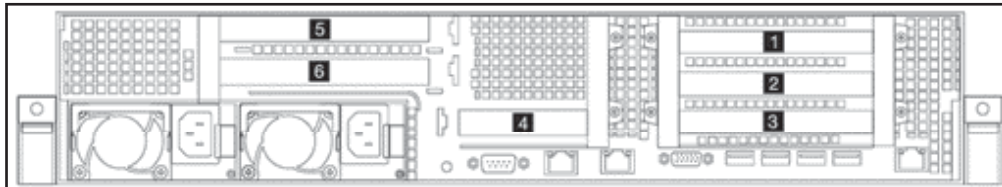


ThinkServer RD440 Platform Systems Specifications - I of II

Components	Specifications																									
Mechanical	<ul style="list-style-type: none">• 2U rack with rail kit• 19" W x 28.9" D x 3.45" H (with rack handles)• 482.4mm W x 734mm D x 87.6mm H (with rack handles)• 28 kg (61.73 lb) when fully configured																									
Chipset	Intel C606 Chipset																									
Processors	Two LGA1356 sockets, supports up to two processors from Intel Xeon E5-2400 or Xeon E5-2400 v2 families, up to 8 cores (E5-2400 series)/10 cores (E5-2400 v2 series), one QPI links up to 8.0GT/s, up to 20MB (E5-2400 series)/25MB (E5-2400 v2 series) cache, integrated 3-channel DDR3 memory controller up to 1600MHz																									
Memory type	1600MHz, LV RDIMM*, DDR3, 3-channel per processor, 240-pin <i>* By default, the voltage of LV RDIMM is 1.5V and can be changed to 1.35V in BIOS setting</i>																									
Memory DIMMs	Twelve DIMM sockets, six DIMM sockets per processor																									
Memory capacity	Up to 192GB DDR3 LV RDIMM (16GB x 12)																									
Memory protection	ECC, memory mirroring, memory sparing																									
Disk bays configurations	Supports one of the following configurations: <ul style="list-style-type: none">• 8 x 3.5" disk bays + 1 x slim optical bay• 12 x 3.5" disk bays• 8 x 2.5" disk bays + 1 x slim optical bay• 16 x 2.5" disk bays + 1 x slim optical bay																									
RAID support	<table><tr><th>RAID adapter</th><th>RAID support</th><th>Cache</th><th>Transfer rates</th><th>Optional upgrades</th></tr><tr><td>RAID 300** (onboard)</td><td>0, 1, 10</td><td></td><td>6Gb/s</td><td>optional upgrade key, add RAID 5 support</td></tr><tr><td>RAID 500 (LSI 9240-8i)</td><td>0, 1, 10</td><td></td><td>6Gb/s</td><td>optional upgrade key, add RAID 5, 50 support</td></tr><tr><td>RAID 700 (LSI 9260-8i)</td><td>0, 1, 10, 5, 50, 6, 60</td><td>512MB</td><td>6Gb/s</td><td>optional intelligent Battery Backup Unit (iBBU08)</td></tr><tr><td>RAID 710 (LSI 9270CV-8i)</td><td>0, 1, 10, 5, 50, 6, 60</td><td>1GB</td><td>6Gb/s</td><td><ul style="list-style-type: none">• optional CacheVault (CV) flash cache with super capacitor• optional CacheCade Pro 2.0• optional FastPath key</td></tr></table> <i>** RAID 300 is supported on 8 x 3.5" and 8 x 2.5" models only</i>	RAID adapter	RAID support	Cache	Transfer rates	Optional upgrades	RAID 300** (onboard)	0, 1, 10		6Gb/s	optional upgrade key, add RAID 5 support	RAID 500 (LSI 9240-8i)	0, 1, 10		6Gb/s	optional upgrade key, add RAID 5, 50 support	RAID 700 (LSI 9260-8i)	0, 1, 10, 5, 50, 6, 60	512MB	6Gb/s	optional intelligent Battery Backup Unit (iBBU08)	RAID 710 (LSI 9270CV-8i)	0, 1, 10, 5, 50, 6, 60	1GB	6Gb/s	<ul style="list-style-type: none">• optional CacheVault (CV) flash cache with super capacitor• optional CacheCade Pro 2.0• optional FastPath key
RAID adapter	RAID support	Cache	Transfer rates	Optional upgrades																						
RAID 300** (onboard)	0, 1, 10		6Gb/s	optional upgrade key, add RAID 5 support																						
RAID 500 (LSI 9240-8i)	0, 1, 10		6Gb/s	optional upgrade key, add RAID 5, 50 support																						
RAID 700 (LSI 9260-8i)	0, 1, 10, 5, 50, 6, 60	512MB	6Gb/s	optional intelligent Battery Backup Unit (iBBU08)																						
RAID 710 (LSI 9270CV-8i)	0, 1, 10, 5, 50, 6, 60	1GB	6Gb/s	<ul style="list-style-type: none">• optional CacheVault (CV) flash cache with super capacitor• optional CacheCade Pro 2.0• optional FastPath key																						
Optical drive (optional)	8 x 3.5"/8 x 2.5"/16 x 2.5" models: one slim optical bay, supports one optional slim optical 12 x 3.5" models: none optical bay, optional external USB optical is needed																									
Onboard network	Two Gigabit Ethernet ports by Intel i350, one Gigabit Ethernet port by Intel 82574L, dedicate/share management																									
Front ports	One analog VGA DB-15 connector (for 8 x 3.5", 8 x 2.5", and 16 x 2.5" models), two USB 2.0																									
Rear ports	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector																									
Expansion Slots	<div></div> <p>Up to six PCI-Express slots via two riser cards, riser card 1 for slot 1-3, riser card 2 for slot 4-6</p> <p>Slot 1: half-length, full-height, PCIe 3.0 x16 (x8 elec)</p> <p>Slot 2: half-length, full-height, PCIe 3.0 x8</p> <p>Slot 3: half-length, full-height, PCIe 2.0 x8 (x4)</p> <p>Slot 4: Low Profile, PCIe 3.0 x8 (x4 elec)</p> <p><i>Slot 5-6 are available on dual processors models:</i></p> <p>Slot 5: half-length, full-height, PCIe 3.0 x16 (x8 elec)</p> <p>Slot 6: half-length, full-height, PCIe 3.0 x8</p>																									
Graphics	Onboard Aspeed AST2300 graphics/management processor, one VGA DB-15 on front, one VGA DB-15 on rear; <i>Maximum resolution: 1920x1200 @60Hz</i>																									

ThinkServer RD440 Platform Systems Specifications - II of II

Components	Specifications		
Intelligent Diagnostics Module (optional)	Supports optional Intelligent Diagnostics Module (IDM) basic or IDM Premium on selected 8 x 3.5"/8 x 2.5"/16 x 2.5" models, IDM basic LED lights indicate failing component category, IDM Premium LED lights indicate individual failing part		
Systems management (iKVM is optional)	<ul style="list-style-type: none"> Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); optional ThinkServer Management Module Premium for iKVM functions Front control panel LEDs shows the status of power, ID, network, system Lenovo SmartGrid Manager ThinkServer EasyStartup/EasyManage/EasyUpdate 		
Security features (TPM is optional)	Power-on password/administrator password/Trusted Platform Module (TCG 1.2-compliant)		
Cooling fans	5 fans, hot-swap, 4 + 1 redundant		
Cable mgmt (opt)	Optional cable management arm on selected models		
Power supply	One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS Gold qualified, redundant with two power supplies		
Hot-swap parts	Disk drives, power supplies, and cooling fans		
Safety, environment, and certifications	Environmental certifications	<ul style="list-style-type: none"> Energy Star Server 2.0 qualified RoHS-compliant 	
	EMC	FCC Class A, CSA, CE	
	240VA	Supports	
	Temperature - operating	50 ° F to 95 ° F (10 ° C to 35 ° C)	
	Temperature - non operating (no package)	-10 ° C to 60 ° C	
	Temperature - non operating (with package)	-40 ° C to 70 ° C	
	Altitude - operating	Supported Altitude (unpressurized): 0-10000ft (0-3048m)	
	Humidity - operating	8%~80%, non-condensing	
	Humidity - non operating (no package)	8%~80%, non-condensing	
	Humidity - non operating (with package)	8%~90%, non-condensing	
	Acoustic noise (idle/working mode)	System Configuration	
		Category	
		Entry level	High-end
		CPU	12
		Memory	4GB x 12
		Optical Drive	None
		Drive Bays	12 x 3.5"
		RAID	RAID500
		HDD	12 x 2TB 3.5" SAS
		PSU	800Wx2
		Sound Pressure (operating)	44.2 dB(A)
		Sound Pressure (idle)	44.7 dB(A)