Mainstream enterprise stability and manageability</b>		<b>Small</b>
Processor	<b>Intel® Pentium® Processor E5300 with dual-core,</b> 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core,</b> 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Duo Processor E8400 or E8500 with dual-core,</b> Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		 <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p>
Memory	<b>1GB or 2GB std,</b> 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2,</b> non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500),</b> integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3
SATA disk	<b>160GB or 250GB,</b> SATA 3.0Gb/s 7200 rpm, vibration dampening		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive		
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		<p style="text-align: center;"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	None		Supports ThinkVantage® technologies
Diskette drive	None		
Media reader	None		GREENGUARD® certified RoHS-compliant
Chipset	<b>Intel G41 Express Chipset (PCI Express® x16),</b> I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		<p style="text-align: center;"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b> - Genuine Windows® Vista® Business 32 1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB FX 370 LP 55Y9275 NVIDIA Quadro 256MB NVS 290 43R1765 More accessories on O-M58E sheet		
<b>Preloaded applications<sup>5</sup></b>	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader®			
• Windows Live™ Toolbar			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD, DVD±RW)			

See footnotes for important warranty information  
 US models announced March 10, 2009

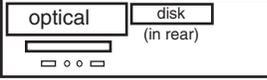
↔ US models withdrawn effective October or December 2009

# ThinkCentre® M58e Small (7303) - Windows 7

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
<b>M58e</b>	7303-BAU	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	Pro 32	None	Jan 10
<b>M58e</b>	7303-BBU	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10
<b>M58e</b>	7303-BCU	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Jan 10

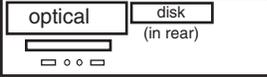
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<b>Mainstream enterprise stability and manageability</b> <b>Intel® Pentium® Processor E6300 with dual-core,</b> 1066MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500 with dual-core,</b> 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Duo Processor E8400 with dual-core,</b> 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		<b>Small</b> 
Implementation	Processor in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)
Memory	<b>2GB std,</b> 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2,</b> non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500),</b> integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
SATA disk	<b>250GB,</b> SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		
<b>Preloaded operating system<sup>20</sup></b> - Genuine Windows® 7 Professional 32			GREENGUARD® certified RoHS-compliant
<b>Preloaded applications<sup>5</sup></b> (only some listed)			<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
<b>Accessories</b>			
1GB PC2-6400 DDR2 UDIMM 41U2977			
2GB PC2-6400 DDR2 UDIMM 41U2978			
250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015			
500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
DisplayPort™ to Single-link DVI-D Cable 45J7915			
ADD2 DVI-D Monitor Connection (HDCP) 43R1985			
ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636			
NVIDIA® Quadro® 256MB FX 370 LP 55Y9275			
NVIDIA Quadro 256MB NVS 290 43R1765			
More accessories on O-M58E sheet			
Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>			
Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			

See footnotes for important warranty information  
 US models announced December 15, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
⚡	<b>M58e</b>	7506-C7U	2x3	Pentium E5200	2.50	2MB	2	1GB	160GB <sup>2</sup>	DVD	GMA	XP Pro		Apr 09
⚡	<b>M58e</b>	7506-B9U	2x3	Pentium E5300	2.60	2MB	2	1GB	160GB	DVD	GMA	XP Pro		Apr 09
⚡	<b>M58e</b>	7506-C1U	2x3	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	DVD±RW	GMA	ES50 XP Pro		Apr 09
⚡	<b>M58e</b>	7506-C2U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	ES50 XP Pro		Apr 09
⚡	<b>M58e</b>	7506-C9U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	DVD±RW	GMA	ES50 XP Pro	Educ	Apr 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning	Mainstream enterprise stability and manageability										Small
Processor	Intel® Pentium® Processor E5200 or E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										 <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p>
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket										
Memory	1GB or 2GB std, 4GB max <sup>8</sup> , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available										Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter										
SATA disk	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7										<b>Security</b> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul> Supports ThinkVantage® technologies
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive										
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar										
eSATA port	None										Climate Savers®-compliant <i>Some</i> : EPEAT™ Gold rating <i>Some</i> : ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant
Diskette drive	None										
Media reader	None										<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ 3-year parts and labor</li> <li>↔ International Warranty Service<sup>9</sup></li> <li>↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↔ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↔ Post warranty maintenance services available</li> <li>↔ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec										
Speaker	One internal speaker for business audio										
IEEE 1394	None										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®										
Intel AMT	None										
Modem	None										
Security chip	None										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	280 watts with variable speed fan, autosenensing, 85% PSU										
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)										
<b>Preloaded applications<sup>5</sup></b>	• <i>Some</i> : Education software - VitalSource Library School Edition - Adobe® Elements - Photoshop Elements 7 - Premiere Elements 7 • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • McAfee® VirusScan® Plus (30 days of virus definitions) • Lenovo System Toolbox • Adobe Reader® • Windows Live™ Toolbar • Microsoft® Office 2007 Trial (60-day) • Roxio® Creator® Business Edition (DVD±RW) • Roxio MyDVD® (DVD±RW) • Corel® WinDVD® (DVD, DVD±RW)										
<b>Accessories</b>	1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 ADD2 DVI-D Monitor Connection (HDCP) 43R1985 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB FX 370 LP 55Y9275 NVIDIA Quadro 256MB NVS 290 43R1765 More accessories on O-M58E sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										

See footnotes for important warranty information  
 US models announced March 10 or March 24, 2009

⚡ US models withdrawn effective June, October, or December 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
M58e	7506-M2U	2x3	Pentium E5300	2.60	2MB	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	ES50	XP Pro	None	Jul 09
M58e	7506-M1U	2x3	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	DVD±RW	GMA	ES50	XP Pro	None	Jul 09

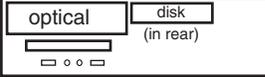
- These models have a 3-year limited warranty<sup>1</sup>

Positioning	<i>Mainstream enterprise stability and manageability</i>		<b>Small</b>			
Processor	<b>Intel® Pentium® Processor E5300</b> with dual-core, 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3	
Implementation	<b>2GB std, 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>		<b>Security</b> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>	
Memory	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 1GB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		<b>Chipset</b> <b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		Supports ThinkVantage® technologies	
Graphics	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts Serial ATA, SATA 3.0Gb/s, integrated in ICH7 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Two SATA cables (each 1-drop to device), two SATA connectors eSATA port None Diskette drive None Media reader None		Front ports Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm) Rear ports Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15) Rear audio ports Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm) Audio High Definition (HD) Audio, Realtek® ALC662 codec Speaker One internal speaker for business audio IEEE 1394 None Ethernet Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN® Intel AMT None Modem None Security chip None		Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
SATA disk	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		Keyboard Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo Mouse Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo Power supply 280 watts with variable speed fan, autosensing, 85% PSU		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		<b>Accessories</b> <ul style="list-style-type: none"> <li>1GB PC2-6400 DDR2 UDIMM 41U2977</li> <li>2GB PC2-6400 DDR2 UDIMM 41U2978</li> <li>250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® Quadro® 256MB FX 370 LP 55Y9275</li> <li>NVIDIA Quadro 256MB NVS 290 43R1765</li> <li>More accessories on O-M58E sheet</li> </ul> Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		Preloaded operating system <sup>20</sup> <ul style="list-style-type: none"> <li>- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</li> </ul> Preloaded applications <sup>5</sup> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Windows Live™ Toolbar</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>	

See footnotes for important warranty information  
 US models announced July 7, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
M58e	7506-N6U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	ES50	XP Pro	None	Oct 09

- *This model has a 3-year limited warranty<sup>1</sup>*

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> <b>Intel® Pentium® Processor E6300</b> with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache		<b>Small</b>																																				
Implementation	Processor in LGA775 socket																																						
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)  Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3  • Business black color; metal case • 12.5" W X 14.0" D X 3.9" H • 317mm W X 355mm D X 99mm H • 16.5 lb (7.5 kg) in maximum configuration • Toolless cover flips up and tilts backward on rear hinges • Toolless disk, optical drive removal • Toolless adapter retention • Toolless systemboard retention • System floor stand for vertical orientation																																				
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 1GB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter																																						
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>																																				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																						
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																						
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																																						
eSATA port	None																																						
Diskette drive	None																																						
Media reader	None																																						
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																																						
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																						
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)																																						
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																																						
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																																						
Speaker	One internal speaker for business audio																																						
IEEE 1394	None																																						
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																																						
Intel AMT	None																																						
Modem	None																																						
Security chip	None																																						
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies																																				
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																																						
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant																																				
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b> <table border="0"> <tr> <td>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</td> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td></td> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td></td> <td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>41N3015</td> </tr> <tr> <td></td> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td></td> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td></td> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td></td> <td>DisplayPort™ to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td></td> <td>ADD2 DVI-D Monitor Connection (HDCP)</td> <td>43R1985</td> </tr> <tr> <td></td> <td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td></td> <td>NVIDIA® Quadro® 256MB FX 370 LP</td> <td>55Y9275</td> </tr> <tr> <td></td> <td>NVIDIA Quadro 256MB NVS 290</td> <td>43R1765</td> </tr> <tr> <td></td> <td>More accessories on O-M58E sheet</td> <td></td> </tr> </table> Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC2-6400 DDR2 UDIMM	41U2977		2GB PC2-6400 DDR2 UDIMM	41U2978		250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918		Super Multi-Burner DL DVD±RW SATA Drive	41N5620		DisplayPort™ to Single-link DVI-D Cable	45J7915		ADD2 DVI-D Monitor Connection (HDCP)	43R1985		ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636		NVIDIA® Quadro® 256MB FX 370 LP	55Y9275		NVIDIA Quadro 256MB NVS 290	43R1765		More accessories on O-M58E sheet	
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<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Windows Live™ Toolbar</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>																																						

See footnotes for important warranty information  
 US model announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Vista preload	Vista logo	Global (G) GMP (P)	Avail date
M58e	7408-A1U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	Business32	Basic	G P	Apr 09

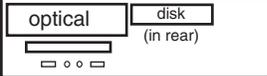
- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	Mainstream enterprise stability and manageability <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<b>Small</b>	
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3	
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing			
<b>Preloaded operating system<sup>20</sup></b>			Supports ThinkVantage® technologies	
- Genuine Windows® Vista® Business 32			GREENGUARD® certified RoHS-compliant	
<b>Preloaded applications<sup>5</sup></b>			<b>Limited Warranty<sup>1</sup></b>	
<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader™</li> <li>• Windows Live™ Toolbar</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>				
<b>Accessories</b>				
1GB PC2-6400 DDR2 UDIMM 41U2977				
2GB PC2-6400 DDR2 UDIMM 41U2978				
250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015				
500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990				
1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918				
Super Multi-Burner DL DVD±RW SATA Drive 41N5620				
DisplayPort to Single-link DVI-D Cable 45J7915				
ADD2 DVI-D Monitor Connection (HDCP) 43R1985				
ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636				
NVIDIA® Quadro® 256MB FX 370 LP 55Y9275				
NVIDIA Quadro 256MB NVS 290 43R1765				
More accessories on O-M58E sheet				
Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>				
Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>				
<ul style="list-style-type: none"> <li>⇒ 3-year parts and labor</li> <li>⇒ International Warranty Service<sup>9</sup></li> <li>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>⇒ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>⇒ Post warranty maintenance services available</li> <li>⇒ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>				

See footnotes for important warranty information  
US model announced March 10, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Win7 preload	Global (G) GMP (P)	Avail date
M58e	7408-A2U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	320GB <sup>2</sup>	DVD±RW	GMA	Pro 32	G P	Oct 09

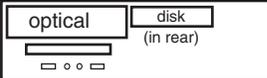
• This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		<b>Small</b> 
Implementation	Processor in LGA775 socket		
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
SATA disk	<b>320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
IEEE 1394	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		Supports ThinkVantage® technologies
- Genuine Windows® 7 Professional 32	1GB PC2-6400 DDR2 UDIMM	41U2977	
<b>Preloaded applications<sup>5</sup></b> (only some listed)	2GB PC2-6400 DDR2 UDIMM	41U2978	GREENGUARD® certified RoHS-compliant
• Rescue and Recovery™	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	
• Password Manager	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
• ThinkVantage System Update	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• ThinkVantage Power Manager	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
• ThinkVantage Toolbox	DisplayPort™ to Single-link DVI-D Cable	45J7915	
• Lenovo Online Data Backup	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	
• Norton™ Internet Security 2009 (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	
• Adobe® Reader®	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275	
• Adobe Flash® Player	NVIDIA Quadro 256MB NVS 290	43R1765	
• Skype™ for Windows	More accessories on O-M58E sheet		
• Microsoft® Office 2007 Trial (60-day)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		
• Roxio® Creator® Business Edition (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• Roxio MyDVD® (DVD±RW)			

See footnotes for important warranty information  
US model announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	ENERGY STAR 5.0	Vista preload	Vista logo	Global (G) GMP (P)	Avail date
M58e	7514-A2U	2x3	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	ES50	Bus32	Basic	G P	Apr 09

- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

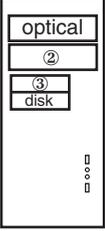
Positioning Processor	Mainstream enterprise stability and manageability <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										<b>Small</b>																										
Implementation	Processor in FC-LGA8 package in LGA775 socket																																				
Memory	<b>2GB std, 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3																										
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SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<b>Security</b> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul> Supports ThinkVantage® technologies																										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																																				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																				
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors																																				
eSATA port	None																																				
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Media reader	None																																				
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Power supply	280 watts with variable speed fan, autosensing, 85% PSU																																				
<b>Preloaded operating system<sup>20</sup></b>	<b>Genuine Windows® Vista® Business 32</b>																																				
<b>Preloaded applications<sup>5</sup></b>	• Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • ThinkVantage Power Manager • McAfee® VirusScan® Plus (30 days of virus definitions) • Lenovo System Toolbox • 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)										<b>Accessories</b> <table border="0"> <tr> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>41N3015</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>ADD2 DVI-D Monitor Connection (HDCP)</td> <td>43R1985</td> </tr> <tr> <td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® Quadro 256MB FX 370 LP</td> <td>55Y9275</td> </tr> <tr> <td>NVIDIA Quadro 256MB NVS 290</td> <td>43R1765</td> </tr> </table> More accessories on O-M58E sheet  Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>					1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro 256MB FX 370 LP	55Y9275	NVIDIA Quadro 256MB NVS 290	43R1765
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NVIDIA Quadro 256MB NVS 290	43R1765																																				
											<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>⇒ 3-year parts and labor</li> <li>⇒ International Warranty Service<sup>9</sup></li> <li>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>⇒ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>⇒ Post warranty maintenance services available</li> <li>⇒ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>																										

See footnotes for important warranty information  
US model announced March 10, 2009



Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7258-D3U	4x4	Celeron E3200	2.40	1MB	2	1GB	250GB <sup>2</sup>	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7258-D2U	4x4	Pentium E5400	2.70	2MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7258-D1U	4x4	Pentium E5400	2.70	2MB	2	3GB	320GB	None	DVD±RW	GMA	Pro 32	None	Jan 10

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

Positioning Processor	<b>Mainstream enterprise stability and manageability</b> Intel® Celeron® Processor E3200 with dual-core, 800MHz system bus, and 1MB L2 cache or Intel Pentium® Processor E5400 with dual-core, 800MHz system bus, and 2MB L2 cache Processor in LGA775 socket		<b>Tower</b>	
Implementation			<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Memory	<b>1GB, 2GB, or 3GB std.</b> , 4GB max <sup>8</sup> , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models], or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
SATA disk	<b>250GB or 320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening		<b>Security</b> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul> Supports ThinkVantage® technologies	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ 1-year parts and labor</li> <li>↔ International Warranty Service<sup>9</sup></li> <li>↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↔ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9189)</li> <li>• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9187)</li> <li>• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9190)</li> <li>• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9188)</li> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9191)</li> </ul> </li> <li>↔ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↔ Post warranty maintenance services available</li> <li>↔ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	
- Genuine Windows® 7 Professional 32	1GB PC2-6400 DDR2 UDIMM 41U2977			
<b>Preloaded applications<sup>5</sup></b> (only some listed)	2GB PC2-6400 DDR2 UDIMM 41U2978			
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
• ThinkVantage Power Manager	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675			
• ThinkVantage Toolbox	DisplayPort™ to Single-link DVI-D Cable 45J7915			
• Lenovo Online Data Backup	ADD2 DVI-D Monitor Connection (HDCP) 43R1985			
• Norton™ Internet Security 2009 (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636			
• Adobe® Reader®	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635			
• Adobe Flash® Player	NVIDIA Quadro® 256MB NVS 290 43R1765			
• Skype™ for Windows	More accessories on O-M58E sheet			
• Microsoft® Office 2007 Trial (60-day)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>			
• Roxio® Creator® Business Edition (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
• Roxio MyDVD® (DVD±RW)				

See footnotes for important warranty information  
US models announced December 15, 2009

# ThinkCentre® M58e Tower (7268) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Chassis intr switch	Preload	Global Educ	Avail date
<b>M58e</b>	7268-D2U	4x4	Pentium E5400	2.70	2MB	2	1GB	250GB <sup>2</sup>	None	DVD	GMA		XP Pro	None	Jan 10
<b>M58e</b>	7268-D1U	4x4	Pentium E5400	2.70	2MB	2	2GB	250GB	None	DVD±RW	GMA		XP Pro	None	Jan 10
<b>M58e</b>	7268-C3U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB	None	DVD	GMA	Switch	XP Pro	None	Nov 09
<b>M58e</b>	7268-C4U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	Switch	XP Pro	None	Nov 09
<b>M58e</b>	7268-C5U	4x4	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	None	DVD±RW	GMA		XP Pro	None	Nov 09
<b>M58e</b>	7268-C6U	4x4	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	None	DVD±RW	GMA		XP Pro	None	Nov 09
<b>M58e</b>	7268-E1U	4x4	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	None	DVD±RW	GMA		XP Pro	None	Mar 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><b>Mainstream enterprise stability and manageability</b>  <b>Intel® Pentium® Processor E5400 with dual-core</b>, 800MHz system bus, and 2MB L2 cache or  <b>Intel Pentium Processor E6300 with dual-core</b>, 1066MHz system bus, and 2MB L2 cache or  <b>Intel Core™ 2 Duo Processor E7500 with dual-core</b>, 1066MHz system bus, and 3MB L2 cache or  <b>Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core</b>, 1333MHz system bus, and 6MB L2 cache                      Processor in LGA775 socket</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Implementation	<p><b>1GB, 2GB, or 3GB std, 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, two 240-pin DIMM sockets;  <i>Italics:</i> standard memory in both sockets; no sockets avail;  <i>Non-italics:</i> standard memory in one socket; one socket available</p>		<p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 5.25", 1.6" high, access, open                      Bay ③ 3.5", 1" high, access, open (reader/diskette)                      Bay ④ 3.5", 1" high, no access, std disk</p>	
Memory	<p><b>1GB, 2GB, or 3GB std, 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, two 240-pin DIMM sockets;  <i>Italics:</i> standard memory in both sockets; no sockets avail;  <i>Non-italics:</i> standard memory in one socket; one socket available</p>		<p>Slot 1: half-length, full-height, PCI Express x16 (75w max)                      Slot 2: half-length, full-height, PCI Express x1                      Slot 3: half-length, full-height, 32-bit PCI 2.3                      Slot 4: half-length, full-height, 32-bit PCI 2.3</p>	
Graphics	<p><b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b>, integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB or 3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter</p>			
SATA disk	<p><b>250GB, 320GB, or 500GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>			
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH7</p>			
SATA DVD	<p><i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max<sup>4</sup> Drive</p>			
SATA DVD±RW	<p><i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>			
SATA cables	<p>Two SATA cables (each 1-drop to device), four SATA connectors on planar</p>			
eSATA port	<p>None</p>			
Diskette drive	<p>None</p>			
Media reader	<p>None</p>			
Chipset	<p><b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)</p>			
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>			
Rear ports	<p>Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)</p>			
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)</p>			
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>			
Speaker	<p>One internal speaker for business audio</p>			
IEEE 1394	<p>None</p>			
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®</p>			
Intel AMT	<p>None</p>			
Modem	<p>None</p>			
Security chip	<p>None</p>			
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>			
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>			
Power supply	<p>280 watts with variable speed fan, manual switch</p>			
<b>Preloaded operating system<sup>20</sup></b>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</p>			
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Windows Live™ Toolbar</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul>		<p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>1GB PC2-6400 DDR2 UDIMM 41U2977</li> <li>2GB PC2-6400 DDR2 UDIMM 41U2978</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort™ to Single-link DVI-D Cable 45J7915</li> <li>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>More accessories on O-M58E sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>	
			<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® Microsaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> <li>• <i>Some:</i> Chassis intrusion switch</li> </ul>	
			<p>Supports ThinkVantage® technologies</p>	
			<p>GREENGUARD® certified RoHS-compliant</p>	
			<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	

See footnotes for important warranty information

Ⓜ US model announced March 2, 2010; previous models on November 3 or December 15, 2009

Ⓜ US models withdrawn effective January 2010

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(MIAM3-10) March 2010

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7268-D3U	4x4	Pentium E5400	2.70	2MB	2	1GB	250GB <sup>2</sup>	None	DVD	GMA	Pro 32	None	Jan 10
M58e	7268-D4U	4x4	Pentium E5400	2.70	2MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7268-D5U	4x4	Core 2 Duo E7500	2.93	3MB	2	3GB	320GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7268-D6U	4x4	Core 2 Quad Q9400	2.66	6MB	4	3GB	500GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7268-E2U	4x4	Core 2 Quad Q9500	2.83	6MB	4	3GB	500GB	None	DVD±RW	GMA	Pro 32	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

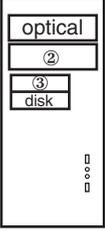
Positioning	<b>Mainstream enterprise stability and manageability</b>								<b>Tower</b>		
Processor	<b>Intel® Pentium® Processor E5400 with dual-core</b> , 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500 with dual-core</b> , 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Quad Processor Q9400 or Q9500 with quad-core</b> , 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket								<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Implementation	Processor in LGA775 socket								Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		<b>Security</b> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® Microsaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
Memory	<b>1GB, 2GB, or 3GB std, 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available								Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 253MB [1GB models], 765MB [2GB models], or 1277MB [3GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter								<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>		
SATA disk	<b>250GB, 320GB, or 500GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts								<b>Supports ThinkVantage® technologies</b>		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7								<b>GREENGUARD® certified</b> RoHS-compliant		
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive										
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar										
eSATA port	None										
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec										
Speaker	One internal speaker for business audio										
IEEE 1394	None										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®										
Intel AMT	None										
Modem	None										
Security chip	None										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	280 watts with variable speed fan, manual switch										
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® 7 Professional 32								<b>Accessories</b>		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>								<ul style="list-style-type: none"> <li>1GB PC2-6400 DDR2 UDIMM 41U2977</li> <li>2GB PC2-6400 DDR2 UDIMM 41U2978</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort™ to Single-link DVI-D Cable 45J7915</li> <li>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>More accessories on O-M58E sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>		

See footnotes for important warranty information

<sup>14</sup> US model announced March 2, 2010; previous models on January 12, 2010

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	Media reader	SATA disk	2nd Disk Bay	SATA optical	Graphics	FireWire adapter	Vista preload	Global Educ	Avail date
⚠	<b>M58e</b>	7270-A3U	4x4 Pentium E2220	2.40	1MB	2	2GB		160GB <sup>2</sup>	No	DVD±RW	GMA		Bus32	No	Apr 09
⚠	<b>M58e</b>	7270-A2U	4x4 Core 2 Duo E7300	2.66	3MB	2	2GB		160GB	No	DVD±RW	GMA		Bus32	No	Apr 09
	<b>M58e</b>	7270-A1U	4x4 Core 2 Duo E8400	3.00	6MB	2	2GB		160GB	No	DVD±RW	GMA		Bus32	No	Apr 09
⚠	<b>M58e</b>	7270-A4U	4x4 Core 2 Duo E8400	3.00	6MB	2	2GB	25-in-1	160GB	No	DVD±RW	GMA	1394	Bus32	No	Apr 09

• *These models have a 1-year limited warranty<sup>1</sup>*

Positioning Processor	<p><i>Mainstream enterprise stability and manageability</i></p> <p><b>Intel® Pentium® Processor E2220</b> with dual-core, 800MHz system bus, and 1MB L2 cache or <b>Intel Core™ 2 Duo Processor E7300</b> with dual-core, 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		
Memory	<p><b>2GB std, 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i>: standard memory in one socket; one socket available</p>		<p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, opt reader/diskette*</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p>
Graphics	<p><b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b>, integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter</p>		<p>* occupied by media reader in some models</p>
SATA disk	<p><b>160GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p>Slot 1: half-length, full-height, PCI Express x16 (75w max)</p> <p>Slot 2: half-length, full-height, PCI Express x1</p> <p>Slot 3: half-length, full-height, 32-bit PCI 2.3**</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p> <p>** occupied by FireWire adapter in some models</p>
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH7</p>		
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
SATA cables	<p>Two SATA cables (each 1-drop to device), four SATA connectors</p>		
eSATA port	<p>None</p>		
Diskette drive	<p>None</p>		
Media reader	<p><i>Some</i>: 25-in-1 media reader, internal USB 2.0</p>		
Chipset	<p><b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		<p>Supports ThinkVantage® technologies</p>
Rear ports	<p>Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)</p>		
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)</p>		<p>GREENGUARD® certified RoHS-compliant</p>
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>		
Speaker	<p>One internal speaker for business audio</p>		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>1-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>1-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9189)</li> <li>• <b>2-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9187)</li> <li>• <b>2-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9190)</li> <li>• <b>3-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9188)</li> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9191)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
IEEE 1394	<p><i>Some</i>: FireWire PCI adapter / IEEE 1394 FireWire 400 (dual 6-pin ports on rear; 1394-1995 standard)</p>		
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®</p>		
Intel AMT	<p>None</p>		
Modem	<p>None</p>		
Security chip	<p>None</p>		
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>		
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>		
Power supply	<p>280 watts with variable speed fan, manual switch</p>		
<b>Preloaded operating system<sup>20</sup></b>	<p>- Genuine Windows® Vista® Business 32                  ✦ Vista Basic logo</p>		
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Windows Live™ Toolbar</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>		
<b>Accessories</b>	<ul style="list-style-type: none"> <li>1GB PC2-6400 DDR2 UDIMM 41U2977</li> <li>2GB PC2-6400 DDR2 UDIMM 41U2978</li> <li>250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>More accessories on O-M58E sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>		

See footnotes for important warranty information  
 US models announced March 10, 2009

⚠ US models withdrawn effective June, August, or December 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7298-F2U	4x4	Pentium E5200	2.50	2MB	2	1GB	160GB <sup>2</sup>	None	DVD	GMA	XP Pro		Apr 09
M58e	7298-C3U	4x4	Pentium E5300	2.60	2MB	2	1GB	160GB	None	DVD	GMA	XP Pro		Apr 09
M58e	7298-C4U	4x4	Pentium E5300	2.60	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-C5U	4x4	Core 2 Duo E7400	2.80	3MB	2	1GB	160GB	None	DVD	GMA	XP Pro		Apr 09
M58e	7298-C6U	4x4	Core 2 Duo E7400	2.80	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-C7U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-C8U	4x4	Core 2 Duo E8400	3.00	6MB	2	1GB	160GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-D1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-F8U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Educ	Apr 09
M58e	7298-C9U	4x4	Core 2 Duo E8500	3.16	6MB	2	1GB	250GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-D2U	4x4	Core 2 Duo E8500	3.16	6MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-F9U	4x4	Core 2 Quad Q8200	2.33	4MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro		Apr 09
M58e	7298-G1U	4x4	Core 2 Quad Q9400	2.66	6MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro		Apr 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning	Mainstream enterprise stability and manageability		<b>Tower</b>	
Processor	Intel® Pentium® Processor E5200 or E5300 with dual-core, 800MHz system bus, and 2MB L2 cache or Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core, 1066MHz system bus, and 3MB L2 cache or Intel Core 2 Duo Processor E8400 or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q8200 with quad-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q9400 with quad-core, 1333MHz system bus, and 6MB L2 cache	<ul style="list-style-type: none"> <li>Business black color; metal case</li> <li>6.9" W X 17.3" D X 15.8" H</li> <li>175mm W X 440mm D X 402mm H</li> <li>24.7 lb (11.2 kg) in max configuration</li> <li>Handle on top front</li> <li>Toolless cover removal</li> <li>Toolless disk, diskette drive, optical drive removal</li> <li>Toolless adapter retention</li> </ul>		
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Memory	1GB or 2GB std, 4GB max <sup>8</sup> , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; Non-italics: standard memory in one socket; one socket available	Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
Graphics	Intel Graphics Media Accelerator X4500 (GMA X4500), integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter			
SATA disk	160GB or 250GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD	Some: DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive			
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	Intel G41 Express Chipset (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch			
Preloaded operating system <sup>20</sup>	- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)			
Preloaded applications <sup>5</sup> (only some listed)	<ul style="list-style-type: none"> <li>Some: Education software</li> <li>VitalSource Library School Edition</li> <li>Adobe® Elements</li> <li>Photoshop Elements 7</li> <li>Premiere Elements 7</li> <li>Rescue and Recovery™</li> <li>McAfee® VirusScan® Plus (30-day)</li> <li>Microsoft® Office 2007 Trial (60-day)</li> <li>Roxio® Creator® Business Edition (DVD±RW)</li> <li>Roxio MyDVD® (DVD±RW)</li> <li>Corel® WinDVD® (DVD, DVD±RW)</li> </ul>	<b>Accessories</b> <ul style="list-style-type: none"> <li>1GB PC2-6400 DDR2 UDIMM 41U2977</li> <li>2GB PC2-6400 DDR2 UDIMM 41U2978</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>More accessories on O-M58E sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>	<b>Security</b> <ul style="list-style-type: none"> <li>One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>Padlock loop (in rear for opt padlock)</li> <li>Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>Power-on password</li> <li>Administrator password</li> <li>Hard disk password</li> <li>Boot sequence control</li> <li>Boot without keyboard, mouse, diskette</li> <li>Serial port I/O control</li> <li>Parallel port I/O control</li> <li>USB port disablement</li> </ul> Supports ThinkVantage® technologies  GREENGUARD® certified RoHS-compliant  <b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>3-year parts and labor</li> <li>International Warranty Service<sup>9</sup></li> <li>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>3-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9192)</li> <li>4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>Post warranty maintenance services available</li> <li>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	

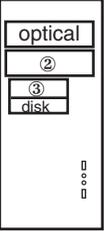
See footnotes for important warranty information

US models announced March 24, 2009; previous models on March 10, 2009

US models withdrawn effective October or December 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date	
⚡	M58e	7298-H9U	4x4	Pentium E5300	2.60	2MB	2	2GB	160GB <sup>2</sup>	None	DVD±RW	GMA	XP Pro	Educ	Jul 09
⚡	M58e	7298-H6U	4x4	Core 2 Duo E7500	2.93	3MB	2	1GB	160GB	None	DVD	GMA	XP Pro		Jul 09
⚡	M58e	7298-H8U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	160GB	None	DVD±RW	GMA	XP Pro	Educ	Jul 09
	M58e	7298-H7U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro		Jul 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Mainstream enterprise stability and manageability <b>Intel® Pentium® Processor E5300</b> with dual-core, 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache							<b>Tower</b>			
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket							<ul style="list-style-type: none"> <li>Business black color; metal case</li> <li>6.9" W X 17.3" D X 15.8" H</li> <li>175mm W X 440mm D X 402mm H</li> <li>24.7 lb (11.2 kg) in max configuration</li> <li>Handle on top front</li> <li>Toolless cover removal</li> <li>Toolless disk, diskette drive, optical drive removal</li> <li>Toolless adapter retention</li> </ul>			
Memory	<b>1GB</b> or <b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available							Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk			
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 512MB [ <i>1GB models</i> ], 1GB [ <i>2GB models</i> ]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter							Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3			
SATA disk	<b>160GB</b> or <b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening							<b>Security</b> <ul style="list-style-type: none"> <li>One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>Power-on password</li> <li>Administrator password</li> <li>Hard disk password</li> <li>Boot sequence control</li> <li>Boot without keyboard, mouse, diskette</li> <li>Serial port I/O control</li> <li>Parallel port I/O control</li> <li>USB port disablement</li> </ul> Supports ThinkVantage® technologies			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7										
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive										
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors										
eSATA port	None										
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec										
Speaker	One internal speaker for business audio										
IEEE 1394	None										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®										
Intel AMT	None										
Modem	None										
Security chip	None										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	280 watts with variable speed fan, manual switch										
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>							GREENGUARD® certified RoHS-compliant			
- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-6400 DDR2 UDIMM 41U2977							<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>			
	2GB PC2-6400 DDR2 UDIMM 41U2978										
	250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015										
	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990										
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918										
	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618										
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620										
	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675										
	DisplayPort to Single-link DVI-D Cable 45J7915										
	ADD2 DVI-D Monitor Connection (HDCP) 43R1985										
	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636										
	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635										
	NVIDIA Quadro® 256MB NVS 290 43R1765										
	More accessories on O-M58E sheet										
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>										
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										

See footnotes for important warranty information

US models announced July 7, 2009

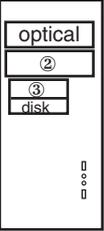
⚡ US models withdrawn effective December 2009

# ThinkCentre® M58e Tower (7298) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Preload	Global Educ	Avail date
M58e	7298-N1U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB <sup>2</sup>	None	DVD	GMA	XP Pro		Oct 09
M58e	7298-N2U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro		Oct 09
M58e	7298-N3U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	XP Pro	Educ	Oct 09
M58e	7298-M9U	4x4	Core 2 Quad Q8400	2.66	4MB	4	2GB	250GB	None	DVD±RW	GMA	XP Pro		Oct 09

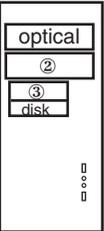
• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Mainstream enterprise stability and manageability <b>Intel® Pentium® Processor E6300</b> with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Quad Processor Q8400</b> with quad-core, Virtualization Technology, 1333MHz system bus, and 4MB L2 cache Processor in LGA775 socket		<b>Tower</b>																										
Implementation			<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>																										
Memory	<b>1GB</b> or <b>2GB std.</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk																										
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 512MB [1GB models], 1GB [2GB models]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																										
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:               <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul> Supports ThinkVantage® technologies																										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7																												
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive																												
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																												
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar																												
eSATA port	None																												
Diskette drive	None																												
Media reader	None																												
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)																												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																												
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Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																												
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																												
Speaker	One internal speaker for business audio																												
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Modem	None																												
Security chip	None																												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		GREENGUARD® certified RoHS-compliant																										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																												
Power supply	280 watts with variable speed fan, manual switch		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>																										
<b>Preloaded operating system<sup>20</sup></b>	<ul style="list-style-type: none"> <li>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</li> </ul>			<b>Accessories</b> <table border="0"> <tr> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>41N3015</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td> <td>41N5618</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td> <td>45K1675</td> </tr> <tr> <td>DisplayPort™ to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>ADD2 DVI-D Monitor Connection (HDCP)</td> <td>43R1985</td> </tr> <tr> <td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td> <td>45K1635</td> </tr> <tr> <td>NVIDIA Quadro® 256MB NVS 290</td> <td>43R1765</td> </tr> </table> More accessories on O-M58E sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort™ to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290
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NVIDIA Quadro® 256MB NVS 290	43R1765																												
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• <i>Some:</i> Education software</li> <li>- VitalSource Library School Edition</li> <li>- Adobe® Elements               <ul style="list-style-type: none"> <li>- Photoshop Elements 7</li> <li>- Premiere Elements 7</li> </ul> </li> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe Reader®</li> <li>• Windows Live™ Toolbar</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul>																												

See footnotes for important warranty information  
 US models announced October 22, 2009  
 ↖ US model withdrawn effective December 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
M58e	7298-Q1U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB <sup>2</sup>	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7298-Q2U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10
M58e	7298-Q3U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB	None	DVD±RW	GMA	Pro 32	None	Jan 10

• *These models have a 3-year limited warranty<sup>1</sup>*

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> <b>Intel® Pentium® Processor E6300</b> with dual-core, 1066MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Duo Processor E8400</b> with dual-core, 1333MHz system bus, and 6MB L2 cache		<b>Tower</b>	
Implementation	Processor in LGA775 socket		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter		Slot 1: half-length, full-height, PCI Express x16 (75w max) Slot 2: half-length, full-height, PCI Express x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	One internal speaker for business audio			
IEEE 1394	None			
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®			
Intel AMT	None			
Modem	None			
Security chip	None			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch			
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® 7 Professional 32			
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>			
<b>Accessories</b>	<ul style="list-style-type: none"> <li>1GB PC2-6400 DDR2 UDIMM 41U2977</li> <li>2GB PC2-6400 DDR2 UDIMM 41U2978</li> <li>250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort™ to Single-link DVI-D Cable 45J7915</li> <li>ADD2 DVI-D Monitor Connection (HDCP) 43R1985</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>More accessories on O-M58E sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>			
				GREENGUARD® certified RoHS-compliant
				<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>⇒ <b>3-year parts and labor</b></li> <li>⇒ <b>International Warranty Service<sup>9</sup></b></li> <li>⇒ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>⇒ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>⇒ <b>Post warranty maintenance services available</b></li> <li>⇒ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>

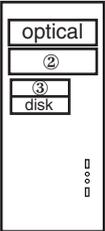
See footnotes for important warranty information  
US models announced December 15, 2009

# ThinkCentre® M58e Tower (7847) - ES 5.0 (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 5.0	Preload	Global Educ	Avail date
<b>M58e</b>	7847-A2U	4x4	Pentium E6300	2.80	2MB	2	1GB	250GB <sup>2</sup>	None	DVD	GMA	ES50	XP Pro	None	Oct 09
<b>M58e</b>	7847-A3U	4x4	Pentium E6300	2.80	2MB	2	2GB	250GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09
<b>M58e</b>	7847-A4U	4x4	Core 2 Duo E7500	2.93	3MB	2	2GB	250GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09
<b>M58e</b>	7847-A5U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09
<b>M58e</b>	7847-A7U	4x4	Core 2 Quad Q9400	2.66	6MB	4	3GB	320GB	None	DVD±RW	GMA	ES50	XP Pro	None	Oct 09

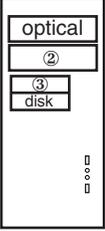
• **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Mainstream enterprise stability and manageability</i></p> <p><b>Intel® Pentium® Processor E6300 with dual-core</b>, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or</p> <p><b>Intel Core™ 2 Duo Processor E7500 with dual-core</b>, Virtualization Technology, 1066MHz system bus, and 3MB L2 cache or</p> <p><b>Intel Core 2 Duo Processor E8400 with dual-core</b>, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or</p> <p><b>Intel Core 2 Quad Processor Q9400 with quad-core</b>, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache</p> <p>Processor in LGA775 socket</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation			<p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, open (reader/diskette)</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p>
Memory	<p><b>1GB, 2GB, or 3GB std.</b> 4GB max<sup>8</sup>, <b>PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available</p>		<p>Slot 1: half-length, full-height, PCI Express x16 (75w max)</p> <p>Slot 2: half-length, full-height, PCI Express x1</p> <p>Slot 3: half-length, full-height, 32-bit PCI 2.3</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p>
Graphics	<p><b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b>, integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB or 3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
SATA disk	<p><b>250GB or 320GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p>Supports ThinkVantage® technologies</p> <p>Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH7</p>		
SATA DVD	<p><i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max<sup>4</sup> Drive</p>		
SATA DVD±RW	<p><i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
SATA cables	<p>Two SATA cables (each 1-drop to device), four SATA connectors on planar</p>		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<p><b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)</p>		
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		
Rear ports	<p>Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)</p>		
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)</p>		
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>		
Speaker	<p>One internal speaker for business audio</p>		
IEEE 1394	None		
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®</p>		
Intel AMT	None		
Modem	None		
Security chip	None		
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>		
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>		
Power supply	<p>280 watts with variable speed fan, autosensing, 85% PSU</p>		
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p>		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC2-6400 DDR2 UDIMM	41U2977	
	2GB PC2-6400 DDR2 UDIMM	41U2978	
	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	
	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	
	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	
	DisplayPort™ to Single-link DVI-D Cable	45J7915	
	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	
	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	
	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	
	NVIDIA Quadro® 256MB NVS 290	43R1765	
	More accessories on O-M58E sheet		
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>			
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader®			
• Windows Live™ Toolbar			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD, DVD±RW)			

See footnotes for important warranty information  
US models announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>6</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Vista preload	Vista logo	Global (G) GMP (P)	Avail date
M58e	7307-A1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	160GB <sup>2</sup>	None	DVD±RW	GMA	Business32	Basic	G P	Apr 09

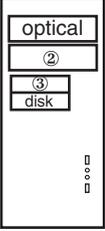
• This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	Mainstream enterprise stability and manageability <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache	
Implementation	Processor in FC-LGA8 package in LGA775 socket	
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available	
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter	
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> <p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 5.25", 1.6" high, access, open                      Bay ③ 3.5", 1" high, access, open (reader/diskette)                      Bay ④ 3.5", 1" high, no access, std disk</p> <p>Slot 1: half-length, full-height, PCI Express x16 (75w max)                      Slot 2: half-length, full-height, PCI Express x1                      Slot 3: half-length, full-height, 32-bit PCI 2.3                      Slot 4: half-length, full-height, 32-bit PCI 2.3</p>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	One internal speaker for business audio	
IEEE 1394	None	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®	
Intel AMT	None	
Modem	None	
Security chip	None	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, manual switch	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® Vista® Business 32	1GB PC2-6400 DDR2 UDIMM 41U2977	
<b>Preloaded applications<sup>5</sup></b>	2GB PC2-6400 DDR2 UDIMM 41U2978	
• Rescue and Recovery™	250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015	
• Client Security Solution™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	
• ThinkVantage Productivity Center	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
• ThinkVantage Power Manager	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675	
• McAfee® VirusScan® Plus (30 days of virus definitions)	DisplayPort to Single-link DVI-D Cable 45J7915	
• Lenovo System Toolbox	ADD2 DVI-D Monitor Connection (HDCP) 43R1985	
• Adobe® Reader®	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636	
• Windows Live™ Toolbar	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635	
• Microsoft® Office 2007 Trial (60-day)	NVIDIA Quadro® 256MB NVS 290 43R1765	
• Roxio® Creator® Business Edition (DVD±RW)	More accessories on O-M58E sheet	
• Roxio MyDVD® (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Corel® WinDVD® (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
		Supports ThinkVantage® technologies
		GREENGUARD® certified RoHS-compliant
		<b>Limited Warranty<sup>1</sup></b>
		↔ <b>3-year parts and labor</b>
		↔ <b>International Warranty Service<sup>9</sup></b>
		↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b>
		↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b>
		• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)
		• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)
		• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)
		↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b>
		↔ <b>Post warranty maintenance services available</b>
		↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>

See footnotes for important warranty information  
US model announced March 10, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>6</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	ENERGY STAR 5.0	Win7 preload	Global (G) GMP (P)	Avail date
M58e	7843-A1U	4x4	Core 2 Duo E8400	3.00	6MB	2	2GB	250GB <sup>2</sup>	None	DVD±RW	GMA	ES50	Pro 32	G P	Oct 09

- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	<i>Mainstream enterprise stability and manageability</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.7 lb (11.2 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation	Processor in LGA775 socket										
Memory	<b>2GB std</b> , 4GB max <sup>6</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; one socket available										
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 765MB), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter										
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										Bay ① 5.25", 1.6" high, access, std optical
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7										Bay ② 5.25", 1.6" high, access, open
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										Bay ③ 3.5", 1" high, access, open (reader/diskette)
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors										Bay ④ 3.5", 1" high, no access, std disk
eSATA port	None										Slot 1: half-length, full-height, PCI Express x16 (75w max)
Diskette drive	None										Slot 2: half-length, full-height, PCI Express x1
Media reader	None										Slot 3: half-length, full-height, 32-bit PCI 2.3
											Slot 4: half-length, full-height, 32-bit PCI 2.3
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)										<b>Security</b> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec										
Speaker	One internal speaker for business audio										
IEEE 1394	None										
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®										
Intel AMT	None										
Modem	None										
Security chip	None										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										Supports ThinkVantage® technologies
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	280 watts with variable speed fan, autosensing, 85% PSU										
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>										<b>Climate Savers®-compliant</b> EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant
- Genuine Windows® 7 Professional 32	1GB PC2-6400 DDR2 UDIMM 41U2977										
<b>Preloaded applications<sup>5</sup></b> (only some listed)	2GB PC2-6400 DDR2 UDIMM 41U2978										
• Rescue and Recovery™	250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015										
• Password Manager	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990										
• ThinkVantage System Update	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918										
• ThinkVantage Power Manager	Super Multi-Burner DL DVD±RW SATA Drive 41N5620										
• ThinkVantage Toolbox	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675										
• Lenovo Online Data Backup	DisplayPort™ to Single-link DVI-D Cable 45J7915										
• Norton™ Internet Security 2009 (30 days of virus definitions)	ADD2 DVI-D Monitor Connection (HDCP) 43R1985										
• Adobe® Reader®	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636										
• Adobe Flash® Player	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635										
• Skype™ for Windows	NVIDIA Quadro® 256MB NVS 290 43R1765										
• Microsoft® Office 2007 Trial (60-day)	More accessories on O-M58E sheet										
• Roxio® Creator® Business Edition (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>										
• Roxio MyDVD® (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										
											<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>

See footnotes for important warranty information  
US model announced October 22, 2009

Partial list of accessories supported on ThinkCentre M58e

**Memory**

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

**Optical**

All:

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup>	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Tower 7268/7270/7298/7491/7307/7508/7847/7843/7258 support:  
Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675 ann 03/31/09

**Storage and removable storage**

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08
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 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 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

**Graphics**

Small 7269/7279/7303/7506/7408/7514/7259 support Low Profile 35 watts max:

DisplayPort™ to Single-link DVI-D Cable <sup>50</sup>	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® Quadro® 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB FX 370 Low-Profile	55Y9275	ann 07/28/09
NVIDIA GeForce® 310 DMS59(2-DVI, 2-VGA)	57Y4167	ann 03/02/10

Tower 7268/7270/7298/7491/7307/7508/7847/7843/7258 support 75 watts max:

DisplayPort to Single-link DVI-D Cable <sup>50</sup>	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA GeForce 9500GT 512MB (DP, DVI)	45K1635	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

<sup>50</sup> Attaches to the ThinkCentre compatible DisplayPort graphics card.

More information at [www.lenovo.com/support/graphiccards](http://www.lenovo.com/support/graphiccards)

**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

<sup>52</sup> Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)

**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 ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)

**Multimedia**

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10

**Security**

Kensington® MicroSaver® Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

<sup>56</sup> Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

**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

More information at [www.lenovo.com/thinkvision](http://www.lenovo.com/thinkvision)

**Monitor Accessories<sup>46</sup>**

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 <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

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

**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

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

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)



Lenovo ThinkCentre M58 Eco Ultra Small



Lenovo ThinkCentre M58 Eco Ultra Small with dual Lenovo ThinkVision monitors



Lenovo ThinkCentre M58 Small



Lenovo ThinkCentre M58 Small with Lenovo ThinkVision monitor



Lenovo ThinkCentre M58 Tower

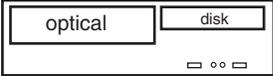


Lenovo ThinkCentre M58 Tower with dual Lenovo ThinkVision monitors

# ThinkCentre® M58 Eco Ultra Small (8820) - TopS (XP with Win 7 License) Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date	
<b>M58</b>	8820-ANU	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>b</sup>	DVD±RW	GMA	VGA, DP	None	ES50	None	XP Pro	None	Nov 09

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500</b> with <b>dual-core</b> , 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket	<b>Eco Ultra Small</b>																		
Implementation	Processor in LGA775 socket																			
Memory	<b>2GB std</b> , 4GB max <sup>a</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk																		
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display	Slot 1: Low Profile, 32-bit PCI 2.3																		
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>																		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>																		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar																			
eSATA port	None	Supports ThinkVantage® technologies																		
Diskette drive	None																			
Media reader	None	EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant																		
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	<p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>⇒ <b>3-year parts and labor</b></li> <li>⇒ <b>International Warranty Service<sup>9</sup></b></li> <li>⇒ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>⇒ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>⇒ <b>Post warranty maintenance services available</b></li> <li>⇒ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>																		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)																			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																			
Speaker	One internal speaker for business audio																			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0																			
Intel AMT	None																			
Modem	None																			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	<p align="center"><b>Preloaded operating system<sup>20</sup></b></p> <ul style="list-style-type: none"> <li>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</li> </ul> <p align="center"><b>Preloaded applications<sup>5</sup> (only some listed)</b></p> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul> <p align="center"><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC3-8500 DDR3 SODIMM (notebook)</td> <td>43R1987</td> </tr> <tr> <td>2GB PC3-8500 DDR3 SODIMM (notebook)</td> <td>43R1988</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>Lenovo Vertical PC and Monitor Stand II</td> <td>41R4474</td> </tr> <tr> <td>ThinkCentre Ultra Small Under Desk Mount</td> <td>40Y8625</td> </tr> </table> <p>More accessories on O-M58 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>	1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625
1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987																			
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988																			
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																			
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																			
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																			
DisplayPort to Single-link DVI-D Cable	45J7915																			
DisplayPort to VGA Monitor Cable	57Y4393																			
Lenovo Vertical PC and Monitor Stand II	41R4474																			
ThinkCentre Ultra Small Under Desk Mount	40Y8625																			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																			

See footnotes for important warranty information  
US model announced November 3, 2009

# ThinkCentre® M58 Eco Ultra Small (8820) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58</b>	8820-AQU	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	ES50	None	Pro 32	None	Jan 10

- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty<sup>1</sup>**

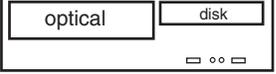
Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500</b> with <b>dual-core</b> , 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket										<b>Eco Ultra Small</b>			
Implementation	Processor in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical		Bay ② 3.5", 1" high, no access, std disk	
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available										Slot 1: Low Profile, 32-bit PCI 2.3		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display													
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support													
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar													
eSATA port	None													
Diskette drive	None													
Media reader	None												<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)                             <ul style="list-style-type: none"> <li>- security slot and cover release button are combined into one latch for improved chassis security</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>	
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)													
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)													
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)													
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec													
Speaker	One internal speaker for business audio													
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0													
Intel AMT	None													
Modem	None													
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo												Supports ThinkVantage® technologies	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo													
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU												EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>													
- Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987													
	2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988													
<b>Preloaded applications<sup>5</sup></b> (only some listed)	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990													
• Rescue and Recovery™	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918													
• Password Manager	Super Multi-Burner DL DVD±RW SATA Drive 41N5620													
• ThinkVantage System Update	DisplayPort to Single-link DVI-D Cable 45J7915													
• ThinkVantage Power Manager	DisplayPort to VGA Monitor Cable 57Y4393													
• ThinkVantage Toolbox	Lenovo Vertical PC and Monitor Stand II 41R4474													
• Lenovo Online Data Backup	ThinkCentre Ultra Small Under Desk Mount 40Y8625													
• Norton™ Internet Security 2009 (30 days of virus definitions)	More accessories on O-M58 sheet													
• Adobe® Reader®	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>													
• Adobe Flash® Player	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													
• Microsoft® Office 2007 Trial (60-day)														
• Roxio® Creator® Business Edition (DVD±RW)														
• Roxio MyDVD® (DVD±RW)													<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	

See footnotes for important warranty information  
US model announced January 12, 2010

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(MLAN4-23) January 2010

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date
M58	7359-B5U	1x2	Pentium E5300	2.60	2	2GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	7359-B8U	1x2	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	Apr 09
M58	7359-B1U	1x2	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	7359-B2U	1x2	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	7359-B3U	1x2	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	7359-B4U	1x2	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	7359-B6U	1x2	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Bus32 Gbl	Feb 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Pentium® Processor E5300 with dual-core</b>, 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core</b>, 1066MHz system bus, and 3MB L2 cache                      Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket</p>		<p><b>Eco Ultra Small</b></p> 
Implementation	<p>Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket</p>		<p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 3.5", 1" high, no access, std disk                      Slot 1: Low Profile, 32-bit PCI 2.3</p>
Memory	<p><b>1GB or 2GB std</b>, 4GB max<sup>8</sup>, <b>PC3-8500 1066MHz DDR3</b>, non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i>: standard memory in one socket; one socket available</p>		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Graphics	<p><b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b>, integrated graphics in Q45, uses main memory (<i>XP Pro models</i>: up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]; <i>Vista models</i>: up to 765MB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display  <i>Some</i>: DisplayPort to Single-link DVI-D Cable</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>
DP dongle	<p><i>Some</i>: DisplayPort to Single-link DVI-D Cable</p>		<p>Supports ThinkVantage® technologies</p>
SATA disk	<p><b>160GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p>EPEAT™ Gold rating                      ENERGY STAR® 5.0-compliant                      GREENGUARD® certified                      RoHS-compliant</p>
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support</p>		
SATA DVD	<p><i>Some</i>: DVD-ROM DL SATA 1.5Gb/s 16-48X Max<sup>4</sup> Drive</p>		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
SATA DVD±RW	<p><i>Some</i>: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
SATA cables	<p>Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar</p>		
eSATA port	<p>None</p>		
Diskette drive	<p>None</p>		
Media reader	<p>None</p>		
Chipset	<p><b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O</p>		
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		
Rear ports	<p>Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)</p>		
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>		
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)</p>		
Audio	<p>High Definition (HD) Audio, Analog Devices AD1882 codec</p>		
Speaker	<p>One internal speaker for business audio</p>		
Ethernet	<p>Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0</p>		
Intel AMT	<p>None</p>		
Modem	<p>None</p>		
Security chip	<p>Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant</p>		
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>		
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>		
Power supply	<p>External AC/DC adapter, 130 watts, autosensing, 87% PSU</p>		
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>- <i>Some</i>: Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</li> <li>- <i>Some</i>: Genuine Windows Vista Business 32</li> <li>✦ <i>Vista models</i>: Vista Premium logo</li> <li><b>Preloaded applications<sup>5</sup> (all OSes)</b> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager (Vista)</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul> </li> </ul>		
	<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987</li> <li>2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>Lenovo Vertical PC and Monitor Stand II 41R4474</li> <li>ThinkCentre Ultra Small Under Desk Mount 40Y8625</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>		

See footnotes for important warranty information

<sup>1</sup> US model announced April 7, 2009; previous models on January 20, 2009

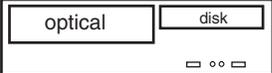
<sup>2</sup> US models withdrawn effective October 2009

# ThinkCentre® M58 Eco Ultra Small (7359) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro Preload	Global Educ	Avail date
<b>M58</b>	7359-DUU	1x2	Pentium E6300	2.80	2	2GB	250GB <sup>2</sup>	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Oct 09
<b>M58</b>	7359-DVU	1x2	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	Oct 09
⌘ <b>M58</b>	7359-DWU	1x2	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro Educ	Oct 09

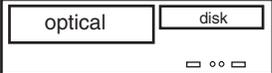
- *These models have a 3-year limited warranty<sup>1</sup>*

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Pentium® Processor E6300 with dual-core</b> , Virtualization Technology, 1066MHz system bus, and 2MB L2 cache		<b>Eco Ultra Small</b>	
Implementation	Processor in LGA775 socket			
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some</i> : DisplayPort to Single-link DVI-D Cable			
DP dongle	<i>Some</i> : DisplayPort to Single-link DVI-D Cable		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant <b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive			
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b> <ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987</li> <li>2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Lenovo Vertical PC and Monitor Stand II 41R4474</li> <li>ThinkCentre Ultra Small Under Desk Mount 40Y8625</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>More accessories on O-M58 sheet</li> </ul> Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional				
<b>Preloaded applications<sup>5</sup> (only some listed)</b>				
• <i>Some</i> : Education software				
- VitalSource™ Library School Edition				
- Adobe® Elements				
- Photoshop Elements 6				
- Premiere Elements 4				
• Rescue and Recovery™				
• Client Security Solution™				
• ThinkVantage Productivity Center				
• ThinkVantage System Update				
• McAfee® VirusScan® Plus (30 days of virus definitions)				
• Lenovo System Toolbox				
• Adobe Reader®				
• Microsoft® Office 2007 Trial (60-day)				
• Roxio® Creator® Business Edition (DVD±RW)				
• Roxio MyDVD® (DVD±RW)				
• Corel® WinDVD® (DVD, DVD±RW)				

See footnotes for important warranty information  
 US models announced October 22, 2009  
 ⌘ US model withdrawn effective December 2009

Name	Type-model	Slot x bay	Processor	GHz Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
M58	7359-F5U	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Pro 32	None Jan 10

- *This model has a 3-year limited warranty<sup>1</sup>*

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500</b> with <b>dual-core</b> , 1066MHz system bus, and 3MB L2 cache Processor in LGA775 socket										<b>Eco Ultra Small</b> 				
Implementation	Processor in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk				
Memory	<b>2GB std</b> , 4GB max <sup>9</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available										Slot 1: Low Profile, 32-bit PCI 2.3				
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										Slot 1: Low Profile, 32-bit PCI 2.3				
DP dongle	DisplayPort to Single-link DVI-D Cable										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>				
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)                             <ul style="list-style-type: none"> <li>- security slot and cover release button are combined into one latch for improved chassis security</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1														
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar														
eSATA port	None										Supports ThinkVantage® technologies				
Diskette drive	None														
Media reader	None														
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant				
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	None														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo												<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo														
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU														
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® 7 Professional 32					<b>Accessories</b> <ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987</li> <li>2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Lenovo Vertical PC and Monitor Stand II 41R4474</li> <li>ThinkCentre Ultra Small Under Desk Mount 40Y8625</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>									
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>														

See footnotes for important warranty information  
 US model announced December 15, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win 7 preload	Global (G) GMP (P)	Avail date
M58	7637-A2U	1x2	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	ES50	No	Pro 32	G P	Nov 09

• This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500 with dual-core</b> , 1066MHz system bus, and 3MB L2 cache										<b>Eco Ultra Small</b>			
Implementation	Processor in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical		Bay ② 3.5", 1" high, no access, std disk	
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available										Slot 1: Low Profile, 32-bit PCI 2.3		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display													
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1													
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar													
eSATA port	None													
Diskette drive	None													
Media reader	None													
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O												<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)													
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)													
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)													
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec													
Speaker	One internal speaker for business audio													
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0													
Intel AMT	None													
Modem	None													
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo													
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo													
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU													
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>										Supports ThinkVantage® technologies			
- Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987													
<b>Preloaded applications<sup>5</sup></b> (only some listed)	2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988													
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												EPEAT™ Gold rating	
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												ENERGY STAR® 5.0-compliant	
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive 41N5620												GREENGUARD® certified	
• ThinkVantage Power Manager	DisplayPort to Single-link DVI-D Cable 45J7915												RoHS-compliant	
• ThinkVantage Toolbox	DisplayPort to VGA Monitor Cable 57Y4393													
• Lenovo Online Data Backup	Lenovo Vertical PC and Monitor Stand II 41R4474													
• Norton™ Internet Security 2009 (30 days of virus definitions)	ThinkCentre Ultra Small Under Desk Mount 40Y8625													
• Adobe® Reader®	More accessories on O-M58 sheet													
• Adobe Flash® Player	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>												<p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>⇒ 3-year parts and labor</li> <li>⇒ International Warranty Service<sup>9</sup></li> <li>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>⇒ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>⇒ Post warranty maintenance services available</li> <li>⇒ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	
• Microsoft® Office 2007 Trial (60-day)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													
• Roxio® Creator® Business Edition (DVD±RW)														
• Roxio MyDVD® (DVD±RW)														

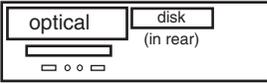
See footnotes for important warranty information  
US model announced November 3, 2009

# ThinkCentre® M58 Small (8910) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Chassis intr switch	Intel vPro	Global Preload	Educ	Avail date
M58	8910-APU	2x3	Pentium E5400	2.70	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None		No	XP Pro	No	Jan 10
M58	8910-ALU	2x3	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	None	Switch	No	XP Pro	No	Nov 09
M58	8910-AMU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	GMA	VGA, DP	None		No	XP Pro	No	Nov 09
M58	8910-ATU	2x3	Core 2 Quad Q9500	2.83	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None		No	XP Pro	No	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i></p> <p><b>Intel® Pentium® Processor E5400 with dual-core</b>, 800MHz system bus, and 2MB L2 cache or <b>Intel Pentium Processor E6300 with dual-core</b>, 1066MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500 with dual-core</b>, 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Quad Processor Q9500 with quad-core</b>, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express 2.0 x16                  Slot 2: Low Profile, 32-bit PCI 2.3</p>
Implementation	<p>Processor in LGA775 socket</p>		<p>• Business black color; metal case                  • 12.5" W X 14.0" D X 3.9" H                  • 317mm W X 355mm D X 99mm H                  • 16.5 lb (7.5 kg) in maximum configuration                  • Toolless cover flips up and tilts backward on rear hinges                  • Toolless disk, optical drive removal                  • Toolless adapter retention                  • Toolless systemboard retention                  • System floor stand for vertical orientation</p>
Memory	<p><b>2GB or 4GB std</b>, 8GB max<sup>8</sup>, <b>PC3-8500 1066MHz DDR3</b>, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics</i>: standard memory in two sockets; two sockets available; <i>Non-italics</i>: standard memory in one socket; 3 sockets available</p>		
Graphics	<p><b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b>, integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> <li>• Some: Chassis intrusion switch</li> </ul> <p>Supports ThinkVantage® technologies</p> <p>GREENGUARD® certified RoHS-compliant</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
SATA disk controller	<p><b>250GB or 320GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		
SATA DVD±RW	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support</p>		
SATA cables	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
eSATA port	<p>Two SATA cables (each 1-drop to device), two SATA connectors on planar</p>		
Diskette drive	<p>One external SATA (eSATA) port</p>		
Media reader	<p>None</p>		
Chipset	<p><b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O</p>		
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		
Rear ports	<p>Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA</p>		
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>		
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)</p>		
Audio	<p>High Definition (HD) Audio, Analog Devices AD1882 codec</p>		
Speaker	<p>One internal speaker for business audio</p>		
Ethernet	<p>Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0</p>		
Intel AMT	<p>None</p>		
Modem	<p>None</p>		
Security chip	<p>Winbond® WPC200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant</p>		
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>		
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>		
Power supply	<p>280 watts with variable speed fan, autosensing, two diagnostic LEDs</p>		
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p>		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC3-8500 DDR3 UDIMM	45J5434	
	2GB PC3-8500 DDR3 UDIMM	45J5435	
	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
	DisplayPort to Single-link DVI-D Cable	45J7915	
	DisplayPort to VGA Monitor Cable	57Y4393	
	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	
	NVIDIA® Quadro® 256MB NVS 290	43R1765	
	NVIDIA Quadro 256MB FX 370 LP	55Y9275	
	More accessories on O-M58 sheet		
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
<b>Preloaded applications<sup>5</sup></b> (only some listed)			
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader®			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD±RW)			

See footnotes for important warranty information

US model announced February 23, 2010; previous models on November 3 or December 15, 2009

US model withdrawn effective January 2010

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# ThinkCentre® M58 Small (8910) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58</b>	8910-AQU	2x3	Pentium E5400	2.70	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Jan 10
<b>M58</b>	8910-ARU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Jan 10
<b>M58</b>	8910-AUU	2x3	Core 2 Duo Q9500	2.83	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Mar 10
<b>M58</b>	8910-ASU	2x3	Core 2 Duo E7500	2.93	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 64	None	Mar 10

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Pentium® Processor E5400</b> with dual-core, 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Quad Processor Q9500</b> with quad-core, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		<b>Small</b>	
Implementation	Processor in LGA775 socket		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Memory	<b>2GB</b> or <b>4GB</b> std, 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
SATA disk	<b>250GB</b> or <b>320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>	
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar			
eSATA port	One external SATA (eSATA) port		Supports ThinkVantage® technologies	
Diskette drive	None			
Media reader	None		GREENGUARD® certified RoHS-compliant	
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		Limited Warranty <sup>1</sup>	
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		<ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>			
- <i>Some:</i> Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 UDIMM 45J5434			
- <i>Some:</i> Genuine Windows 7 Professional 64	2GB PC3-8500 DDR3 UDIMM 45J5435			
	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
	DisplayPort to Single-link DVI-D Cable 45J7915			
	DisplayPort to VGA Monitor Cable 57Y4393			
	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636			
	NVIDIA® Quadro® 256MB NVS 290 43R1765			
	NVIDIA Quadro 256MB FX 370 LP 55Y9275			
	More accessories on O-M58 sheet			
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>			
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
<b>Preloaded applications<sup>5</sup></b> (only some listed)				
• Rescue and Recovery™				
• Password Manager				
• ThinkVantage System Update				
• ThinkVantage Power Manager				
• ThinkVantage Toolbox				
• Lenovo Online Data Backup				
• Norton™ Internet Security 2009 (30 days of virus definitions)				
• Adobe® Reader®				
• Adobe Flash® Player				
• Microsoft® Office 2007 Trial (60-day)				
• Roxio® Creator® Business Edition (DVD±RW)				
• Roxio MyDVD® (DVD±RW)				

See footnotes for important warranty information

<sup>14</sup> US models announced February 23, 2010; previous models on January 12, 2010

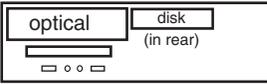
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# ThinkCentre® M58 Small (7360) - January 2009

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
☞	<b>M58</b>	7360-D8U	2x3	Pentium E5300	2.60	2	1GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Apr 09
	<b>M58</b>	7360-BVU	2x3	Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09
☞	<b>M58</b>	7360-BWU	2x3	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP		No	XP Pro	Feb 09
☞	<b>M58</b>	7360-D4U	2x3	Core 2 Duo E7400	2.80	2	1GB	160GB	DVD±RW	GMA	VGA, DP		No	XP Pro	Feb 09
☞	<b>M58</b>	7360-D1U	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09
☞	<b>M58</b>	7360-D5U	2x3	Core 2 Duo E7400	2.80	2	2GB	250GB	DVD±RW	<b>3470</b>	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09
☞	<b>M58</b>	7360-D2U	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP		No	XP Pro	Feb 09
☞	<b>M58</b>	7360-D3U	2x3	Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09
☞	<b>M58</b>	7360-D6U	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	<b>3470</b>	VGA, DP	DP-to-DVI-D	No	XP Pro	Feb 09
☞	<b>M58</b>	7360-D7U	2x3	Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	No	Bus32 Gbl	Feb 09

• **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Pentium® Processor E5300</b> with dual-core, 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7400</b> or <b>E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache		<b>Small</b>	
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket			
Memory	<b>1GB</b> or <b>2GB</b> std, 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3 * used in some models	
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (XP Pro: up to 512MB [1GB models], 1GB [2GB models]; Vista: up to 765MB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> <b>ATI™ Radeon™ HD 3470</b> , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant <b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
SATA disk	<b>160GB</b> or <b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar			
eSATA port	One external SATA (eSATA) port			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosenesing, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>			
- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC3-8500 DDR3 UDIMM 45J5434			
- <i>Some:</i> Genuine Windows Vista Business 32	2GB PC3-8500 DDR3 UDIMM 45J5435			
◇ <i>Vista models:</i> Vista Premium logo	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
• Rescue and Recovery™	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618			
• Client Security Solution™	Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
• ThinkVantage Productivity Center	DisplayPort to Single-link DVI-D Cable 45J7915			
• ThinkVantage Power Manager (Vista)	DisplayPort to VGA Monitor Cable 57Y4393			
• McAfee® VirusScan® Plus (30-day)	ATI Radeon HD 3470 256MB (DP, VGA) 45K1636			
• Roxio® Creator® Business Edition (DVD±RW)	NVIDIA® Quadro® 256MB NVS 290 43R1765			
• Roxio MyDVD® (DVD±RW)	NVIDIA Quadro 256MB FX 370 LP 55Y9275			
• Corel® WinDVD® (DVD, DVD±RW)	More accessories on O-M58 sheet			
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>			
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			

See footnotes for important warranty information  
 US models announced January 20, or April 7, 2009

⚡ US models withdrawn effective October or December 2009

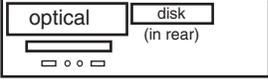
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 (MLAN2-5) April 2009

# ThinkCentre® M58 Small (7360) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58	7360-EFU	2x3	Pentium E6300	2.80	2	1GB	250GB <sup>2</sup>	DVD	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09
M58	7360-EDU	2x3	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09
M58	7360-EGU	2x3	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro	Educ	Nov 09
M58	7360-DBU	2x3	Core 2 Quad Q8400	2.66	4	2GB	250GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Nov 09
M58	7360-ECU	2x3	Core 2 Quad Q8400	2.66	4	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Pentium® Processor E6300 with dual-core</b>, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or  <b>Intel Core™ 2 Quad Processor Q8400 with quad-core</b>, Virtualization Technology, 1333MHz system bus, and 4MB L2 cache</p>							<p><b>Small</b></p> 																					
Implementation	Processor in LGA775 socket							<p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 3.5", 1" high, no access, std disk                      Bay ③ 3.5", .5" high, access, open (reader)</p>																					
Memory	<p><b>1GB or 2GB std</b>, 8GB max<sup>8</sup>, <b>PC3-8500 1066MHz DDR3</b>, non-parity, dual-channel capable, four 240-pin DIMM sockets;  <i>Non-italics</i>: standard memory in one socket; 3 sockets available</p>							<p>Slot 1: Low Profile, PCI Express 2.0 x16*                      Slot 2: Low Profile, 32-bit PCI 2.3</p>																					
Graphics	<p><i>Some</i>: <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b>, integrated graphics in Q45, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display</p> <p><i>Some</i>: <b>ATI™ Radeon™ HD 3470</b>, PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts</p>							<p>* used in some models</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>																					
DP dongle	<i>Some</i> : DisplayPort to Single-link DVI-D Cable							<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>																					
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts							<p>Supports ThinkVantage® technologies</p> <p>GREENGUARD® certified RoHS-compliant</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>																					
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																												
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive																												
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																												
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar																												
eSATA port	One external SATA (eSATA) port																												
Diskette drive	None																												
Media reader	None																												
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O																												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																												
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Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																												
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Speaker	One internal speaker for business audio																												
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Intel AMT	None																												
Modem	None																												
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																												
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo																												
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs																												
<b>Preloaded operating system<sup>20</sup></b>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</p>			<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC3-8500 DDR3 UDIMM</td> <td>45J5434</td> </tr> <tr> <td>2GB PC3-8500 DDR3 UDIMM</td> <td>45J5435</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td> <td>41N5618</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>ATI Radeon HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® Quadro® 256MB NVS 290</td> <td>43R1765</td> </tr> <tr> <td>NVIDIA Quadro 256MB FX 370 LP</td> <td>55Y9275</td> </tr> </table> <p>More accessories on O-M58 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                      Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>				1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275
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<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• <i>Some</i>: Education software</li> <li>- VitalSource™ Library School Edition</li> <li>- Adobe® Elements                             <ul style="list-style-type: none"> <li>- Photoshop Elements 6</li> <li>- Premiere Elements 4</li> </ul> </li> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul>																												

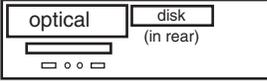
See footnotes for important warranty information  
 US models announced October 22, 2009  
 ⚠ US model withdrawn effective December 2009

# ThinkCentre® M58 Small (7360) - Windows 7

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58</b>	7360-EHU	2x3	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Pro 32	None	Jan 10

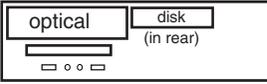
- **This model has a 3-year limited warranty<sup>1</sup>**

Positioning	<i>Ultimate security, stability, and manageability for the enterprise</i>										<b>Small</b> 																					
Processor	<b>Intel® Core™ 2 Duo Processor E7500</b> with <b>dual-core</b> , 1066MHz system bus, and 3MB L2 cache Implementation Processor in LGA775 socket																															
Memory	<b>2GB std, 8GB max<sup>8</sup>, PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)																					
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3																					
DP dongle	DisplayPort to Single-link DVI-D Cable										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>																					
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts																															
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1																															
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																															
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Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																															
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<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® 7 Professional 32										Supports ThinkVantage® technologies																					
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>										<b>Accessories</b> <table border="0"> <tr> <td>1GB PC3-8500 DDR3 UDIMM</td> <td>45J5434</td> </tr> <tr> <td>2GB PC3-8500 DDR3 UDIMM</td> <td>45J5435</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® Quadro® 256MB NVS 290</td> <td>43R1765</td> </tr> <tr> <td>NVIDIA Quadro 256MB FX 370 LP</td> <td>55Y9275</td> </tr> </table> More accessories on O-M58 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275	GREENGUARD® certified RoHS-compliant
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See footnotes for important warranty information  
 US model announced December 15, 2009

Name	Type-model	Slot x bay	Processor	GHz Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date
M58	6258-AJU	2x3	Pentium E5300	2.60 2	2GB	160GB <sup>b</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	6258-AKU	2x3	Core 2 Duo E7400	2.80 2	1GB	160GB	DVD	GMA	VGA, DP		ES50	No	XP Pro	Feb 09
M58	6258-AMU	2x3	Core 2 Duo E7400	2.80 2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	6258-APU	2x3	Core 2 Duo E7400	2.80 2	2GB	250GB	DVD±RW	<b>3470</b>	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	6258-ALU	2x3	Core 2 Duo E7500	2.93 2	1GB	160GB	DVD	GMA	VGA, DP		ES50	No	XP Pro	Feb 09
M58	6258-ANU	2x3	Core 2 Duo E7500	2.93 2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	6258-AQU	2x3	Core 2 Duo E7500	2.93 2	2GB	250GB	DVD±RW	<b>3470</b>	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	Feb 09
M58	6258-ASU	2x3	Pentium E5300	2.60 2	1GB	160GB	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Bus32	Apr 09
M58	6258-ARU	2x3	Core 2 Duo E7400	2.80 2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	Bus32 Gbl	Feb 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Pentium® Processor E5300 with dual-core</b> , 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7400 or E7500 with dual-core</b> , 1066MHz system bus, and 3MB L2 cache		<b>Small</b>  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3 * used in some models
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (XP Pro: up to 512MB [1GB models], 1GB [2GB models]; Vista: up to 253MB [1GB model], 765MB [2GB model]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> <b>ATI™ Radeon™ HD 3470</b> , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts		
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable		
SATA disk	<b>160GB or 250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar		
eSATA port	One external SATA (eSATA) port		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	None		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC3-8500 DDR3 UDIMM 45J5434		
- <i>Some:</i> Genuine Windows Vista Business 32	2GB PC3-8500 DDR3 UDIMM 45J5435		
◇ <i>Vista models:</i> Vista Premium logo	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		
• Rescue and Recovery™	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618		
• Client Security Solution™	Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
• ThinkVantage System Update	DisplayPort to Single-link DVI-D Cable 45J7915		
• ThinkVantage Power Manager (Vista)	DisplayPort to VGA Monitor Cable 57Y4393		
• McAfee® VirusScan® Plus (30-day)	ATI Radeon HD 3470 256MB (DP, VGA) 45K1636		
• Microsoft® Office 2007 Trial (60-day)	NVIDIA® Quadro® 256MB NVS 290 43R1765		
• Roxio® Creator® Business Edition (DVD±RW)	NVIDIA Quadro 256MB FX 370 LP 55Y9275		
• Roxio MyDVD® (DVD±RW)	More accessories on O-M58 sheet		
• Corel® WinDVD® (DVD, DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
	<b>Security</b> • Security chip (see information on left) • Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons • Power-on password • Administrator password • Hard disk password (user and master) • Boot sequence control • Boot without diskette, keyboard • Serial port I/O control • Individual USB port disablement Supports ThinkVantage® technologies Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant <b>Limited Warranty<sup>1</sup></b> ⇨ <b>3-year parts and labor</b> ⇨ <b>International Warranty Service<sup>9</sup></b> ⇨ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b> ⇨ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> • <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192) • <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193) • <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194) • <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195) • <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196) ⇨ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b> ⇨ <b>Post warranty maintenance services available</b> ⇨ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup></b>		

See footnotes for important warranty information  
US models announced January 20 or April 7, 2009

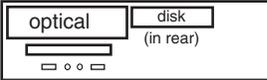
≠ US models withdrawn effective October or December 2009

# ThinkCentre® M58 Small (6258) - ES 5.0 (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date	
M58	6258-B1U	2x3	Pentium E6300	2.80	2	1GB	250GB <sup>2</sup>	DVD	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09
M58	6258-AWU	2x3	Pentium E6300	2.80	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09
M58	6258-AVU	2x3	Core 2 Quad Q8400	2.66	4	2GB	250GB	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	No	Oct 09

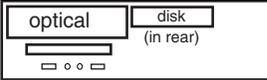
• **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Pentium® Processor E6300 with dual-core</b> , Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Quad Processor Q8400 with quad-core</b> , Virtualization Technology, 1333MHz system bus, and 4MB L2 cache	<b>Small</b>  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)
Implementation	Processor in LGA775 socket	
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available	Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 512MB [ <i>1GB models</i> ], 1GB [ <i>2GB models</i> ]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some</i> : DisplayPort to Single-link DVI-D Cable	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
DP dongle		
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1	
SATA DVD	<i>Some</i> : DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive	
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar	
eSATA port	One external SATA (eSATA) port	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec	
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0	
Intel AMT	None	
Modem	None	
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, autosenensing, 85% PSU	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB FX 370 LP 55Y9275 More accessories on O-M58 sheet	
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• Rescue and Recovery™		
• Client Security Solution™		
• ThinkVantage Productivity Center		
• ThinkVantage System Update		
• McAfee® VirusScan® Plus (30 days of virus definitions)		
• Lenovo System Toolbox		
• Adobe® Reader®		
• Microsoft® Office 2007 Trial (60-day)		
• Roxio® Creator® Business Edition (DVD±RW)		
• Roxio MyDVD® (DVD±RW)		
• Corel® WinDVD® (DVD, DVD±RW)		
		<b>Security</b>
		<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
		Supports ThinkVantage® technologies
		Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant
		<b>Limited Warranty<sup>1</sup></b>
		<ul style="list-style-type: none"> <li>⇒ <b>3-year parts and labor</b></li> <li>⇒ <b>International Warranty Service<sup>9</sup></b></li> <li>⇒ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>⇒ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>⇒ <b>Post warranty maintenance services available</b></li> <li>⇒ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup></b></li> </ul>

See footnotes for important warranty information  
US models announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58	7638-A2U	2x3	Core 2 Duo E7500	2.93	2	1GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP	None	None	Bus32	G P	Aug 09

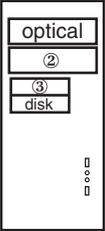
- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache Processor in FC-LGA8 package in LGA775 socket		<b>Small</b>	
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	<b>1GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 253MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display			Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<p style="text-align: center;"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD	DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors			
eSATA port	One external SATA (eSATA) port			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		Supports ThinkVantage® technologies	
- Genuine Windows® Vista® Business 32 ↳ Vista Premium logo	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB FX 370 LP 55Y9275 More accessories on O-M58 sheet			
<b>Preloaded applications<sup>5</sup></b>	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		GREENGUARD® certified RoHS-compliant	
<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® WinDVD® (DVD)</li> </ul>				
			<p style="text-align: center;"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↳ <b>3-year parts and labor</b></li> <li>↳ <b>International Warranty Service<sup>9</sup></b></li> <li>↳ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↳ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↳ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↳ <b>Post warranty maintenance services available</b></li> <li>↳ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	

See footnotes for important warranty information  
US model announced July 14, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
<b>M58</b>	9960-AKU	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Nov 09
<b>M58</b>	9960-ANU	4x4	Core 2 Quad Q9500	2.83	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	XP Pro	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

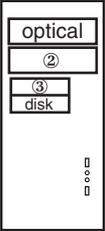
Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500 with dual-core</b> , 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Quad Processor Q9500 with quad-core</b> , 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Implementation	Processor in LGA775 socket			
Memory	<b>2GB or 4GB std.</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
SATA disk	<b>250GB or 320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), <b>SMSC® SCH5617 Super I/O</b>			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional			
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>			
<b>Accessories</b>	<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 UDIMM 45J5434</li> <li>2GB PC3-8500 DDR3 UDIMM 45J5435</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>NVIDIA Quadro 256MB NVS 295 45K1669</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>			
				<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
				Supports ThinkVantage® technologies
				GREENGUARD® certified RoHS-compliant
				<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>

See footnotes for important warranty information

<sup>1</sup> US model announced February 23, 2010; previous models on November 3, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
M58	9960-ALU	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Jan 10
M58	9960-APU	4x4	Core 2 Quad Q9500	2.83	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 32	None	Mar 10
M58	9960-AMU	4x4	Core 2 Duo E7500	2.93	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	None	Pro 64	None	Mar 10

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

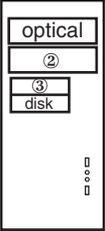
Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500 with dual-core</b> , 1066MHz system bus, and 3MB L2 cache or <b>Intel Core 2 Quad Processor Q9500 with quad-core</b> , 1333MHz system bus, and 6MB L2 cache		<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Implementation	Processor in LGA775 socket			
Memory	<b>2GB or 4GB std.</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
SATA disk	<b>250GB or 320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	<ul style="list-style-type: none"> <li>- <i>Some:</i> Genuine Windows® 7 Professional 32</li> <li>- <i>Some:</i> Genuine Windows 7 Professional 64</li> </ul>		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>			
<b>Accessories</b>	<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 UDIMM 45J5434</li> <li>2GB PC3-8500 DDR3 UDIMM 45J5435</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>NVIDIA Quadro 256MB NVS 295 45K1669</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>			

See footnotes for important warranty information

<sup>14</sup> US models announced February 23, 2010; previous model on January 12, 2010

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
☞	<b>M58</b>	7373-D3U	4x4 Pentium E5300	2.60	2	1GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP		None	XP Pro		Apr 09
	<b>M58</b>	7373-BTU	4x4 Pentium E5300	2.60	2	2GB	160GB	DVD±RW	GMA	VGA, DP		None	XP Pro		Feb 09
☞	<b>M58</b>	7373-BUU	4x4 Core 2 Duo E7400	2.80	2	1GB	160GB	DVD	GMA	VGA, DP		None	XP Pro		Feb 09
☞	<b>M58</b>	7373-BWU	4x4 Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Feb 09
	<b>M58</b>	7373-BVU	4x4 Core 2 Duo E7500	2.93	2	1GB	160GB	DVD	GMA	VGA, DP		None	XP Pro		Feb 09
	<b>M58</b>	7373-D1U	4x4 Core 2 Duo E7500	2.93	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	XP Pro		Feb 09
☞	<b>M58</b>	7373-D2U	4x4 Core 2 Duo E7400	2.80	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Bus32	Gbl	Feb 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Pentium® Processor E5300</b> with dual-core, 800MHz system bus, and 2MB L2 cache or <b>Intel Core™ 2 Duo Processor E7400</b> or <b>E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache		<b>Tower</b>	
Implementation	Processor in FC-LGA6 or FC-LGA8 package in LGA775 socket		<ul style="list-style-type: none"> <li>Business black color; metal case</li> <li>6.9" W X 17.3" D X 15.8" H</li> <li>175mm W X 440mm D X 402mm H</li> <li>24.2 lb (11.0 kg) in max configuration</li> <li>Handle on top front</li> <li>Toolless cover removal</li> <li>Toolless disk, diskette drive, optical drive removal</li> <li>Toolless adapter retention</li> </ul>	
Memory	<b>1GB</b> or <b>2GB std.</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory <i>(XP Pro models: up to 512MB [1GB models], 1GB [2GB models]; Vista models: up to 765MB [2GB models]),</i> one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> DisplayPort to Single-link DVI-D Cable		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable			
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), <b>SMSC® SCH5617 Super I/O</b>			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	None			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		<b>Security</b> <ul style="list-style-type: none"> <li>Security chip (see information on left)</li> <li>One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>Padlock loop (in rear for opt padlock)</li> <li>Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>Power-on password</li> <li>Administrator password</li> <li>Hard disk password (user and master)</li> <li>Boot sequence control</li> <li>Boot without diskette, keyboard</li> <li>Serial port I/O control</li> <li>Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>			
- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC3-8500 DDR3 UDIMM 45J5434			
- <i>Some:</i> Genuine Windows Vista Business 32	2GB PC3-8500 DDR3 UDIMM 45J5435			
☞ <i>Vista models:</i> Vista Premium logo	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618			
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675			
	DisplayPort to Single-link DVI-D Cable 45J7915			
	DisplayPort to VGA Monitor Cable 57Y4393			
	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636			
	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635			
	NVIDIA Quadro® 256MB NVS 290 43R1765			
	NVIDIA Quadro 256MB NVS 295 45K1669			
	More accessories on O-M58 sheet			
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>			
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
<b>Preloaded applications<sup>5</sup> (all OSes)</b>				
• Rescue and Recovery™				
• Client Security Solution™				
• ThinkVantage Productivity Center				
• ThinkVantage System Update				
• ThinkVantage Power Manager (Vista)				
• McAfee® VirusScan® Plus (30 days of virus definitions)				
• Lenovo System Toolbox				
• Adobe® Reader®				
• Microsoft® Office 2007 Trial (60-day)				
• Roxio® Creator® Business Edition (DVD±RW)				
• Roxio MyDVD® (DVD±RW)				
• Corel® WinDVD® (DVD, DVD±RW)				
			<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>☞ 3-year parts and labor</li> <li>☞ International Warranty Service<sup>9</sup></li> <li>☞ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>☞ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>☞ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>☞ Post warranty maintenance services available</li> <li>☞ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	

See footnotes for important warranty information  
US models announced January 20 or April 7, 2009

☞ US models withdrawn effective October or December 2009

# ThinkCentre® M58 Tower (7373) - XP with Win 7 License

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
M58	7373-E5U	4x4	Pentium E6300	2.80	2	1GB	250GB <sup>2</sup> DVD		GMA	VGA, DP		None	XP Pro		Nov 09
M58	7373-E6U	4x4	Pentium E6300	2.80	2	2GB	250GB DVD±RW		GMA	VGA, DP		None	XP Pro		Nov 09
✗ M58	7373-E7U	4x4	Pentium E6300	2.80	2	2GB	250GB DVD±RW		GMA	VGA, DP	DP-to-DVI-D	None	XP Pro	Educ	Nov 09
M58	7373-E4U	4x4	Core 2 Quad Q8400	2.66	4	2GB	320GB DVD±RW		GMA	VGA, DP		None	XP Pro		Nov 09
M58	7373-E3U	4x4	Core 2 Quad Q8400	2.66	4	2GB	320GB DVD±RW		3470	VGA, DP	DP-to-DVI-D	None	XP Pro		Nov 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Pentium® Processor E6300</b> with <b>dual-core</b>, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or  <b>Intel Core™ 2 Quad Processor Q8400</b> with <b>quad-core</b>, Virtualization Technology, 1333MHz system bus, and 4MB L2 cache</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>																															
Implementation	Processor in LGA775 socket																																	
Memory	<p><b>1GB</b> or <b>2GB std</b>, 8GB max<sup>8</sup>, <b>PC3-8500 1066MHz DDR3</b>, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i>: standard memory in one socket; 3 sockets available</p>		<p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 5.25", 1.6" high, access, open                      Bay ③ 3.5", 1" high, access, open (reader/diskette)                      Bay ④ 3.5", 1" high, no access, std disk</p>																															
Graphics	<p><i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b>, integrated graphics in Q45, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display</p> <p><i>Some:</i> <b>ATI™ Radeon™ HD 3470</b>, PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts</p>		<p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)*                      Slot 2: half-length, full-height, PCIe x1                      Slot 3: half-length, full-height, 32-bit PCI 2.3                      Slot 4: half-length, full-height, 32-bit PCI 2.3</p>																															
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable		* used in some models																															
SATA disk	<b>250GB</b> or <b>320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening																																	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support																																	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive																																	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																																	
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar																																	
eSATA port	None																																	
Diskette drive	None																																	
Media reader	None																																	
Chipset	<p><b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), <b>SMSC® SCH5617 Super I/O</b></p>				<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>																													
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																																	
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																																	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																																	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																																	
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec																																	
Speaker	One internal speaker for business audio																																	
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0				Supports ThinkVantage® technologies																													
Intel AMT	None																																	
Modem	None																																	
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant				GREENGUARD® certified RoHS-compliant																													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																																	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																																	
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs																																	
<b>Preloaded operating system<sup>20</sup></b>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</p>		<p><b>Accessories</b></p> <table border="0"> <tr><td>1GB PC3-8500 DDR3 UDIMM</td><td>45J5434</td></tr> <tr><td>2GB PC3-8500 DDR3 UDIMM</td><td>45J5435</td></tr> <tr><td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td><td>43R1990</td></tr> <tr><td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td><td>45J7918</td></tr> <tr><td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td><td>41N5618</td></tr> <tr><td>Super Multi-Burner DL DVD±RW SATA Drive</td><td>41N5620</td></tr> <tr><td>Blu-ray™ Burner SATA 1.5Gb/s Drive</td><td>45K1675</td></tr> <tr><td>DisplayPort to Single-link DVI-D Cable</td><td>45J7915</td></tr> <tr><td>DisplayPort to VGA Monitor Cable</td><td>57Y4393</td></tr> <tr><td>ATI Radeon HD 3470 256MB (DP, VGA)</td><td>45K1636</td></tr> <tr><td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td><td>45K1635</td></tr> <tr><td>NVIDIA Quadro® 256MB NVS 290</td><td>43R1765</td></tr> <tr><td>NVIDIA Quadro 256MB NVS 295</td><td>45K1669</td></tr> </table>		1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	NVIDIA Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB NVS 295	45K1669				
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<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• <i>Some:</i> Education software</li> <li>- VitalSource™ Library School Edition</li> <li>- Adobe® Elements                             <ul style="list-style-type: none"> <li>- Photoshop Elements 6</li> <li>- Premiere Elements 4</li> </ul> </li> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul>		<p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                      Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		<p>➤ <b>3-year parts and labor</b></p> <p>➤ <b>International Warranty Service<sup>9</sup></b></p> <p>➤ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></p> <p>➤ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b></p> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> <p>➤ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></p> <p>➤ <b>Post warranty maintenance services available</b></p> <p>➤ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></p>																													

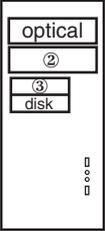
See footnotes for important warranty information  
 US models announced October 22, 2009  
 ✗ US model withdrawn effective December 2009

# ThinkCentre® M58 Tower (7373) - Windows 7

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58</b>	7373-EGU	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	None	Pro 32	None	Jan 10

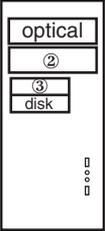
- **This model has a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500 with dual-core</b> , 1066MHz system bus, and 3MB L2 cache										<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation	Processor in LGA775 socket										
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk  Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										
DP dongle	DisplayPort to Single-link DVI-D Cable										
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar										
eSATA port	None										
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec										
Speaker	One internal speaker for business audio										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0										
Intel AMT	None										
Modem	None										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo										
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs										
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>										
- Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 UDIMM 45J5434										
<b>Preloaded applications<sup>5</sup></b>	2GB PC3-8500 DDR3 UDIMM 45J5435										
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990										
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918										
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive 41N5620										
• ThinkVantage Power Manager	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675										
• ThinkVantage Toolbox	DisplayPort to Single-link DVI-D Cable 45J7915										
• Lenovo Online Data Backup	DisplayPort to VGA Monitor Cable 57Y4393										
• Norton™ Internet Security 2009 (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636										
• Adobe® Reader®	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635										
• Adobe Flash® Player	NVIDIA Quadro® 256MB NVS 290 43R1765										
• Microsoft® Office 2007 Trial (60-day)	NVIDIA Quadro 256MB NVS 295 45K1669										
• Roxio® Creator® Business Edition (DVD±RW)	More accessories on O-M58 sheet										
• Roxio MyDVD® (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										
Supports ThinkVantage® technologies											
GREENGUARD® certified RoHS-compliant											
<b>Limited Warranty<sup>1</sup></b>											
↪ <b>3-year parts and labor</b>											
↪ <b>International Warranty Service<sup>9</sup></b>											
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↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b>											
• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)											
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↪ <b>Post warranty maintenance services available</b>											
↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>											

See footnotes for important warranty information  
US model announced December 15, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date	
M58	9728-A6U	4x4	Pentium E6300	2.80	2	2GB	250GB <sup>b</sup>	DVD±RW	GMA	VGA, DP		ES50	No	XP Pro	No	Oct 09
M58	9728-A7U	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09
M58	9728-A8U	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB	DVD±RW	<b>3470</b>	VGA, DP	DP-to-DVI-D	ES50	No	XP Pro	No	Oct 09

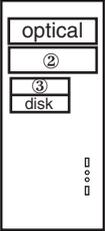
• These models have a 3-year limited warranty<sup>i</sup>

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Pentium® Processor E6300</b> with <b>dual-core</b>, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache or  <b>Intel Core™ 2 Duo Processor E7500</b> with <b>dual-core</b>, Virtualization Technology, 1066MHz system bus, and 3MB L2 cache                  Processor in LGA775 socket</p>										Tower	
Implementation	<p><b>2GB std</b>, 8GB max<sup>g</sup>, <b>PC3-8500 1066MHz DDR3</b>, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i>: standard memory in one socket; 3 sockets available</p>										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Memory	<p><b>2GB std</b>, 8GB max<sup>g</sup>, <b>PC3-8500 1066MHz DDR3</b>, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i>: standard memory in one socket; 3 sockets available</p>										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<p><i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b>, integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display  <i>Some:</i> <b>ATI™ Radeon™ HD 3470</b>, PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts</p>										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)* Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
DP dongle	<p><i>Some:</i> DisplayPort to Single-link DVI-D Cable</p>											
SATA disk	<p><b>250GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>											
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1</p>											
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>											
SATA cables	<p>Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar</p>											
eSATA port	<p>None</p>											
Diskette drive	<p>None</p>											
Media reader	<p>None</p>											
Chipset	<p><b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O</p>											
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>											
Rear ports	<p>Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)</p>											
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>											
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)</p>											
Audio	<p>High Definition (HD) Audio, Analog Devices AD1882 codec</p>											
Speaker	<p>One internal speaker for business audio</p>											
Ethernet	<p>Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0</p>											
Intel AMT	<p>None</p>											
Modem	<p>None</p>											
Security chip	<p>Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant</p>											
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>											
Mouse	<p>Optical Wheel Mouse (USB connector), black, Lenovo logo</p>											
Power supply	<p>280 watts with variable speed fan, autosenesing, 85% PSU</p>											
<b>Preloaded operating system<sup>20</sup></b>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</p>											
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>											
<b>Accessories</b>	<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 UDIMM 45J5434</li> <li>2GB PC3-8500 DDR3 UDIMM 45J5435</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>ATI Radeon HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>NVIDIA Quadro 256MB NVS 295 45K1669</li> </ul> <p>More accessories on O-M58 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>											
	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>											
	<p>Supports ThinkVantage® technologies</p>											
	<p>Climate Savers®-compliant                  EPEAT™ Gold rating                  ENERGY STAR® 5.0-compliant                  GREENGUARD® certified                  RoHS-compliant</p>											
	<p><b>Limited Warranty<sup>i</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>											

See footnotes for important warranty information  
 US models announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
M58	9728-A5U	4x4	Core 2 Duo E7500	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	ES50	No	Pro 32	Gbl	Oct 09

- *This model has a 3-year limited warranty<sup>1</sup>*

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E7500</b> with <b>dual-core</b> , Virtualization Technology, 1066MHz system bus, and 3MB L2 cache										<b>Tower</b>		
Implementation	Processor in LGA775 socket										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts												
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1												
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar												
eSATA port	None												
Diskette drive	None												
Media reader	None												
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), <b>SMSC® SCH5617 Super I/O</b>										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)												
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec												
Speaker	One internal speaker for business audio												
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0												
Intel AMT	None												
Modem	None												
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										Supports ThinkVantage® technologies		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo												
Power supply	280 watts with variable speed fan, autosensing, 85% PSU												
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>										Climate Savers®-compliant		
- Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 UDIMM										EPEAT™ Gold rating		
	2GB PC3-8500 DDR3 UDIMM										ENERGY STAR 5.0-compliant		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	500GB SATA 3.0Gb/s Disk (7200 rpm)										GREENGUARD® certified		
• Rescue and Recovery™	1TB SATA 3.0Gb/s Disk (7200 rpm)										RoHS-compliant		
• Password Manager	Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
• ThinkVantage System Update	Blu-ray™ Burner SATA 1.5Gb/s Drive												
• ThinkVantage Power Manager	DisplayPort to Single-link DVI-D Cable												
• ThinkVantage Toolbox	DisplayPort to VGA Monitor Cable												
• Lenovo Online Data Backup	ATI™ Radeon™ HD 3470 256MB (DP, VGA)												
• Norton™ Internet Security 2009 (30 days of virus definitions)	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)												
• Adobe® Reader®	NVIDIA Quadro® 256MB NVS 290												
• Adobe Flash® Player	NVIDIA Quadro 256MB NVS 295												
• Microsoft® Office 2007 Trial (60-day)	More accessories on O-M58 sheet												
• Roxio® Creator® Business Edition (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>												
• Roxio MyDVD® (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												
												<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	

See footnotes for important warranty information  
US model announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win 7 preload	Global (G) GMP (P)	Avail date
M58	7639-A1U	4x4	Core 2 Duo E7500	2.93 2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	None	Pro 32	G P	Nov 09

- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache										<b>Tower</b>		
Implementation	Processor in LGA775 socket										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1												
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar												
eSATA port	None												
Diskette drive	None												
Media reader	None												
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), <b>SMSC® SCH5617 Super I/O</b>												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)												
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec												
Speaker	One internal speaker for business audio												
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0												
Intel AMT	None												
Modem	None												
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo												
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo												
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs												
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>										Supports ThinkVantage® technologies  GREENGUARD® certified RoHS-compliant  <b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ 3-year parts and labor</li> <li>↔ International Warranty Service<sup>9</sup></li> <li>↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↔ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↔ Post warranty maintenance services available</li> <li>↔ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>		
- Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 UDIMM 45J5434												
<b>Preloaded applications<sup>5</sup></b> (only some listed)	2GB PC3-8500 DDR3 UDIMM 45J5435												
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
• ThinkVantage Power Manager	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675												
• ThinkVantage Toolbox	DisplayPort to Single-link DVI-D Cable 45J7915												
• Lenovo Online Data Backup	DisplayPort to VGA Monitor Cable 57Y4393												
• Norton™ Internet Security 2009 (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636												
• Adobe® Reader®	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635												
• Adobe Flash® Player	NVIDIA Quadro® 256MB NVS 290 43R1765												
• Microsoft® Office 2007 Trial (60-day)	NVIDIA Quadro 256MB NVS 295 45K1669												
• Roxio® Creator® Business Edition (DVD±RW)	More accessories on O-M58 sheet												
• Roxio MyDVD® (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												

See footnotes for important warranty information  
US model announced November 3, 2009

# ThinkCentre® M58p Eco Ultra Small (9961) - TopS (XP with Win 7 License) Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro Preload	Global Educ	Avail date
<b>M58p</b>	9961-AKU	1x2	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>b</sup>	DVD±RW	GMA	VGA, DP	None	ES50	vPro XP Pro	No	Nov 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with <b>dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										<b>Eco Ultra Small</b>	
Implementation	Processor in LGA775 socket											
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<p style="text-align: center;"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1											
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive											
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar											
eSATA port	None										Supports ThinkVantage® technologies	
Diskette drive	None											
Media reader	None										EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O											
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										<p style="text-align: center;"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)											
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)											
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)											
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec											
Speaker	One internal speaker for business audio											
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0											
Intel AMT	Intel Active Management Technology (iAMT)											
Modem	None											
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant											
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo											
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU											
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>											
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987											
	2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988											
	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990											
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918											
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620											
	DisplayPort to Single-link DVI-D Cable 45J7915											
	DisplayPort to VGA Monitor Cable 57Y4393											
	Lenovo Vertical PC and Monitor Stand II 41R4474											
	ThinkCentre Ultra Small Under Desk Mount 40Y8625											
	More accessories on O-M58 sheet											
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>											
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											
<b>Preloaded applications<sup>5</sup> (only some listed)</b>												
• Rescue and Recovery™												
• Client Security Solution™												
• ThinkVantage Productivity Center												
• ThinkVantage System Update												
• McAfee® VirusScan® Plus (30 days of virus definitions)												
• Lenovo System Toolbox												
• Adobe® Reader®												
• Microsoft® Office 2007 Trial (60-day)												
• Roxio® Creator® Business Edition (DVD±RW)												
• Roxio MyDVD® (DVD±RW)												
• Corel® WinDVD® (DVD±RW)												

See footnotes for important warranty information  
US model announced November 3, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58p</b>	9961-ALU	1x2	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Pro 32	No	Jan 10

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has a 3-year limited warranty<sup>1</sup>

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<b>Eco Ultra Small</b>	
Implementation	Processor in LGA775 socket			
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical	Bay ② 3.5", 1" high, no access, std disk
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Slot 1: Low Profile, 32-bit PCI 2.3	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<p style="text-align: center;"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar			
eSATA port	None		Supports ThinkVantage® technologies	
Diskette drive	None			
Media reader	None		EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		<p style="text-align: center;"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	Intel Active Management Technology (iAMT)			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® 7 Professional 32		<b>Accessories</b>	
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>		<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987</li> <li>2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>Lenovo Vertical PC and Monitor Stand II 41R4474</li> <li>ThinkCentre Ultra Small Under Desk Mount 40Y8625</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>	

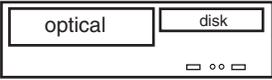
See footnotes for important warranty information  
US model announced January 12, 2010

# ThinkCentre® M58p Eco Ultra Small (7479)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global Educ	Avail date
M58p	7479-A4U	1x2	Core 2 Duo E8400	3.00	2	1GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
✕ M58p	7479-A3U	1x2	Core 2 Duo E8400	3.00	2	1GB	250GB	DVD±RW	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-A6U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-A8U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Dec 08
✕ M58p	7479-A9U	1x2	Core 2 Duo E8500	3.16	2	1GB	160GB	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-ABU	1x2	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP		ES50	vPro	Bus32	No	Dec 08
M58p	7479-ACU	1x2	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Dec 08

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E8400</b> or <b>E8500</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<b>Eco Ultra Small</b>	
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	<b>1GB</b> or <b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 253MB [1GB models], 765MB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> DisplayPort to Single-link DVI-D Cable		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable		<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul> <p>Supports ThinkVantage® technologies</p> <p>EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant</p> <p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	
SATA disk	<b>160GB</b> or <b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar			
eSATA port	None			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	Intel Active Management Technology (iAMT)			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>			
- Genuine Windows® Vista® Business 32	1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987		
✧ Vista Premium logo	2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988		
<b>Preloaded applications<sup>5</sup></b>	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990		
• Rescue and Recovery™	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918		
• Client Security Solution™	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618		
• ThinkVantage Productivity Center	Super Multi-Burner DL DVD±RW SATA Drive	41N5620		
• ThinkVantage System Update	DisplayPort to Single-link DVI-D Cable	45J7915		
• ThinkVantage Power Manager	DisplayPort to VGA Monitor Cable	57Y4393		
• McAfee® VirusScan® Plus (30 days of virus definitions)	Lenovo Vertical PC and Monitor Stand II	41R4474		
• Lenovo System Toolbox	ThinkCentre Ultra Small Under Desk Mount	40Y8625		
• Adobe® Reader®	More accessories on O-M58 sheet			
• Microsoft® Office 2007 Trial (60-day)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>			
• Roxio® Creator® Business Edition (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
• Roxio MyDVD® (DVD±RW)				
• Corel® WinDVD® (DVD, DVD±RW)				

See footnotes for important warranty information  
US models announced November 11, 2008

✕ US models withdrawn effective December 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload Educ	Avail date
<b>M58p</b>	7479-AJU	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB <sup>b</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No Apr 09
<b>M58p</b>	7479-AKU	1x2	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No Apr 09

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400 or E8500</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										<b>Eco Ultra Small</b>		
Implementation	Processor in FC-LGA8 package in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical		<p>Bay ② 3.5", 1" high, no access, std disk</p> <p>Slot 1: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available										Slot 1: Low Profile, 32-bit PCI 2.3		
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										<ul style="list-style-type: none"> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>		
DP dongle	DisplayPort to Single-link DVI-D Cable												
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts												
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support												
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar												
eSATA port	None												
Diskette drive	None												
Media reader	None												
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)												
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec												
Speaker	One internal speaker for business audio												
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0												
Intel AMT	Intel Active Management Technology (iAMT)												
Modem	None												
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										Supports ThinkVantage® technologies		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										EPEAT™ Gold rating		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										ENERGY STAR® 5.0-compliant		
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU										GREENGUARD® certified		
											RoHS-compliant		
<b>Preloaded operating system</b> <sup>20</sup>	- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)												
<b>Preloaded applications</b> <sup>5</sup>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>												
	<b>Accessories</b>												
	1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987												
	2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988												
	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
	Lenovo Vertical PC and Monitor Stand II 41R4474												
	ThinkCentre Ultra Small Under Desk Mount 40Y8625												
	DisplayPort to Single-link DVI-D Cable 45J7915												
	DisplayPort to VGA Monitor Cable 57Y4393												
	More accessories on O-M58 sheet												
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>												
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												
											<p><b>Limited Warranty</b><sup>1</sup></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>		

See footnotes for important warranty information  
US models announced April 7, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58p</b>	7479-B9U	1x2	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Pro 32	None	Jan 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model has a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with <b>dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										<b>Eco Ultra Small</b> 	
Implementation	Processor in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3	
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> </ul>	
DP dongle	DisplayPort to Single-link DVI-D Cable											
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support										Supports ThinkVantage® technologies	
SATA controller	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive											
SATA DVD±RW	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar										<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar											
eSATA port	None											
Diskette drive	None										Supports ThinkVantage® technologies	
Media reader	None											
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O										Supports ThinkVantage® technologies	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)											
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)										Supports ThinkVantage® technologies	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)											
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)										Supports ThinkVantage® technologies	
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec											
Speaker	One internal speaker for business audio										Supports ThinkVantage® technologies	
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0											
Intel AMT	Intel Active Management Technology (iAMT)										Supports ThinkVantage® technologies	
Modem	None											
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										Supports ThinkVantage® technologies	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										Supports ThinkVantage® technologies	
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU											
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® 7 Professional 32										Supports ThinkVantage® technologies	
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>											
<b>Accessories</b>	1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987 2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 More accessories on O-M58 sheet  Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										Supports ThinkVantage® technologies	

See footnotes for important warranty information  
 US model announced December 15, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
M58p	6136-A1U	1x2	Core 2 Duo E8400	3.00	2	2GB	160GB <sup>b</sup>	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Bus32	G P	Dec 08

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										<b>Eco Ultra Small</b>			
Implementation	Processor in FC-LGA8 package in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical		Bay ② 3.5", 1" high, no access, std disk	
Memory	<b>2GB std</b> , 4GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available										Slot 1: Low Profile, 32-bit PCI 2.3		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 10.8" W X 9.4" D X 3.1" H</li> <li>• 275mm W X 238mm D X 80mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display													
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts													
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1													
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive													
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors and one eSATA connector on planar													
eSATA port	None													
Diskette drive	None													
Media reader	None													
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O												<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - security slot and cover release button are combined into one latch for improved chassis security</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Individual USB port disablement</li> <li>• Chassis intrusion switch</li> </ul>	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)													
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)													
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)													
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)													
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec													
Speaker	One internal speaker for business audio													
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0													
Intel AMT	Intel Active Management Technology (iAMT)													
Modem	None													
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant													
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo													
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo													
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU												Supports ThinkVantage® technologies	
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® Vista® Business 32 ↕ Vista Premium logo												EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant	
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>												<p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
<b>Accessories</b>	<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 SODIMM (notebook) 43R1987</li> <li>2GB PC3-8500 DDR3 SODIMM (notebook) 43R1988</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>Lenovo Vertical PC and Monitor Stand II 41R4474</li> <li>ThinkCentre Ultra Small Under Desk Mount 40Y8625</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>													

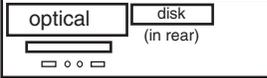
See footnotes for important warranty information  
US model announced November 11, 2008

# ThinkCentre® M58p Small (9964) - TopSeller (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
<b>M58p</b>	9964-A7U	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09
<b>M58p</b>	9964-A8U	2x3	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Core™ 2 Duo Processor E8400 with dual-core</b>, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or  <b>Intel Core 2 Quad Processor Q9400 with quad-core</b>, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache                      Processor in LGA775 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 3.5", 1" high, no access, std disk                      Bay ③ 3.5", .5" high, access, open (reader)</p>																				
Implementation			<p>Slot 1: Low Profile, PCI Express 2.0 x16                      Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>																				
Memory	<p><b>2GB or 4GB std</b>, 8GB max<sup>8</sup>, <b>PC3-8500 1066MHz DDR3</b>, non-parity, dual-channel capable, four 240-pin DIMM sockets;  <i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; 3 sockets available</p>																						
Graphics	<p><b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b>, integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display</p>																						
SATA disk	<p><b>250GB or 320GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening</p>																						
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support</p>																						
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>																						
SATA cables	<p>Two SATA cables (each 1-drop to device), two SATA connectors on planar</p>																						
eSATA port	<p>One external SATA (eSATA) port</p>																						
Diskette drive	<p>None</p>																						
Media reader	<p>None</p>																						
Chipset	<p><b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), <b>SMSC® SCH5617 Super I/O</b></p>																						
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>																						
Rear ports	<p>Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA</p>																						
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>																						
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)</p>																						
Audio	<p>High Definition (HD) Audio, Analog Devices AD1882 codec</p>																						
Speaker	<p>One internal speaker for business audio</p>																						
Ethernet	<p>Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0</p>																						
Intel AMT	<p>Intel Active Management Technology (iAMT)</p>																						
Modem	<p>None</p>																						
Security chip	<p>Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>																				
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>		<p>Supports ThinkVantage® technologies</p>																				
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>																						
Power supply	<p>280 watts with variable speed fan, autosensing, two diagnostic LEDs</p>																						
<b>Preloaded operating system<sup>20</sup></b>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional</p>																						
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>																						
	<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC3-8500 DDR3 UDIMM</td> <td>45J5434</td> </tr> <tr> <td>2GB PC3-8500 DDR3 UDIMM</td> <td>45J5435</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® Quadro® 256MB NVS 290</td> <td>43R1765</td> </tr> <tr> <td>NVIDIA Quadro 256MB FX 370 LP</td> <td>55Y9275</td> </tr> </table> <p>More accessories on O-M58 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                      Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB NVS 290	43R1765	NVIDIA Quadro 256MB FX 370 LP	55Y9275	
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			<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>																				

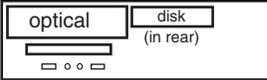
See footnotes for important warranty information  
 US models announced November 3, 2009

# ThinkCentre® M58p Small (9964) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58p</b>	9964-ABU	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
<b>M58p</b>	9964-ACU	2x3	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
<b>M58p</b>	9964-ADU	2x3	Core 2 Duo E8400	3.00	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 64	None	Mar 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i></p> <p><b>Intel® Core™ 2 Duo Processor E8400 with dual-core,</b> Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or</p> <p><b>Intel Core 2 Quad Processor Q9400 with quad-core,</b> Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache</p> <p>Processor in LGA775 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 3.5", 1" high, no access, std disk</p> <p>Bay ③ 3.5", .5" high, access, open (reader)</p>
Implementation	Processor in LGA775 socket		<p>Slot 1: Low Profile, PCI Express 2.0 x16</p> <p>Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Memory	<p><b>2GB or 4GB std,</b> 8GB max<sup>8</sup>, <b>PC3-8500 1066MHz DDR3,</b> non-parity, dual-channel capable, four 240-pin DIMM sockets;</p> <p><i>Italics:</i> standard memory in two sockets; two sockets available;</p> <p><i>Non-italics:</i> standard memory in one socket; 3 sockets available</p>		
Graphics	<p><b>Intel Graphics Media Accelerator 4500 (GMA 4500),</b> integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display</p>		
SATA disk	<p><b>250GB or 320GB,</b> SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support</p>		
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
SATA cables	<p>Two SATA cables (each 1-drop to device), two SATA connectors on planar</p>		
eSATA port	<p>One external SATA (eSATA) port</p>		
Diskette drive	<p>None</p>		
Media reader	<p>None</p>		
Chipset	<p><b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), <b>SMSC® SCH5617 Super I/O</b></p>		
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		
Rear ports	<p>Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA</p>		
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>		
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)</p>		
Audio	<p>High Definition (HD) Audio, Analog Devices AD1882 codec</p>		
Speaker	<p>One internal speaker for business audio</p>		
Ethernet	<p>Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0</p>		
Intel AMT	<p>Intel Active Management Technology (iAMT)</p>		
Modem	<p>None</p>		
Security chip	<p>Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant</p>		
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>		
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>		
Power supply	<p>280 watts with variable speed fan, autosensing, two diagnostic LEDs</p>		
<b>Preloaded operating system<sup>20</sup></b>	<p>- <i>Some:</i> Genuine Windows® 7 Professional 32</p> <p>- <i>Some:</i> Genuine Windows 7 Professional 64</p>		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>		
<b>Accessories</b>	<p>1GB PC3-8500 DDR3 UDIMM 45J5434</p> <p>2GB PC3-8500 DDR3 UDIMM 45J5435</p> <p>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</p> <p>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</p> <p>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</p> <p>DisplayPort to Single-link DVI-D Cable 45J7915</p> <p>DisplayPort to VGA Monitor Cable 57Y4393</p> <p>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</p> <p>NVIDIA® Quadro® 256MB NVS 290 43R1765</p> <p>NVIDIA Quadro 256MB FX 370 LP 55Y9275</p> <p>More accessories on O-M58 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		
			<p>Supports ThinkVantage® technologies</p>
			<p>GREENGUARD® certified</p> <p>RoHS-compliant</p>
			<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>

See footnotes for important warranty information

US model announced February 23, 2010; previous models on January 12, 2010

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# ThinkCentre® M58p Small (7483)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Chassis intr switch	Intel vPro	Vista preload	Global Educ	Avail date
M58p	7483-AEU	2x3	Core 2 Duo E8400	3.00	2	1GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP			vPro	Bus32		Nov 08
M58p	7483-AFU	2x3	Core 2 Duo E8400	3.00	2	1GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
M58p	7483-A7U	2x3	Core 2 Duo E8400	3.00	2	1GB	250GB	DVD±RW	GMA	VGA, DP		Switch	vPro	Bus32		Nov 08
M58p	7483-ACU	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP			vPro	Bus32		Nov 08
M58p	7483-AGU	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP			vPro	Bus32	Educ	Nov 08
M58p	7483-AHU	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
M58p	7483-AJU	2x3	Core 2 Duo E8500	3.16	2	1GB	250GB	DVD	GMA	VGA, DP			vPro	Bus32		Nov 08
M58p	7483-AKU	2x3	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
M58p	7483-ALU	2x3	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
M58p	7483-AMU	2x3	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
M58p	7483-ANU	2x3	Core 2 Quad Q9400	2.66	4	2GB	160GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08

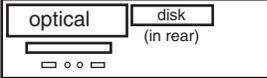
- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or <b>Intel Core 2 Quad Processor Q9400 with quad-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache	<b>Small</b>  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3 * used in some models
Implementation	Processor in FC-LGA8 package in LGA775 socket	
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 253MB [ <i>1GB models</i> ], 765MB [ <i>2GB models</i> ]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> <b>ATI™ Radeon™ HD 3470</b> , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts	<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> <li>• <i>Some:</i> Chassis intrusion switch</li> </ul>
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable	
SATA disk	<b>160GB or 250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant <b>Limited Warranty<sup>1</sup></b> ⇨ <b>3-year parts and labor</b> ⇨ <b>International Warranty Service<sup>9</sup></b> ⇨ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b> ⇨ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> ⇨ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b> ⇨ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar	
eSATA port	One external SATA (eSATA) port	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec	
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0	
Intel AMT	Intel Active Management Technology (iAMT)	
Modem	None	
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® Vista® Business 32	1GB PC3-8500 DDR3 UDIMM	45J5434
⇨ Vista Premium logo	2GB PC3-8500 DDR3 UDIMM	45J5435
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
• <i>Some:</i> Education software	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
- VitalSource™ Library School Edition	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618
- Adobe® Elements	Super Multi-Burner DL DVD±RW SATA Drive	41N5620
- Photoshop Elements 6	DisplayPort to Single-link DVI-D Cable	45J7915
- Premiere Elements 4	DisplayPort to VGA Monitor Cable	57Y4393
• Rescue and Recovery™	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636
• Client Security Solution™	NVIDIA® Quadro® 256MB NVS 290	43R1765
• ThinkVantage Productivity Center	NVIDIA Quadro 256MB FX 370 LP	55Y9275
• Microsoft® Office 2007 Trial (60-day)	More accessories on O-M58 sheet	
• Roxio® Creator® Business Edition (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Roxio MyDVD® (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• Corel® WinDVD® (DVD, DVD±RW)		

See footnotes for important warranty information  
 US models announced October 21, 2008  
 ⇨ US models withdrawn effective December 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
<b>M58p</b>	7483-B1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09
<b>M58p</b>	7483-B2U	2x3	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09

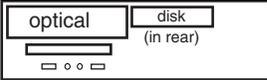
- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<b>Small</b>	
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display		Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3	
DP dongle	DisplayPort to Single-link DVI-D Cable		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors			
eSATA port	One external SATA (eSATA) port			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	Intel Active Management Technology (iAMT)			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)		Supports ThinkVantage® technologies	
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>		GREENGUARD® certified RoHS-compliant	
<b>Accessories</b>	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB FX 370 LP 55Y9275 More accessories on O-M58 sheet  Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		<b>Limited Warranty<sup>1</sup></b> ⇨ <b>3-year parts and labor</b> ⇨ <b>International Warranty Service<sup>9</sup></b> ⇨ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b> ⇨ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> ⇨ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b> ⇨ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>	

See footnotes for important warranty information  
 US models announced April 7, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58p</b>	7483-BRU	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	Pro 32	None	Jan 10

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- This model has a 3-year limited warranty<sup>1</sup>

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with <b>dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Implementation Processor in LGA775 socket										<b>Small</b> 
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3
DP dongle	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<p style="text-align: center;"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors										
eSATA port	One external SATA (eSATA) port										
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec										
Speaker	One internal speaker for business audio										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0										
Intel AMT	Intel Active Management Technology (iAMT)										
Modem	None										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	280 watts with variable speed fan, autosenesing, two diagnostic LEDs										
<b>Preloaded operating system</b> <sup>20</sup>	- Genuine Windows® 7 Professional 32										Supports ThinkVantage® technologies
<b>Preloaded applications</b> <sup>5</sup>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>										GREENGUARD® certified RoHS-compliant
<b>Accessories</b>	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB FX 370 LP 55Y9275 More accessories on O-M58 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										<p style="text-align: center;"><b>Limited Warranty</b><sup>1</sup></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>

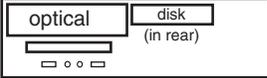
See footnotes for important warranty information  
 US model announced December 15, 2009

# ThinkCentre® M58p Small (7220) - ENERGY STAR® 5.0

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global Educ	Avail date
<b>M58p</b>	7220-A6U	2x3	Core 2 Duo E8400	3.00	2	1GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Nov 08
<b>M58p</b>	7220-A7U	2x3	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD	<b>3470</b>	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Nov 08
<b>M58p</b>	7220-A8U	2x3	Core 2 Duo E8500	3.16	2	1GB	250GB	DVD	GMA	VGA, DP		ES50	vPro	Bus32	No	Nov 08
<b>M58p</b>	7220-A9U	2x3	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD	<b>3470</b>	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Nov 08
<b>M58p</b>	7220-ABU	2x3	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	Bus32	No	Nov 08

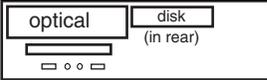
• **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**  
 • **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache	<b>Small</b>	
Implementation	Processor in FC-LGA8 package in LGA775 socket		
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16* Slot 2: Low Profile, 32-bit PCI 2.3	
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 253MB [1GB models], 765MB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> <b>ATI™ Radeon™ HD 3470</b> , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts	* used in some models	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable		
SATA disk	<b>160GB or 250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1		
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar		
eSATA port	One external SATA (eSATA) port		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	Intel Active Management Technology (iAMT)		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® Vista® Business 32 ↗ Vista Premium logo	<b>Accessories</b>	
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul>	<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 UDIMM 45J5434</li> <li>2GB PC3-8500 DDR3 UDIMM 45J5435</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>ATI Radeon HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® Quadro® 256MB NVS 290 43R1765</li> <li>NVIDIA Quadro 256MB FX 370 LP 55Y9275</li> <li>More accessories on O-M58 sheet</li> </ul>	
		Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
			<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
			Supports ThinkVantage® technologies
			Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant
			<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↗ <b>3-year parts and labor</b></li> <li>↗ <b>International Warranty Service<sup>9</sup></b></li> <li>↗ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↗ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↗ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↗ <b>Post warranty maintenance services available</b></li> <li>↗ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>

See footnotes for important warranty information  
 US models announced October 21, 2008  
 ↗ US model withdrawn effective December 2009

Name	Type-model	Slot x bay	Processor	GHz Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro Preload	Global Educ	Avail date
M58p	7220-AGU	2x3	Core 2 Duo E8400	3.00 2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro XP Pro	No	Apr 09

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- This model has a 3-year limited warranty<sup>1</sup>

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with <b>dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket										<b>Small</b> 
Implementation	Processor in FC-LGA8 package in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display DisplayPort to Single-link DVI-D Cable										
DP dongle	DisplayPort to Single-link DVI-D Cable										
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Two SATA cables (each 1-drop to device), two SATA connectors One external SATA (eSATA) port										
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors										
eSATA port	One external SATA (eSATA) port										
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										Supports ThinkVantage® technologies  Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant  <b>Limited Warranty<sup>1</sup></b> ⇨ <b>3-year parts and labor</b> ⇨ <b>International Warranty Service<sup>9</sup></b> ⇨ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b> ⇨ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> ⇨ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b> ⇨ <b>Post warranty maintenance services available</b> ⇨ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec										
Speaker	One internal speaker for business audio										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0										
Intel AMT	Intel Active Management Technology (iAMT)										
Modem	None										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	280 watts with variable speed fan, autosenensing, 85% PSU										
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)										
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>										
<b>Accessories</b>	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB FX 370 LP 55Y9275 More accessories on O-M58 sheet  Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										

See footnotes for important warranty information  
 US model announced April 7, 2009

# ThinkCentre® M58p Small (6137) - GMP

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Chassis intr switch	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
<b>M58p</b>	6137-A2U	2x3	Core 2 Duo E8400	3.00 2	2GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP	None		vPro	Bus32	G P	Jan 09
<b>M58p</b>	6137-A1U	2x3	Core 2 Duo E8400	3.00 2	2GB	160GB	DVD±RW	GMA	VGA, DP	None	Switch	vPro	Bus32	G P	Nov 08
<b>M58p</b>	6137-A3U	2x3	Core 2 Duo E8400	3.00 2	3GB	160GB	DVD	GMA	VGA, DP	None	Switch	vPro	Bus32	G P	Mar 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models are part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with <b>dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<b>Small</b>	
Implementation	Processor in FC-LGA8 package in LGA775 socket			
Memory	<b>2GB</b> or <b>3GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)	
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB [2GB models], 1277MB [3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3	
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> <li>• <i>Some:</i> Chassis intrusion switch</li> </ul>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1			
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive			
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA Drive			
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors			
eSATA port	One external SATA (eSATA) port			
Diskette drive	None			
Media reader	None			
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec			
Speaker	One internal speaker for business audio			
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0			
Intel AMT	Intel Active Management Technology (iAMT)			
Modem	None			
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo			
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo			
Power supply	280 watts with variable speed fan, autosensing, two diagnostic LEDs			
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		Supports ThinkVantage® technologies	
- Genuine Windows® Vista® Business 32	1GB PC3-8500 DDR3 UDIMM 45J5434			
↕ Vista Premium logo	2GB PC3-8500 DDR3 UDIMM 45J5435		GREENGUARD® certified RoHS-compliant	
<b>Preloaded applications<sup>5</sup></b>	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990			
• Rescue and Recovery™	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
• Client Security Solution™	DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618			
• ThinkVantage Productivity Center	Super Multi-Burner DL DVD±RW SATA Drive 41N5620			
• ThinkVantage System Update	DisplayPort to Single-link DVI-D Cable 45J7915			
• ThinkVantage Power Manager	DisplayPort to VGA Monitor Cable 57Y4393			
• McAfee® VirusScan® Plus (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636			
• Lenovo System Toolbox	NVIDIA® Quadro® 256MB NVS 290 43R1765			
• Adobe® Reader®	NVIDIA Quadro 256MB FX 370 LP 55Y9275			
• Microsoft® Office 2007 Trial (60-day)	More accessories on O-M58 sheet			
• Roxio® Creator® Business Edition (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>			
• Roxio MyDVD® (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
• Corel® WinDVD® (DVD, DVD±RW)				

See footnotes for important warranty information

US model announced February 17, 2009; previous models on October 21 or December 9, 2008

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# ThinkCentre® M58p Small (6234) - ENERGY STAR® 5.0 (GMP)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
<b>M58p</b>	6234-A1U	2x3	Core 2 Duo E8400	3.00	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	ES50	vPro	Bus32	G P	Nov 08

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with <b>dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket										<b>Small</b>
Implementation	Processor in FC-LGA8 package in LGA775 socket										Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available										Slot 1: Low Profile, PCI Express 2.0 x16 Slot 2: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Two SATA cables (each 1-drop to device), two SATA connectors One external SATA (eSATA) port None None										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> <li>• Chassis intrusion switch</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors										
eSATA port	One external SATA (eSATA) port										
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort), eSATA										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec										
Speaker	One internal speaker for business audio										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0										
Intel AMT	Intel Active Management Technology (iAMT)										
Modem	None										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo										
Power supply	280 watts with variable speed fan, autosensing, 85% PSU										
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® Vista® Business 32 ↕ Vista Premium logo										Supports ThinkVantage® technologies
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>										Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR 5.0-compliant GREENGUARD® certified RoHS-compliant
<b>Accessories</b>	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB FX 370 LP 55Y9275 More accessories on O-M58 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>

See footnotes for important warranty information  
 US model announced October 21, 2008

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
<b>M58p</b>	9965-A6U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09
<b>M58p</b>	9965-A7U	4x4	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	XP Pro	None	Nov 09

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or <b>Intel Core 2 Quad Processor Q9400</b> with quad-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<b>Tower</b>		
Implementation	Processor in LGA775 socket		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Memory	<b>2GB</b> or <b>4GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
SATA disk	<b>250GB</b> or <b>320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies  GREENGUARD® certified RoHS-compliant  <b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar				
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec				
Speaker	One internal speaker for business audio				
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0				
Intel AMT	Intel Active Management Technology (iAMT)				
Modem	None				
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo				
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs				
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>				
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC3-8500 DDR3 UDIMM	45J5434			
	2GB PC3-8500 DDR3 UDIMM	45J5435			
	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990			
	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918			
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	Super Multi-Burner DL DVD±RW SATA Drive	41N5620			
• Rescue and Recovery™	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675			
• Client Security Solution™	DisplayPort to Single-link DVI-D Cable	45J7915			
• ThinkVantage Productivity Center	DisplayPort to VGA Monitor Cable	57Y4393			
• ThinkVantage System Update	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636			
• McAfee® VirusScan® Plus (30 days of virus definitions)	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635			
• Lenovo System Toolbox	NVIDIA Quadro® 256MB NVS 290	43R1765			
• Adobe® Reader®	NVIDIA Quadro 256MB NVS 295	45K1669			
• Microsoft® Office 2007 Trial (60-day)	More accessories on O-M58 sheet				
• Roxio® Creator® Business Edition (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>				
• Roxio MyDVD® (DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>				
• Corel® WinDVD® (DVD±RW)					

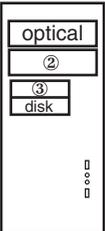
See footnotes for important warranty information  
US models announced November 3, 2009

# ThinkCentre® M58p Tower (9965) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58p</b>	9965-A9U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
<b>M58p</b>	9965-ABU	4x4	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 32	None	Jan 10
<b>M58p</b>	9965-ACU	4x4	Core 2 Duo E8400	3.00	2	4GB	320GB	DVD±RW	GMA	VGA, DP	None	vPro	Pro 64	None	Mar 10

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or <b>Intel Core 2 Quad Processor Q9400 with quad-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache		<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation	Processor in LGA775 socket		
Memory	<b>2GB or 4GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB [2GB models] or 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display		
SATA disk	<b>250GB or 320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support		
SATA controller	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA DVD±RW	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar		
SATA cables	None		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	Intel Active Management Technology (iAMT)		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		GREENGUARD® certified RoHS-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- <i>Some:</i> Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 UDIMM 45J5434		
- <i>Some:</i> Genuine Windows 7 Professional 64	2GB PC3-8500 DDR3 UDIMM 45J5435		
	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675		
	DisplayPort to Single-link DVI-D Cable 45J7915		
	DisplayPort to VGA Monitor Cable 57Y4393		
	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636		
	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635		
	NVIDIA Quadro® 256MB NVS 290 43R1765		
	NVIDIA Quadro 256MB NVS 295 45K1669		
	More accessories on O-M58 sheet		
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>			
• Rescue and Recovery™			
• Password Manager			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• ThinkVantage Toolbox			
• Lenovo Online Data Backup			
• Norton™ Internet Security 2009 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			

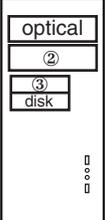
See footnotes for important warranty information

US model announced February 23, 2010; previous models on January 12, 2010

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Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Chassis intr switch	Intel vPro	Vista preload	Global Educ	Avail date
M58p	7484-A9U	4x4	Core 2 Duo E8400	3.00	2	1GB	160GB <sup>2</sup>	DVD	GMA	VGA, DP			vPro	Bus32		Nov 08
M58p	7484-AHU	4x4	Core 2 Duo E8400	3.00	2	1GB	160GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
M58p	7484-AEU	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB	DVD±RW	GMA	VGA, DP			vPro	Bus32		Nov 08
✖	M58p	7484-AGU	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
✖	M58p	7484-A8U	Core 2 Duo E8400	3.00	2	2GB	250GB	DVD±RW	GMA	VGA, DP		Switch	vPro	Bus32		Nov 08
✖	M58p	7484-AJU	Core 2 Duo E8500	3.16	2	1GB	160GB	DVD	GMA	VGA, DP			vPro	Bus32		Nov 08
✖	M58p	7484-AMU	Core 2 Duo E8500	3.16	2	2GB	160GB	DVD±RW	GMA	VGA, DP			vPro	Bus32	Educ	Nov 08
✖	M58p	7484-ALU	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD	GMA	VGA, DP			vPro	Bus32		Nov 08
M58p	7484-AKU	4x4	Core 2 Duo E8500	3.16	2	2GB	250GB	DVD	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08
M58p	7484-ANU	4x4	Core 2 Quad Q9400	2.66	4	2GB	160GB	DVD±RW	3470	VGA, DP	DP-to-DVI-D		vPro	Bus32		Nov 08

• Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)  
 • These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or <b>Intel Core 2 Quad Processor Q9400 with quad-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in FC-LGA8 package in LGA775 socket	<b>Tower</b> <ul style="list-style-type: none"> <li>Business black color; metal case</li> <li>6.9" W X 17.3" D X 15.8" H</li> <li>175mm W X 440mm D X 402mm H</li> <li>24.2 lb (11.0 kg) in max configuration</li> <li>Handle on top front</li> <li>Toolless cover removal</li> <li>Toolless disk, diskette drive, optical drive removal</li> <li>Toolless adapter retention</li> </ul> 
Implementation		
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 253MB [1GB models], 765MB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display <i>Some:</i> <b>ATI™ Radeon™ HD 3470</b> , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts	Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)* Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3 * used in some models
DP dongle	<i>Some:</i> DisplayPort to Single-link DVI-D Cable	
SATA disk	<b>160GB or 250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16-48X Max <sup>4</sup> Drive	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec	
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0	
Intel AMT	Intel Active Management Technology (iAMT)	
Modem	None	
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	<b>Security</b> <ul style="list-style-type: none"> <li>Security chip (see information on left)</li> <li>One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>Power-on password</li> <li>Administrator password</li> <li>Hard disk password (user and master)</li> <li>Boot sequence control</li> <li>Boot without diskette, keyboard</li> <li>Serial port I/O control</li> <li>Individual USB port disablement</li> <li><i>Some:</i> Chassis intrusion switch</li> </ul> Supports ThinkVantage® technologies GREENGUARD® certified RoHS-compliant <b>Limited Warranty<sup>1</sup></b> ⇐ 3-year parts and labor ⇐ International Warranty Service® ⇐ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts <sup>3</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇐ Onsite service upgrade options (in eligible locations): <sup>7</sup> <ul style="list-style-type: none"> <li>3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> ⇐ Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a> ⇐ 24 hour x 7 day <sup>14</sup> toll-free support during the warranty period <sup>1</sup> via 800-426-7378
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo	
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® Vista® Business 32	1GB PC3-8500 DDR3 UDIMM	45J5434
✦ Vista Premium logo	2GB PC3-8500 DDR3 UDIMM	45J5435
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
• <i>Some:</i> Education software	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618
- VitalSource™ Library School Edition	Super Multi-Burner DL DVD±RW SATA Drive	41N5620
- Adobe® Elements	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675
- Photoshop Elements 6	DisplayPort to Single-link DVI-D Cable	45J7915
- Premiere Elements 4	DisplayPort to VGA Monitor Cable	57Y4393
• Rescue and Recovery™	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636
• Client Security Solution™	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635
• ThinkVantage Productivity Center	NVIDIA Quadro® 256MB NVS 290	43R1765
• Microsoft® Office 2007 Trial (60-day)	NVIDIA Quadro 256MB NVS 295	45K1669
• Roxio® Creator® Business Edition (DVD±RW)	More accessories on O-M58 sheet	
• Roxio MyDVD® (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Corel® WinDVD® (DVD, DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information  
 US models announced October 21, 2008

✖ US models withdrawn effective December 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Preload	Global Educ	Avail date
<b>M58p</b>	7484-B2U	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	XP Pro	None	Apr 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model has a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										
Implementation	Processor in FC-LGA8 package in LGA775 socket										
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
DP dongle	DisplayPort to Single-link DVI-D Cable										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar										
eSATA port	None										
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec										
Speaker	One internal speaker for business audio										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0										
Intel AMT	Intel Active Management Technology (iAMT)										
Modem	None										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo										
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs										
<b>Preloaded operating system<sup>20</sup></b>	<ul style="list-style-type: none"> <li>- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</li> </ul>										GREENGUARD® certified RoHS-compliant
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>										
<b>Accessories</b>	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635 NVIDIA Quadro® 256MB NVS 290 43R1765 NVIDIA Quadro 256MB NVS 295 45K1669 More accessories on O-M58 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>

See footnotes for important warranty information  
 US model announced April 7, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	Intel vPro	Win7 preload	Global Educ	Avail date
<b>M58p</b>	7484-D1U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	vPro	Pro 32	None	Jan 10
<ul style="list-style-type: none"> <li>• <b>Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)</b></li> <li>• <b>This model has a 3-year limited warranty<sup>1</sup></b></li> </ul>															
Positioning	Ultimate security, stability, and manageability for the enterprise										<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>				
Processor	<b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache														
Implementation	Processor in LGA775 socket														
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available														
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, HDCP, DirectX® 10, supports dual independent display														
DP dongle	DisplayPort to Single-link DVI-D Cable														
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive														
SATA controller	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar														
SATA DVD±RW	None														
SATA cables	None														
eSATA port	None														
Diskette drive	None														
Media reader	None														
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O														
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)														
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)														
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec														
Speaker	One internal speaker for business audio														
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0														
Intel AMT	Intel Active Management Technology (iAMT)														
Modem	None														
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant														
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo														
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo														
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs														
<b>Preloaded operating system<sup>20</sup></b> - Genuine Windows® 7 Professional 32															
<b>Preloaded applications<sup>5</sup></b> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Lenovo Online Data Backup</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> </ul>															
<b>Accessories</b> <ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 UDIMM 45J5434</li> <li>2GB PC3-8500 DDR3 UDIMM 45J5435</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>NVIDIA Quadro 256MB NVS 295 45K1669</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>															
												<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:               <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>			
												Supports ThinkVantage® technologies			
												GREENGUARD® certified RoHS-compliant			
												<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>			

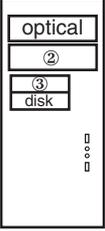
See footnotes for important warranty information  
 US model announced December 15, 2009

# ThinkCentre® M58p Tower (3063) - ES 5.0 (XP with Win 7 License)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Global Preload	Avail date	
<b>M58p</b>	3063-B6U	4x4	Core 2 Duo E8400	3.00	2	2GB	320GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
<b>M58p</b>	3063-B7U	4x4	Core 2 Duo E8400	3.00	2	2GB	320GB	DVD±RW	<b>3470</b>	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
<b>M58p</b>	3063-B9U	4x4	Core 2 Duo E8500	3.16	2	2GB	320GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
<b>M58p</b>	3063-B8U	4x4	Core 2 Duo E8500	3.16	2	2GB	320GB	DVD±RW	<b>3470</b>	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09
<b>M58p</b>	3063-BBU	4x4	Core 2 Quad Q9400	2.66	4	4GB	320GB	DVD±RW	GMA	VGA, DP	DP-to-DVI-D	ES50	vPro	XP Pro	No	Oct 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400 or E8500 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache or <b>Intel Core 2 Quad Processor Q9400 with quad-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache Processor in LGA775 socket		<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation	Processor in LGA775 socket		
Memory	<b>2GB or 4GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; 3 sockets available		
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ conn, HDCP, DirectX® 10, supports dual independent display  <i>Some:</i> <b>ATI™ Radeon™ HD 3470</b> , PCI Express® 2.0 x16 adapter, 256MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10.1, ATI Avivo™, 25 watts		
DP dongle	DisplayPort to Single-link DVI-D Cable		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk  Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)* Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3  * used in some models
SATA disk	<b>320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:               <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies  Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1 support		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0		
Intel AMT	Intel Active Management Technology (iAMT)		
Modem	None		
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional	1GB PC3-8500 DDR3 UDIMM	45J5434	
	2GB PC3-8500 DDR3 UDIMM	45J5435	
	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
	Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	
	DisplayPort to Single-link DVI-D Cable	45J7915	
	DisplayPort to VGA Monitor Cable	57Y4393	
	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	
	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	
	NVIDIA Quadro® 256MB NVS 290	43R1765	
	NVIDIA Quadro 256MB NVS 295	45K1669	
	More accessories on O-M58 sheet		
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>			
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• McAfee® VirusScan® Plus (30 days of virus definitions)			
• Lenovo System Toolbox			
• Adobe® Reader®			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD±RW)			
	<b>Limited Warranty<sup>1</sup></b> ⇨ <b>3-year parts and labor</b> ⇨ <b>International Warranty Service<sup>9</sup></b> ⇨ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b> ⇨ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> ⇨ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b> ⇨ <b>Post warranty maintenance services available</b> ⇨ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>		

See footnotes for important warranty information  
US models announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	DisplayPort dongle	Intel vPro	Vista preload	Global (G) GMP (P)	Avail date
<b>M58p</b>	6138-A1U	4x4	Core 2 Duo E8400	3.00	2	2GB	160GB <sup>2</sup>	DVD±RW	GMA	VGA, DP	None	vPro	Bus32	G P	Nov 08

- Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)
- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ 2 Duo Processor E8400 with dual-core</b> , Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										
Implementation	Processor in FC-LGA8 package in LGA775 socket										
Memory	<b>2GB std</b> , 8GB max <sup>8</sup> , <b>PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available										
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display										
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1										
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3
eSATA port	None										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> <li>• Chassis intrusion switch</li> </ul>
Diskette drive	None										
Media reader	None										
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O										
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec										
Speaker	One internal speaker for business audio										
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0										
Intel AMT	Intel Active Management Technology (iAMT)										
Modem	None										
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo										
Power supply	280 watts with variable speed fan, manual switch, two diagnostic LEDs										
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® Vista® Business 32 ◇ Vista Premium logo					<b>Accessories</b>					
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>					<ul style="list-style-type: none"> <li>1GB PC3-8500 DDR3 UDIMM 45J5434</li> <li>2GB PC3-8500 DDR3 UDIMM 45J5435</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636</li> <li>NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635</li> <li>NVIDIA Quadro® 256MB NVS 290 43R1765</li> <li>NVIDIA Quadro 256MB NVS 295 45K1669</li> <li>More accessories on O-M58 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>					
Supports ThinkVantage® technologies											
GREENGUARD® certified RoHS-compliant											
<b>Limited Warranty<sup>1</sup></b>											
<ul style="list-style-type: none"> <li>⇨ 3-year parts and labor</li> <li>⇨ International Warranty Service<sup>9</sup></li> <li>⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>⇨ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇨ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>⇨ Post warranty maintenance services available</li> <li>⇨ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>											

See footnotes for important warranty information  
US model announced October 21, 2008

Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	DisplayPort dongle	ENERGY STAR 5.0	Intel vPro	Win 7 preload	Global (G) GMP (P)	Avail date
<b>M58p</b>	3285-A1U	4x4	Core 2 Duo E8400	3.00	2	2GB	250GB <sup>2</sup> DVD±RW	GMA	VGA, DP	None	None	ES50	vPro	Pro 32	G P	Oct 09

- **Intel Core 2 Processor with vPro™ Technology (includes Intel Active Management Technology)**
- **This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty**

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ 2 Duo Processor E8400</b> with dual-core, Virtualization Technology, TXT, 1333MHz system bus, and 6MB L2 cache										<b>Tower</b>		
Implementation	Processor in LGA775 socket										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Memory	<b>2GB std, 8GB max<sup>8</sup>, PC3-8500 1066MHz DDR3</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in one socket; 3 sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Graphics	<b>Intel Graphics Media Accelerator 4500 (GMA 4500)</b> , integrated graphics in Q45, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector (supports single-link DVI-D via cable 45J7915), HDCP, DirectX® 10, supports dual independent display										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password (user and master)</li> <li>• Boot sequence control</li> <li>• Boot without diskette, keyboard</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10DO, RAID 0/1												
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												
SATA cables	Two SATA cables (each 1-drop to device), three SATA connectors and one eSATA connector on planar												
eSATA port	None										<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>		
Diskette drive	None												
Media reader	None												
Chipset	<b>Intel Q45 Express Chipset</b> (PCI Express® 2.0 x16), I/O Controller Hub 10 Digital Office [ICH10DO] (SATA 3.0Gb/s with RAID 0/1 support, PCI Express x1, ethernet MAC, PCI 2.3, USB, LPC bus), SMSC® SCH5617 Super I/O												
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												
Rear ports	Six USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)												
Audio	High Definition (HD) Audio, Analog Devices AD1882 codec												
Speaker	One internal speaker for business audio												
Ethernet	Gigabit ethernet on planar, Intel 82567LM, Wake on LAN®, ASF2.0, DASH 1.0												
Intel AMT	Intel Active Management Technology (iAMT)												
Modem	None												
Security chip	Winbond® WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo												
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo												
Power supply	280 watts with variable speed fan, autosensing, 85% PSU												
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>										Supports ThinkVantage® technologies		
- Genuine Windows® 7 Professional 32	1GB PC3-8500 DDR3 UDIMM 45J5434										Climate Savers®-compliant EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	2GB PC3-8500 DDR3 UDIMM 45J5435												
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990												
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918												
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive 41N5620												
• ThinkVantage Power Manager	Blu-ray™ Burner SATA 1.5Gb/s Drive 45K1675												
• ThinkVantage Toolbox	DisplayPort to Single-link DVI-D Cable 45J7915												
• Lenovo Online Data Backup	DisplayPort to VGA Monitor Cable 57Y4393												
• Norton™ Internet Security 2009 (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636												
• Adobe® Reader®	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635												
• Adobe Flash® Player	NVIDIA Quadro® 256MB NVS 290 43R1765												
• Microsoft® Office 2007 Trial (60-day)	NVIDIA Quadro 256MB NVS 295 45K1669												
• Roxio® Creator® Business Edition (DVD±RW)	More accessories on O-M58 sheet												
• Roxio MyDVD® (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												

See footnotes for important warranty information  
US model announced October 22, 2009

**Partial list of accessories supported on ThinkCentre M58 and M58p****Memory**

*Eco Ultra Small 8820/7359/7637/9961/7479/6136 use notebook memory:*

1GB PC3-8500 DDR3 SODIMM (notebook)	43R1987	ann 08/05/08
1GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0551	ann 03/17/09
2GB PC3-8500 DDR3 SODIMM (notebook)	43R1988	ann 08/05/08
2GB PC3-8500 DDR3 SODIMM (25-Pack)	51J0552	ann 03/17/09
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

*Small 8910/7360/6258/7638/9964/7483/7220/6137/6234, and*

*Tower 9960/7373/6239/9965/7484/7188/6138/6209/3063/3285/9728/*

*7639 use desktop memory:*

1GB PC3-8500 DDR3 UDIMM	45J5434	ann 11/18/08
1GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4421	ann 11/10/09
2GB PC3-8500 DDR3 UDIMM	45J5435	ann 11/18/08
2GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4422	ann 11/10/09

**Optical**

*All:*

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup>	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

*Tower 9960/7373/6239/9965/7484/7188/6138/6209/3063/3285/9728/*

*7639 support:*

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
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**Storage and removable storage**

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

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 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 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

**Graphics**

*Small 8910/7360/6258/7638/9964/7483/7220/6137/6234 support Low Profile:*

ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® Quadro® 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB FX 370 Low-Profile	55Y9275	ann 07/28/09
NVIDIA GeForce® 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

*Tower 9960/7373/6239/9965/7484/7188/6138/6209/3063/3285/9728/*

*7639 support 75 watts max:*

ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA Quadro 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB NVS 295	45K1669	ann 04/21/09
NVIDIA GeForce 9500 GT 512MB (DP, DVI)	45K1635	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

More information at [www.lenovo.com/support/graphiccards](http://www.lenovo.com/support/graphiccards)

**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

<sup>52</sup>Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)

**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 ScrollPoint® Mouse(USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)

**Multimedia**

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10

**Security**

Kensington® MicroSaver® Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

<sup>56</sup>Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

**Mounting Device**

*Eco Ultra Small 8820/7359/7637/9961/7479/6136 support*

*under desk mounting device:*

ThinkCentre Ultra Small Under Desk Mount	40Y8625	ann 09/06/05
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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

More information at [www.lenovo.com/thinkvision](http://www.lenovo.com/thinkvision)

**Monitor Accessories<sup>46</sup>**

*Eco Ultra Small 8820/7359/7637/9961/7479/6136 support:*

Lenovo Vertical PC and Monitor Stand II	41R4474	ann 01/27/09
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*All:*

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 VGA Monitor Cable	57Y4393	ann 08/04/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup>Compatible on selected Lenovo and ThinkVision monitors.

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

**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

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

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)



Lenovo ThinkCentre M90/M90p Eco USFF



Lenovo ThinkCentre M90/M90p Eco USFF



Lenovo ThinkCentre M90/M90p SFF



Lenovo ThinkCentre M90/M90p SFF with ThinkVision L2251x (2578-HB6)



Lenovo ThinkCentre M90/M90p Tower



Lenovo ThinkCentre M90/M90p Tower



Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3244-A8U	1x2	Core i3-530	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10

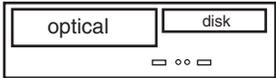
- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**
- **This model has a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Core™ i3 Processor i3-530 with dual-core</b>, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache                  Processor in LGA1156 socket</p>		<p><b>Eco Ultra Small</b></p> 
Implementation	<p>Processor in LGA1156 socket</p>		
Memory	<p><b>2GB std</b>, 4GB max, <b>PC3-10600 1333MHz DDR3</b>, two 204-pin SODIMM sockets (notebook);  <i>Non-italics: standard memory in one socket; one socket available</i></p>		<p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Slot 1: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 11.0" W X 9.4" D X 3.1" H</li> <li>• 279mm W X 238mm D X 79mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• System floor stand for vertical orientation</li> </ul>
Graphics	<p><b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Individual USB port disablement</li> </ul> <p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>
DP dongle	None		
SATA disk	<p><b>250GB</b>, SATA 3.0Gb/s 7200 rpm</p>		
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
SATA Controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical</p>		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<p><b>Intel Q57 Express Chipset</b>, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU		
<p><b>Preloaded operating system<sup>20</sup></b></p> <ul style="list-style-type: none"> <li>- Genuine Windows® 7 Professional 32</li> </ul> <p><b>Preloaded applications<sup>5</sup> (only some listed)</b></p> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> </ul>			<p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>Lenovo Vertical PC and Monitor Stand II 41R4474</li> <li>ThinkCentre Ultra Small Under Desk Mount 40Y8625</li> <li>More accessories on O-M90 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>
<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>			

See footnotes for important warranty information  
 US model announced March 2, 2010

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
3692-A1U	1x2	Pentium G6950	2.80	2	1GB	250GB <sup>b</sup>	DVD	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
3692-A2U	1x2	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
3692-A3U	1x2	Core i3-530	2.93	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10

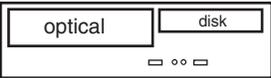
- **Most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Pentium® Processor G6950 with dual-core</b>, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or <b>Intel Core™ i3 Processor i3-530 with dual-core</b>, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache                  Processor in LGA1156 socket</p>		<p><b>Eco Ultra Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Slot 1: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 11.0" W X 9.4" D X 3.1" H</li> <li>• 279mm W X 238mm D X 79mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• System floor stand for vertical orientation</li> </ul>																
Implementation	<p><b>1GB or 2GB std</b>, 4GB max, <b>PC3-10600 1333MHz DDR3*</b>, two 204-pin SODIMM sockets (notebook);  <i>Non-italics</i>: standard memory in one socket; one socket available                  * System automatically clocks down for processors with 1066MHz DDR3 memory controller</p>																		
Memory	<p><b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 512MB [1GB model], 1GB [2GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display                  ** DirectX 10 is only available with Windows Vista and later</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Individual USB port disablement</li> </ul>																
Graphics	<p><b>DP dongle</b> None</p>																		
SATA disk	<p><b>250GB</b>, SATA 3.0Gb/s 7200 rpm</p>		<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>																
SATA DVD	<p>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max<sup>4</sup> Drive</p>																		
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		<p>Supports ThinkVantage® technologies</p>																
SATA Controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical</p>																		
eSATA port	None		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>																
Diskette drive	None																		
Media reader	None																		
Chipset	<p><b>Intel Q57 Express Chipset</b>, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>																		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																		
Speaker	Internal speaker for business audio																		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																		
Intel AMT	None																		
Modem	None																		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																		
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU																		
<p><b>Preloaded operating system<sup>20</sup></b></p> <ul style="list-style-type: none"> <li>- Windows® XP Professional preinstalled through downgrade rights in Genuine</li> <li>- Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</li> </ul> <p><b>Preloaded applications<sup>5</sup> (only some listed)</b></p> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• Lenovo System Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> <li>• Corel WinDVD® (DVD, DVD±RW)</li> </ul>			<p><b>Accessories</b></p> <table border="0"> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td> <td>41N5618</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>Lenovo Vertical PC and Monitor Stand II</td> <td>41R4474</td> </tr> <tr> <td>ThinkCentre Ultra Small Under Desk Mount</td> <td>40Y8625</td> </tr> </table> <p>More accessories on O-M90 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	Lenovo Vertical PC and Monitor Stand II	41R4474	ThinkCentre Ultra Small Under Desk Mount	40Y8625
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Lenovo Vertical PC and Monitor Stand II	41R4474																		
ThinkCentre Ultra Small Under Desk Mount	40Y8625																		

See footnotes for important warranty information  
 US models announced January 15, 2010

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3692-A4U	1x2	Core i3-530	2.93	2	2GB	250GB <sup>b</sup>	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10
3692-E7U	1x2	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10

- *The most powerful, stable, and manageable desktop with next generation Intel platform*
- *These models have a 3-year limited warranty<sup>1</sup>*

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Pentium® Processor G6950 with dual-core</b> , Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or <b>Intel Core™ i3 Processor i3-530 with dual-core</b> , Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket	<p><b>Eco Ultra Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 11.0" W X 9.4" D X 3.1" H</li> <li>• 279mm W X 238mm D X 79mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• System floor stand for vertical orientation</li> </ul>
Implementation		
Memory	<b>2GB std</b> , 4GB max, <b>PC3-10600 1333MHz DDR3*</b> , two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available * System automatically clocks down for processors with 1066MHz DDR3 memory controller	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Individual USB port disablement</li> </ul> <p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul> <p>Supports ThinkVantage® technologies</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display	
DP dongle	None	
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel Q57 Express Chipset</b> , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
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Intel AMT	None	
Modem	None	
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo	
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® 7 Professional 32	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 More accessories on O-M90 sheet	
• Rescue and Recovery™	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Password Manager	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• 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® Office 2007 Trial (60-day)		
• Corel® Burn.Now™ (DVD±RW)		
• Corel DVD MovieFactory® (DVD±RW)		

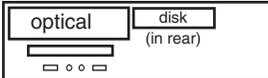
See footnotes for important warranty information  
US models announced January 15, 2010

# ThinkCentre® M90 Small (3245) - TopSeller (XP with Win7 License)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
3245-A1U	2x3	Core i3-530	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
3245-A2U	2x3	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
3245-A8U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	310	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10

**• The most powerful, stable, and manageable desktop with next generation Intel platform**  
**• These small and medium business (SMB) models are part of the US TopSeller™ Program**  
**• These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i></p> <p><b>Intel® Pentium® Processor G6950</b> with <b>dual-core</b>, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or <b>Intel Core™ i3 Processor i3-530</b> with <b>dual-core</b>, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or <b>Intel Core i5 Processor i5-750</b> with <b>quad-core</b>, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket</p>	<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express 2.0 x16 (75w max)                  Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>																		
Implementation																				
Memory	<p><b>2GB</b> or <b>3GB std</b>, 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3*</b>, four 240-pin DIMM sockets;</p> <p><i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available</p> <p>* System automatically clocks down for processors with 1066MHz DDR3 memory controller</p>																			
Graphics	<p><b>A1U/A2U:</b> <b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p> <p><b>A8U:</b> <b>NVIDIA® GeForce® 310</b>, PCIe x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts</p> <p>** DirectX 10 is only available with Windows Vista and later</p>	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>																		
DP dongle	None																			
SATA disk	<p><b>250GB</b> or <b>500GB</b>, SATA 3.0Gb/s 7200 rpm</p> <p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p> <p>Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical</p>																			
SATA DVD±RW	None																			
SATA Controller	None																			
eSATA port	None																			
Diskette drive	None																			
Media reader	None																			
Chipset	<p><b>Intel Q57 Express Chipset</b>, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>																			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																			
Speaker	Internal speaker for business audio																			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																			
Intel AMT	None																			
Modem	None																			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																			
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction																			
<b>Preloaded operating system<sup>20</sup></b>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</p> <p><b>Preloaded applications<sup>5</sup></b> (only some listed)</p> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• Lenovo System Toolbox</li> <li>• Norton™ Internet Security 2009 (30-day)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> <li>• Corel WinDVD® (DVD±RW)</li> </ul>	<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC3-10600 DDR3 UDIMM</td> <td>57Y4389</td> </tr> <tr> <td>2GB PC3-10600 DDR3 UDIMM</td> <td>57Y4390</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>NVIDIA GeForce 512MB 310 (DP, VGA)</td> <td>57Y4397</td> </tr> <tr> <td>NVIDIA Quadro® 512MB FX380 LP (DP, DVI)</td> <td>57Y4396</td> </tr> </table> <p>More accessories on O-M90 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>	1GB PC3-10600 DDR3 UDIMM	57Y4389	2GB PC3-10600 DDR3 UDIMM	57Y4390	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397	NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396
1GB PC3-10600 DDR3 UDIMM	57Y4389																			
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NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397																			
NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396																			
		<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul> <p>Supports ThinkVantage® technologies</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>																		

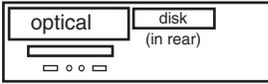
See footnotes for important warranty information  
 US models announced January 15, 2010  
 ⚠ US model withdrawn effective February 2010

# ThinkCentre® M90 Small (3245) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3245-A9U	2x3	Core i3-530	2.93	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10
3245-B3U	2x3	Core i3-530	2.93	2	4GB	320GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 64	None	Mar 10
3245-B1U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	<b>310</b>	VGA, DP	ES50	None	Pro 32	None	Mar 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Core™ i3 Processor i3-530</b> with <b>dual-core</b>, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or <b>Intel Core i5 Processor i5-750</b> with <b>quad-core</b>, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express 2.0 x16 (75w max)                  Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>																													
Implementation			<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>																													
Memory	<p><b>2GB, 3GB, or 4GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3</b>, four 240-pin DIMM sockets;  <i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available</p>																															
Graphics	<p><b>A9U/B3U:</b> <b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [<i>2GB models</i>], 1759MB [<i>4GB models</i>]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p> <p><b>B1U:</b> <b>NVIDIA® GeForce® 310</b>, PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts</p>		<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul> <p>Supports ThinkVantage® technologies</p>																													
DP dongle	None																															
SATA disk	<p><b>250GB, 320GB, or 500GB</b>, SATA 3.0Gb/s 7200 rpm Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>																													
SATA DVD±RW	<p>Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical</p>																															
SATA Controller	<p>Intel Q57 Express Chipset, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>																															
eSATA port	None																															
Diskette drive	None																															
Media reader	None																															
Chipset	<p><b>Intel Q57 Express Chipset</b>, Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>																															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																															
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																															
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																															
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																															
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																															
Speaker	Internal speaker for business audio																															
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																															
Intel AMT	None																															
Modem	None																															
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																															
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																															
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction																															
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p> <table border="0"> <tr> <td>- <i>Some:</i> Genuine Windows® 7 Professional 32</td> <td>1GB PC3-10600 DDR3 UDIMM</td> <td>57Y4389</td> </tr> <tr> <td>- <i>Some:</i> Genuine Windows 7 Professional 64</td> <td>2GB PC3-10600 DDR3 UDIMM</td> <td>57Y4390</td> </tr> <tr> <td></td> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td></td> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td></td> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td></td> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td></td> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td></td> <td>NVIDIA GeForce 512MB 310 (DP, VGA)</td> <td>57Y4397</td> </tr> <tr> <td></td> <td>NVIDIA Quadro® 512MB FX380 LP (DP, DVI)</td> <td>57Y4396</td> </tr> <tr> <td></td> <td>More accessories on O-M90 sheet</td> <td></td> </tr> </table> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		- <i>Some:</i> Genuine Windows® 7 Professional 32	1GB PC3-10600 DDR3 UDIMM	57Y4389	- <i>Some:</i> Genuine Windows 7 Professional 64	2GB PC3-10600 DDR3 UDIMM	57Y4390		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918		Super Multi-Burner DL DVD±RW SATA Drive	41N5620		DisplayPort to Single-link DVI-D Cable	45J7915		DisplayPort to VGA Monitor Cable	57Y4393		NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397		NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396		More accessories on O-M90 sheet	
- <i>Some:</i> Genuine Windows® 7 Professional 32	1GB PC3-10600 DDR3 UDIMM	57Y4389																														
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	More accessories on O-M90 sheet																															
<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> </ul>																															

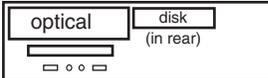
See footnotes for important warranty information  
 US models announced March 2, 2010

# ThinkCentre® M90 Small (5485) - XP with Win7 License

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
5485-A1U	2x3	Pentium G6950	2.80	2	1GB	250GB <sup>2</sup>	DVD	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
5485-A2U	2x3	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
5485-A3U	2x3	Core i3-530	2.93	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
5485-A4U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	<b>310</b>	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Pentium® Processor G6950</b> with <b>dual-core</b>, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or <b>Intel Core™ i3 Processor i3-530</b> with <b>dual-core</b>, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or <b>Intel Core i5 Processor i5-750</b> with <b>quad-core</b>, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache                      Processor in LGA1156 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                      Bay ② 3.5", 1" high, no access, std disk                      Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express 2.0 x16 (75w max)                      Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Implementation			
Memory	<p><b>1GB, 2GB, or 3GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3*</b>, four 240-pin DIMM sockets;  <i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available                      * System automatically clocks down for processors with 1066MHz DDR3 memory controller</p>		
Graphics	<p><b>A1U/A2U/A3U: Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 512MB [1GB model], 1GB [2GB and 3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display  <b>A4U: NVIDIA® GeForce® 310</b>, PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts</p> <p>** DirectX 10 is only available with Windows Vista and later</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
DP dongle	None		
SATA disk	<p><b>250GB or 500GB</b>, SATA 3.0Gb/s 7200 rpm  <i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max<sup>4</sup> Drive  <i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		
SATA DVD	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical		
SATA DVD±RW	None		
SATA Controller	None		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<p><b>Intel Q57 Express Chipset</b>                      Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>		<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction		
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</li> <li>1GB PC3-10600 DDR3 UDIMM 57Y4389</li> <li>2GB PC3-10600 DDR3 UDIMM 57Y4390</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397</li> <li>NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396</li> <li>More accessories on O-M90 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• Norton™ Internet Security 2009 (30-day)</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> <li>• Corel WinDVD® (DVD, DVD±RW)</li> </ul>		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>

See footnotes for important warranty information  
 US models announced January 15, 2010

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 (MELB1-16) January 2010

# ThinkCentre® M90 Small (5485) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
5485-A5U	2x3	Core i3-530	2.93	2	2GB	250GB <sup>b</sup>	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10
5485-E3U	2x3	Pentium G6950	2.80	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Feb 10
5485-E4U	2x3	Core i5-750	2.66	4	3GB	500GB	DVD±RW	<b>310</b>	VGA, DP	ES50	None	Pro 32	None	Feb 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i></p> <p><b>Intel® Pentium® Processor G6950</b> with <b>dual-core</b>, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or <b>Intel Core™ i3 Processor i3-530</b> with <b>dual-core</b>, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or <b>Intel Core i5 Processor i5-750</b> with <b>quad-core</b>, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express 2.0 x16 (75w max)                  Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Implementation			<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> <p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul> <p>Supports ThinkVantage® technologies</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
Memory	<p><b>2GB or 3GB std</b>, 8GB max, <b>UDIMM</b>, <b>PC3-10600 1333MHz DDR3*</b>, four 240-pin DIMM sockets;  <i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available                  * System automatically clocks down for processors with 1066MHz DDR3 memory controller</p>		
Graphics	<p><b>A5U/E3U:</b> <b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p> <p><b>E4U:</b> <b>NVIDIA® GeForce® 310</b>, PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts</p>		
DP dongle	None		
SATA disk	<p><b>250GB or 500GB</b>, SATA 3.0Gb/s 7200 rpm                  Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive                  Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical</p>		
SATA DVD±RW	None		
SATA Controller	None		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<p><b>Intel Q57 Express Chipset</b>                  Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	None		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction		
<b>Preloaded operating system<sup>20</sup></b>	<p>- Genuine Windows® 7 Professional 32</p>		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<p>• Rescue and Recovery™</p> <p>• Password Manager</p> <p>• ThinkVantage System Update</p> <p>• ThinkVantage Power Manager</p> <p>• ThinkVantage Toolbox</p> <p>• Norton™ Internet Security 2009 (30 days of virus definitions)</p> <p>• Adobe® Reader®</p> <p>• Adobe Flash® Player</p> <p>• Skype™ for Windows</p> <p>• Microsoft® Office 2007 Trial (60-day)</p> <p>• Corel® Burn.Now™ (DVD±RW)</p> <p>• Corel DVD MovieFactory® (DVD±RW)</p>		
<b>Accessories</b>	<p>1GB PC3-10600 DDR3 UDIMM 57Y4389</p> <p>2GB PC3-10600 DDR3 UDIMM 57Y4390</p> <p>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</p> <p>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</p> <p>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</p> <p>DisplayPort to Single-link DVI-D Cable 45J7915</p> <p>DisplayPort to VGA Monitor Cable 57Y4393</p> <p>NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397</p> <p>NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396</p> <p>More accessories on O-M90 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		

See footnotes for important warranty information  
 US models announced January 15, 2010

# ThinkCentre® M90 Tower (3246) - TopSeller (XP with Win7 License)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>3</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date	
3246-A1U	4x4	Pentium G6950	2.80	2	2GB	250GB <sup>2</sup>	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
3246-A2U	4x4	Core i3-530	2.93	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
3246-A9U	4x4	Core i5-750	2.66	4	3GB	500GB	None	DVD±RW	Intel 310	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10	
<ul style="list-style-type: none"> <li>• <b>The most powerful, stable, and manageable desktop with next generation Intel platform</b></li> <li>• <b>These small and medium business (SMB) models are part of the US TopSeller™ Program</b></li> <li>• <b>These models have a 3-year limited warranty<sup>1</sup></b></li> </ul>																	
Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Pentium® Processor G6950</b> with dual-core, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or  <b>Intel Core™ i3 Processor i3-530</b> with dual-core, Intel 64, Intel Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or  <b>Intel Core i5 Processor i5-750</b> with quad-core, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache                      Processor in LGA1156 socket</p>										<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>						
Implementation	Processor in LGA1156 socket										<p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, open (reader/diskette)</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p>		<p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)</p> <p>Slot 2: half-length, full-height, PCIe 2.0 x1</p> <p>Slot 3: half-length, full-height, 32-bit PCI 2.3</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p>				
Memory	<p><b>2GB or 3GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3*</b>, four 240-pin DIMM sockets;  <i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available                      * System automatically clocks down for processors with 1066MHz DDR3 memory controller</p>										<p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, open (reader/diskette)</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p>		<p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)</p> <p>Slot 2: half-length, full-height, PCIe 2.0 x1</p> <p>Slot 3: half-length, full-height, 32-bit PCI 2.3</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p>				
Graphics	<p><b>A1U/A2U:</b> Intel HD Graphics in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p> <p><b>A9U:</b> NVIDIA® GeForce® 310, PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts</p>										<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>		<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>				
DP dongle	None										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
SATA disk	<p><b>250GB or 500GB</b>, SATA 3.0Gb/s 7200 rpm</p>										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
eSATA port	None										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Diskette drive	None										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Media reader	None										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Chipset	<p><b>Intel Q57 Express Chipset</b>                      Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Speaker	Internal speaker for business audio										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Intel AMT	None										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Modem	None										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Power supply	280 watts with variable speed fan, autosensing, 85% PSU										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Preloaded operating system <sup>20</sup>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</p>										<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at lenovo.com/thinkplus/warranty</li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>		<p>Supports ThinkVantage® technologies</p>				
Preloaded applications <sup>5</sup> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• Lenovo System Toolbox</li> <li>• Norton™ Internet Security 2009 (30-day)</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> <li>• Corel WinDVD® (DVD±RW)</li> </ul>										<p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>1GB PC3-10600 DDR3 UDIMM 57Y4389</li> <li>2GB PC3-10600 DDR3 UDIMM 57Y4390</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397</li> <li>More accessories on O-M90 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>		<p>Supports ThinkVantage® technologies</p>				

See footnotes for important warranty information  
 US models announced January 15, 2010  
 ⚠ US model withdrawn effective February 2010

# ThinkCentre® M90 Tower (3246) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3246-B1U	4x4	Core i3-530	2.93	2	2GB	250GB <sup>2</sup>	None	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10
3246-B2U	4x4	Core i5-750	2.66	4	3GB	500GB	None	DVD±RW	<b>310</b>	VGA, DP	ES50	None	Pro 32	None	Mar 10
3246-B4U	4x4	Core i3-530	2.93	2	4GB	320GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 64	None	Mar 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i></p> <p><b>Intel® Core™ i3 Processor i3-530 with dual-core,</b> Intel 64, Intel Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or <b>Intel Core i5 Processor i5-750 with quad-core,</b> Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>																	
Implementation			<p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, open (reader/diskette)</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p>																	
Memory	<p><b>2GB, 3GB, or 4GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3,</b> four 240-pin DIMM sockets;</p> <p><i>Italics:</i> standard memory in two sockets; two sockets available;</p> <p><i>Non-italics:</i> standard memory in one socket; three sockets available</p>		<p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)</p> <p>Slot 2: half-length, full-height, PCIe 2.0 x1</p> <p>Slot 3: half-length, full-height, 32-bit PCI 2.3</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p>																	
Graphics	<p><b>B1U/B4U: Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1759MB [4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p> <p><b>B2U: NVIDIA® GeForce® 310,</b> PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts</p>																			
DP dongle	None																			
SATA disk	<p><b>250GB, 320GB, or 500GB,</b> SATA 3.0Gb/s 7200 rpm Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>																			
SATA DVD±RW Controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical</p>																			
eSATA port	None																			
Diskette drive	None																			
Media reader	None																			
Chipset	<p><b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>																			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																			
Speaker	Internal speaker for business audio																			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																			
Intel AMT	None																			
Modem	None																			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																			
Power supply	280 watts with variable speed fan, autosenesing, 85% PSU																			
<b>Preloaded operating system<sup>20</sup></b>	<p>- <i>Some:</i> Genuine Windows® 7 Professional 32</p> <p>- <i>Some:</i> Genuine Windows 7 Professional 64</p>																			
<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> </ul>		<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC3-10600 DDR3 UDIMM</td> <td>57Y4389</td> </tr> <tr> <td>2GB PC3-10600 DDR3 UDIMM</td> <td>57Y4390</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>NVIDIA GeForce 512MB 310 (DP, VGA)</td> <td>57Y4397</td> </tr> </table> <p>More accessories on O-M90 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>	1GB PC3-10600 DDR3 UDIMM	57Y4389	2GB PC3-10600 DDR3 UDIMM	57Y4390	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397	
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Super Multi-Burner DL DVD±RW SATA Drive	41N5620																			
DisplayPort to Single-link DVI-D Cable	45J7915																			
DisplayPort to VGA Monitor Cable	57Y4393																			
NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397																			
			<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>																	
			<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>																	
			Supports ThinkVantage® technologies																	
			<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service®</li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>																	

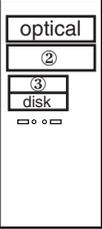
See footnotes for important warranty information  
US models announced March 2, 2010

# ThinkCentre® M90 Tower (5474) - XP with Win7 License

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	GHz	Cores	Memory <sup>a</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
5474-A1U	4x4	Pentium G6950	2.80	2	1GB	250GB <sup>2</sup>	None	DVD	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
5474-A2U	4x4	Pentium G6950	2.80	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
5474-A3U	4x4	Core i3-530	2.93	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10
5474-A4U	4x4	Core i5-750	2.66	4	3GB	500GB	None	DVD±RW	<b>310</b>	VGA, DP	ES50	None	XP Pro	Pro 32	None	Feb 10

- **The most powerful, stable, and manageable desktop with next generation Intel platform**
- **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i></p> <p><b>Intel® Pentium® Processor G6950</b> with <b>dual-core</b>, Intel 64, Virtualization Technology, integrated 1066MHz dual-channel DDR3 memory controller, 3MB cache or <b>Intel Core™ i3 Processor i3-530</b> with <b>dual-core</b>, Intel 64, Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, 4MB cache or <b>Intel Core i5 Processor i5-750</b> with <b>quad-core</b>, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, 8MB cache Processor in LGA1156 socket</p>										Tower	
Implementation											<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Memory	<p><b>1GB, 2GB, or 3GB std, 8GB max, UDIMM, PC3-10600 1333MHz DDR3*</b>, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available</p> <p>* System automatically clocks down for processors with 1066MHz DDR3 memory controller</p>										<p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, open (reader/diskette)</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p>	
Graphics	<p><b>A1U/A2U/A3U:</b> <b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 512MB [1GB model], 1GB [2GB and 3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p> <p><b>A4U:</b> <b>NVIDIA® GeForce® 310</b>, PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts</p> <p>** DirectX 10 is only available with Windows Vista and later</p>										<p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)</p> <p>Slot 2: half-length, full-height, PCIe 2.0 x1</p> <p>Slot 3: half-length, full-height, 32-bit PCI 2.3</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p>	
DP dongle	None										<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>	
SATA disk	<p><b>250GB or 500GB</b>, SATA 3.0Gb/s 7200 rpm</p> <p>SATA DVD <i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max<sup>4</sup> Drive</p> <p>SATA DVD±RW <i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p> <p>SATA Controller Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical</p>										<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>	
eSATA port	None										<p>Supports ThinkVantage® technologies</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
Diskette drive	None											
Media reader	None											
Chipset	<p><b>Intel Q57 Express Chipset</b></p> <p>Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>											
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)											
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)											
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)											
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)											
Audio	High Definition (HD) Audio, Realtek® ALC662 codec											
Speaker	Internal speaker for business audio											
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®											
Intel AMT	None											
Modem	None											
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant											
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo											
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo											
Power supply	280 watts with variable speed fan, autosensting, 85% PSU											
<b>Preloaded operating system<sup>20</sup></b>	<p>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</p>					<p><b>Accessories</b></p> <p>1GB PC3-10600 DDR3 UDIMM 57Y4389</p> <p>2GB PC3-10600 DDR3 UDIMM 57Y4390</p> <p>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</p> <p>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</p> <p>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618</p> <p>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</p> <p>DisplayPort to Single-link DVI-D Cable 45J7915</p> <p>DisplayPort to VGA Monitor Cable 57Y4393</p> <p>NVIDIA GeForce 512MB 310 (DP, VGA) 57Y4397</p> <p>More accessories on O-M90 sheet</p>						
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• Norton™ Internet Security 2009 (30-day)</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> <li>• Corel WinDVD® (DVD, DVD±RW)</li> </ul> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>											

See footnotes for important warranty information  
US models announced January 15, 2010



# ThinkCentre® M90p Eco Ultra Small (3257) - TopS (XP with Win7 License) Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro Preload	Recovery DVD	Global Educ	Avail date
3257-A1U	1x2	Core i5-650	3.20	3.46	2	3GB	500GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10
3257-A2U	1x2	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10

- Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650 or i5-660</b> with <b>dual-core</b> , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		<b>Eco Ultra Small</b> 
Implementation	Processor in LGA1156 socket		
Memory	<b>3GB std</b> , 4GB max, <b>PC3-10600 1333MHz DDR3</b> , two 204-pin SODIMM sockets (notebook); <i>Italics: standard memory in both sockets; no sockets available</i>		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 11.0" W X 9.4" D X 3.1" H</li> <li>• 279mm W X 238mm D X 79mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• System floor stand for vertical orientation</li> </ul>
DP dongle	None		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Individual USB port disablement</li> </ul> <b>Environmental Features</b> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul> Supports ThinkVantage® technologies
SATA disk	<b>500GB</b> , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Express Q57 Chipset</b> , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU		
<b>Preloaded operating system</b> <sup>20</sup>	<b>Accessories</b> 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 More accessories on O-M90 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
<b>Preloaded applications</b> <sup>5</sup> (only some listed)	<ul style="list-style-type: none"> <li>• Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</li> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• Lenovo System Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> <li>• Corel WinDVD® (DVD±RW)</li> </ul>		
			<b>Limited Warranty</b> <sup>1</sup> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>

See footnotes for important warranty information  
 US models announced January 15, 2010  
 ⚠ US model withdrawn effective February 2010

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3257-A5U	1x2	Core i5-650	3.20	3.46	2	3GB	500GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Mar 10

- Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache	<b>Eco Ultra Small</b> 
Implementation	Processor in LGA1156 socket	
Memory	<b>3GB std</b> , 4GB max, <b>PC3-10600 1333MHz DDR3</b> , two 204-pin SODIMM sockets (notebook); <i>Italics: standard memory in both sockets; no sockets available</i>	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 1277MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 11.0" W X 9.4" D X 3.1" H</li> <li>• 279mm W X 238mm D X 79mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• System floor stand for vertical orientation</li> </ul>
DP dongle	None	<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Individual USB port disablement</li> </ul>
SATA disk	<b>500GB</b> , SATA 3.0Gb/s 7200 rpm	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel Express Q57 Chipset</b> , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®	
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)	
Modem	None	
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	<b>Environmental Features</b> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo	
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU	
Supports ThinkVantage® technologies		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® 7 Professional 32	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
• Rescue and Recovery™	DisplayPort to Single-link DVI-D Cable 45J7915	
• Password Manager	DisplayPort to VGA Monitor Cable 57Y4393	
• ThinkVantage System Update	Lenovo Vertical PC and Monitor Stand II 41R4474	
• ThinkVantage Power Manager	ThinkCentre Ultra Small Under Desk Mount 40Y8625	
• ThinkVantage Toolbox	More accessories on O-M90 sheet	
• Norton™ Internet Security 2009 (30 days of virus definitions)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Adobe® Reader®	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• Adobe Flash® Player		
• Skype™ for Windows		
• Microsoft® Office 2007 Trial (60-day)		
• Corel® Burn.Now™ (DVD±RW)		
• Corel DVD MovieFactory® (DVD±RW)		

See footnotes for important warranty information  
US model announced March 2, 2010

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory*	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro Preload	Recovery DVD	Global Educ	Avail date
3853-A1U	1x2	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10
3853-A2U	1x2	Core i5-650	3.20	3.46	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10
3853-A3U	1x2	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10

- Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ i5 Processor i5-650 or i5-660</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		<b>Eco Ultra Small</b> 
Implementation	Processor in LGA1156 socket		
Memory	<b>2GB or 3GB std.</b> , 4GB max, <b>PC3-10600 1333MHz DDR3</b> , two 204-pin SODIMM sockets (notebook); <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 11.0" W X 9.4" D X 3.1" H</li> <li>• 279mm W X 238mm D X 79mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• System floor stand for vertical orientation</li> </ul>
DP dongle	None		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Individual USB port disablement</li> </ul> <b>Environmental Features</b> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>
SATA disk	<b>250GB or 500GB</b> , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q57 Express Chipset</b> , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (iAMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
	DisplayPort to Single-link DVI-D Cable	45J7915	
	DisplayPort to VGA Monitor Cable	57Y4393	
	Lenovo Vertical PC and Monitor Stand II	41R4474	
	ThinkCentre Ultra Small Under Desk Mount	40Y8625	
	More accessories on O-M90 sheet		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• Lenovo System Toolbox			
• Norton™ Internet Security 2009 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Skype™ for Windows			
• Microsoft® Office 2007 Trial (60-day)			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			
• Corel WinDVD® (DVD±RW)			
	Supports ThinkVantage® technologies		
	<b>Limited Warranty<sup>1</sup></b>		
	⇨ 3-year parts and labor ⇨ International Warranty Service® ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts <sup>3</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇨ Onsite service upgrade options (in eligible locations): <sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> ⇨ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a> ⇨ Post warranty maintenance services available ⇨ 24 hour x 7 day <sup>14</sup> toll-free support during the warranty period <sup>1</sup> via 800-426-7378		

See footnotes for important warranty information  
US models announced January 15, 2010



Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Turbo Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
5296-A1U	1x2	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	G P	Feb 10

- Next generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650 with dual-core</b> , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket	<b>Eco Ultra Small</b> 
Implementation	Processor in LGA1156 socket	
Memory	<b>2GB std</b> , 4GB max, <b>PC3-10600 1333MHz DDR3</b> , two 204-pin SODIMM sockets (notebook); <i>Non-italics</i> : standard memory in one socket; one socket available	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Slot 1: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 11.0" W X 9.4" D X 3.1" H</li> <li>• 279mm W X 238mm D X 79mm H</li> <li>• 9.2 lb (4.2 kg) in maximum configuration</li> <li>• Hinged toolless cover for easy serviceability</li> <li>• Toolless disk and optical drive removal</li> <li>• System floor stand for vertical orientation</li> </ul>
DP dongle	None	<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Individual USB port disablement</li> </ul>
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel Q57 Express Chipset</b> , Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®	
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)	
Modem	None	
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo	
Power supply	External AC/DC adapter, 130 watts, autosensing, 87% PSU	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	<b>Environmental Features</b> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul> Supports ThinkVantage® technologies
- Genuine Windows® 7 Professional 32 <b>Preloaded applications<sup>5</sup></b> (only some listed) <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> </ul>	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 Lenovo Vertical PC and Monitor Stand II 41R4474 ThinkCentre Ultra Small Under Desk Mount 40Y8625 More accessories on O-M90 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
		<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↔ 3-year parts and labor</li> <li>↔ International Warranty Service<sup>9</sup></li> <li>↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↔ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↔ Post warranty maintenance services available</li> <li>↔ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>

See footnotes for important warranty information  
 US model announced January 15, 2010

# ThinkCentre® M90p Small (3269) - TopSeller (XP with Win7 License)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro Preload	Recovery DVD	Global Educ	Avail date	
3269-A1U	2x3	Core i5-650	3.20	3.46	2	3GB	500GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
3269-A2U	2x3	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650 or i5-660</b> with <b>dual-core</b> , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket	<b>Small</b>	 <p>optical disk (in rear)</p>
Implementation			
Memory	<b>3GB std</b> , 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics: standard memory in two sockets; two sockets available;</i>	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3	
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
DP dongle	None		
SATA disk	<b>500GB</b> , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction		
			<b>Security</b>
			<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
			<b>Environmental Features</b>
			<ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>
			Supports ThinkVantage® technologies
			<b>Limited Warranty<sup>1</sup></b>
			<ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
<b>Preloaded operating system<sup>20</sup></b>		<b>Accessories</b>	
- Windows® XP Professional preinstalled through downgrade rights in Genuine		1GB PC3-10600 DDR3 UDIMM	57Y4389
Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)		2GB PC3-10600 DDR3 UDIMM	57Y4390
		500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
		1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
		Super Multi-Burner DL DVD±RW SATA Drive	41N5620
		DisplayPort to Single-link DVI-D Cable	45J7915
		DisplayPort to VGA Monitor Cable	57Y4393
		NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397
		NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396
		More accessories on O-M90 sheet	
		Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
<b>Preloaded applications<sup>5</sup> (only some listed)</b>			
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• Lenovo System Toolbox			
• Norton™ Internet Security 2009 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Skype™ for Windows			
• Microsoft® Office 2007 Trial (60-day)			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			
• Corel WinDVD® (DVD±RW)			

See footnotes for important warranty information  
 US models announced January 15, 2010  
 ⚠ US model withdrawn effective February 2010

# ThinkCentre® M90p Small (3269) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3269-A6U	2x3	Core i5-650	3.20	3.46	2	3GB	500GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Mar 10
3269-A8U	2x3	Core i5-650	3.20	3.46	2	4GB	320GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 64	None	Mar 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\***
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket	<b>Small</b> 
Implementation		
Memory	<b>3GB or 4GB std.</b> , 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics: standard memory in two sockets; two sockets available</i>	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 1277MB[3GB models], 1759MB[4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>
DP dongle	None	<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> <p align="center"><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>
SATA disk SATA DVD±RW SATA Controller	<b>320GB or 500GB</b> , SATA 3.0Gb/s 7200 rpm Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical	
eSATA port Diskette drive Media reader	None None None	Supports ThinkVantage® technologies
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O	
Front ports Rear ports Rear audio ports Internal connector Audio Speaker Ethernet Intel AMT Modem Security chip	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm) Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort) Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm) Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports) High Definition (HD) Audio, Realtek® ALC662 codec Internal speaker for business audio One gigabit ethernet port, Intel 82578DM, Wake on LAN® Intel Active Management Technology 6.0 (Intel AMT 6.0) None STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant	<p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
Keyboard Mouse Power supply	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo Optical Wheel Mouse (USB connector), black, Lenovo logo 240 watts with 85% efficiency, auto-sensing, active Power Factor Correction	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- <i>Some:</i> Genuine Windows® 7 Professional 32	1GB PC3-10600 DDR3 UDIMM 57Y4389	
- <i>Some:</i> Genuine Windows 7 Professional 64	2GB PC3-10600 DDR3 UDIMM 57Y4390	
	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	
	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
	DisplayPort to Single-link DVI-D Cable 45J7915	
	DisplayPort to VGA Monitor Cable 57Y4393	
	NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397	
	NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396	
	More accessories on O-M90 sheet	
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)		
• Rescue and Recovery™		
• Password Manager		
• 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® Office 2007 Trial (60-day)		
• Corel® Burn.Now™ (DVD±RW)		
• Corel DVD MovieFactory® (DVD±RW)		

See footnotes for important warranty information  
US models announced March 2, 2010

# ThinkCentre® M90p Small (5536) - XP with Win7 License

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Preload	Recovery DVD	Global Educ	Avail date
5536-A1U	2x3	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
5536-A2U	2x3	Core i5-650	3.20	3.46	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
5536-A3U	2x3	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
5536-E1U	2x3	Core i5-660	3.33	3.60	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ i5 Processor i5-650 or i5-660</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket	<b>Small</b>  Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3 <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Implementation	Processor in LGA1156 socket	
Memory	<b>2GB or 3GB std.</b> 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available	
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later	
DP dongle	None	
SATA disk	<b>250GB or 500GB</b> , SATA 3.0Gb/s 7200 rpm	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical	
eSATA port	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O	<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	<b>Environmental Features</b> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)	Supports ThinkVantage® technologies <b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®	
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)	
Modem	None	
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo	
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397 NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396 More accessories on O-M90 sheet	
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• Rescue and Recovery™		
• Client Security Solution™		
• ThinkVantage Productivity Center		
• ThinkVantage System Update		
• ThinkVantage Power Manager		
• Lenovo System Toolbox		
• Norton™ Internet Security 2009 (30 days of virus definitions)		
• Adobe® Reader®		
• Adobe Flash® Player		
• Skype™ for Windows		
• Microsoft® Office 2007 Trial (60-day)		
• Corel® Burn.Now™ (DVD±RW)		
• Corel DVD MovieFactory® (DVD±RW)		
• Corel WinDVD® (DVD±RW)		

See footnotes for important warranty information  
US models announced January 15, 2010

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
5536-A4U	2x3	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5536-B8U	2x3	Core i5-650	3.20	3.46	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5536-B9U	2x3	Core i5-660	3.33	3.60	2	3GB	500GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5536-E2U	2x3	Core i5-660	3.33	3.60	2	2GB	250GB	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ i5 Processor i5-650 or i5-660</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		<b>Small</b>	 <p>optical disk (in rear)</p>
Implementation	Processor in LGA1156 socket			
Memory	<b>2GB or 3GB std.</b> , 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader) Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3	
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [2GB models], 1277MB [3GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>	
DP dongle	None		<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>	
SATA disk	<b>250GB or 500GB</b> , SATA 3.0Gb/s 7200 rpm			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		<p align="center"><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical			
eSATA port	None		Supports ThinkVantage® technologies	
Diskette drive	None			
Media reader	None		<p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>	
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O			Supports ThinkVantage® technologies
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec			
Speaker	Internal speaker for business audio			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®			
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)			
Modem	None			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		Supports ThinkVantage® technologies	
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo			
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction			
<b>Preloaded operating system<sup>20</sup></b>	- Genuine Windows® 7 Professional 32 • Rescue and Recovery™ • Password Manager • 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® Office 2007 Trial (60-day) • Corel® Burn.Now™ (DVD±RW) • Corel DVD MovieFactory® (DVD±RW)		Supports ThinkVantage® technologies	
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<b>Accessories</b> 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397 NVIDIA Quadro® 512MB FX380 LP (DP, DVI) 57Y4396 More accessories on O-M90 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			

See footnotes for important warranty information  
US models announced January 15, 2010

# ThinkCentre® M90p Small (5864) - GMP (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>3</sup>	SATA disk	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
5864-A1U	2x3	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	G P	Feb 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\***
- **This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty**

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express 2.0 x16 (75w max) Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless system board retention</li> <li>• System floor stand for vertical orientation</li> </ul>
Implementation			
Memory	<b>2GB std</b> , 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Non-italics: standard memory in one socket; three sockets available</i>		
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display		
DP dongle	None		
SATA disk	<b>250GB</b> , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, two SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- Genuine Windows® 7 Professional 32	1GB PC3-10600 DDR3 UDIMM	57Y4389	
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	2GB PC3-10600 DDR3 UDIMM	57Y4390	
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	
• ThinkVantage Power Manager	DisplayPort to Single-link DVI-D Cable	45J7915	
• ThinkVantage Toolbox	DisplayPort to VGA Monitor Cable	57Y4393	
• Norton™ Internet Security 2009 (30 days of virus definitions)	NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397	
• Adobe® Reader®	NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396	
• Adobe Flash® Player	More accessories on O-M90 sheet		
• Skype™ for Windows	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		
• Microsoft® Office 2007 Trial (60-day)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			
	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)</li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>		
	<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		
	Supports ThinkVantage® technologies		
	<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ <b>3-year parts and labor</b></li> <li>↔ <b>International Warranty Service<sup>9</sup></b></li> <li>↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus™ part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↔ <b>Post warranty maintenance services available</b></li> <li>↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>		

See footnotes for important warranty information  
US model announced January 15, 2010

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# ThinkCentre® M90p Tower (3282) - TopSeller (XP with Win7 License)

Personal Systems Reference (PSREF)

Slot x Type-model bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro Preload	Recovery DVD	Global Educ	Avail date
3282-A1U 4x4	Core i5-650	3.20	3.46	2	3GB	500GB <sup>2</sup>	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10
3282-A2U 4x4	Core i5-660	3.33	3.60	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro XP Pro	Pro 32	None	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ i5 Processor i5-650 or i5-660</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache	<b>Tower</b>	
Implementation	Processor in LGA1156 socket	<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>	
Memory	<b>3GB std</b> , 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10*, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display * DirectX 10 is only available with Windows Vista and later	Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3	
DP dongle	None		
SATA disk	<b>500GB</b> , SATA 3.0Gb/s 7200 rpm		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®		
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)		
Modem	None		
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 DisplayPort to Single-link DVI-D Cable 45J7915 DisplayPort to VGA Monitor Cable 57Y4393 NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397 More accessories on O-M90 sheet		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• Rescue and Recovery™			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• Lenovo System Toolbox			
• Norton™ Internet Security 2009 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Skype™ for Windows			
• Microsoft® Office 2007 Trial (60-day)			
• Corel® Burn.Now™ (DVD±RW)			
• Corel DVD MovieFactory® (DVD±RW)			
• Corel WinDVD® (DVD±RW)			
			Supports ThinkVantage® technologies
			<b>Limited Warranty<sup>1</sup></b>
			↪ 3-year parts and labor
			↪ International Warranty Service <sup>9</sup>
			↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts <sup>3</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
			↪ Onsite service upgrade options (in eligible locations): <sup>7</sup>
			• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)
			• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)
			• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)
			• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)
			• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)
			↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
			↪ Post warranty maintenance services available
			↪ 24 hour x 7 day <sup>14</sup> toll-free support during the warranty period <sup>1</sup> via 800-426-7378

See footnotes for important warranty information  
US models announced January 15, 2010  
↪ US model withdrawn effective February 2010

# ThinkCentre® M90p Tower (3282) - TopSeller (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
3282-A8U	4x4	Core i5-650	3.20	3.46	2	3GB	500GB <sup>2</sup>	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Mar 10
3282-B1U	4x4	Core i5-650	3.20	3.46	2	4GB	320GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 64	None	Mar 10

- **Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology**
- **Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\***
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>1</sup>**

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650 with dual-core</b> , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache										<b>Tower</b>		
Implementation	Processor in LGA1156 socket										<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Memory	<b>3GB or 4GB std.</b> , 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available										Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 1277MB/[3GB models], 1759MB/[4GB models]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display										Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
DP dongle	None												
SATA disk	<b>320GB or 500GB</b> , SATA 3.0Gb/s 7200 rpm												
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive												
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical												
eSATA port	None												
Diskette drive	None												
Media reader	None												
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:               <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)												
Audio	High Definition (HD) Audio, Realtek® ALC662 codec												
Speaker	Internal speaker for business audio												
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®												
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)												
Modem	None												
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant										<b>Environmental Features</b> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo												
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo												
Power supply	280 watts with variable speed fan, autosensing, 85% PSU												
<b>Preloaded operating system<sup>20</sup></b>	<ul style="list-style-type: none"> <li>- <i>Some:</i> Genuine Windows® 7 Professional 32</li> <li>- <i>Some:</i> Genuine Windows 7 Professional 64</li> </ul>										<b>Accessories</b> <ul style="list-style-type: none"> <li>1GB PC3-10600 DDR3 UDIMM 57Y4389</li> <li>2GB PC3-10600 DDR3 UDIMM 57Y4390</li> <li>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</li> <li>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</li> <li>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</li> <li>DisplayPort to Single-link DVI-D Cable 45J7915</li> <li>DisplayPort to VGA Monitor Cable 57Y4393</li> <li>NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397</li> <li>More accessories on O-M90 sheet</li> <li>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></li> <li>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></li> </ul>		
<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> </ul>										Supports ThinkVantage® technologies		
<b>Limited Warranty<sup>1</sup></b>													
<ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b></li> <li>↪ <b>Post warranty maintenance services available</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>													

See footnotes for important warranty information  
US models announced March 2, 2010

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# ThinkCentre® M90p Tower (5498) - XP with Win7 License

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>6</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Intel XPP	Recovery DVD	Global Educ	Avail date
5498-A1U	4x4	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
5498-A2U	4x4	Core i5-650	3.20	3.46	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10
5498-A3U	4x4	Core i5-660	3.33	3.60	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	XP Pro	Pro 32	None	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	Ultimate security, stability, and manageability for the enterprise <b>Intel® Core™ i5 Processor i5-650 or i5-660</b> with dual-core, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache		<b>Tower</b>																	
Implementation	Processor in LGA1156 socket		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>																	
Memory	<b>2GB or 3GB std.</b> 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk																	
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10**, uses main memory (up to 1GB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display ** DirectX 10 is only available with Windows Vista and later		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3																	
DP dongle	None				<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:               <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> <p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul> <p>Supports ThinkVantage® technologies</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 41C9192)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9193)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>															
SATA disk	<b>250GB or 500GB</b> , SATA 3.0Gb/s 7200 rpm																			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																			
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical																			
eSATA port	None																			
Diskette drive	None																			
Media reader	None																			
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O																			
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																			
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)																			
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																			
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																			
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																			
Speaker	Internal speaker for business audio																			
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®																			
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)																			
Modem	None																			
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant																			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																			
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo																			
Power supply	280 watts with variable speed fan, autosenesing, 85% PSU																			
<b>Preloaded operating system<sup>20</sup></b>	<ul style="list-style-type: none"> <li>- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)</li> </ul>		<b>Accessories</b> <table border="0"> <tr> <td>1GB PC3-10600 DDR3 UDIMM</td> <td>57Y4389</td> </tr> <tr> <td>2GB PC3-10600 DDR3 UDIMM</td> <td>57Y4390</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>DisplayPort to VGA Monitor Cable</td> <td>57Y4393</td> </tr> <tr> <td>NVIDIA® GeForce® 512MB 310 (DP, VGA)</td> <td>57Y4397</td> </tr> </table> More accessories on O-M90 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		1GB PC3-10600 DDR3 UDIMM	57Y4389	2GB PC3-10600 DDR3 UDIMM	57Y4390	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	DisplayPort to VGA Monitor Cable	57Y4393	NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397
1GB PC3-10600 DDR3 UDIMM	57Y4389																			
2GB PC3-10600 DDR3 UDIMM	57Y4390																			
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																			
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																			
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																			
DisplayPort to Single-link DVI-D Cable	45J7915																			
DisplayPort to VGA Monitor Cable	57Y4393																			
NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397																			
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• Lenovo System Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> <li>• Corel WinDVD® (DVD±RW)</li> </ul>																			

See footnotes for important warranty information  
US models announced January 15, 2010

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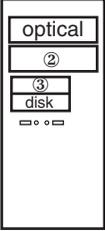
# ThinkCentre® M90p Tower (5498) - Windows 7

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0 vPro	Intel vPro	Win7 preload	Global Educ	Avail date
5498-A4U	4x4	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5498-B5U	4x4	Core i5-660	3.33	3.60	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5498-E7U	4x4	Core i5-650	3.20	3.46	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5498-E8U	4x4	Core i5-660	3.33	3.60	2	3GB	500GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10
5498-E9U	4x4	Core i5-660	3.33	3.60	2	2GB	250GB	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	None	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- These models have a 3-year limited warranty<sup>1</sup>

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<i>Ultimate security, stability, and manageability for the enterprise</i> <b>Intel® Core™ i5 Processor i5-650 or i5-660 with dual-core</b> , Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache		<b>Tower</b>		
Implementation	Processor in LGA1156 socket		<ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Memory	<b>2GB or 3GB std.</b> , 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk		
Graphics	<b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB [ <i>2GB models</i> ], 1277MB [ <i>3GB models</i> ]), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
DP dongle	None				
SATA disk	<b>250GB or 500GB</b> , SATA 3.0Gb/s 7200 rpm				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive				
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical				
eSATA port	None				
Diskette drive	None				
Media reader	None				
Chipset	<b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:               <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)				
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)				
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)				
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)				
Audio	High Definition (HD) Audio, Realtek® ALC662 codec				
Speaker	Internal speaker for business audio				
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®				
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)				
Modem	None				
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant		<b>Environmental Features</b> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo				
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo				
Power supply	280 watts with variable speed fan, autosensing, 85% PSU		Supports ThinkVantage® technologies		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		<b>Limited Warranty<sup>1</sup></b>		
- Genuine Windows® 7 Professional 32	1GB PC3-10600 DDR3 UDIMM 57Y4389		↔ <b>3-year parts and labor</b>		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	2GB PC3-10600 DDR3 UDIMM 57Y4390		↔ <b>International Warranty Service<sup>9</sup></b>		
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		↔ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b>		
• Password Manager	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918		↔ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b>		
• ThinkVantage System Update	Super Multi-Burner DL DVD±RW SATA Drive 41N5620		• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 41C9192)		
• ThinkVantage Power Manager	DisplayPort to Single-link DVI-D Cable 45J7915		• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9193)		
• ThinkVantage Toolbox	DisplayPort to VGA Monitor Cable 57Y4393		• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 41C9194)		
• Norton™ Internet Security 2009 (30 days of virus definitions)	NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397		• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 41C9195)		
• Adobe® Reader®	More accessories on O-M90 sheet		• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 41C9196)		
• Adobe Flash® Player	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		↔ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b>		
• Skype™ for Windows	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		↔ <b>Post warranty maintenance services available</b>		
• Microsoft® Office 2007 Trial (60-day)			↔ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>		
• Corel® Burn.Now™ (DVD±RW)					
• Corel DVD MovieFactory® (DVD±RW)					

See footnotes for important warranty information  
US models announced January 15, 2010

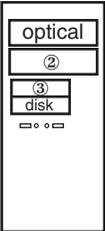
# ThinkCentre® M90p Tower (5852) - GMP (Windows 7)

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Base GHz	Max Turbo GHz	Cores	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global (G) GMP (P)	Avail date
5852-A1U	4x4	Core i5-650	3.20	3.46	2	2GB	250GB <sup>2</sup>	None	DVD±RW	Intel HD	VGA, DP	ES50	vPro	Pro 32	G P	Feb 10

- Next Generation Intel platform with latest Intel vPro™ Technology and Intel Active Management Technology
- Most manageable ThinkCentre ever: supports Lenovo Secure Managed Client version 2.0\*
- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

\* For more information on Lenovo Secure Managed Client, see [lenovo.com/acc](http://lenovo.com/acc)

Positioning Processor	<p><i>Ultimate security, stability, and manageability for the enterprise</i>  <b>Intel® Core™ i5 Processor i5-650 with dual-core</b>, Intel 64, Hyper-Threading Technology, Turbo Boost Technology, Virtualization Technology, TXT, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache Processor in LGA1156 socket</p>										<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 6.9" W X 17.4" D X 16.3" H</li> <li>• 175mm W X 442mm D X 414mm H</li> <li>• 24.2 lb (11.0 kg) in max configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Toolless cover removal</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation	<p><b>2GB std</b>, 8GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b>, four 240-pin DIMM sockets;  <i>Non-italics</i>: standard memory in one socket; three sockets available</p>										
Memory	<p><b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p>										<p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 5.25", 1.6" high, access, open                  Bay ③ 3.5", 1" high, access, open (reader/diskette)                  Bay ④ 3.5", 1" high, no access, std disk</p>
Graphics	<p><b>Intel HD Graphics</b> in processor, HDCP, DirectX® 10, uses main memory (up to 765MB), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display</p>										<p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)                  Slot 2: half-length, full-height, PCIe 2.0 x1                  Slot 3: half-length, full-height, 32-bit PCI 2.3                  Slot 4: half-length, full-height, 32-bit PCI 2.3</p>
DP dongle	None										
SATA disk	<p><b>250GB</b>, SATA 3.0Gb/s 7200 rpm Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>										
SATA DVD±RW	<p>Serial ATA, SATA 3.0Gb/s, integrated in chipset, three SATA connectors for disk and optical</p>										
SATA Controller	None										
eSATA port	None										
Diskette drive	None										
Media reader	None										
Chipset	<p><b>Intel Q57 Express Chipset</b> Platform Controller Hub (PCH) for PCI, ethernet, and USB, SMSC® SCH5147 Super I/O</p>										<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)										
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)										
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)										
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)										
Audio	High Definition (HD) Audio, Realtek® ALC662 codec										
Speaker	Internal speaker for business audio										
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®										
Intel AMT	Intel Active Management Technology 6.0 (Intel AMT 6.0)										
Modem	None										
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant										
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo										
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo										
Power supply	280 watts with variable speed fan, autosensing, 85% PSU										
<b>Preloaded operating system<sup>20</sup></b>	<p>- Genuine Windows® 7 Professional 32</p>					<p><b>Accessories</b></p> <p>1GB PC3-10600 DDR3 UDIMM 57Y4389                  2GB PC3-10600 DDR3 UDIMM 57Y4390                  500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990                  1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918                  Super Multi-Burner DL DVD±RW SATA Drive 41N5620                  DisplayPort to Single-link DVI-D Cable 45J7915                  DisplayPort to VGA Monitor Cable 57Y4393                  NVIDIA® GeForce® 512MB 310 (DP, VGA) 57Y4397                  More accessories on O-M90 sheet</p>					
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> </ul>										<p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>
<p><b>Environmental Features</b></p> <ul style="list-style-type: none"> <li>• EPEAT™ Gold rating</li> <li>• ENERGY STAR® 5.0-compliant</li> <li>• GREENGUARD® certified</li> <li>• RoHS-compliant</li> </ul>											
<p>Supports ThinkVantage® technologies</p>											
<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>⇒ 3-year parts and labor</li> <li>⇒ International Warranty Service<sup>9</sup></li> <li>⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>⇒ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 41C9194)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 41C9195)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 41C9196)</li> </ul> </li> <li>⇒ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>⇒ Post warranty maintenance services available</li> <li>⇒ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>											

See footnotes for important warranty information  
 US model announced January 15, 2010

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 (MELB1-20) January 2010

**Partial list of accessories supported on ThinkCentre M90 and M90p****Memory***Eco Ultra Small 3244/3692/3257/3853/5296 use notebook 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
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

*Small 3245/5485/3269/5536/5864, and**Tower 3246/5474/3282/5498/5852 use desktop memory:*

1GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4389	ann 01/12/10
1GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4419	ann 01/12/10
2GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4390	ann 01/12/10
2GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4420	ann 01/12/10

**Optical**

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup>	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

**Storage and removable storage**

250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08
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 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 <sup>53</sup>	57Y4400	ann 01/07/10
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

<sup>53</sup>USB-only attach.**Graphics***Small 3245/5485/3269/5536/5864 support Low Profile:*

NVIDIA® GeForce® 512MB 310 (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10
NVIDIA Quadro® 512MB FX 380 LP (DP, DVI)	57Y4396	ann 02/02/10

*Tower 3246/5474/3282/5498/5852 support 75 watts max:*

NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

More information at [www.lenovo.com/support/graphiccards](http://www.lenovo.com/support/graphiccards)**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
UltraSlim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
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

<sup>52</sup>Wireless via 2.4GHz technology using a micro-size USB receiver.More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)**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 ScrollPoint® Mouse(USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)**Multimedia**

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
ThinkPad In-Ear Headphones	57Y4488	ann 01/07/10

**Security**

Kensington® MicroSaver® Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

<sup>56</sup>Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.**Mounting Device***Eco Ultra Small 3244/3692/3257/3853/5296 support under desk mounting device:*

ThinkCentre Ultra Small Under Desk Mount	40Y8625	ann 09/06/05
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**Monitors**

Lenovo D186 Wide 18.5" Monitor	2580AB1	ann 01/12/10
Lenovo L2461x Wide 23.6" Monitor	4015HB1	ann 01/05/10
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

More information at [www.lenovo.com/thinkvision](http://www.lenovo.com/thinkvision)**Monitor Accessories<sup>46</sup>***Eco Ultra Small 3244/3692/3257/3853/5296 support:*

Lenovo Vertical PC and Monitor Stand II	41R4474	ann 01/27/09
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*All:*

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 VGA Monitor Cable	57Y4393	ann 08/04/09
ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington MicroSaver Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup>Compatible on selected Lenovo and ThinkVision monitors.More information at [www.lenovo.com/support/monitoraccessories](http://www.lenovo.com/support/monitoraccessories)**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

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

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower with  
Lenovo ThinkVision monitor



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower



Lenovo ThinkCentre A58e Tower



## Partial list of accessories supported on ThinkCentre A58e Tower

**Memory**

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

**Optical**

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup>	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

**Storage and removable storage**

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
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 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

**Graphics**

DisplayPort™ to Single-link DVI-D Cable <sup>50</sup>	45J7915	ann 08/05/08
DisplayPort to VGA Monitor Cable <sup>50</sup>	57Y4393	ann 08/04/09
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

<sup>50</sup> Attaches to the ThinkCentre compatible DisplayPort graphics card.

More information at [www.lenovo.com/support/graphiccards](http://www.lenovo.com/support/graphiccards)

**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

<sup>52</sup> Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)

**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 ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)

**Multimedia**

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10

**Security**

Kensington® MicroSaver® Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

<sup>56</sup> Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

**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

More information at [www.lenovo.com/thinkvision](http://www.lenovo.com/thinkvision)

**Monitor Accessories<sup>46</sup>**

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 <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

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

**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

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

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)



Lenovo ThinkCentre A58 Small and  
Lenovo ThinkCentre A58 Tower



Lenovo ThinkCentre A58 Small with  
Lenovo ThinkVision monitor



Lenovo ThinkCentre A58 Small



Lenovo ThinkCentre A58 Small  
with dual Lenovo ThinkVision monitors



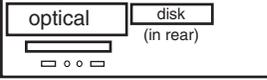
Lenovo ThinkCentre A58 Tower



Lenovo ThinkCentre A58 Tower

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Preload	Global Educ	Avail date
A58	7522-M8U	2x3	Celeron E3200	2.40	1MB	2	1GB	250GB <sup>2</sup>	DVD±RW	GMA	XP Pro	None	Nov 09
A58	7522-K6U	2x3	Pentium E6300	2.80	2MB	2	2GB	250GB	DVD±RW	GMA	XP Pro	None	Nov 09
A58	7522-K7U	2x3	Pentium E6300	2.80	2MB	2	3GB	320GB	DVD±RW	GMA	XP Pro	None	Nov 09

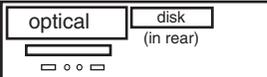
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Quality, reliability, and security for small/medium businesses</i></p> <p><b>Intel® Celeron® Processor E3200</b> with dual-core, Virtualization Technology, 800MHz system bus, and 1MB L2 cache or</p> <p><b>Intel Pentium® Processor E6300</b> with dual-core, Virtualization Technology, 1066MHz system bus, and 2MB L2 cache</p> <p>Processor in LGA775 socket</p>		<p><b>Small</b></p>  <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, no access, std disk                  Bay ③ 3.5", .5" high, access, open (reader)</p> <p>Slot 1: Low Profile, PCI Express x16 (35w max)                  Slot 2: Low Profile, 32-bit PCI 2.3</p> <ul style="list-style-type: none"> <li>• Business black color; metal case</li> <li>• 12.5" W X 14.0" D X 3.9" H</li> <li>• 317mm W X 355mm D X 99mm H</li> <li>• 16.5 lb (7.5 kg) in maximum configuration</li> <li>• Toolless cover flips up and tilts backward on rear hinges</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Toolless systemboard retention</li> <li>• System floor stand for vertical orientation</li> </ul>																			
Memory	<p><b>1GB, 2GB, or 3GB std.</b> 4GB max<sup>8</sup>, PC2-6400 800MHz DDR2, non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul> <p>Supports ThinkVantage® technologies</p>																			
Graphics	<p><b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b>, integrated graphics in G41, uses main memory (up to 512MB [<i>1GB models</i>], 1GB [<i>2GB or 3GB models</i>]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter</p>																					
SATA disk	<p><b>250GB or 320GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening</p>		<p><b>GREENGUARD® certified</b> RoHS-compliant</p>																			
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in ICH7</p>																					
SATA DVD±RW	<p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 1-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)</li> <li>• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)</li> <li>• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)</li> <li>• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)</li> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>																			
SATA cables	<p>Two SATA cables (each 1-drop to device), two SATA connectors on planar</p>																					
eSATA port	<p>None</p>																					
Diskette drive	<p>None</p>																					
Media reader	<p>None</p>																					
Chipset	<p><b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)</p>																					
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>																					
Rear ports	<p>Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)</p>																					
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)</p>																					
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>																					
Speaker	<p>One internal speaker for business audio</p>																					
IEEE 1394	<p>None</p>																					
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®</p>																					
Intel AMT	<p>None</p>																					
Modem	<p>None</p>																					
Security chip	<p>None</p>																					
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>																					
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>																					
Power supply	<p>280 watts with variable speed fan, autosensing</p>																					
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>41N3015</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>DisplayPort to Single-link DVI-D Cable</td> <td>45J7915</td> </tr> <tr> <td>ADD2 DVI-D Monitor Connection (HDCP)</td> <td>43R1985</td> </tr> <tr> <td>ATI™ Radeon™ HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® Quadro® 256MB FX 370 LP</td> <td>55Y9275</td> </tr> </table> <p>More accessories on O-A58 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	DisplayPort to Single-link DVI-D Cable	45J7915	ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® Quadro® 256MB FX 370 LP	55Y9275
1GB PC2-6400 DDR2 UDIMM	41U2977																					
2GB PC2-6400 DDR2 UDIMM	41U2978																					
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015																					
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																					
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918																					
Super Multi-Burner DL DVD±RW SATA Drive	41N5620																					
DisplayPort to Single-link DVI-D Cable	45J7915																					
ADD2 DVI-D Monitor Connection (HDCP)	43R1985																					
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636																					
NVIDIA® Quadro® 256MB FX 370 LP	55Y9275																					
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional																						
<b>Preloaded applications<sup>5</sup></b> (only some listed)																						
• Rescue and Recovery™																						
• Password Manager																						
• Lenovo Care™																						
• ThinkVantage System Update																						
• ThinkVantage Power Manager																						
• McAfee® VirusScan® Plus (30 days of virus definitions)																						
• Lenovo System Toolbox																						
• Adobe® Reader®																						
• Windows Live™ Toolbar																						
• Microsoft® Office 2007 Trial (60-day)																						
• Roxio® Creator® Small Business Edition (DVD±RW)																						
• Roxio MyDVD® (DVD±RW)																						
• Corel® WinDVD® (DVD±RW)																						

See footnotes for important warranty information  
 US models announced October 22, 2009

Name	Type-model	Slot x bay	Processor	GHz	L2 cache	Cores	Memory <sup>8</sup>	SATA disk	SATA optical	Graphics	Win7 preload	Global Educ	Avail date
A58	7522-M9U	2x3	Celeron E3200	2.40	1MB	2	1GB	250GB <sup>2</sup>	DVD±RW	GMA	Pro 32	None	Nov 09
A58	7522-P1U	2x3	Pentium E5300	2.60	2MB	2	2GB	250GB	DVD±RW	GMA	Pro 32	None	Nov 09
A58	7522-P2U	2x3	Pentium E5300	2.60	2MB	2	3GB	320GB	DVD±RW	GMA	Pro 32	None	Nov 09

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

Positioning Processor	Quality, reliability, and security for small/medium businesses <b>Intel® Celeron® Processor E3200 with dual-core,</b> Virtualization Tehnology, 800MHz system bus, and 1MB L2 cache or <b>Intel Pentium® Processor E5300 with dual-core,</b> 800MHz system bus, and 2MB L2 cache	<b>Small</b> 
Implementation	Processor in LGA775 socket	
Memory	<b>1GB, 2GB, or 3GB std.</b> 4GB max <sup>8</sup> , <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, two 240-pin DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets avail; <i>Non-italics:</i> standard memory in one socket; one socket available	Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, no access, std disk Bay ③ 3.5", .5" high, access, open (reader)
Graphics	<b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b> , integrated graphics in G41, uses main memory (up to 253MB [ <i>1GB models</i> ], 765MB [ <i>2GB models</i> ], or 1277MB [ <i>3GB models</i> ]), one analog VGA DB-15 connector, DirectX® 10, supports dual independent display with optional ADD2 adapter	Slot 1: Low Profile, PCI Express x16 (35w max) Slot 2: Low Profile, 32-bit PCI 2.3
SATA disk	<b>250GB or 320GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable) - optional cable also locks the cover by deactivating the cover release buttons</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• USB port disablement</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH7	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	Supports ThinkVantage® technologies
SATA cables	Two SATA cables (each 1-drop to device), two SATA connectors on planar	
eSATA port	None	GREENGUARD® certified RoHS-compliant
Diskette drive	None	
Media reader	None	<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 1-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)</li> <li>• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)</li> <li>• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)</li> <li>• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)</li> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
Chipset	<b>Intel G41 Express Chipset</b> (PCI Express® x16), I/O Controller Hub 7 [ICH7] (SATA 3.0Gb/s, PCI Express x1, PCI 2.3, USB, LPC bus)	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Four USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	One internal speaker for business audio	
IEEE 1394	None	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®	
Intel AMT	None	
Modem	None	
Security chip	None	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, autosensing	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® 7 Professional 32	1GB PC2-6400 DDR2 UDIMM 41U2977	
<b>Preloaded applications<sup>5</sup></b> (only some listed)	2GB PC2-6400 DDR2 UDIMM 41U2978	
• Rescue and Recovery™	250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015	
• Password Manager	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	
• ThinkVantage System Update	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	
• ThinkVantage Power Manager	Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
• ThinkVantage Toolbox	DisplayPort to Single-link DVI-D Cable 45J7915	
• Lenovo Online Data Backup	ADD2 DVI-D Monitor Connection (HDCP) 43R1985	
• Norton™ Internet Security 2009 (30 days of virus definitions)	ATI™ Radeon™ HD 3470 256MB (DP, VGA) 45K1636	
• Adobe® Reader®	NVIDIA® Quadro® 256MB FX 370 LP 55Y9275	
• Adobe Flash® Player	More accessories on O-A58 sheet	
• Skype™ for Windows	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Microsoft® Office 2007 Trial (60-day)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• Roxio® Creator® Small Business Edition (DVD±RW)		
• Roxio MyDVD® (DVD±RW)		

See footnotes for important warranty information  
US models announced October 22, 2009

Partial list of accessories supported on ThinkCentre A58

**Memory**

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

**Optical**

All:

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup>	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

Tower 7515/7611 supports:

Blu-ray™ Burner SATA 1.5Gb/s Drive	45K1675	ann 03/31/09
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**Storage and removable storage**

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

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 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 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

**Graphics**

Small 7522/7705 support Low Profile 35 watts max:

DisplayPort™ to Single-link DVI-D Cable <sup>50</sup>	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® Quadro® 256MB FX 370 Low-Profile	55Y9275	ann 07/28/09
NVIDIA GeForce® 310 DMS59(2-DVI, 2-VGA)	57Y4167	ann 03/02/10

Tower 7515/7611 supports 75 watts max:

DisplayPort to Single-link DVI-D Cable <sup>50</sup>	45J7915	ann 08/05/08
ADD2 DVI-D Monitor Connection (HDCP)	43R1985	ann 11/06/07
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA GeForce 9500GT 512MB (DP, DVI)	45K1635	ann 11/18/08
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

<sup>50</sup> Attaches to the ThinkCentre compatible DisplayPort graphics card.

More information at [www.lenovo.com/support/graphiccards](http://www.lenovo.com/support/graphiccards)

**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

<sup>52</sup> Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)

**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 ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)

**Multimedia**

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10

**Security**

Kensington® MicroSaver® Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

<sup>56</sup> Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

**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

More information at [www.lenovo.com/thinkvision](http://www.lenovo.com/thinkvision)

**Monitor Accessories<sup>46</sup>**

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 <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

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

**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

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

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)



Lenovo ThinkCentre A62 Desktop with four Lenovo ThinkVision monitors



Lenovo ThinkCentre A62 Tower



Lenovo ThinkCentre A62 Desktop



Lenovo ThinkCentre A62 Tower and Lenovo ThinkCentre A62 Desktop



Lenovo ThinkCentre A62 Desktop with Lenovo ThinkVision L193p monitor



Lenovo ThinkCentre A62 Tower with Lenovo ThinkVision L193p monitor

# ThinkCentre® A62 Desktop (9945) - TopSeller

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>a</sup>	SATA disk	SATA optical	Integrated graphics	Monitor connectors	Preload	Global Educ	Avail date	
☞	<b>A62</b>	9945-A6U	4x3	Sempron LE-1300	2.3	Single	1GB	160GB <sup>2</sup>	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jul 09
☞	<b>A62</b>	9945-A5U	4x3	Athlon 1640B	2.7	Single	1GB	160GB	DVD	3100	VGA, DVI-D	XP Pro	None	Jul 09
☞	<b>A62</b>	9945-A7U	4x3	Athlon X2 5000B	2.6	Dual	1GB	250GB	DVD	3100	VGA, DVI-D	XP Pro	None	Jul 09
	<b>A62</b>	9945-A3U	4x3	Athlon X2 5000B	2.6	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jun 09
☞	<b>A62</b>	9945-A8U	4x3	Athlon X2 5400B	2.8	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jul 09
☞	<b>A62</b>	9945-A9U	4x3	Phenom X3 8600B	2.3	Triple	2GB	250GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jul 09
	<b>A62</b>	9945-A4U	4x3	Phenom X3 8600B	2.3	Triple	4GB	500GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jun 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Quality, reliability, and manageability for small/medium businesses <b>AMD® Sempron™ Processor LE-1300</b> with single-core, integrated DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon™ Processor 1640B</b> with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon X2 Dual-Core Processor 5000B</b> or <b>5400B</b> with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or <b>AMD Phenom™ X3 Triple-Core Processor 8600B</b> with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+	<b>Desktop</b>  <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 13.0" W X 16.2" D X 4.1" H</li> <li>• 331mm W X 412mm D X 104mm H</li> <li>• 19.4lb (8.8kg) in typical configuration</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> Bay ① 5.25", 1.6" high, access, std optical Bay ② 3.5", 1" high, access, open* Bay ③ 3.5", 1" high, no access, std disk * supports reader/diskette/2nd disk  Slot 1: Low Profile, PCI Express 2.0 x1 Slot 2: Low Profile, PCI Express 2.0 x16 (35w max) Slot 3: Low Profile, 32-bit PCI 2.3 Slot 4: Low Profile, 32-bit PCI 2.3
Implementation		
Memory	<b>1GB, 2GB, or 4GB std, 8GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available	
Graphics	<b>ATI™ Radeon™ 3100</b> , integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter	
SATA disk	<b>160GB, 250GB, or 500GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup> Drive	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar	
eSATA port	None	
EIDE controller	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0	
Modem	None	
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo	
Power supply	220 watts with variable speed fan, manual switch	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-6400 DDR2 UDIMM 41U2977	
	2GB PC2-6400 DDR2 UDIMM 41U2978	
	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	
	DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618	
	Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
	ATI Radeon HD 3470 256MB (DP, VGA) 45K1636	
	More accessories on O-A62 sheet	
<b>Preloaded applications<sup>5</sup></b>	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Rescue and Recovery™	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
• Client Security Solution™		
• ThinkVantage Productivity Center		
• ThinkVantage System Update		
• McAfee® VirusScan® Plus (30 days of virus definitions)		
• Lenovo System Toolbox		
• Adobe® Reader®		
• Microsoft® Office 2007 Trial (60-day)		
• Roxio® Creator® Business Edition (DVD±RW)		
• Roxio MyDVD® (DVD±RW)		
• Corel® WinDVD® (DVD, DVD±RW)		
		<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies  GREENGUARD® certified RoHS-compliant  <b>Limited Warranty<sup>1</sup></b> ☞ 3-year parts and labor ☞ International Warranty Service <sup>9</sup> ☞ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts <sup>3</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ☞ Onsite service upgrade options (in eligible locations): <sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> ☞ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a> ☞ 24 hour x 7 day <sup>14</sup> toll-free support during the warranty period <sup>1</sup> via 800-426-7378

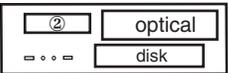
See footnotes for important warranty information

☞ US models announced July 7, 2009; previous models on June 2, 2009

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Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	Preload	Global Educ	Avail date
A62	9486-F1U	4x3	Athlon 1640B	2.7	Single	1GB	160GB <sup>2</sup>	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
A62	9486-F2U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
A62	9486-F3U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08
A62	9486-F4U	4x3	Athlon X2 5000B	2.6	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08
A62	9486-J8U	4x3	Athlon X2 5000B	2.6	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jun 09
A62	9486-F5U	4x3	Athlon X2 5000B	2.6	Dual	2GB	250GB	DVD±RW	9300GE	DVI-I	XP Pro	None	Sep 08
A62	9486-F6U	4x3	Athlon X2 5400B	2.8	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
A62	9486-F7U	4x3	Athlon X2 5400B	2.8	Dual	2GB	250GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08
A62	9486-F8U	4x3	Phenom X3 8450	2.1	Triple	1GB	250GB	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
A62	9486-F9U	4x3	Phenom X3 8450	2.1	Triple	2GB	160GB	DVD±RW	9300GE	DVI-I	XP Pro	None	Sep 08
A62	9486-J6U	4x3	Phenom X3 8600B	2.3	Triple	1GB	160GB	DVD	3100	VGA, DVI-D	XP Pro	None	Jun 09
A62	9486-J7U	4x3	Phenom X3 8600B	2.3	Triple	2GB	160GB	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jun 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Stability and manageability for large enterprise and mid-market <b>AMD® Athlon™ Processor 1640B</b> with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon X2 Dual-Core Processor 5000B</b> or <b>5400B</b> with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or <b>AMD Phenom™ X3 Triple-Core Processor 8450</b> or <b>8600B</b> with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+	<b>Desktop</b>	 <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 13.0" W X 16.2" D X 4.1" H</li> <li>• 331mm W X 412mm D X 104mm H</li> <li>• 19.4lb (8.8kg) in typical configuration</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>
Implementation		<ul style="list-style-type: none"> <li>• Bay 1 5.25", 1.6" high, access, std optical</li> <li>• Bay 2 3.5", 1" high, access, open*</li> <li>• Bay 3 3.5", 1" high, no access, std disk</li> </ul>	
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available; <i>F8U/F9U:</i> <b>PC2-5300 667MHz DDR2</b> , non-parity, dual-channel; <i>Others:</i> <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel	<ul style="list-style-type: none"> <li>• Slot 1: Low Profile, PCI Express 2.0 x1</li> <li>• Slot 2: Low Profile, PCI Express 2.0 x16 (35w max)**</li> <li>• Slot 3: Low Profile, 32-bit PCI 2.3</li> <li>• Slot 4: Low Profile, 32-bit PCI 2.3</li> </ul>	
Graphics	<i>Some:</i> <b>ATI™ Radeon™ 3100</b> , int graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D conn, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter <i>Some:</i> <b>NVIDIA® GeForce® 9300 GE</b> , PCI Express® x16 adapter, 256MB, one DVI-I connector (includes DVI-to-VGA dongle), S-Video out for TV-out, HDCP, DirectX 10, 30 watts	<b>Security</b>	
SATA disk	<b>160GB or 250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• Individual USB port disablement</li> </ul>	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support	Supports ThinkVantage® technologies	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup> Drive	GREENGUARD® certified	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	RoHS-compliant	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar		
eSATA port	None		
EIDE controller	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>F5U/F9U:</i> monitor (DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15, DVI-D)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	One internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0		
Modem	None		
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo		
Power supply	220 watts with variable speed fan, manual switch		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-5300 CL5 DDR2 UDIMM 73P4984		
	2GB PC2-5300 CL5 DDR2 UDIMM 73P4985		
	1GB PC2-6400 DDR2 UDIMM 41U2977		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	2GB PC2-6400 DDR2 UDIMM 41U2978		
• Rescue and Recovery™	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990		
• Client Security Solution™	DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618		
• McAfee® VirusScan® Plus (30-day)	Super Multi-Burner DL DVD±RW SATA Drive 41N5620		
• Microsoft® Office 2007 Trial (60-day)	ATI Radeon HD 3470 256MB (DP, VGA) 45K1636		
• Roxio® Creator® Business Edition (DVD±RW)	More accessories on O-A62 sheet		
• Roxio MyDVD® (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>		
• Corel® WinDVD® (DVD, DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
		<ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul>	
		<ul style="list-style-type: none"> <li>• ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>• 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup></li> </ul>	

See footnotes for important warranty information

☞ US models announced June 2, 2009; previous models on September 9, 2008

☞ US models withdrawn effective July or August 2009



Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>6</sup>	SATA disk	SATA optical	Graphics	Monitor connectors	Vista preload	Global Educ	Avail date
A62	9486-E6U	4x3	Sempron LE-1300	2.3	Single	1GB	160GB <sup>2</sup>	DVD±RW	3100	VGA, DVI-D	Business32	Educ	Sep 08
A62	9486-A4U	4x3	Athlon 1640B	2.7	Single	1GB	160GB	DVD	3100	VGA, DVI-D	Business32		Sep 08
A62	9486-H9U	4x3	Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32	Educ	Sep 08
A62	9486-H8U	4x3	Athlon X2 4450B	2.3	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32		Sep 08
A62	9486-H7U	4x3	Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	Business32		Sep 08
A62	9486-H6U	4x3	Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD±RW	9300GE	DVI-I	Business32		Sep 08
A62	9486-A3U	4x3	Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32		Sep 08
A62	9486-A1U	4x3	Athlon X2 5400B	2.8	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	Business32		Sep 08
A62	9486-A2U	4x3	Phenom X3 8600B	2.3	Triple	2GB	160GB	DVD±RW	3100	VGA, DVI-D	Business64		Sep 08

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Stability and manageability for large enterprise and mid-market</i></p> <p><b>AMD® Sempron™ Processor LE-1300</b> with single-core, integrated DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon™ Processor 1640B</b> with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon X2 Dual-Core Processor 4450B, 5000B, or 5400B</b> with <b>dual-core</b>, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or <b>AMD Phenom™ X3 Triple-Core Processor 8600B</b> with <b>triple-core</b>, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+</p>	<p><b>Desktop</b></p> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 13.0" W X 16.2" D X 4.1" H</li> <li>• 331mm W X 412mm D X 104mm H</li> <li>• 19.4lb (8.8kg) in typical configuration</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, access, open*                  Bay ③ 3.5", 1" high, no access, std disk</p> <p>* supports reader/diskette/2nd disk</p> <p>Slot 1: Low Profile, PCI Express 2.0 x1                  Slot 2: Low Profile, PCI Express 2.0 x16 (35w max)**                  Slot 3: Low Profile, 32-bit PCI 2.3                  Slot 4: Low Profile, 32-bit PCI 2.3</p> <p>** used in some models</p>
Implementation		
Memory	<p><b>1GB or 2GB std</b>, 8GB max<sup>8</sup>, four 240-pin DIMM sockets;</p> <p><i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available;                  H8U/H9U: <b>PC2-5300 667MHz DDR2</b>, non-parity, dual-channel;                  Others: <b>PC2-6400 800MHz DDR2</b>, non-parity, dual-channel</p>	
Graphics	<p><i>Some:</i> <b>ATI™ Radeon™ 3100</b>, integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter</p> <p><i>Some:</i> <b>NVIDIA® GeForce® 9300 GE</b>, PCI Express® x16 adapter, 256MB, one DVI-I connector (includes DVI-to-VGA dongle), S-Video out for TV-out, HDCP, DirectX 10, 30 watts</p>	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• Individual USB port disablement</li> </ul>
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup> Drive	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar	
eSATA port	None	
EIDE controller	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	Supports ThinkVantage® technologies
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), H6U: monitor (DVI-I), S-Video out; Others: monitor (VGA DB-15, DVI-D)	GREENGUARD® certified RoHS-compliant
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 45K5955)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5956)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 45K5957)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 45K5958)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5959)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0	
Modem	None	
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo	
Power supply	220 watts with variable speed fan, manual switch	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- <i>Some:</i> Genuine Windows® Vista® Business 32	1GB PC2-5300 CL5 DDR2 UDIMM 73P4984	
- <i>Some:</i> Genuine Windows Vista Business 64	2GB PC2-5300 CL5 DDR2 UDIMM 73P4985	
◇ Vista Premium logo	1GB PC2-6400 DDR2 UDIMM 41U2977	
<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)	2GB PC2-6400 DDR2 UDIMM 41U2978	
• <i>Some:</i> Education software	DVD-ROM DL SATA 1.5Gb/s 16-48X Max 41N5618	
- VitalSource™ Library School Edition	Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
- Adobe® Elements	ATI Radeon HD 3470 256MB (DP, VGA) 45K1636	
- Photoshop Elements 6	More accessories on O-A62 sheet	
- Premiere Elements 4	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Rescue and Recovery™	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information  
 US models announced August 12 or September 9, 2008  
 ⚡ US models withdrawn effective July 2009

# ThinkCentre® A62 Desktop (7057)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>a</sup>	SATA disk	SATA optical	Integrated graphics	Monitor connectors	ENERGY STAR 5.0	Preload	Global Educ	Avail date
⊕	A62	7057-B5U	4x3 Athlon X2 5000B	2.6	Dual	1GB	160GB <sup>2</sup>	DVD	3100	VGA, DVI-D	None	XP Pro	None	Sep 08
⊕	A62	7057-B6U	4x3 Athlon X2 5000B	2.6	Dual	2GB	160GB	DVD±RW	3100	VGA, DVI-D	None	XP Pro	None	Sep 08
⊕	A62	7057-B7U	4x3 Athlon X2 5400B	2.8	Dual	2GB	250GB	DVD±RW	3100	VGA, DVI-D	None	XP Pro	None	Sep 08
⊕	A62	7057-B8U	4x3 Phenom X3 8450	2.1	Triple	1GB	160GB	DVD	3100	VGA, DVI-D	None	XP Pro	None	Dec 08
⊕	A62	7057-A3U	4x3 Athlon 1640B	2.7	Single	1GB	160GB	DVD	3100	VGA, DVI-D	None	Bus32	None	Sep 08
⊕	A62	7057-BBU	4x3 Athlon X2 4450B	2.3	Dual	1GB	160GB	DVD	3100	VGA, DVI-D	None	Bus32	None	Sep 08
⊕	A62	7057-A2U	4x3 Athlon X2 5000B	2.6	Dual	1GB	160GB	DVD±RW	3100	VGA, DVI-D	None	Bus32	None	Sep 08
⊕	A62	7057-A1U	4x3 Phenom X3 8600B	2.3	Triple	2GB	160GB	DVD±RW	3100	VGA, DVI-D	None	Bus64	None	Dec 08

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><b>Stability and manageability for large enterprise and mid-market AMD® Athlon™ Processor 1640B</b> with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon X2 Dual-Core Processor 4450B, 5000B, or 5400B</b> with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or <b>AMD Phenom™ X3 Triple-Core Processor 8450 or 8600B</b> with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+</p>		<p><b>Desktop</b></p> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 13.0" W X 16.2" D X 4.1" H</li> <li>• 331mm W X 412mm D X 104mm H</li> <li>• 19.4lb (8.8kg) in typical configuration</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>																										
Implementation			<p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 3.5", 1" high, access, open*                  Bay ③ 3.5", 1" high, no access, std disk</p> <p>* supports reader/diskette/2nd disk</p>																										
Memory	<p><b>1GB or 2GB std.</b>, 8GB max<sup>8</sup>, four 240-pin DIMM sockets;  <i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available;  <i>Others:</i> <b>PC2-5300 667MHz DDR2</b>, non-parity, dual-channel capable;  <i>Axx:</i> <b>PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable</p>		<p>Slot 1: Low Profile, PCI Express 2.0 x1                  Slot 2: Low Profile, PCI Express 2.0 x16 (35w max)                  Slot 3: Low Profile, 32-bit PCI 2.3                  Slot 4: Low Profile, 32-bit PCI 2.3</p>																										
Graphics	<p><b>ATI™ Radeon™ 3100</b>, integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• Individual USB port disablement</li> </ul>																										
SATA disk	<p><b>160GB or 250GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p>Supports ThinkVantage® technologies</p> <p>GREENGUARD® certified RoHS-compliant</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↔ 3-year parts and labor</li> <li>↔ International Warranty Service<sup>9</sup></li> <li>↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↔ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> </li> </ul> <p>↔ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></p> <p>↔ Post warranty maintenance services available</p> <p>↔ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</p>																										
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support</p>																												
SATA DVD	<p><i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max<sup>4</sup> Drive</p>																												
SATA DVD±RW	<p><i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>																												
SATA cables	<p>Two SATA cables (each 1-drop to device), four SATA connectors on planar</p>																												
eSATA port	<p>None</p>																												
EIDE controller	<p>None</p>																												
Diskette drive	<p>None</p>																												
Media reader	<p>None</p>																												
Chipset	<p><b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O</p>																												
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>																												
Rear ports	<p>Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)</p>																												
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>																												
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)</p>																												
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>																												
Speaker	<p>One internal speaker for business audio</p>																												
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0</p>																												
Modem	<p>None</p>																												
Security chip	<p>Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant</p>																												
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>																												
Mouse	<p>Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo</p>																												
Power supply	<p>220 watts with variable speed fan, autosensing, 80% PSU</p>																												
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p> <table border="0"> <tr> <td>- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</td> <td>1GB PC2-5300 CL5 DDR2 UDIMM</td> <td>73P4984</td> </tr> <tr> <td></td> <td>2GB PC2-5300 CL5 DDR2 UDIMM</td> <td>73P4985</td> </tr> <tr> <td></td> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td></td> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td>- <i>Some:</i> Genuine Windows Vista Business 32</td> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td></td> <td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td> <td>41N5618</td> </tr> <tr> <td>- <i>Some:</i> Genuine Windows Vista Business 64</td> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td></td> <td>ATI Radeon HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>↔ <i>Vista models:</i> Vista Premium logo</td> <td>More accessories on O-A62 sheet</td> <td></td> </tr> </table>		- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-5300 CL5 DDR2 UDIMM	73P4984		2GB PC2-5300 CL5 DDR2 UDIMM	73P4985		1GB PC2-6400 DDR2 UDIMM	41U2977		2GB PC2-6400 DDR2 UDIMM	41U2978	- <i>Some:</i> Genuine Windows Vista Business 32	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990		DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	- <i>Some:</i> Genuine Windows Vista Business 64	Super Multi-Burner DL DVD±RW SATA Drive	41N5620		ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	↔ <i>Vista models:</i> Vista Premium logo	More accessories on O-A62 sheet	
- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-5300 CL5 DDR2 UDIMM	73P4984																											
	2GB PC2-5300 CL5 DDR2 UDIMM	73P4985																											
	1GB PC2-6400 DDR2 UDIMM	41U2977																											
	2GB PC2-6400 DDR2 UDIMM	41U2978																											
- <i>Some:</i> Genuine Windows Vista Business 32	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990																											
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<b>Preloaded applications<sup>5</sup></b> (all OSes; only some listed)	<p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• McAfee® VirusScan® Plus (30-day)</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD, DVD±RW)</li> </ul>																												

See footnotes for important warranty information

⊕ US models announced December 9, 2008; previous models on August 12 or September 9, 2008

⊖ US models withdrawn effective July, August, or November 2009

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Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	Preload	Global Educ	Avail date
ⓧ	A62	9485-E4U	4x5 Athlon 1640B	2.7	Single	1GB	160GB <sup>2</sup>	Bay	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
ⓧ	A62	9485-E5U	4x5 Athlon X2 5000B	2.6	Dual	1GB	160GB	Bay	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
ⓧ	A62	9485-E6U	4x5 Athlon X2 5000B	2.6	Dual	1GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08
ⓧ	A62	9485-E7U	4x5 Athlon X2 5000B	2.6	Dual	2GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08
ⓧ	A62	9485-E8U	4x4 Athlon X2 5400B	2.8	Dual	1GB	250GB		DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
ⓧ	A62	9485-E9U	4x5 Athlon X2 5400B	2.8	Dual	2GB	250GB	Bay	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Sep 08
ⓧ	A62	9485-F1U	4x5 Phenom X3 8450	2.1	Triple	1GB	160GB	Bay	DVD	3100	VGA, DVI-D	XP Pro	None	Sep 08
ⓧ	A62	9485-F2U	4x5 Phenom X3 8450	2.1	Triple	2GB	160GB	Bay	DVD±RW	<b>9300GE</b>	VGA, DVI-I	XP Pro	None	Sep 08
ⓧ	A62	9485-H8U	4x5 Phenom X3 8600B	2.3	Triple	2GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	XP Pro	None	Jun 09

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Stability and manageability for large enterprise and mid-market</i>  <b>AMD® Athlon™ Processor 1640B</b> with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon X2 Dual-Core Processor 5000B</b> or <b>5400B</b> with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or <b>AMD Phenom™ X3 Triple-Core Processor 8450</b> or <b>8600B</b> with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>Business black color</li> <li>6.9" W X 17.3" D X 15.8" H</li> <li>175mm W X 440mm D X 402mm H</li> <li>24.2lb (11.0kg) in typical configuration</li> <li>Handle on top front</li> <li>Toolless cover removal</li> <li>Toolless disk, diskette drive, optical drive removal</li> <li>Toolless adapter retention</li> </ul>																			
Implementation			<p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 5.25", 1.6" high, access, open                  Bay ③ 3.5", 1" high, access, open (reader/diskette)                  Bay ④ 3.5", 1" high, no access, std disk                  Bay ⑤ 3.5", 1" high, no access, opt disk*</p>																			
Memory	<p><b>1GB or 2GB std</b>, 8GB max<sup>8</sup>, four 240-pin DIMM sockets;  <i>Italics:</i> standard memory in two sockets; two sockets available;  <i>Non-italics:</i> standard memory in one socket; three sockets available;                  H8U: <b>PC2-6400 800MHz DDR2</b>, non-parity, dual-channel;                  Others: <b>PC2-5300 667MHz DDR2</b>, non-parity, dual-channel</p>		<p>* 2nd Disk Bay is only available on some models                  Slot 1: half-length, full-height, PCIe 2.0 x1                  Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max)**                  Slot 3: half-length, full-height, 32-bit PCI 2.3                  Slot 4: half-length, full-height, 32-bit PCI 2.3</p>																			
Graphics	<p><i>Some:</i> <b>ATI™ Radeon™ 3100</b>, int graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D conn, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter  <i>Some:</i> <b>NVIDIA® GeForce® 9300 GE</b>, PCI Express® x16 adapter, 256MB, one analog VGA DB-15 conn via cable, one DVI-I conn, S-Video out for TV-out, HDCP, DirectX 10, 30 watts</p>		<p>** used in some models</p>																			
SATA disk	<p><b>160GB or 250GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>Security chip (see information on left)</li> <li>One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® Microsaver® cable)</li> </ul> </li> <li>Power-on password</li> <li>Administrator password</li> <li>Hard disk password</li> <li>Boot sequence control</li> <li>Boot without keyboard, mouse, diskette</li> <li>Serial port I/O control</li> <li>Parallel port I/O control</li> <li>Individual USB port disablement</li> </ul>																			
SATA controller	<p>Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support</p>																					
SATA DVD	<p><i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max<sup>4</sup> Drive</p>																					
SATA DVD±RW	<p><i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>																					
SATA cables	<p>Two SATA cables (each 1-drop to device), four SATA connectors on planar</p>																					
eSATA port	<p>None</p>																					
EIDE controller	<p>None</p>																					
Diskette drive	<p>None</p>																					
Media reader	<p>None</p>																					
Chipset	<p><b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O</p>		<p>Supports ThinkVantage® technologies</p>																			
Front ports	<p>Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		<p>GREENGUARD® certified RoHS-compliant</p>																			
Rear ports	<p>Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45),                  F2U: monitor (VGA DB-15, DVI-I), S-Video out;                  Others: monitor (VGA DB-15, DVI-D)</p>																					
Internal connector	<p>Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)</p>																					
Rear audio ports	<p>Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)</p>																					
Audio	<p>High Definition (HD) Audio, Realtek® ALC662 codec</p>																					
Speaker	<p>One internal speaker for business audio</p>																					
Ethernet	<p>Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0</p>																					
Modem	<p>None</p>																					
Security chip	<p>Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant</p>		<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>3-year parts and labor</li> <li>International Warranty Service<sup>9</sup></li> <li>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)</li> <li>3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)</li> <li>4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)</li> <li>4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> </li> <li>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup></li> </ul>																			
Keyboard	<p>Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo</p>																					
Mouse	<p>Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo</p>																					
Power supply	<p>280 watts with variable speed fan, manual switch</p>																					
Preloaded operating system <sup>20</sup>	<p>- Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)</p>		<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC2-5300 CL5 DDR2 UDIMM</td> <td>73P4984</td> </tr> <tr> <td>2GB PC2-5300 CL5 DDR2 UDIMM</td> <td>73P4985</td> </tr> <tr> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>DVD-ROM DL SATA 1.5Gb/s 16-48X Max</td> <td>41N5618</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>ATI Radeon HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td> <td>45K1635</td> </tr> </table> <p>More accessories on O-A62 sheet</p>		1GB PC2-5300 CL5 DDR2 UDIMM	73P4984	2GB PC2-5300 CL5 DDR2 UDIMM	73P4985	1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635
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ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																					
NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635																					
Preloaded applications <sup>5</sup> (only some listed)	<ul style="list-style-type: none"> <li>Rescue and Recovery™</li> <li>Client Security Solution™</li> <li>ThinkVantage Productivity Center</li> <li>McAfee® VirusScan® Plus (30-day)</li> <li>Adobe® Reader®</li> <li>Microsoft® Office 2007 Trial (60-day)</li> <li>Roxio® Creator® Business Edition (DVD±RW)</li> <li>Roxio MyDVD® (DVD±RW)</li> <li>Corel® WinDVD® (DVD, DVD±RW)</li> </ul>		<p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                  Other accessories at <a href="http://lenovo.com/accessorie">lenovo.com/accessorie</a></p>																			

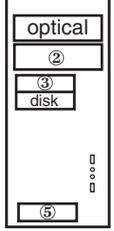
See footnotes for important warranty information

ⓧ US model announced June 2, 2009; previous models on September 9, 2008

ⓧ US models withdrawn effective July, August, or November 2009

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	Vista preload	Global Educ	Avail date
A62	9485-A4U	4x5	Athlon 1640B	2.7	Single	1GB	160GB <sup>2</sup>	Bay	DVD	3100	VGA, DVI-D	Bus32		Sep 08
A62	9485-F9U	4x4	Athlon X2 4450B	2.3	Dual	1GB	160GB		DVD	3100	VGA, DVI-D	Bus32		Sep 08
A62	9485-F8U	4x5	Athlon X2 4450B	2.3	Dual	1GB	160GB	Bay	DVD±RW	<b>9300GE</b>	VGA, DVI-I	Bus32		Sep 08
A62	9485-H1U	4x4	Athlon X2 4450B	2.3	Dual	2GB	160GB		DVD±RW	3100	VGA, DVI-D	Bus32		Sep 08
A62	9485-E2U	4x4	Athlon X2 5000B	2.6	Dual	1GB	160GB		DVD±RW	3100	VGA, DVI-D	Bus32	Educ	Sep 08
A62	9485-A1U	4x4	Athlon X2 5400B	2.8	Dual	2GB	160GB		DVD±RW	3100	VGA, DVI-D	Bus32		Sep 08
A62	9485-A2U	4x5	Phenom X3 8600B	2.3	Triple	2GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	Bus64		Sep 08

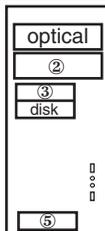
• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Stability and manageability for large enterprise and mid-market <b>AMD® Athlon™ Processor 1640B</b> with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon X2 Dual-Core Processor 4450B, 5000B, or 5400B</b> with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or <b>AMD Phenom™ X3 Triple-Core Processor 8600B</b> with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+	<b>Tower</b> <ul style="list-style-type: none"> <li>Business black color</li> <li>6.9" W X 17.3" D X 15.8" H</li> <li>175mm W X 440mm D X 402mm H</li> <li>24.2lb (11.0kg) in typical configuration</li> <li>Handle on top front</li> <li>Toolless cover removal</li> <li>Toolless disk, diskette drive, optical drive removal</li> <li>Toolless adapter retention</li> </ul> 
Implementation		
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available; <i>Fxx/H1U:</i> <b>PC2-5300 667MHz DDR2</b> , non-parity, dual-channel; <i>Others:</i> <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel	<ul style="list-style-type: none"> <li>Bay ① 5.25", 1.6" high, access, std optical</li> <li>Bay ② 5.25", 1.6" high, access, open</li> <li>Bay ③ 3.5", 1" high, access, open (reader/diskette)</li> <li>Bay ④ 3.5", 1" high, no access, std disk</li> <li>Bay ⑤ 3.5", 1" high, no access, opt disk*</li> </ul>
Graphics	<i>Some:</i> <b>ATI™ Radeon™ 3100</b> , int graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D conn, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter <i>Some:</i> <b>NVIDIA® GeForce® 9300 GE</b> , PCI Express® x16 adapter, 256MB, one analog VGA DB-15 conn via cable, one DVI-I conn, S-Video out for TV-out, HDCP, DirectX 10, 30 watts	<ul style="list-style-type: none"> <li>* 2nd Disk Bay is only available on some models</li> <li>Slot 1: half-length, full-height, PCIe 2.0 x1</li> <li>Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max)**</li> <li>Slot 3: half-length, full-height, 32-bit PCI 2.3</li> <li>Slot 4: half-length, full-height, 32-bit PCI 2.3</li> <li>** used in some models</li> </ul>
SATA disk	<b>160GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>Security chip (see information on left)</li> <li>One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>Padlock loop (in rear for opt padlock)</li> <li>Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>Power-on password</li> <li>Administrator password</li> <li>Hard disk password</li> <li>Boot sequence control</li> <li>Boot without keyboard, mouse, diskette</li> <li>Serial port I/O control</li> <li>Parallel port I/O control</li> <li>Individual USB port disablement</li> </ul> <p>Supports ThinkVantage® technologies</p> <p>GREENGUARD® certified RoHS-compliant</p> <p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>3-year parts and labor</li> <li>International Warranty Service®</li> <li>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)</li> <li>3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)</li> <li>4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)</li> <li>4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> </li> <li>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup> Drive	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar	
eSATA port	None	
EIDE controller	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>F8U:</i> monitor (VGA DB-15, DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15, DVI-D)	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Marvel® 88E8070, Wake on LAN®, ASF 2.0	
Modem	None	
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, manual switch	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- <i>Some:</i> Genuine Windows® Vista® Business 32	1GB PC2-5300 CL5 DDR2 UDIMM	73P4984
- <i>Some:</i> Genuine Windows Vista Business 64	2GB PC2-5300 CL5 DDR2 UDIMM	73P4985
◇ Vista Premium logo	1GB PC2-6400 DDR2 UDIMM	41U2977
<b>Preloaded applications<sup>5</sup></b> (all OSeS; only some listed)	2GB PC2-6400 DDR2 UDIMM	41U2978
• <i>Some:</i> Education software	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
- VitalSource™ Library School Edition	DVD-ROM DL SATA 1.5Gb/s 16-48X Max	41N5618
- Adobe® Elements	Super Multi-Burner DL DVD±RW SATA Drive	41N5620
- Photoshop Elements 6	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636
- Premiere Elements 4	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)45K1635	45K1635
• Roxio® Creator® Business Edition (DVD±RW)	More accessories on O-A62 sheet	
• Roxio MyDVD® (DVD±RW)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
• Corel® WinDVD® (DVD, DVD±RW)	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information  
 US models announced August 12 or September 9, 2008  
 < US models withdrawn effective July or December 2009

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>a</sup>	SATA disk	2nd Disk Bay	SATA optical	Graphics	Monitor connectors	ENERGY STAR 5.0	Preload	Global Educ	Avail date
A62	9625-B5U	4x4	Athlon X2 5000B	2.6	Dual	1GB	160GB <sup>2</sup>		DVD	3100	VGA, DVI-D	None	XP Pro	None	Sep 08
A62	9625-B6U	4x4	Athlon X2 5000B	2.6	Dual	2GB	160GB		DVD±RW	3100	VGA, DVI-D	None	XP Pro	None	Sep 08
A62	9625-B7U	4x4	Athlon X2 5400B	2.8	Dual	2GB	250GB		DVD±RW	3100	VGA, DVI-D	None	XP Pro	None	Sep 08
A62	9625-B9U	4x4	Athlon X2 5400B	2.8	Dual	2GB	160GB		DVD±RW	<b>9300GE</b>	VGA, DVI-I	None	XP Pro	None	Sep 08
A62	9625-B8U	4x4	Phenom X3 8450	2.1	Triple	2GB	160GB		DVD	3100	VGA, DVI-D	None	XP Pro	None	Dec 08
A62	9625-A3U	4x5	Athlon 1640B	2.7	Single	1GB	160GB	Bay	DVD	3100	VGA, DVI-D	None	Bus32	None	Sep 08
A62	9625-D2U	4x4	Athlon X2 4450B	2.3	Dual	1GB	160GB		DVD±RW	3100	VGA, DVI-D	None	Bus32	None	Sep 08
A62	9625-A2U	4x5	Athlon X2 5000B	2.6	Dual	1GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	None	Bus32	None	Sep 08
A62	9625-A1U	4x5	Phenom X3 8600B	2.3	Triple	2GB	160GB	Bay	DVD±RW	3100	VGA, DVI-D	None	Bus64	None	Dec 08

• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Stability and manageability for large enterprise and mid-market <b>AMD® Athlon™ Processor 1640B</b> with single-core, virtualization technology, int DDR2 memory controller, and 512KB L2 cache or <b>AMD Athlon X2 Dual-Core Processor 4450B, 5000B, or 5400B</b> with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache or <b>AMD Phenom™ X3 Triple-Core Processor 8450 or 8600B</b> with triple-core, virtualization technology, integrated DDR2 memory controller, 1.5MB dedicated L2 cache and 2MB shared L3 cache Processor in Socket AM2 or AM2+	<b>Tower</b> <ul style="list-style-type: none"> <li>Business black color</li> <li>6.9" W X 17.3" D X 15.8" H</li> <li>175mm W X 440mm D X 402mm H</li> <li>24.2lb (11.0kg) in typical configuration</li> <li>Handle on top front</li> <li>Toolless cover removal</li> <li>Toolless disk, diskette drive, optical drive removal</li> <li>Toolless adapter retention</li> </ul> 
Implementation		
Memory	<b>1GB or 2GB std</b> , 8GB max <sup>8</sup> , four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available; <i>Non-italics:</i> standard memory in one socket; three sockets available; <i>D2U:</i> <b>PC2-5300 667MHz DDR2</b> , non-parity, dual-channel capable; <i>Others:</i> <b>PC2-6400 800MHz DDR2</b> , non-parity, dual-channel capable	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader/diskette) Bay ④ 3.5", 1" high, no access, std disk Bay ⑤ 3.5", 1" high, no access, opt disk*
Graphics	<i>Some:</i> <b>ATI™ Radeon™ 3100</b> , int graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D conn, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI graphics adapter <i>Some:</i> <b>NVIDIA® GeForce® 9300 GE</b> , PCI Express® x16 adapter, 256MB, one analog VGA DB-15 conn via cable, one DVI-I conn, S-Video out for TV-out, HDCP, DirectX 10, 30 watts	Slot 1: half-length, full-height, PCIe 2.0 x1 Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max)** Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3 ** used in some models
SATA disk	<b>160GB or 250GB</b> , SATA 3.0Gb/s 7200 rpm, vibration dampening mounts	<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>Security chip (see information on left)</li> <li>One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>Padlock loop (in rear for opt padlock)</li> <li>Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>Power-on password</li> <li>Administrator password</li> <li>Hard disk password</li> <li>Boot sequence control</li> <li>Boot without keyboard, mouse, diskette</li> <li>Serial port I/O control</li> <li>Parallel port I/O control</li> <li>Individual USB port disablement</li> </ul>
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support	
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup> Drive	
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors on planar	
eSATA port	None	
EIDE controller	None	
Diskette drive	None	
Media reader	None	
Chipset	<b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)	
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), <i>B9U:</i> monitor (VGA DB-15, DVI-I), S-Video out; <i>Others:</i> monitor (VGA DB-15, DVI-D)	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	Supports ThinkVantage® technologies
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	GREENGUARD® certified RoHS-compliant
Speaker	One internal speaker for business audio	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0	
Modem	None	
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> </li> <li>↪ Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo	
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo	
Power supply	280 watts with variable speed fan, autosensing, 80% PSU	
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>	
- <i>Some:</i> Genuine Windows® XP Professional (preinstalled via downgrade rights in Windows Vista® Business)	1GB PC2-5300 CL5 DDR2 UDIMM 73P4984	
- <i>Some:</i> Genuine Windows Vista Business 32	2GB PC2-5300 CL5 DDR2 UDIMM 73P4985	
- <i>Some:</i> Genuine Windows Vista Business 64	1GB PC2-6400 DDR2 UDIMM 41U2977	
◆ Vista models: Vista Premium logo	2GB PC2-6400 DDR2 UDIMM 41U2978	
<b>Preloaded applications<sup>5</sup></b> (all OSEs; only some listed)	500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990	
• Roxio® Creator® Business Edition (DVD±RW)	Super Multi-Burner DL DVD±RW SATA Drive 41N5620	
• Roxio MyDVD® (DVD±RW)	ATI Radeon HD 3470 256MB (DP, VGA) 45K1636	
• Corel® WinDVD® (DVD, DVD±RW)	NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635	
	More accessories on O-A62 sheet	
	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>	
	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

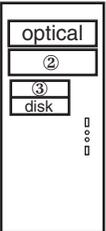
See footnotes for important warranty information

Ⓜ US models announced December 9, 2008; previous models on August 12 or September 9, 2008

Ⓜ US models withdrawn effective July or August 2009

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>a</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	Vista preload	Global (G) GMP (P)	Avail date
A62	7061-A1U	4x4	Athlon X2 5400B	2.8	Dual	2GB	160GB <sup>2</sup>	None	DVD±RW	3100	VGA, DVI-D	Bus32	G P	Sep 08

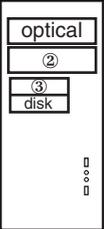
- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	<p><i>Stability and manageability for large enterprise and mid-market</i></p> <p><b>AMD® Athlon™ X2 Dual-Core Processor 5400B</b> with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2lb (11.0kg) in typical configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 														
Implementation	Processor in Socket AM2																
Memory	<p><b>2GB std, 8GB max<sup>8</sup>, PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, four 240-pin DIMM sockets;</p> <p><i>Italics:</i> standard memory in two sockets; two sockets available</p>																
Graphics	<p><b>ATI™ Radeon™ 3100</b>, integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter</p>																
SATA disk	<p><b>160GB</b>, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts</p>		<p>Bay ① 5.25", 1.6" high, access, std optical</p> <p>Bay ② 5.25", 1.6" high, access, open</p> <p>Bay ③ 3.5", 1" high, access, open (reader/diskette)</p> <p>Bay ④ 3.5", 1" high, no access, std disk</p> <p>Slot 1: half-length, full-height, PCIe 2.0 x1</p> <p>Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max)</p> <p>Slot 3: half-length, full-height, 32-bit PCI 2.3</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p>														
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support																
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																
SATA cables	Two SATA cables (each 1-drop to device), four SATA connectors																
eSATA port	None																
EIDE controller	None																
Diskette drive	None																
Media reader	None																
Chipset	<p><b>AMD 780V Chipset</b> with HyperTransport™ 3.0 and PCI Express® 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O</p>																
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																
Speaker	One internal speaker for business audio																
Ethernet	Gigabit ethernet on planar, Marvell® 88E8070, Wake on LAN®, ASF 2.0																
Modem	None																
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant																
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo																
Power supply	280 watts with variable speed fan, manual switch																
<b>Preloaded operating system<sup>20</sup></b>	<p>- Genuine Windows® Vista® Business 32</p> <p>↳ Vista Premium logo</p>		<p>Supports ThinkVantage® technologies</p>														
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>																
	<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC2-6400 DDR2 UDIMM</td> <td>41U2977</td> </tr> <tr> <td>2GB PC2-6400 DDR2 UDIMM</td> <td>41U2978</td> </tr> <tr> <td>250GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>41N3015</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>ATI Radeon HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® GeForce® 9500GT 512MB (DP, DVI)</td> <td>45K1635</td> </tr> </table> <p>More accessories on O-A62 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		1GB PC2-6400 DDR2 UDIMM	41U2977	2GB PC2-6400 DDR2 UDIMM	41U2978	250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 9500GT 512MB (DP, DVI)	45K1635	<p>GREENGUARD® certified</p> <p>RoHS-compliant</p>
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	<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↳ 3-year parts and labor</li> <li>↳ International Warranty Service<sup>9</sup></li> <li>↳ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↳ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 45K5957)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> </li> <li>↳ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↳ Post warranty maintenance services available</li> <li>↳ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>																

See footnotes for important warranty information  
US model announced August 12, 2008

Name	Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	ENERGY STAR 5.0	Vista preload	Global (G) GMP (P)	Avail date
A62	3656-AAU	4x4	Athlon X2 5400B	2.8	Dual	2GB	160GB <sup>2</sup>	None	DVD±RW	3100	VGA, DVI-D	None	Bus32	G P	Jan 09

- This model is part of the Global Models Plus (GMP) program with limited onsite service<sup>3</sup> 3-year limited warranty

Positioning Processor	Stability and manageability for large enterprise and mid-market AMD® Athlon™ X2 Dual-Core Processor 5400B with dual-core, virtualization technology, integrated DDR2 memory controller, and 1MB dedicated L2 cache Processor in Socket AM2										<b>Tower</b> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2lb (11.0kg) in typical configuration</li> <li>• Handle on top front</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>		
Implementation	2GB std, 8GB max <sup>8</sup> , PC2-6400 800MHz DDR2, non-parity, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in two sockets; two sockets available										<ul style="list-style-type: none"> <li>Bay ① 5.25", 1.6" high, access, std optical</li> <li>Bay ② 5.25", 1.6" high, access, open</li> <li>Bay ③ 3.5", 1" high, access, open (reader/diskette)</li> <li>Bay ④ 3.5", 1" high, no access, std disk</li> </ul>		
Memory	ATITM Radeon™ 3100, integrated graphics in 780V, uses main memory (up to 512MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 independent monitors with optional dual-head ATI graphics adapter										Slot 1: half-length, full-height, PCIe 2.0 x1 Slot 2: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 3: half-length, full-height, 32-bit PCI 2.3 Slot 4: half-length, full-height, 32-bit PCI 2.3		
Graphics	160GB, SATA 3.0Gb/s 7200 rpm, vibration dampening mounts Serial ATA, SATA 3.0Gb/s, integrated in SB700, RAID 0/1 support Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive Two SATA cables (each 1-drop to device), four SATA connectors												
SATA disk	None												
SATA controller	None												
SATA DVD±RW	None												
SATA cables	None												
eSATA port	None												
EIDE controller	None												
Diskette drive	None												
Media reader	None												
Chipset	AMD 780V Chipset with HyperTransport™ 3.0 and PCI Express 2.0 support; SB700 south bridge for SATA 3.0Gb/s with RAID 0/1 support, ATA-133 EIDE, PCI 2.3, USB, LPC bus / Winbond® W83627DHG Super I/O										<b>Security</b> <ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• One lock to secure both cover and entire system to fixed object:               <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Hard disk password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• Individual USB port disablement</li> </ul>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)												
Rear ports	Six USB 2.0, serial (9-pin), parallel (25-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)												
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)												
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)												
Audio	High Definition (HD) Audio, Realtek® ALC662 codec												
Speaker	One internal speaker for business audio												
Ethernet	Gigabit ethernet on planar, Marvel® 88E8070, Wake on LAN®, ASF 2.0												
Modem	None												
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant												
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo												
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo												
Power supply	280 watts with variable speed fan, autosensing, 80% PSU												
<b>Preloaded operating system<sup>20</sup></b>	<ul style="list-style-type: none"> <li>- Genuine Windows® Vista® Business 32</li> <li>◇ Vista Premium logo</li> </ul>										Supports ThinkVantage® technologies		
<b>Preloaded applications<sup>5</sup></b>	<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• McAfee® VirusScan® Plus (30 days of virus definitions)</li> <li>• Lenovo System Toolbox</li> <li>• Adobe® Reader®</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> <li>• Roxio® Creator® Business Edition (DVD±RW)</li> <li>• Roxio MyDVD® (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>										GREENGUARD® certified RoHS-compliant		
<b>Accessories</b>	1GB PC2-6400 DDR2 UDIMM 41U2977 2GB PC2-6400 DDR2 UDIMM 41U2978 250GB SATA 3.0Gb/s Disk (7200 rpm) 41N3015 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 ATI Radeon HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® GeForce® 9500GT 512MB (DP, DVI) 45K1635 More accessories on O-A62 sheet  Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										<b>Limited Warranty<sup>1</sup></b> <ul style="list-style-type: none"> <li>⇨ 3-year parts and labor</li> <li>⇨ International Warranty Service<sup>9</sup></li> <li>⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>⇨ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus™ part number 45K5957)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> </li> <li>⇨ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>⇨ Post warranty maintenance services available</li> <li>⇨ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>		

See footnotes for important warranty information  
 US model announced December 9, 2008

Partial list of accessories supported on ThinkCentre A62

**Memory**

1GB PC2-5300 CL5 DDR2 UDIMM <sup>40</sup>	73P4984	ann 06/28/05
1GB PC2-5300 CL5 DDR2 UDIMM (25-Pack)	51J0501	ann 03/17/09
2GB PC2-5300 CL5 DDR2 UDIMM	73P4985	ann 09/26/06
2GB PC2-5300 CL5 DDR2 UDIMM (25-Pack)	51J0547	ann 03/17/09
1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

<sup>40</sup> When PC2-5300 is installed with systems that have PC2-6400 memory, PC2-6400 will operate at the PC2-5300 memory speed.

**Optical**

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup>	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

**Storage and removable storage**

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
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 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 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

**Graphics**

Desktop 9486/7057/7062/3658/9945 support Low Profile 35 watts max:

ATI™ Radeon™ HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
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Tower 9705/9935/9485/9625/7061/3656 support 75 watts max:

ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	ann 11/18/08
NVIDIA® GeForce® 9500 GT 512MB (DP, DVI)	45K1635	ann 11/18/08

More information at [www.lenovo.com/support/graphiccards](http://www.lenovo.com/support/graphiccards)

**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
Lenovo® USB Fingerprint Keyboard	73P4730	ann 02/22/05
Lenovo USB Smartcard Keyboard	51J0155	ann 03/24/09

<sup>52</sup> Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)

**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 ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)

**Multimedia**

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10

**Security**

Kensington® MicroSaver® Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

<sup>56</sup>Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

**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

More information at [www.lenovo.com/thinkvision](http://www.lenovo.com/thinkvision)

**Monitor Accessories<sup>46</sup>**

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 <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup>Compatible on selected Lenovo and ThinkVision monitors.

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

**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:  
[www.lenovo.com/support/accessories](http://www.lenovo.com/support/accessories)  
[www.lenovo.com/support/desktopaccessories](http://www.lenovo.com/support/desktopaccessories)  
[www.lenovo.com/support/security](http://www.lenovo.com/support/security)

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)



Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower with  
Lenovo ThinkVision® monitor



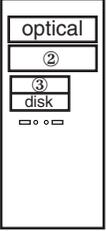
Lenovo ThinkCentre A63 Tower



Lenovo ThinkCentre A63 Tower

Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Win7 preload	Global Educ	Avail date
4013-A7U	4x4	Sempron 140	2.7	Single	1GB	250GB <sup>2</sup>	None	DVD	None	3000	VGA, DVI-D	Int	Prem 32	None	Feb 10

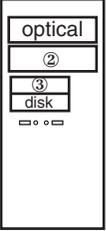
- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This model has a 1-year limited warranty<sup>1</sup>

Positioning	Optimized for small and medium businesses		<b>Tower</b>															
Processor	AMD® Sempron™ Processor 140 with single-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 1MB L2 cache		<ul style="list-style-type: none"> <li>• Business black color</li> <li>• 6.9" W X 17.4" D X 16.2" H</li> <li>• 175mm W X 442mm D X 412mm H</li> <li>• 24.2lb (11.0kg) in typical configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless cover removal</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul>															
Implementation	Processor in Socket AM3		Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader) Bay ④ 3.5", 1" high, no access, std disk															
Memory	1GB std, 4GB max, UDIMM, PC3-8500 1066MHz DDR3, two 240-pin DIMM sockets; Non-italics: standard memory in one socket; one socket available		Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, PCIe 2.0 x1 Slot 4: half-length, full-height, 32-bit PCI 2.3															
Graphics	ATI™ Radeon™ 3000, integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter				<b>Security</b> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                             <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> Supports ThinkVantage® technologies													
SATA disk(s)	250GB, SATA 3.0Gb/s 7200 rpm																	
SATA DVD	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup> Drive																	
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors																	
eSATA port	None																	
Diskette drive	None																	
Media reader	None																	
Chipset	AMD 760G Chipset with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O																	
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)																	
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)																	
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)																	
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)																	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec																	
Speaker	Internal speaker for business audio																	
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®																	
Modem	None																	
Security chip	None																	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo																	
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo																	
Power supply	280 watts with variable speed fan, manual switch																	
<b>Preloaded operating system</b> <sup>20</sup>	Genuine Windows® 7 Home Premium 32																	
<b>Preloaded applications</b> <sup>5</sup> (only some listed)	<ul style="list-style-type: none"> <li>• ThinkVantage Product Recovery</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> </ul>		<b>Accessories</b> <table border="0"> <tr> <td>1GB PC3-8500 DDR3 UDIMM</td> <td>45J5434</td> </tr> <tr> <td>2GB PC3-8500 DDR3 UDIMM</td> <td>45J5435</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>DVD-ROM DL SATA 1.5Gb/s 16X-48X Max</td> <td>41N5618</td> </tr> <tr> <td>ATI Radeon HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td> <td>57Y4397</td> </tr> </table> More accessories on O-A63 sheet Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		1GB PC3-8500 DDR3 UDIMM	45J5434	2GB PC3-8500 DDR3 UDIMM	45J5435	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	DVD-ROM DL SATA 1.5Gb/s 16X-48X Max	41N5618	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397
1GB PC3-8500 DDR3 UDIMM	45J5434																	
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ATI Radeon HD 3470 256MB (DP, VGA)	45K1636																	
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397																	
			GREENGUARD® certified RoHS-compliant															
			<b>Limited Warranty</b> <sup>1</sup> <ul style="list-style-type: none"> <li>↪ 1-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)</li> <li>• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)</li> <li>• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)</li> <li>• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)</li> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>															

See footnotes for important warranty information  
 US model announced January 12, 2010

Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>a</sup>	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Preload	Recovery DVD	Global Educ	Avail date
5043-A1U	4x4	Athlon II X3 435	2.9	Triple	2GB	320GB <sup>2</sup>	No	DVD±RW	No	3000	VGA, DVI-D	No	XP Pro	Pro 32	No	Feb 10
5043-A3U	4x4	Athlon II X2 240	2.8	Dual	1GB	250GB	No	DVD±RW	No	3000	VGA, DVI-D	No	XP Pro	Pro 32	No	Feb 10
5043-A4U	4x4	Athlon II X2 240	2.8	Dual	2GB	320GB	No	DVD±RW	No	3000	VGA, DVI-D	No	XP Pro	Pro 32	No	Feb 10
5043-A5U	4x4	Athlon II X2 245	2.9	Dual	2GB	320GB	No	DVD±RW	No	3000	VGA, DVI-D	No	XP Pro	Pro 32	No	Feb 10

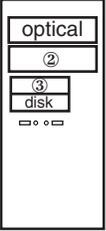
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Optimized for small and medium businesses <b>AMD® Athlon™ II X2 Processor 240 or 245</b> with dual-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or <b>AMD Athlon II X3 Processor 435</b> with triple-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) Processor in Socket AM3	<b>Tower</b> • Business black color • 6.9" W X 17.4" D X 16.2" H • 175mm W X 442mm D X 412mm H • 24.2lb (11.0kg) in typical configuration • Handle on top front • Power button on top handle • Tilted front I/O for easy access • Toolless cover removal • Toolless disk, optical drive removal • Toolless adapter retention	
Implementation			
Memory	<b>1GB or 2GB std.</b> , 4GB max, <b>UDIMM</b> , two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available; <b>A1U:</b> <b>PC3-10600 1333MHz DDR3;</b> <b>A3U/A4U/A5U:</b> <b>PC3-8500 1066MHz DDR3</b>	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, open (reader) Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>ATI™ Radeon™ 3000</b> , integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter	Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, PCIe 2.0 x1 Slot 4: half-length, full-height, 32-bit PCI 2.3	
SATA disk(s)	<b>250GB or 320GB</b> , SATA 3.0Gb/s 7200 rpm	<p align="center"><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object: <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul> <p align="center">Supports ThinkVantage® technologies</p> <p align="center">GREENGUARD® certified RoHS-compliant</p> <p align="center"><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 45K5955)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5956)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 45K5957)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 45K5958)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5959)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>AMD 760G Chipset</b> with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	None		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 ATI Radeon HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397 More accessories on O-A63 sheet		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• ThinkVantage Product Recovery			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• Lenovo System Toolbox			
• Norton™ Internet Security 2009 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Skype™ for Windows			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD±RW)			

See footnotes for important warranty information  
US models announced January 12, 2010

Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Win7 preload	Global Educ	Avail date
5043-AEU	4x4	Sempron 140	2.7	Single	2GB	250GB <sup>2</sup>	None	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	None	Feb 10
5043-AFU	4x4	Athlon II X2 240	2.8	Dual	2GB	250GB	None	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	None	Feb 10
5043-AGU	4x4	Athlon II X3 435	2.9	Triple	3GB	320GB	None	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	None	Feb 10

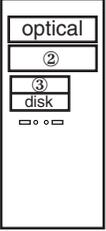
- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>Optimized for small and medium businesses</i></p> <p><b>AMD® Sempron™ Processor 140</b> with single-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 1MB L2 cache or</p> <p><b>AMD Athlon™ II X2 Processor 240</b> with dual-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or</p> <p><b>AMD Athlon II X3 Processor 435</b> with triple-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core)</p> <p>Processor in Socket AM3</p>	<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2lb (11.0kg) in typical configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 5.25", 1.6" high, access, open                  Bay ③ 3.5", 1" high, access, open (reader)                  Bay ④ 3.5", 1" high, no access, std disk</p>														
Implementation	Processor in Socket AM3	<p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)</p> <p>Slot 2: half-length, full-height, PCIe 2.0 x1</p> <p>Slot 3: half-length, full-height, PCIe 2.0 x1</p> <p>Slot 4: half-length, full-height, 32-bit PCI 2.3</p>														
Memory	<p><b>2GB or 3GB std, 4GB max, UDIMM, PC3-10600 1333MHz DDR3</b>, two 240-pin DIMM sockets;</p> <p><i>Italics:</i> standard memory in both sockets; no sockets avail;</p> <p><i>Non-italics:</i> standard memory in one socket; one socket available</p>															
Graphics	<p><b>ATI™ Radeon™ 3000</b>, integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter</p>	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• Individual USB port disablement</li> </ul>														
SATA disk(s)	<p><b>250GB or 320GB</b>, SATA 3.0Gb/s 7200 rpm</p> <p>Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p> <p>Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors</p>															
SATA DVD±RW	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors															
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors															
eSATA port	None															
Diskette drive	None															
Media reader	None															
Chipset	<p><b>AMD 760G Chipset</b> with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O</p>															
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)															
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)	Supports ThinkVantage technologies														
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)	GREENGUARD® certified														
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)	RoHS-compliant														
Audio	High Definition (HD) Audio, Realtek® ALC662 codec															
Speaker	Internal speaker for business audio															
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®															
Modem	None															
Security chip	None															
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo															
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo															
Power supply	280 watts with variable speed fan, manual switch															
<b>Preloaded operating system</b> <sup>20</sup>	<p>- Genuine Windows® 7 Professional 32</p>															
<b>Preloaded applications</b> <sup>5</sup> (only some listed)	<ul style="list-style-type: none"> <li>• ThinkVantage Product Recovery</li> <li>• Password Manager</li> <li>• ThinkVantage System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2009 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2007 Trial (60-day)</li> </ul>	<p><b>Accessories</b></p> <table border="0"> <tr> <td>1GB PC3-10600 DDR3 UDIMM</td> <td>57Y4389</td> </tr> <tr> <td>2GB PC3-10600 DDR3 UDIMM</td> <td>57Y4390</td> </tr> <tr> <td>500GB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>43R1990</td> </tr> <tr> <td>1TB SATA 3.0Gb/s Disk (7200 rpm)</td> <td>45J7918</td> </tr> <tr> <td>Super Multi-Burner DL DVD±RW SATA Drive</td> <td>41N5620</td> </tr> <tr> <td>ATI Radeon HD 3470 256MB (DP, VGA)</td> <td>45K1636</td> </tr> <tr> <td>NVIDIA® GeForce® 310 512MB (DP, VGA)</td> <td>57Y4397</td> </tr> </table> <p>More accessories on O-A63 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>	1GB PC3-10600 DDR3 UDIMM	57Y4389	2GB PC3-10600 DDR3 UDIMM	57Y4390	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ATI Radeon HD 3470 256MB (DP, VGA)	45K1636	NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397
1GB PC3-10600 DDR3 UDIMM	57Y4389															
2GB PC3-10600 DDR3 UDIMM	57Y4390															
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990															
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918															
Super Multi-Burner DL DVD±RW SATA Drive	41N5620															
ATI Radeon HD 3470 256MB (DP, VGA)	45K1636															
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397															
		<p><b>Limited Warranty</b><sup>1</sup></p> <ul style="list-style-type: none"> <li>↪ 3-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5955)</li> <li>• 3-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5956)</li> <li>• 4-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5957)</li> <li>• 4-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5958)</li> <li>• 4-year LOR 24x7, 4 hour response (ThinkPlus part number 45K5959)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>														

See footnotes for important warranty information  
 US models announced January 12, 2010

Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>8</sup>	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Win7 preload	Global Educ	Avail date
5237-AAU	4x4	Athlon II X2 240	2.8	Dual	2GB	250GB <sup>2</sup>	No	DVD±RW	None	3000	VGA, DVI-D	Int	Pro 32	No	Feb 10

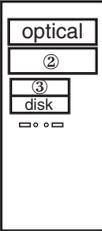
- **This model has a 1-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Optimized for small and medium businesses</i>  <b>AMD® Athlon™ II X2 Processor 240</b> with dual-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core)</p>		<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 6.9" W X 17.4" D X 16.2" H</li> <li>• 175mm W X 442mm D X 412mm H</li> <li>• 24.2lb (11.0kg) in typical configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless cover removal</li> <li>• Toolless disk, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> 
Implementation	Processor in Socket AM3		
Memory	<p><b>2GB std</b>, 4GB max, <b>UDIMM, PC3-10600 1333MHz DDR3</b>, two 240-pin DIMM sockets;  <i>Non-italics: standard memory in one socket; one socket available</i></p>		
Graphics	<p><b>ATI™ Radeon™ 3000</b>, integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter</p>		
SATA disk(s)	<p><b>250GB</b>, SATA 3.0Gb/s 7200 rpm Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive</p>		<p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 5.25", 1.6" high, access, open                  Bay ③ 3.5", 1" high, access, open (reader)                  Bay ④ 3.5", 1" high, no access, std disk</p> <p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)                  Slot 2: half-length, full-height, PCIe 2.0 x1                  Slot 3: half-length, full-height, PCIe 2.0 x1                  Slot 4: half-length, full-height, 32-bit PCI 2.3</p>
SATA DVD	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors		
SATA Controller	None		
eSATA port	None		
Diskette drive	None		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Individual USB port disablement</li> </ul>
Media reader	None		
Chipset	<p><b>AMD 760G Chipset</b> with HyperTransport 3.0 and PCI Express® 2.0 support;                  SB710 south bridge / ITE Tech® IT8720 Super I/O</p>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch		
<b>Preloaded operating system<sup>20</sup></b>	<p>- Genuine Windows® 7 Professional 32</p>		<p>Supports ThinkVantage® technologies</p> <p>GREENGUARD® certified RoHS-compliant</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>1-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>1-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 45K5951)</li> <li>• <b>2-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 45K5949)</li> <li>• <b>2-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 45K5952)</li> <li>• <b>3-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 45K5950)</li> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 45K5953)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<p>• ThinkVantage Product Recovery</p> <p>• Password Manager</p> <p>• ThinkVantage System Update</p> <p>• ThinkVantage Power Manager</p> <p>• ThinkVantage Toolbox</p> <p>• Norton™ Internet Security 2009 (30 days of virus definitions)</p> <p>• Adobe® Reader®</p> <p>• Adobe Flash® Player</p> <p>• Skype™ for Windows</p> <p>• Microsoft® Office 2007 Trial (60-day)</p>		
<b>Accessories</b>	<p>1GB PC3-10600 DDR3 UDIMM 57Y4389</p> <p>2GB PC3-10600 DDR3 UDIMM 57Y4390</p> <p>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</p> <p>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</p> <p>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</p> <p>ATI Radeon HD 3470 256MB (DP, VGA) 45K1636</p> <p>NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397</p> <p>More accessories on O-A63 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		

See footnotes for important warranty information  
 US model announced January 12, 2010

Type-model	Slot x bay	AMD processor	GHz	Core	Memory <sup>a</sup>	SATA disk	2nd Disk Bay	SATA optical	Integrated graphics	Monitor connectors	Int speaker	Chassis intr switch	Recovery DVD	Global Educ	Avail date
6674-A4U	4x4	Athlon II X3 435	2.9	Triple	2GB	320GB <sup>2</sup>	No	DVD±RW	3000	VGA, DVI-D			XP Pro	Pro 32	None Feb 10
6674-A6U	4x4	Athlon II X2 240	2.8	Dual	1GB	250GB	No	DVD	3000	VGA, DVI-D			XP Pro	Pro 32	None Feb 10
6674-A8U	4x4	Athlon II X2 245	2.9	Dual	2GB	320GB	No	DVD±RW	3000	VGA, DVI-D	Int	Switch	XP Pro	Pro 32	None Feb 10
6674-AFU	4x4	Athlon II X2 245	2.9	Dual	2GB	320GB	No	DVD±RW	3000	VGA, DVI-D	Int		XP Pro	Pro 32	None Feb 10

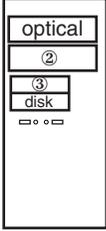
• These models have a 3-year limited warranty<sup>1</sup>

Positioning Processor	Optimized for small and medium businesses <b>AMD® Athlon™ II X2 Processor 240</b> or <b>245</b> with <b>dual-core</b> , 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or <b>AMD Athlon II X3 Processor 435</b> with <b>triple-core</b> , 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) Processor in Socket AM3	<b>Tower</b> • Business black color • 6.9" W X 17.3" D X 15.8" H • 175mm W X 440mm D X 402mm H • 24.2lb (11.0kg) in typical configuration • Handle on top front • Power button on top handle • Tilted front I/O for easy access • Toolless cover removal • Toolless disk, diskette drive, optical drive removal • Toolless adapter retention	
Implementation			
Memory	<b>1GB</b> or <b>2GB std.</b> , 4GB max, <b>UDIMM</b> , two 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available; <b>A4U:</b> <b>PC3-10600 1333MHz DDR3;</b> <b>A6U/A8U/AFU:</b> <b>PC3-8500 1066MHz DDR3</b>	Bay ① 5.25", 1.6" high, access, std optical Bay ② 5.25", 1.6" high, access, open Bay ③ 3.5", 1" high, access, opt reader Bay ④ 3.5", 1" high, no access, std disk	
Graphics	<b>ATI™ Radeon™ 3000</b> , integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter	Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max) Slot 2: half-length, full-height, PCIe 2.0 x1 Slot 3: half-length, full-height, PCIe 2.0 x1 Slot 4: half-length, full-height, 32-bit PCI 2.3	
SATA disk(s)	<b>250GB</b> or <b>320GB</b> , SATA 3.0Gb/s 7200 rpm		<b>Security</b> • One lock to secure both cover and entire system to fixed object: - Padlock loop (in rear for opt padlock) - Security slot (in rear for optional Kensington® MicroSaver® cable) • Power-on password • Boot sequence control • Boot without keyboard and mouse • Serial port I/O control • Individual USB port disablement • <i>Some:</i> Chassis intrusion switch
SATA DVD	<i>Some:</i> DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup> Drive		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	None		
Chipset	<b>AMD 760G Chipset</b> with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O		Supports ThinkVantage technologies
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	<i>Some:</i> Internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Marvell® 88E8057, Wake on LAN®		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch		
<b>Preloaded operating system<sup>20</sup></b>	<b>Accessories</b>		
- Windows® XP Professional preinstalled through downgrade rights in Genuine Windows 7 Professional (with Windows 7 Professional 32 Recovery DVD)	1GB PC3-8500 DDR3 UDIMM 45J5434 2GB PC3-8500 DDR3 UDIMM 45J5435 1GB PC3-10600 DDR3 UDIMM 57Y4389 2GB PC3-10600 DDR3 UDIMM 57Y4390 500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 DVD-ROM DL SATA 1.5Gb/s 16X-48X Max 41N5618 Super Multi-Burner DL DVD±RW SATA Drive 41N5620 ATI Radeon HD 3470 256MB (DP, VGA) 45K1636 NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397 More accessories on O-A63 sheet		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a> Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		
• ThinkVantage Product Recovery			
• Client Security Solution™			
• ThinkVantage Productivity Center			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• Lenovo System Toolbox			
• Norton™ Internet Security 2009 (30 days of virus definitions)			
• Adobe® Reader®			
• Adobe Flash® Player			
• Skype™ for Windows			
• Microsoft® Office 2007 Trial (60-day)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
• Corel® WinDVD® (DVD, DVD±RW)			
			<b>Limited Warranty<sup>1</sup></b> ↪ <b>3-year parts and labor</b> ↪ <b>International Warranty Service®</b> ↪ <b>Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b> ↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> • <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 45K5955) • <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5956) • <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 45K5957) • <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 45K5958) • <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5959) ↪ <b>ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b> ↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b>

See footnotes for important warranty information  
US models announced January 12, 2010

Type-model	Slot x bay	AMD processor	GHz	Memory <sup>a</sup>	SATA disk	2nd Disk Bay	SATA optical	Media reader	Integrated graphics	Monitor connectors	Int speaker	Chassis intr switch	Win7 Preload	Global Educ	Avail date
6674-ABU	4x4	Phenom II X4 B93	2.8	3GB	500GB <sup>b</sup>	No	DVD±RW	Media	3000	VGA, DVI-D	Int	Switch	Pro 32	None	Feb 10
6674-ANU	4x4	Athlon II X2 240	2.8	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10
6674-APU	4x4	Athlon II X3 435	2.9	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10
6674-ARU	4x4	Sempron 140	2.7	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10
6674-ASU	4x4	Athlon II X2 245	2.9	2GB	250GB	No	DVD±RW		3000	VGA, DVI-D	Int		Pro 32	None	Feb 10

• **These models have a 3-year limited warranty<sup>1</sup>**

Positioning Processor	<p><i>Optimized for small and medium businesses</i></p> <p><b>AMD® Sempron™ Processor 140</b> with single-core, 4000MHz HyperTransport™ Bus, AMD Virtualization™ (AMD-V™) technology, AMD64 technology, int DDR3 memory controller, and 1MB L2 cache or</p> <p><b>AMD® Athlon™ II X2 Processor 240 or 245</b> with dual-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 2MB L2 cache (1MB per core) or</p> <p><b>AMD Athlon II X3 Processor 435</b> with triple-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, and 1.5MB L2 cache (512KB per core) or</p> <p><b>AMD Phenom™ II X4 Processor B93</b> with quad-core, 4000MHz HyperTransport Bus, AMD Virtualization (AMD-V) technology, AMD64 technology, int DDR3 memory controller, 2MB L2 cache (512KB per core), and 6MB shared L3 cache Processor in Socket AM3</p>	<p><b>Tower</b></p> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 6.9" W X 17.3" D X 15.8" H</li> <li>• 175mm W X 440mm D X 402mm H</li> <li>• 24.2lb (11.0kg) in typical configuration</li> <li>• Handle on top front</li> <li>• Power button on top handle</li> <li>• Tilted front I/O for easy access</li> <li>• Toolless cover removal</li> <li>• Toolless disk, diskette drive, optical drive removal</li> <li>• Toolless adapter retention</li> </ul> <p>Bay ① 5.25", 1.6" high, access, std optical                  Bay ② 5.25", 1.6" high, access, open                  Bay ③ 3.5", 1" high, access, opt reader                  Bay ④ 3.5", 1" high, no access, std disk</p> <p>Slot 1: half-length, full-height, PCIe 2.0 x16 (75w max)                  Slot 2: half-length, full-height, PCIe 2.0 x1                  Slot 3: half-length, full-height, PCIe 2.0 x1                  Slot 4: half-length, full-height, 32-bit PCI 2.3</p>	
Memory	<p><b>2GB or 3GB std.</b>, 4GB max, <b>UDIMM</b>, two 240-pin 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;                  ABU/APU/ARU/ASU: <b>PC3-10600 1333MHz DDR3</b>;                  ANU: <b>PC3-8500 1066MHz DDR3</b></p>	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• One lock to secure both cover and entire system to fixed object:                         <ul style="list-style-type: none"> <li>- Padlock loop (in rear for opt padlock)</li> <li>- Security slot (in rear for optional Kensington® MicroSaver® cable)</li> </ul> </li> <li>• Power-on password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard and mouse</li> <li>• Serial port I/O control</li> <li>• Parallel port I/O control</li> <li>• Individual USB port disablement</li> <li>• <i>Some:</i> Chassis intrusion switch</li> </ul>	
Graphics	<p><b>ATI™ Radeon™ 3000</b>, integrated in chipset, uses main memory (up to 256MB), one analog VGA DB-15 connector, one DVI-D connector, DirectX® 10, ATI Avivo™, SurroundView™, supports dual independent display; supports up to 4 monitors with optional dual-head ATI Radeon discrete graphics adapter</p>	<p>Supports ThinkVantage technologies</p>	
SATA disk(s)	<p><b>250GB or 500GB</b>, SATA 3.0Gb/s 7200 rpm</p>	<p>GREENGUARD® certified RoHS-compliant</p> <p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ <b>3-year parts and labor</b></li> <li>↪ <b>International Warranty Service<sup>9</sup></b></li> <li>↪ <b>3-year LOR 24x7, 4 hour response parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</b></li> <li>↪ <b>Onsite service upgrade options (in eligible locations):<sup>7</sup></b> <ul style="list-style-type: none"> <li>• <b>3-year LOR 9x5, 4 hour response</b> (ThinkPlus™ part number 45K5955)</li> <li>• <b>3-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5956)</li> <li>• <b>4-year LOR 9x5, Next Business Day</b> (ThinkPlus part number 45K5957)</li> <li>• <b>4-year LOR 9x5, 4 hour response</b> (ThinkPlus part number 45K5958)</li> <li>• <b>4-year LOR 24x7, 4 hour response</b> (ThinkPlus part number 45K5959)</li> </ul> </li> <li>↪ <b>ThinkPlus services at lenovo.com/thinkplus/warranty</b></li> <li>↪ <b>24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</b></li> </ul>	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive		
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in SB710, four SATA connectors		
eSATA port	None		
Diskette drive	None		
Media reader	<i>Some:</i> 25-in-1 media reader, internal USB 2.0		
Chipset	<p><b>AMD 760G Chipset</b> with HyperTransport 3.0 and PCI Express® 2.0 support; SB710 south bridge / ITE Tech® IT8720 Super I/O</p>		
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), ethernet (RJ-45), monitor (VGA DB-15, DVI-D)		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)		
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Ethernet	Gigabit ethernet on planar, Marvel® 88E8057, Wake on LAN®		
Modem	None		
Security chip	None		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo		
Mouse	Optical Wheel Mouse (USB connector), 400dpi, black, Lenovo logo		
Power supply	280 watts with variable speed fan, manual switch		
<b>Preloaded operating system<sup>20</sup></b>	<p>- Genuine Windows® 7 Professional 32</p>		
<b>Preloaded applications<sup>5</sup> (only some listed)</b>	<p>• ThinkVantage Product Recovery</p> <p>• Password Manager</p> <p>• ThinkVantage System Update</p> <p>• ThinkVantage Power Manager</p> <p>• ThinkVantage Toolbox</p> <p>• Norton™ Internet Security 2009 (30 days of virus definitions)</p> <p>• Adobe® Reader®</p> <p>• Adobe Flash® Player</p> <p>• Skype™ for Windows</p> <p>• Microsoft® Office 2007 Trial (60-day)</p>		
<b>Accessories</b>	<p>1GB PC3-8500 DDR3 UDIMM 45J5434</p> <p>2GB PC3-8500 DDR3 UDIMM 45J5435</p> <p>1GB PC3-10600 DDR3 UDIMM 57Y4389</p> <p>2GB PC3-10600 DDR3 UDIMM 57Y4390</p> <p>500GB SATA 3.0Gb/s Disk (7200 rpm) 43R1990</p> <p>1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918</p> <p>Super Multi-Burner DL DVD±RW SATA Drive 41N5620</p> <p>ATI Radeon HD 3470 256MB (DP, VGA) 45K1636</p> <p>NVIDIA® GeForce® 310 512MB (DP, VGA) 57Y4397</p> <p>More accessories on O-A63 sheet</p> <p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a></p> <p>Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		

See footnotes for important warranty information  
US models announced January 12, 2010

Partial list of accessories supported on ThinkCentre A63

**Memory**

1GB PC3-8500 DDR3 UDIMM <sup>40</sup>	45J5434	ann 11/18/08
1GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4421	ann 11/10/09
2GB PC3-8500 DDR3 UDIMM	45J5435	ann 11/18/08
2GB PC3-8500 DDR3 UDIMM (25-Pack)	57Y4422	ann 11/10/09
1GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4389	ann 01/12/10
1GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4419	ann 01/12/10
2GB PC3-10600 DDR3 Low-Halogen UDIMM	57Y4390	ann 01/12/10
2GB PC3-10600 DDR3 L-H UDIMM (25-Pack)	57Y4420	ann 01/12/10

<sup>40</sup> When PC3-8500 is installed with systems that have PC3-10600 memory, PC3-10600 will operate at the PC3-8500 memory speed.

**Optical**

DVD-ROM DL SATA 1.5Gb/s 16X-48X Max <sup>4</sup>	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA Drive	41N5620	ann 09/26/06

**Storage and removable storage**

250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

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 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 <sup>53</sup>	57Y4400	ann 01/07/10
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

<sup>53</sup> USB-only attach.

**Graphics**

ATI™ Radeon™ HD 3470 256MB (DP, VGA) <sup>58</sup>	45K1636	ann 11/18/08
NVIDIA® GeForce® 310 512MB (DP, VGA)	57Y4397	ann 02/02/10
NVIDIA GeForce 310 DMS59 (2-DVI, 2-VGA)	57Y4167	ann 03/02/10

<sup>58</sup> Installing this graphics card does not disable the system monitor ports, thereby allowing a four monitor configuration.

More information at [www.lenovo.com/support/graphiccards](http://www.lenovo.com/support/graphiccards)

**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Preferred Pro Full Size PS/2 Keyboard	31P7415	ann 06/04/02
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
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

<sup>52</sup> Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)

**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 ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)

**Multimedia**

USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06
ThinkPad® In-Ear Headphones	57Y4488	ann 01/07/10

**Security**

Kensington® MicroSaver® Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

<sup>56</sup>Attaching to any form factor not only secures the ThinkCentre to the work area, but it also prevents users from opening the chassis itself.

**Monitors**

Lenovo D186 Wide 18.5" Monitor	2580AB1	ann 01/12/10
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

More information at [www.lenovo.com/thinkvision](http://www.lenovo.com/thinkvision)

**Monitor Accessories<sup>46</sup>**

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 <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup>Compatible on selected Lenovo and ThinkVision monitors.

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

**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

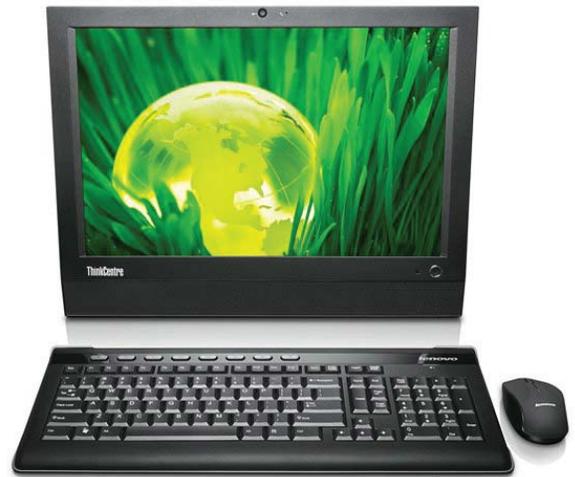
- [www.lenovo.com/support/accessories](http://www.lenovo.com/support/accessories)
- [www.lenovo.com/support/desktopaccessories](http://www.lenovo.com/support/desktopaccessories)
- [www.lenovo.com/support/security](http://www.lenovo.com/support/security)

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)



Lenovo ThinkCentre A70z All-In-One  
(Wireless keyboard & mouse  
on selected models only)



Lenovo ThinkCentre A70z All-In-One



Lenovo ThinkCentre A70z All-In-One



Lenovo ThinkCentre A70z All-In-One



ThinkCentre A70z Performance Stand  
57Y4277



Lenovo ThinkCentre A70z All-In-One

Type-model	Processor	GHz	Memory	Widescreen display	Camera (megapixel)	Integrated graphics	SATA disk	SATA optical	Mini PCIe 802.11 wireless	Keyboard /Mouse	ENERGY STAR 5.0	Win7 preload	Global Educ	Avail date
1165-A1U	E3200	2.40	1GB	19.0" WXGA+	1.3M	GMA X4500	250GB <sup>2</sup>	DVD±RW		USB	ES50	Home P	None	Dec 09
1165-A2U	E5300	2.60	2GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW		USB	ES50	Pro 32	None	Dec 09
1165-A3U	E7500	2.93	2GB	19.0" WXGA+	1.3M	GMA X4500	320GB	DVD±RW	11b/g/n <sup>12</sup>	USB	ES50	Pro 32	None	Dec 09

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- Best space saving solution & excellent cable management
- These models have a 1-year limited warranty<sup>1</sup>

Positioning Processor	<p><i>All-In-One PC for business customers</i>  <b>Intel® Celeron® Processor E3200</b> with dual-core, 800MHz system bus, and 1MB L2 cache or  <b>Intel Pentium® Processor E5300</b> with dual-core, 800MHz system bus, and 2MB L2 cache or  <b>Intel Core™ 2 Duo Processor E7500</b> with dual-core, 1066MHz system bus, and 3MB L2 cache                      Processor in LGA775 socket</p>		<p><b>All-In-One</b></p> <ul style="list-style-type: none"> <li>• Business black color</li> <li>• 18.58" W X 2.87" D X 14.0" H</li> <li>• 472mm W X 73mm D X 356mm H</li> <li>• 17.6 lb (8 kg) in maximum configuration</li> <li>• Handle in rear</li> <li>• Support VESA mount (100mm)</li> <li>• Picture frame style metallic stand (Tilt 10°-35°)</li> </ul>
Implementation			
Memory	<p><b>1GB</b> or <b>2GB</b> std, 4GB max<sup>8</sup>, <b>PC2-6400 800MHz DDR2</b>, non-parity, dual-channel capable, two 240-pin DIMM sockets;  <i>Non-italics</i>: standard memory in one socket; one socket available</p>		<p>Bay ① 3.5", 1" high, no access, std disk (desktop)                      Bay ② slim, .5" high, access, std optical (notebook)</p>
Graphics	<p><b>Intel Graphics Media Accelerator X4500 (GMA X4500)</b>, integrated graphics in G41, uses main memory, DirectX® 10</p>		<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Security slot (in rear for attachment of optional Kensington® MicroSaver® cable; Kensington lock also locks chassis)</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse</li> <li>• USB port disablement</li> </ul>
SATA disk	<p><b>250GB</b> or <b>320GB</b>, SATA 3.0Gb/s, 3.5" wide, 7200 rpm</p>		
SATA DVD±RW	<p>DVD burner, SATA 1.5Gb/s, 12.7mm high, fixed, not removable</p>		
eSATA port	<p>None</p>		
Diskette drive	<p>None</p>		
Media reader	<p>None</p>		
Widescreen display	<p><b>19.0"</b> (482.6mm) <b>WXGA+ (1440x900) TFT color</b>, anti-glare, CCFL backlight, 300 nits, 16:10 aspect ratio, 1000:1 contrast ratio</p>		
Camera	<p><i>Some</i>: camera on top of screen, 1.3-megapixel, fixed focus, integrated microphone (mono), LED indicator</p>		
Chipset	<p><b>Intel G41 Express Chipset</b>; I/O Controller Hub 7 (ICH7)</p>		
Ports	<p><i>Rear</i>: Three USB 2.0, serial (9-pin), ethernet (RJ-45)  <i>Side</i>: Three USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)</p>		
Mini PCI Express	<p>One Mini PCI Express slot  <i>Some</i>: 11b/g/n wireless<sup>13</sup>, Mini PCIe adapter, Broadcom® BCM43225</p>		
Audio	<p>High Definition (HD) Audio, CONEXANT™ CX20582 codec</p>		
Speaker	<p>Two internal speakers (2 watt x 2)</p>		
IEEE 1394	<p>None</p>		
Ethernet	<p>Gigabit ethernet on planar, Realtek® RTL8111DL</p>		
Intel AMT	<p>None</p>		
Modem	<p>None</p>		
Security chip	<p>None</p>		
Keyboard	<p>Preferred Pro USB Keyboard (USB), 104-key, black, Lenovo® logo</p>		
Mouse	<p>Optical Wheel Mouse (USB connector), 400 dpi, black, Lenovo logo</p>		
Power supply	<p>130 watts, autosensing, 85% PSU</p>		
<b>Preloaded operating system<sup>20</sup></b>	<p><b>Accessories</b></p>		
- <i>Some</i> : Genuine Windows® 7 Home Premium 32	1GB PC2-6400 DDR2 UDIMM	41U2977	
- <i>Some</i> : Genuine Windows 7 Professional 32	2GB PC2-6400 DDR2 UDIMM	41U2978	
	ThinkCentre A70z Performance Stand	57Y4277	
	More accessories on O-A70Z sheet		
<b>Preloaded applications<sup>5</sup></b> (only some listed)	<p>Acc Guide in pdf <a href="http://lenovo.com/accessoriesguide">lenovo.com/accessoriesguide</a>                      Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a></p>		
• ThinkVantage Product Recovery			
• ThinkVantage System Update			
• ThinkVantage Power Manager			
• 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)			
• Roxio® Creator® Business Edition (DVD±RW)			
• Roxio MyDVD® (DVD±RW)			
	<p>Supports ThinkVantage® technologies</p>		
	<p>ENERGY STAR® 5.0-compliant                      RoHS-compliant</p>		
	<p><b>Limited Warranty<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>↪ 1-year parts and labor</li> <li>↪ International Warranty Service<sup>9</sup></li> <li>↪ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts<sup>3</sup>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)</li> <li>↪ Onsite service upgrade options (in eligible locations):<sup>7</sup> <ul style="list-style-type: none"> <li>• 1-year LOR 9x5, 4 hour response (ThinkPlus™ part number 45K5951)</li> <li>• 2-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5949)</li> <li>• 2-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5952)</li> <li>• 3-year LOR 9x5, Next Business Day (ThinkPlus part number 45K5950)</li> <li>• 3-year LOR 9x5, 4 hour response (ThinkPlus part number 45K5953)</li> </ul> </li> <li>↪ ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></li> <li>↪ Post warranty maintenance services available</li> <li>↪ 24 hour x 7 day<sup>14</sup> toll-free support during the warranty period<sup>1</sup> via 800-426-7378</li> </ul>		

See footnotes for important warranty information  
 US models announced November 17, 2009

Partial list of accessories supported on ThinkCentre A70z AIO

**Memory**

1GB PC2-6400 DDR2 UDIMM	41U2977	ann 09/26/06
1GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0549	ann 03/17/09
2GB PC2-6400 DDR2 UDIMM	41U2978	ann 01/08/08
2GB PC2-6400 DDR2 UDIMM (25-Pack)	51J0550	ann 03/17/09

**Storage and removable storage**

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07

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 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 Super Multi-Burner Drive	41N5565	ann 01/23/07
USB 2.0 Portable DVD Burner	43N3264	ann 01/05/10

**Keyboard**

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Ultraslim Wireless Keyboard and Mouse <sup>52</sup>	57Y4700	ann 09/15/09
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

<sup>52</sup>Wireless via 2.4GHz technology using a micro-size USB receiver.

More information at [www.lenovo.com/support/keyboards](http://www.lenovo.com/support/keyboards)

**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 ScrollPoint® Mouse (USB, Optical)	31P7405	ann 08/27/02
Lenovo Laser Mouse (USB)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse - Black <sup>52</sup>	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse - Red/Black <sup>52</sup>	51J0198	ann 11/25/08

More information at [www.lenovo.com/support/mice](http://www.lenovo.com/support/mice)

**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

**Stand**

ThinkCentre A70z Performance Stand	57Y4277	ann 11/17/09
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**Monitor Accessories<sup>46</sup>**

Lenovo USB-to-DVI Monitor Adapter	45K5296	ann 05/12/09
Kensington MicroSaver Cable Lock <sup>56</sup>	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock <sup>56</sup>	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup>Compatible on selected Lenovo and ThinkVision monitors.

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

**Medialess License Key (MLK)**

Microsoft® Office 2007 Basic, English	43R1528	ann 07/03/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 07/03/07
Microsoft Office 2007 Professional, English	43R1531	ann 07/03/07

For more information on desktop accessories, please visit:

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

Other accessories at [www.lenovo.com/accessories](http://www.lenovo.com/accessories)

Accessories Guide pdf at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide)

**Partial list of Lenovo® ThinkPlus Services<sup>7</sup> for ThinkCentre desktops**

For more information see:

[http://www.lenovo.com/services\\_warranty/us/en/index.html](http://www.lenovo.com/services_warranty/us/en/index.html)

<p><b>ThinkPlus service upgrade options for ThinkCentre M series</b></p> <p><b>ThinkCentre desktop with 1-year Onsite warranty</b>  <i>LOR = Lenovo Onsite Repair</i></p> <table border="0"> <tr><td>1-year LOR 9x5 4-hour response</td><td>41C9189</td></tr> <tr><td>2-year LOR 9x5 Next Business Day</td><td>41C9187</td></tr> <tr><td>2-year LOR 9x5 4-hour response</td><td>41C9190</td></tr> <tr><td>3-year LOR 9x5 Next Business Day</td><td>41C9188</td></tr> <tr><td>3-year LOR 9x5 4-hour response</td><td>41C9191</td></tr> </table> <p><b>ThinkCentre desktop with 3-year Onsite warranty</b>  <i>LOR = Lenovo Onsite Repair</i></p> <table border="0"> <tr><td>3-year LOR 9x5 4-hour response</td><td>41C9192</td></tr> <tr><td>3-year LOR 24x7 4-hour response</td><td>41C9193</td></tr> <tr><td>4-year LOR 9x5 Next Business Day</td><td>41C9194</td></tr> <tr><td>4-year LOR 9x5 4-hour response</td><td>41C9195</td></tr> <tr><td>4-year LOR 24x7 4-hour response</td><td>41C9196</td></tr> </table>	1-year LOR 9x5 4-hour response	41C9189	2-year LOR 9x5 Next Business Day	41C9187	2-year LOR 9x5 4-hour response	41C9190	3-year LOR 9x5 Next Business Day	41C9188	3-year LOR 9x5 4-hour response	41C9191	3-year LOR 9x5 4-hour response	41C9192	3-year LOR 24x7 4-hour response	41C9193	4-year LOR 9x5 Next Business Day	41C9194	4-year LOR 9x5 4-hour response	41C9195	4-year LOR 24x7 4-hour response	41C9196	<p><b>ThinkPlus Priority Support for enterprise customers</b></p> <ul style="list-style-type: none"> <li>• 9x5 next-business-day response Lenovo Onsite Repair</li> <li>• 24x7 support with priority routing and advanced level technicians</li> </ul> <p><b>ThinkCentre desktop with 1-year Onsite warranty</b></p> <table border="0"> <tr><td>3-year Priority Support</td><td>45J9087</td></tr> </table> <p><b>ThinkCentre desktop with 3-year Onsite warranty</b></p> <table border="0"> <tr><td>3-year Priority Support</td><td>45J9088</td></tr> <tr><td>4-year Priority Support</td><td>45J9089</td></tr> <tr><td>5-year Priority Support</td><td>45J9090</td></tr> <tr><td>3-year Priority Support 4-hour response</td><td>45J9091</td></tr> <tr><td>4-year Priority Support 4-hour response</td><td>45J9092</td></tr> <tr><td>5-year Priority Support 4-hour response</td><td>45J9093</td></tr> </table>	3-year Priority Support	45J9087	3-year Priority Support	45J9088	4-year Priority Support	45J9089	5-year Priority Support	45J9090	3-year Priority Support 4-hour response	45J9091	4-year Priority Support 4-hour response	45J9092	5-year Priority Support 4-hour response	45J9093
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<p><b>ThinkPlus Secure Business</b></p> <p><b>Lenovo Online Data Backup</b></p> <ul style="list-style-type: none"> <li>• Secure offsite data storage</li> <li>• 256-bit Advanced Encryption System</li> <li>• Data recovery or access in case of an unforeseen event</li> <li>• Automatic, remote management</li> <li>• Choose which business critical data to back up</li> </ul> <table border="0"> <tr><td>1-year Lenovo Online Data Backup - 10GB</td><td>51J0787</td></tr> <tr><td>1-year Lenovo Online Data Backup - 25GB</td><td>51J0795</td></tr> <tr><td>1-year Lenovo Online Data Backup - 50GB</td><td>45K5849</td></tr> <tr><td>1-year Lenovo Online Data Backup - Unlimited</td><td>45K5870</td></tr> </table>	1-year Lenovo Online Data Backup - 10GB	51J0787	1-year Lenovo Online Data Backup - 25GB	51J0795	1-year Lenovo Online Data Backup - 50GB	45K5849	1-year Lenovo Online Data Backup - Unlimited	45K5870																											
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- 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, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.
- <sup>1</sup> **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
  - <sup>2</sup> **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
  - <sup>3</sup> **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. In the United States call 1-800-426-7378. 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.
  - <sup>4</sup> **CD and DVD list** maximum rates; rates are variable and are often less than the maximum.
  - <sup>5</sup> **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. License agreements may apply.
  - <sup>6</sup> **Multi-Burner Plus** (part number 73P3305 or 73P3370) is a DVD±RW device that reads and writes to DVD-RAM, DVD-R, DVD-RW, DVD+R, and DVD+RW. It also reads and writes to CD-R and CD-RW media. 73P3370 also writes to DVD+R double layer media.
  - <sup>7</sup> **ThinkPlus 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. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.
  - <sup>8</sup> **Memory:** For PCs without a separate graphics card, memory supports both system and video. Accessible system memory may be up to 384MB less than the amount stated, depending on video mode.
  - <sup>9</sup> **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.
  - <sup>10</sup> **Modem speeds:** Public network download 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.
  - <sup>11</sup> **For combination drives,** maximum speeds only are given in the following order: CD read, CD write, CD re-write, DVD read.
  - <sup>12</sup> **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.
  - <sup>13</sup> **Wireless capability:** Requires compatible wireless-enabled options sold separately.
  - <sup>14</sup> **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.
  - <sup>15</sup> **Update Connector** is available at no charge to registered customers during the limited warranty period. Line charges may apply.
  - <sup>16</sup> **Embedded Security Subsystem** works with optional VPN software.

- <sup>18</sup> **Embedded Security Subsystem** may require download of client security software from the Web.
- <sup>19</sup> **Asset ID** allows system-specific information to be stored in a chip inside the system; it does not have any radio frequency support.
- <sup>20</sup> **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](http://lenovo.com/pc/support) and enter your machine type and model number for more information.

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