

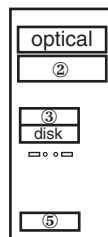
# ThinkCentre® M91p Tower (7052) - TopSeller - III

Personal Systems Reference (PSREF)

Type-model	Slot x bay	Processor	Memory <sup>a</sup>	SATA disk GB	2nd Disk rpm	Disk Bay	SATA optical	Graphics	Chassis intr switch	Media reader	ENERGY STAR 5.0	Intel vPro	Global Educ	Win7 preload	Ann date (mm/dd/yy)
7052-B5U	4x5	Core i5-2400	2GBx1 1333MHz	320G	7200	Bay	DVD±RW	Intel HD	None	None	ES50	vPro	N N	Pro 64	11/08/11
7052-B6U	4x5	Core i5-2500	4GBx1 1333MHz	500G	7200	Bay	DVD±RW	Intel HD	None	None	ES50	vPro	N N	Pro 32	11/08/11
7052-B7U	4x5	Core i7-2600	4GBx1 1333MHz	500G	7200	Bay	DVD±RW	Intel HD	None	None	ES50	vPro	N N	Pro 32	11/08/11
7052-B8U	4x5	Core i5-2500	4GBx1 1333MHz	500G	7200	Bay	DVD±RW	HD 5450	Switch	None	ES50	vPro	N N	Pro 64	11/08/11
7052-B9U	4x5	Core i7-2600	4GBx1 1333MHz	500G	7200	Bay	DVD±RW	HD 6450	None	Media	ES50	vPro	N N	Pro 64	11/08/11

- Next Generation Intel platform with latest Intel vPro Technology and 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
- These systems are Microsoft Office 2010 Product Key Ready (O10PKR)

Positioning	Ultimate security, stability, and manageability for the enterprise											<b>Preloaded operating system<sup>20</sup></b>							
Processor	<b>Intel® Core™ i5-2400 Processor (4 cores / 4 threads, 3.1GHz, 6MB cache),</b> Virtualization Technology, Turbo Boost 2.0 (3.4GHz), integrated Intel HD Graphics, integrated 1333MHz dual-channel DDR3 memory controller <b>Intel Core i5-2500 Processor (4 cores / 4 threads, 3.3GHz, 6MB cache),</b> Virtualization Technology, Turbo Boost 2.0 (3.7GHz), integrated Intel HD Graphics, integrated 1333MHz dual-channel DDR3 memory controller <b>Intel Core i7-2600 Processor (4 cores / 8 threads, 3.4GHz, 8MB cache),</b> Virtualization Technology, Turbo Boost 2.0 (3.8GHz), integrated Intel HD Graphics, integrated 1333MHz dual-channel DDR3 memory controller											Some: Genuine Windows® 7 Professional 32 Some: Genuine Windows 7 Professional 64 <b>Preloaded applications<sup>14</sup></b> (only some listed)							
Implementation	Processor in LGA1155 socket											<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• ThinkVantage® System Update</li> <li>• ThinkVantage Power Manager</li> <li>• ThinkVantage Toolbox</li> <li>• Norton™ Internet Security 2011 (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Skype™ for Windows</li> <li>• Microsoft® Office 2010 preloaded; purchase product key to activate</li> <li>• Corel® Burn.Now™ (DVD±RW)</li> <li>• Corel DVD MovieFactory® (DVD±RW)</li> </ul>							
Memory	16GB max <sup>7</sup> , <b>UDIMM, PC3-10600 1333MHz DDR3</b> , four 240-pin DIMM sockets																		
Graphics	Some: <b>Intel HD Graphics</b> in processor, uses main memory, HDCP, DirectX® 10.1, one VGA, one DisplayPort™, supports dual independent display; <i>Maximum resolution: 2560x1600 (DisplayPort, VGA)@60Hz;</i> Some: <b>AMD Radeon™ HD 5450</b> , PCI Express® 2.0 x16 adapter, HDCP, DirectX 11, 512MB, one DVI-I (includes DVI-to-VGA dongle), one DisplayPort, 25 watts; works along with Intel HD Graphics to support four independent monitors Some: <b>AMD Radeon HD 6450</b> , PCI Express 2.0 x16 adapter, HDCP, DirectX 11, 1GB, one DVI-I (includes DVI-to-VGA dongle), one DisplayPort, 25 watts; works along with Intel HD Graphics to support four independent monitors																		
Disk	SATA 6.0Gb/s 7200 rpm																		
Optical	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive																		
SATA controller	Serial ATA, SATA 3.0Gb/s and SATA 6.0Gb/s, integrated in chipset, RAID 0/1																		
SATA cables	Two SATA cables (each 1-drop to device), two SATA 6.0Gb/s connectors, one SATA 3.0Gb/s connector, and one eSATA connector on planar																		
eSATA port	None																		
Media reader	Some: 25-in-1 media reader, internal USB 2.0																		
Chipset	<b>Intel Q67 Express Chipset</b>																		
	Platform Controller Hub [PCH] (PCI Express 2.0 x1, ethernet MAC, PCI, and USB), SMSC® 5627P 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), VGA DB-15, DisplayPort																		
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone (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 82579, Wake on LAN®																		
Intel AMT	Intel Active Management Technology 7.1 (Intel AMT 7.1)																		
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	Enhanced Optical USB Mouse, 1000 dpi, black, Lenovo logo																		
Power supply	280 watts with variable speed fan, autosensing, 85% PSU																		
Machine	<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 maximum 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>											<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> <li>• Some: Chassis intrusion switch</li> </ul>							
Bay	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 Bay 5: 3.5", 1" high, no access, opt disk											EPEAT™ Gold rating ENERGY STAR® 5.0-compliant GREENGUARD® certified RoHS-compliant							
Slot	Slot 1: half-length, full-height, PCI Express 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															Supports ThinkVantage Technologies			
Limited Warranty <sup>12</sup>	<b>3-years, limited onsite service<sup>24</sup></b> , 8 am-5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades <sup>22</sup> available															For compatible accessories, please go to O-M91P sheet; For ThinkPlus™ service upgrade options, please go to S-TC sheet			



See footnotes for important warranty information  
 US models announced November 8, 2011

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