

ThinkServer TD350 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification		Components	Specification																																										
Dimensions	Tower or 4U rack. Tower: Height: 459 mm (18.1 in), width: 251 mm (9.9 in), depth: 686 mm (27 in) Rack: height: 173 mm (6.8 in), width: 482 mm (19 in), depth: 686 mm (27 in)		Maximum internal storage	3.5" model: up to 120TB with 7.2K SATA or SAS HDD, up to 27TB with 10K SAS HDD, up to 9TB with 15K SAS HDD, or up to 24TB with SATA or SAS SSD. 2.5" model: up to 64TB with 7.2K SATA HDD, up to 57.6TB with 10K SAS HDD, up to 19.2TB with 15K SAS HDD, or up to 51.2TB with SATA or SAS SSD																																										
Weight	Minimum configuration: 22 kg (48.5 lb), maximum: 41.4 kg (91.27 lb)		SD module	Up to 2 SDHC flash cards via optional SD module, 8GB or 32GB each																																										
Processor	Up to two 135W Intel Xeon E5-2600 v4 or E5-2600 v3 family processors.		Optical drive	Two 5.25" bays for optical drive. DVD-ROM or DVD±RW. Half-height or 9.5mm																																										
	E5-2698 v4	20C/2.2GHz/50MB/135W/DDR4-2400	Network interfaces	One dedicate management port, two gigabit ethernet ports. Supports optional discrete network adapters via PCIe slots																																										
	E5-2695 v4	18C/2.1GHz/45MB/120W/DDR4-2400	Security features	Power-on and administrator password. Optional TPM (TCG 1.2 or 2.0-compliant)																																										
	E5-2690 v4	14C/2.6GHz/35MB/135W/DDR4-2400	Systems management	Supports ThinkServer System Manager (TSM), optional TSM Premium for remote presence. UEFI. Onboard Aspeed AST2400 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC). Control Panel LEDs shows the status of power, ID, network, system. Supports ThinkServer Diagnostics, ThinkServer Deployment Manager, ThinkServer Energy Manager, ThinkServer System Manager CLI, Lenovo ThinkServer Partner Pack for VMware vCenter and Microsoft System Center Operations Manager, ThinkServer Power Planner.																																										
	E5-2683 v4	16C/2.1GHz/40MB/120W/DDR4-2400		Operating systems supported	Microsoft Windows Server 2016/2012 R2/2012/2008 R2. Windows Small Business Server 2011. Red Hat Enterprise Linux 6.5/6.6/7. SUSE Linux Enterprise Server 11. VMware vSphere (ESXi) 5.1 P5/5.5 U2/6.0																																									
	E5-2680 v4	14C/2.4GHz/35MB/120W/DDR4-2400			Base warranty	1 or 3-year limited onsite service with 9x5/NBD.																																								
	E5-2667 v4	8C/3.2GHz/25MB/135W/DDR4-2400				Power supply	Up to two redundant hot-swap 450W/550W/750W/1100W power supplies. 450 W is 80 PLUS Gold qualified. 550W and 1100W are 80 PLUS Platinum qualified. 750W is 80 PLUS Platinum or Titanium qualified. 750W Titanium is 200V - 240V, others are 110V - 240V.																																							
	E5-2660 v4	14C/2GHz/35MB/105W/DDR4-2400	<table><tr><th>Disk bay configuration</th><th colspan="4">PSU requirements</th></tr><tr><th></th><th>450W</th><th>550W</th><th>750W</th><th>1100W</th></tr><tr><td>5x3.5" ES</td><td>• (up to 1 CPU)</td><td>•</td><td>•</td><td>•</td></tr><tr><td>5x3.5" HS</td><td>• (up to 1 CPU)</td><td>•</td><td>•</td><td>•</td></tr><tr><td>15x3.5" HS</td><td></td><td></td><td>•</td><td>•</td></tr><tr><td>8x2.5" HS</td><td>• (up to 1 CPU)</td><td>•</td><td>•</td><td>•</td></tr><tr><td>16x2.5" HS</td><td>• (up to 1 CPU)</td><td>•</td><td>•</td><td>•</td></tr><tr><td>32x2.5" HS</td><td></td><td></td><td>•</td><td>•</td></tr></table>				Disk bay configuration	PSU requirements					450W	550W	750W	1100W	5x3.5" ES	• (up to 1 CPU)	•	•	•	5x3.5" HS	• (up to 1 CPU)	•	•	•	15x3.5" HS			•	•	8x2.5" HS	• (up to 1 CPU)	•	•	•	16x2.5" HS	• (up to 1 CPU)	•	•	•	32x2.5" HS			•	•
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	16x2.5" HS	• (up to 1 CPU)	•	•	•																																									
	32x2.5" HS			•	•																																									
	E5-2650L v4	14C/1.7GHz/35MB/65W/DDR4-2400	Graphics		Onboard Aspeed AST2400 with 16MB memory, one VGA on rear																																									
	E5-2650 v4	12C/2.2GHz/30MB/105W/DDR4-2400	Front ports		Two USB 2.0																																									
	E5-2643 v4	6C/3.4GHz/20MB/135W/DDR4-2400	Rear ports		One VGA, four USB 3.0, one RJ-45 (dedicate/share mgmt), two ethernet (RJ-45), one serial (9-pin)																																									
	E5-2640 v4	10C/2.4GHz/25MB/90W/DDR4-2133	Cooling		4 (3+1), hot-swap																																									
	E5-2637 v4	4C/3.5GHz/15MB/135W/DDR4-2400	Noise emissions		Operating: < 6.5 Bels. Idle: < 6 Bels (Maximum configuration)																																									
	E5-2630L v4	10C/1.8GHz/25MB/55W/DDR4-2133	Environmental specification	ASHRAE Class			<table><tr><th>A4</th><th>A3</th><th>A2</th></tr><tr><td>Temperature - operating</td><td>41 °F to 113 °F (5 °C to 45 °C)</td><td>41 °F to 104 °F (5 °C to 40 °C)</td><td>50 °F to 95 °F (10 °C to 35 °C)</td></tr><tr><td>Temperature - storage (with package)</td><td colspan="3">-40 °C to 60 °C</td></tr><tr><td>Altitude - operating</td><td colspan="3">(Unpressurized): 0-10000ft (0-3048m)</td></tr><tr><td>Humidity - operating (non-condensing)</td><td>8%~90%</td><td>8%~85%</td><td>20%~80%</td></tr><tr><td>Humidity - storage (with package)</td><td colspan="3">8%~90%, non-condensing</td></tr></table>		A4	A3	A2	Temperature - operating	41 °F to 113 °F (5 °C to 45 °C)	41 °F to 104 °F (5 °C to 40 °C)	50 °F to 95 °F (10 °C to 35 °C)	Temperature - storage (with package)	-40 °C to 60 °C			Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)			Humidity - operating (non-condensing)	8%~90%	8%~85%	20%~80%	Humidity - storage (with package)	8%~90%, non-condensing																	
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	E5-2630 v4	10C/2.2GHz/20MB/85W/DDR4-2133		ASHRAE Class A4: ES or 8x2.5" HS bays/Lenovo-qualified CPU; maximum of 120W thermal design power; not low-power type (no L-suffix in the CPU name)/No internal tape/Two PSU installed for redundancy/Lenovo-qualified PCIe card; power consumption of each PCIe card does not exceed 15W. 32 x 2.5" models support ASHRAE Class A2, the other models support ASHRAE Class A3.																																										
	E5-2623 v4	4C/2.6GHz/10MB/85W/DDR4-2133		Expansion slots			<table><tr><th>Slot 1 (CPU1)</th><th>Slot 2 (CPU1)</th><th>Slot 3 (CPU1)</th><th>Slot 4 (CPU2)</th><th>Slot 5 (CPU2)</th><th>Slot 6 (CPU2)</th><th>Slot 7 (CPU2)</th></tr><tr><td>PCIe 3.0 x16, full height, full length, double-wide</td><td>PCIe 3.0 x16 (x8 elec), full height, full length</td><td>PCIe 3.0 x16 (x8 elec), full height, full length</td><td>PCIe 3.0 x16 (x8 elec), full height, full length</td><td>PCIe 3.0 x16 (x8 elec), full height, full length</td><td>PCIe 3.0 x16 (x8 elec), full height, full length</td><td>PCIe 3.0 x16 (x8 elec), full height, full length</td></tr></table>		Slot 1 (CPU1)	Slot 2 (CPU1)	Slot 3 (CPU1)	Slot 4 (CPU2)	Slot 5 (CPU2)	Slot 6 (CPU2)	Slot 7 (CPU2)	PCIe 3.0 x16, full height, full length, double-wide	PCIe 3.0 x16 (x8 elec), full height, full length	PCIe 3.0 x16 (x8 elec), full height, full length	PCIe 3.0 x16 (x8 elec), full height, full length	PCIe 3.0 x16 (x8 elec), full height, full length	PCIe 3.0 x16 (x8 elec), full height, full length	PCIe 3.0 x16 (x8 elec), full height, full length																								
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	E5-2620 v4	8C/2.1GHz/20MB/85W/DDR4-2133		Slot 7																																										
	E5-2609 v4	8C/1.7GHz/20MB/85W/DDR4-1866		Slot 6																																										
	E5-2603 v4	6C/1.7GHz/15MB/85W/DDR4-1866		Slot 5																																										
	E5-2698 v3	16C/2.3GHz/40MB/135W/DDR4-2133		Slot 4																																										
	E5-2695 v3	14C/2.3GHz/35MB/120W/DDR4-2133																																												
	E5-2690 v3	12C/2.6GHz/30MB/135W/DDR4-2133																																												
	E5-2685 v3	12C/2.6GHz/30MB/120W/DDR4-2133																																												
E5-2683 v3	14C/2GHz/35MB/120W/DDR4-2133																																													
E5-2680 v3	12C/2.5GHz/30MB/120W/DDR4-2133																																													
E5-2670 v3	12C/2.3GHz/30MB/120W/DDR4-2133																																													
E5-2667 v3	8C/3.2GHz/20MB/135W/DDR4-2133																																													
E5-2660 v3	10C/2.6GHz/25MB/105W/DDR4-2133																																													
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E5-2609 v3	6C/1.9GHz/15MB/85W/DDR4-1600																																													
E5-2603 v3	6C/1.6GHz/15MB/85W/DDR4-1600																																													
Chipset	Intel C612 Platform Controller Hub (PCH)																																													
Memory DIMMs	16 DIMM sockets (8 DIMMs per processor), 8-channel capable (4-channel per processor). RDIMM and LRDIMM (cannot be intermixed), DDR4, up to 2400MHz																																													
Memory capacity	512GB (RDIMM, 32GB x 16)/1024GB (LRDIMM, 64GB x 16), 2nd CPU is needed																																													
Memory protection	ECC, memory mirroring, lockstep, and memory sparing																																													
RAID controller	RAID controller	Drive type	RAID support	Compatible models																																										
	Onboard RAID110i	6Gbs SATA	0/1/10.5 with optional key	5x3.5" HS/ES, 8x2.5" HS																																										
	RAID520i PCIe	12Gbs SAS/SATA	0/1/10.5/50 with optional key	5x3.5" HS, 8x2.5" HS																																										
	RAID720i PCIe	12Gbs SAS/SATA	0/1/10.5/50,6/60 with optional cache	5x3.5" HS, 8x2.5" HS																																										
	AnyRAID 510i	6Gbs SAS/SATA	0/1/10.5/50 with optional key	5x3.5" HS, 8x2.5" HS																																										
	AnyRAID 720i	12Gbs SAS/SATA	0/1/10.5/50, 6/60 with optional cache	5x3.5" HS, 8x2.5" HS																																										
	AnyRAID 720ix	12Gbs SAS/SATA	0/1/10.5/50/6/60	15x3.5" HS, 16/32x2.5" HS																																										
	Optional cache for RAID 720/AnyRAID 720i and 720ix: 1GB read-only memory or 1GB/2GB/4GB flash with super capacitor. Flash options include CacheVault, Cache-Cade Pro, and FastPath. 720ix must have cache.																																													
Disk drive bays	Up to 15 3.5" or 32 2.5" hot-swap bays, or up to 5 3.5" easy-swap bays, on front. Up to 2 M.2 SSD drives via optional M.2 module. Up to one internal LTO-6 SAS tape drive on 720ix model, or external RDX tape drive via USB.																																													

For a list of all supported options, please see https://download.lenovo.com/pccbbs/options_iso/ocm_september_2016_thinkserver.xlsx sheet