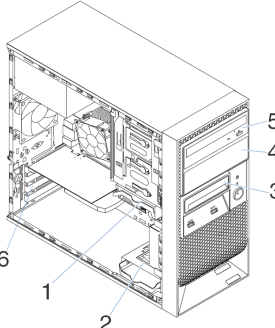


ThinkServer TS150 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification	Components	Specification																												
Dimensions	Tower or 4U rack. Height: 375 mm (14.76 in), width: 175 mm (6.89 in), depth: 431 mm (16.97 in)	SD module	Optional. Up to 2 SDHC flash cards via SD module, 8GB each																												
Weight	Maximum configuration: 27.6 lb (12.5kg)	Optical drive	Up to two half-height optical drives or one 9.5mm optical. DVD-ROM or DVD±RW																												
Processor	One Intel "Kaby Lake" or "Skylake" processor as listed: "Kaby Lake" processors:	Network interfaces	One Gigabit Ethernet port, Intel i219LM. Supports optional discrete network adapters via PCIe slots																												
	Xeon E3-1280 v6 4C/3.9GHz/8MB/72W/DDR4-2400	Security features	Power-on and administrator password. TPM (TCG 1.2-compliant)																												
	Xeon E3-1275 v6 4C/3.8GHz/8MB/73W/DDR4-2400	Systems management	UEFI, system LEDs, EasyStartup, EasyUpdate, Power Planner, and Diagnostics. Intel Active Management Technology 11 on models with Xeon processors. Intel Standard Manageability on models with Core i3, Pentium, or Celeron processors.																												
	Xeon E3-1270 v6 4C/3.8GHz/8MB/72W/DDR4-2400		KVM is supported on models with Xeon E3-12x5 v5 processors																												
	Xeon E3-1245 v6 4C/3.7GHz/8MB/73W/DDR4-2400	Operating systems	Microsoft Windows Server 2016/2012 R2/2012, Windows MultiPoint Server 2012,																												
	Xeon E3-1240 v6 4C/3.7GHz/8MB/72W/DDR4-2400		Windows 10 Pro. Red Hat Enterprise Linux 6.7/7.2. SUSE Linux Enterprise Server 11/12. VMware vSphere (ESXi) 5.5U3/6.0U2																												
	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	Base warranty	1 or 3-year limited onsite service with 9x5/NBD																												
	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	Power supply	Supports one of the following: • One fixed 250 watts, autosensing, 85%, 80 PLUS Bronze qualified • One fixed 400 watts, autosensing, 92%, 80 PLUS Platinum qualified																												
	Xeon E3-1220 v6 4C/3GHz/8MB/72W/DDR4-2400																														
	Core i3-7320 2C/4.1GHz/4MB/51W/DDR4-2400	Graphics	Integrated Intel HD Graphics on Xeon E3-12x5 v5, Core i3, Pentium, and Celeron processors. Uses main memory, works along with discrete graphics to support multi-display, enables two display connectors (1 DP, 1 VGA) on rear ports. Also supports the following discrete graphics adapter options: • NVIDIA Quadro NVS 315, 1GB • NVIDIA Quadro K620, 2GB																												
	Core i3-7300T 2C/3.5GHz/4MB/35W/DDR4-2400																														
	Core i3-7300 2C/4GHz/4MB/51W/DDR4-2400																														
	Core i3-7100T 2C/3.4GHz/3MB/35W/DDR4-2400																														
	Core i3-7100 2C/3.9GHz/3MB/51W/DDR4-2400	HD Audio	Realtek ALC662 codec																												
	Pentium G4620 2C/3.7GHz/3MB/51W/DDR4-2400	Front ports	Two USB 3.0																												
	Pentium G4600T 2C/3GHz/3MB/35W/DDR4-2400	Rear ports	One VGA, one DisplayPort, six USB 3.0, one RJ-45, one serial (9-pin), three analog audio ports (line-in, line-out, mic-in). Optional parallel or serial ports via PCIe adapters																												
	Pentium G4600 2C/3.6GHz/3MB/51W/DDR4-2400																														
	Pentium G4560T 2C/2.9GHz/3MB/35W/DDR4-2400	Noise emissions	Operating: < 35 dB(A). Idle: < 34 dB(A) (Maximum configuration)																												
	Pentium G4560 2C/3.5GHz/3MB/54W/DDR4-2400	Environmental specification	Temperature - operating 50 °F to 95 °F (10 °C to 35 °C)																												
	Celeron G3950 2C/3GHz/2MB/51W/DDR4-2133		Temperature - non operating (with package) -40 °C to 60 °C																												
	Celeron G3930T 2C/2.7GHz/2MB/35W/DDR4-2133		Altitude - operating (Unpressurized): 0-10000ft (0-3048m)																												
	Celeron G3930 2C/2.9GHz/2MB/51W/DDR4-2133		Humidity - operating 8%~80%, non-condensing																												
			Humidity - storage (with package) 10%~90%, non-condensing																												
	"Skylake" processors:																														
	Xeon E3-1280 v5 4C/3.7GHz/8MB/80W/DDR4-2133																														
	Xeon E3-1270 v5 4C/3.6GHz/8MB/80W/DDR4-2133																														
	Xeon E3-1240 v5 4C/3.5GHz/8MB/80W/DDR4-2133																														
	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133																														
	Xeon E3-1220 v5 4C/3GHz/8MB/80W/DDR4-2133																														
	Xeon E3-1275 v5 4C/3.6GHz/8MB/80W/DDR4-2133																														
	Xeon E3-1245 v5 4C/3.5GHz/8MB/80W/DDR4-2133																														
	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133																														
	Core i3-6320 2C/3.9GHz/4MB/51W/DDR4-2133																														
	Core i3-6300 2C/3.8GHz/4MB/51W/DDR4-2133																														
	Core i3-6300T 2C/3.3GHz/4MB/35W/DDR4-2133																														
	Core i3-6100 2C/3.7GHz/3MB/51W/DDR4-2133																														
	Core i3-6100T 2C/3.2GHz/3MB/35W/DDR4-2133																														
	Pentium G4520 2C/3.6GHz/3MB/51W/DDR4-2133																														
	Pentium G4500 2C/3.5GHz/3MB/51W/DDR4-2133																														
	Pentium G4500T 2C/3GHz/3MB/35W/DDR4-2133																														
	Pentium G4400 2C/3.3GHz/3MB/54W/DDR4-2133																														
	Pentium G4400T 2C/2.9GHz/3MB/35W/DDR4-2133																														
	Celeron G3920 2C/2.9GHz/2MB/51W/DDR4-2133																														
	Celeron G3900 2C/2.8GHz/2MB/51W/DDR4-2133																														
	Celeron G3900T 2C/2.6GHz/2MB/35W/DDR4-2133																														
Chipset	Intel C236 Platform Controller Hub (PCH)	Disk Bays and PCIe Slots <table border="1"> <thead> <tr> <th></th><th>4 x 3.5"</th><th>5 x 2.5"</th><th>4 x hybrid 3.5" + 2.5"</th></tr> </thead> <tbody> <tr> <td>Bay 1</td><td>1st HDD bay</td><td>1st HDD bay</td><td>1st HDD bay, 3.5"/2.5"</td></tr> <tr> <td>Bay 2</td><td>2nd HDD bay</td><td>2nd HDD bay</td><td>2nd HDD bay, 3.5"/2.5"</td></tr> <tr> <td>Bay 3</td><td>Not supported</td><td>3rd HDD bay</td><td>Not supported on standard models. Supports one 2.5" disk drive for special bid only</td></tr> <tr> <td>Bay 4</td><td>2nd half-height optical, or RDX tape drive, or 3rd HDD bay</td><td>2nd half-height optical, or RDX tape drive, or 4th HDD bay</td><td>2nd half-height optical, or RDX tape drive, or 3rd HDD bay (3.5"/2.5")</td></tr> <tr> <td>Bay 5</td><td>1st half-height optical, or 9.5mm optical + 4th HDD bay</td><td>1st half-height optical, or 9.5mm optical + 5th HDD bay</td><td>1st half-height optical, or 9.5mm optical + 4th HDD bay (3.5"/2.5")</td></tr> <tr> <td>6</td><td colspan="3"> Four PCIe slots (top-down): Slot 1: PCIe 3.0 x16, full height, half length (near CPU) Slot 2: PCIe 3.0 x1, full height, half length Slot 3: PCIe 3.0 x16 (x4 elec), full height, half length Slot 4: PCIe 3.0 x1, full height, half length </td></tr> </tbody> </table>			4 x 3.5"	5 x 2.5"	4 x hybrid 3.5" + 2.5"	Bay 1	1st HDD bay	1st HDD bay	1st HDD bay, 3.5"/2.5"	Bay 2	2nd HDD bay	2nd HDD bay	2nd HDD bay, 3.5"/2.5"	Bay 3	Not supported	3rd HDD bay	Not supported on standard models. Supports one 2.5" disk drive for special bid only	Bay 4	2nd half-height optical, or RDX tape drive, or 3rd HDD bay	2nd half-height optical, or RDX tape drive, or 4th HDD bay	2nd half-height optical, or RDX tape drive, or 3rd HDD bay (3.5"/2.5")	Bay 5	1st half-height optical, or 9.5mm optical + 4th HDD bay	1st half-height optical, or 9.5mm optical + 5th HDD bay	1st half-height optical, or 9.5mm optical + 4th HDD bay (3.5"/2.5")	6	Four PCIe slots (top-down): Slot 1: PCIe 3.0 x16, full height, half length (near CPU) Slot 2: PCIe 3.0 x1, full height, half length Slot 3: PCIe 3.0 x16 (x4 elec), full height, half length Slot 4: PCIe 3.0 x1, full height, half length		
	4 x 3.5"	5 x 2.5"	4 x hybrid 3.5" + 2.5"																												
Bay 1	1st HDD bay	1st HDD bay	1st HDD bay, 3.5"/2.5"																												
Bay 2	2nd HDD bay	2nd HDD bay	2nd HDD bay, 3.5"/2.5"																												
Bay 3	Not supported	3rd HDD bay	Not supported on standard models. Supports one 2.5" disk drive for special bid only																												
Bay 4	2nd half-height optical, or RDX tape drive, or 3rd HDD bay	2nd half-height optical, or RDX tape drive, or 4th HDD bay	2nd half-height optical, or RDX tape drive, or 3rd HDD bay (3.5"/2.5")																												
Bay 5	1st half-height optical, or 9.5mm optical + 4th HDD bay	1st half-height optical, or 9.5mm optical + 5th HDD bay	1st half-height optical, or 9.5mm optical + 4th HDD bay (3.5"/2.5")																												
6	Four PCIe slots (top-down): Slot 1: PCIe 3.0 x16, full height, half length (near CPU) Slot 2: PCIe 3.0 x1, full height, half length Slot 3: PCIe 3.0 x16 (x4 elec), full height, half length Slot 4: PCIe 3.0 x1, full height, half length																														
Memory DIMMs	4 DIMM sockets with 2 channels, 2 DIMMs per channel. UDIMM. Up to DDR4-2400	<i>Note:</i> 1. PCIe cards are optional. 2. Disk tray comes with the disk drive.																													
Memory capacity	64GB (16GB x 4)																														
Memory protection	ECC																														
RAID controller	RAID controller	Drive type	RAID support																												
	Onboard RAID12i	6Gbs SATA	0/1/5/10																												
Disk bays	RAID520i PCIe	12Gbs SAS/SATA	0/1/10, 5 with optional key																												
	Supports up to four 3.5" or hybrid 3.5" + 2.5" disk drives, or up to five 2.5" disk drives. one 9.5mm optical (see right). Non-hot swap. Cables are connected to onboard SATA connectors or PCIe RAID controller. Supports one optional internal USB RDX Tape drive																														
Supporting storage	3.5" HDD, 7.2K SATA6Gbs	500GB/1TB/2TB/3TB/4TB/5TB/6TB/10TB																													
	2.5" HDD, 7.2K SATA6Gbs	500GB/1TB/2TB																													
	2.5" SSD, SATA6Gbs	120GB/240GB/480GB/600GB/800GB/960GB																													