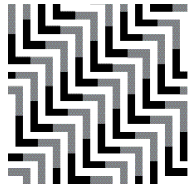


Lenovo ThinkServer

PSREF



Product Specifications Reference

Version 511, August 2017

EMEA

Visit <http://psref.lenovo.com> for the latest version

Contents

Cover	1
Contents	2
Summary Of Change	3
Racks	5
ThinkServer RS160	5
ThinkServer RS160 Platform Specifications	6
ThinkServer RS160 - TopSeller - 70TE	7
ThinkServer RS160 - TopSeller - 70TG - 1 of 2	8
ThinkServer RS160 - TopSeller - 70TG - 2 of 2	9
Towers	10
ThinkServer TS150	10
ThinkServer TS150 Platform Specifications	10
ThinkServer TS150 - TopSeller - 70LV	11
ThinkServer TS150 - TopSeller - 70LX	12
ThinkServer TS150 - TopSeller - 70UB - 1 of 2	13
ThinkServer TS150 - TopSeller - 70UB - 2 of 2	14
ThinkServer TS150 - TopSeller - 70UD	15
ThinkServer TS460	16
ThinkServer TS460 Platform Specifications	17
ThinkServer TS460 - TopSeller - 70TR	18
ThinkServer TS460 - TopSeller - 70TT - 1 of 2	19
ThinkServer TS460 - TopSeller - 70TT - 2 of 2	20
Legal Information	21

Summary of Changes

This section describes the changes made in this version of ThinkServer PSREF and in previous version
This edition might also include minor corrections and editorial changes which are not identified

August 23, 2017 - Version 511

Additions in this update

- ▶ Update ThinkServer RD650/RD550/RD450/RD350/TD350/TS460/RS160 platform specifications, add 12TB 7.2K SATA6Gbs HDD support

June 21, 2017 - Version 508

Additions in this update

- ▶ Add ThinkServer TS460 models announced June 2017
- ▶ Add ThinkServer RS160 models announced June 2017
- ▶ Update ThinkServer TS460 platform specifications, add new SBB support: Kaby Lake Xeon, Core i3, and Pentium processors. DDR4-2400 memory. 10TB 7.2K SATA6Gbs HDD, 10TB 7.2K SAS12Gbs HDD, 300GB/600GB 15K 2.5" SAS. Red Hat Enterprise Linux 7.3. SUSE Linux Enterprise Server 12 SP2/11 SP4
- ▶ Update ThinkServer RS160 platform specifications, add new SBB support: Kaby Lake Xeon, Core i3, Pentium, and Celeron processors. DDR4-2400 memory. 10TB 7.2K SATA6Gbs HDD, 10TB 7.2K SAS12Gbs HDD, 900GB 15K 2.5" SAS

May 26, 2017 - Version 507

Additions in this update

- ▶ Update ThinkServer RD650/RD550 platform specifications, add DDR4-2400 RDIMM memory, up to 1.92TB easy-swap NVMe SSD, and up to 3.84TB NVMe flash adapter

April 19, 2017 - Version 505

Additions in this update

- ▶ Add ThinkServer TS460 models announced April 2017
- ▶ Add ThinkServer TD350 models announced April 2017
- ▶ Add ThinkServer TS150 models announced April 2017
- ▶ Update ThinkServer TS150 platform specifications, add new Kaby Lake processors, DDR4-2400 memory, 10TB hard drive supports

February 15, 2017 - Version 502

Additions in this update

- ▶ Add ThinkServer RS160 models announced September 2016

Withdrawals in this update

- ▶ ThinkServer TS140 had been end of life

October 12, 2016 - Version 496

Additions in this update

- ▶ New ThinkServer RS160 product announced September 2016
- ▶ New ThinkServer TS150 models announced August and October 2016

September 14, 2016 - Version 495

Additions in this update

- ▶ New ThinkServer RS160 product announced September 2016
- ▶ New ThinkServer TS140 models announced September 2016

April 6, 2016 - Version 487

Additions in this update

- ▶ New ThinkServer TD350, RD350, and RD450 models announced April 2016
- ▶ Add Intel Xeon E5-2600 v4 processors

March 23, 2016 - Version 486

Additions in this update

- ▶ New ThinkServer TS140 models announced March 2016

February 24, 2016 - Version 485

Additions in this update

- ▶ Add 8TB SATA and SAS 72K 6Gbs hard drive on ThinkServer RD350/RD450/RD550/RD650/TD350

December 30, 2015 - Version 483

Additions in this update

- ▶ Updates ThinkServer RS140, TD340 specifications
- ▶ Updates the most recent ThinkServer RS140, TD340 models

December 9, 2015 - Version 482

Additions in this update

- ▶ Updates ThinkServer TS140, TS440 specifications
- ▶ Updates the most recent ThinkServer TS140, TS440, RD350, RD450, RD550, RD650 models

October 28, 2015 - Version 480

Additions in this update

- ▶ New ThinkServer TS140 models announced October 2015

July 30, 2015 - Version 476

Additions in this update

- ▶ New ThinkServer TD350, RD550, and RD650 models announced July 2015

May 6, 2015 - Version 473

Additions in this update

- ▶ Add 95mm optical support on TD350
- ▶ Add Red Hat Enterprise Linux 7 support on RD350/RD450/RD550/RD650/TD350
- ▶ Add 32 x 25" bay support on TD350
- ▶ Add AnyBay and 25" PCIe SSD support on RD550/RD650

April 15, 2015 - Version 471

Additions in this update

- ▶ New ThinkServer TD350 models announced March 2015

March 25, 2015 - Version 470

Additions in this update

- ▶ New ThinkServer TS140 and TS440 models announced March 2015



ThinkServer RS160 Platform Specifications

Components	Specification																																					
Dimensions	1U rack. Height: 43.2 mm (1.7 in), width: 438.5 mm (17.26 in), depth: 393.7 mm (15.5 in)																																					
Weight	Minimum configuration: 6.2 kg (13.67 lb), maximum: 7.6 kg (16.76 lb)																																					
Processor	Supports one of the following Intel "Kaby Lake" processors:																																					
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Chipset	Intel C232 Platform Controller Hub (PCH)																																					
Memory DIMMs	4 DIMM sockets with 2-channels. UDIMM. DDR4-2133 or DDR4-2400																																					
Memory capacity	64GB (16GB x 4)																																					
Memory protection	ECC																																					
RAID controller	<table border="1"> <thead> <tr> <th>RAID controller</th> <th>Drive type</th> <th>RAID support</th> <th>Compatible models</th> </tr> </thead> <tbody> <tr> <td>Onboard RAID121i</td> <td>6Gbs SATA</td> <td>0/1/5/10</td> <td>2x3.5", 4x2.5"</td> </tr> <tr> <td>RAID520i PCIe</td> <td>12Gbs SAS/SATA</td> <td>0/1/10, 5 with optional key</td> <td>2x3.5", 4x2.5"</td> </tr> <tr> <td>RAID720i PCIe</td> <td>12Gbs SAS/SATA</td> <td>0/1/10/5, 6 with optional cache</td> <td>2x3.5", 4x2.5"</td> </tr> </tbody> </table>	RAID controller	Drive type	RAID support	Compatible models	Onboard RAID121i	6Gbs SATA	0/1/5/10	2x3.5", 4x2.5"	RAID520i PCIe	12Gbs SAS/SATA	0/1/10, 5 with optional key	2x3.5", 4x2.5"	RAID720i PCIe	12Gbs SAS/SATA	0/1/10/5, 6 with optional cache	2x3.5", 4x2.5"																					
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RAID520i PCIe	12Gbs SAS/SATA	0/1/10, 5 with optional key	2x3.5", 4x2.5"																																			
RAID720i PCIe	12Gbs SAS/SATA	0/1/10/5, 6 with optional cache	2x3.5", 4x2.5"																																			
	Optional cache for RAID720i: 1GB memory. 1GB, 2GB, or 4GB flash with super capacitor.																																					
Disk drive bays	Supports two 3.5" or four 2.5" disk drive bays. Non-hot swap. Cables are connected to onboard SATA connectors or PCIe RAID controller. Also supports one M.2 SATA SSD																																					
Supporting storage	3.5" HDD, 7.2K SATA6Gbs	1TB/2TB/4TB/6TB/8TB/10TB/12TB																																				
	3.5" HDD, 7.2K SAS12Gbs	1TB/2TB/4TB/6TB/8TB/10TB																																				
	3.5" SSD, SATA6Gbs (2.5" SSD with 3.5" tray)	240GB/480GB/960GB																																				
	2.5" HDD, 7.2K SATA6Gbs	1TB/2TB																																				
	2.5" HDD, 10K SAS12Gbs	300GB/600GB/900GB/1.2TB/2.4TB																																				
	2.5" HDD, 15K SAS12Gbs	900GB																																				
	2.5" SSD, SATA6Gbs	120GB/240GB/480GB/960GB																																				
	M.2 SATA SSD	32GB/128GB																																				

Components	Specification	
Optical drive	Optional one 9.5mm optical. DVD-ROM or DVD±RW	
Network interfaces	One dedicated management port, two Gigabit Ethernet ports. Supports optional discrete network adapters via riser card	
Security features	Power-on and administrator password. Optional TPM, TCG 1.2 or 2.0 compliant.	
Systems management	UEFI. Onboard Aspeed AST2400 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC). Control Panel LEDs shows the status of power, ID, disk drives, network, system. Supports the following management software: EasyStartup, Power Planner. On November 2016, EasyUpdate, Lenovo ThinkServer Diagnostics Standalone, ToolsCenter Suite CLI inventory module on ThinkServer, and Lenovo xClarity Administrator will be available	
Operating systems	Microsoft Windows Server 2016 (Standard and Essentials)/2012 R2/2012. Windows 10 Pro. Red Hat Enterprise Linux 6.7/6.8/7.2. SUSE Linux Enterprise Server 11/12. VMware vSphere (ESXi) 6.0U0/U2	
Base warranty	1 or 3-year limited onsite service with 9x5/NBD	
Power supply	One fixed 300 watts power supply, Non-hot swap. 80 PLUS Gold qualified	
Graphics	Onboard Aspeed AST2400	
Front ports	Two USB 2.0	
Rear ports	One VGA, four USB 3.0, one RJ-45 (dedicated mgmt), two ethernet, one serial (9-pin)	
Cooling	3 fans for processor, PCIe slot, and disk drives	
Noise emissions	Operating: < 5.9 Bels. Idle: < 5.2 Bels (Maximum configuration)	
Environmental specification	Temperature - operating	50 °F to 95 °F (10 °C to 35 °C)
	Temperature - non operating (with package)	-40 °C to 60 °C
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating	8%~80%, non-condensing
	Humidity - storage (with package)	10%~90%, non-condensing

Expansion slots and disk bays

Supports one PCIe slot via optional riser card, PCIe 3.0 x16, half length, half height

Core options for ThinkServer RS160 (partial)

ThinkServer 8GB 2RX8 PC4-2133-E CL15 DDR4-2133 ECC-UDIMM	4X70G88316
ThinkServer 16GB 2RX8 PC4-2133-E CL15 DDR4-2133 ECC-UDIMM	4X70G88317
ThinkServer 3.5" 8TB 7.2K Enterprise SATA 6Gbps 512e Hard Drive for RS-Series	4XB0K12297
ThinkServer 2.5" 1.2TB 10K Enterprise SAS 12Gbps Hard Drive for RS-Series	4XB0K12306
ThinkServer 2.5" 2TB 7.2K Enterprise SATA 6Gbps Hard Drive for RS-Series	4XB0K12302
ThinkServer 2.5" 480GB S3510 Enterprise Entry SATA 6Gbps SSD for RS-Series	4XB0K12321
ThinkServer M.2 32GB Value Read-Optimized SATA 6Gbps Solid State Drive	4XB0K12310
ThinkServer RAID 520i RAID 5 Upgrade	4XC0G88841
ThinkServer RS160 Slim SATA DVD-RW Optical Disk Drive	4XA0G88613
Lenovo ThinkServer Gen 5 Trusted Platform Module v1.2 (Worldwide except China)	4XF0G45868

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Slots	TPM	OS	Warranty	Power Supply	Ann Date (m/y)
70TE0008EA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	Open	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TE0009EA	EMEA	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	Open	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TE000AEA	EMEA	Xeon E3-1270 v5 4C/3.6GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	Open	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TE000BEA	EMEA	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	2x1TB HDD 7.2K 2.5" SATA6Gbps	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TE000CEA	EMEA	Xeon E3-1240 v5 4C/3.5GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	2x2TB HDD 7.2K 2.5" SATA6Gbps	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TE001GEA	EMEA	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	None	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TE001UEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TE001VEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TE001WEA	EMEA	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TE001XEA	EMEA	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TE001YEA	EMEA	Xeon E3-1270 v6 4C/3.8GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TE0020EA	EMEA	Xeon E3-1270 v6 4C/3.8GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TE0021EA	EMEA	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TE0022EA	EMEA	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TER001EA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM	None	3-year	300W 85% Fixed	09/16
70TER002EA	EMEA	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM	None	3-year	300W 85% Fixed	09/16
70TER003EA	EMEA	Xeon E3-1270 v5 4C/3.6GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	4x2.5" NHS	Open	None	None	1xHHHL	TPM	None	3-year	300W 85% Fixed	09/16

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Slots	TPM	OS	Warranty	Power Supply	Ann Date (m/y)
70TG000DEA	EMEA	Pentium G4400 2C/3.3GHz/3MB/54W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	Open	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TG000EEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	Open	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TG000FEA	EMEA	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	Open	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TG000GEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	2x2TB HDD 7.2K 3.5" SATA6Gbps	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TG000HEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	2x1TB HDD 7.2K 3.5" SATA6Gbps	None	None	1xHHHL	None	None	3-year	300W 85% Fixed	09/16
70TG0028EA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	Open	None	None	None	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TG0029EA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	2x1TB HDD 7.2K 3.5" SATA6Gbps	None	None	None	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TG002NEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TG002PEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TG002QEA	EMEA	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TG002REA	EMEA	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	Open	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TG002SEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	2x2TB HDD 7.2K 3.5" SATA6Gbps	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TG002TEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	2x2TB HDD 7.2K 3.5" SATA6Gbps	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TG002UEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	2x1TB HDD 7.2K 3.5" SATA6Gbps	None	None	1xHHHL	TPM2.0	None	3-year	300W 85% Fixed	06/17
70TG002VEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	2x3.5" NHS	2x1TB HDD 7.2K 3.5" SATA6Gbps	None	None	1xHHHL	TPM2.0	None	1-year	300W 85% Fixed	06/17
70TGR001EA	EMEA	Pentium G4400 2C/3.3GHz/3MB/54W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	Open	None	None	1xHHHL	TPM	None	3-year	300W 85% Fixed	09/16
70TGR002EA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	Open	None	None	1xHHHL	TPM	None	3-year	300W 85% Fixed	09/16

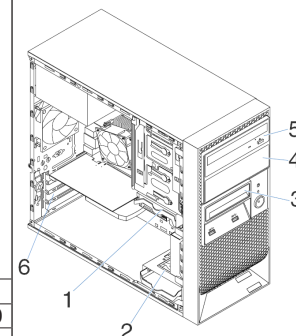
Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Slots	TPM	OS	Warranty	Power Supply	Ann Date (m/y)
70TGR003EA	EMEA	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	2x3.5" NHS	Open	None	None	1xHHHL	TPM	None	3-year	300W 85% Fixed	09/16

ThinkServer TS150 Platform Specifications

Product Specifications Reference (PSREF)

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)																																										
Weight	Maximum configuration: 27.6 lb (12.5kg)																																										
Processor	One Intel "Kaby Lake" or "Skylake" processor as listed: "Kaby Lake" processors:																																										
	<table border="1"> <tbody> <tr><td>Xeon E3-1280 v6</td><td>4C/3.9GHz/8MB/72W/DDR4-2400</td></tr> <tr><td>Xeon E3-1275 v6</td><td>4C/3.8GHz/8MB/73W/DDR4-2400</td></tr> <tr><td>Xeon E3-1270 v6</td><td>4C/3.8GHz/8MB/72W/DDR4-2400</td></tr> <tr><td>Xeon E3-1245 v6</td><td>4C/3.7GHz/8MB/73W/DDR4-2400</td></tr> <tr><td>Xeon E3-1240 v6</td><td>4C/3.7GHz/8MB/72W/DDR4-2400</td></tr> <tr><td>Xeon E3-1230 v6</td><td>4C/3.5GHz/8MB/72W/DDR4-2400</td></tr> <tr><td>Xeon E3-1225 v6</td><td>4C/3.3GHz/8MB/73W/DDR4-2400</td></tr> <tr><td>Xeon E3-1220 v6</td><td>4C/3GHz/8MB/72W/DDR4-2400</td></tr> <tr><td>Core i3-7320</td><td>2C/4.1GHz/4MB/51W/DDR4-2400</td></tr> <tr><td>Core i3-7300T</td><td>2C/3.5GHz/4MB/35W/DDR4-2400</td></tr> <tr><td>Core i3-7300</td><td>2C/4GHz/4MB/51W/DDR4-2400</td></tr> <tr><td>Core i3-7100T</td><td>2C/3.4GHz/3MB/35W/DDR4-2400</td></tr> <tr><td>Core i3-7100</td><td>2C/3.9GHz/3MB/51W/DDR4-2400</td></tr> <tr><td>Pentium G4620</td><td>2C/3.7GHz/3MB/51W/DDR4-2400</td></tr> <tr><td>Pentium G4600T</td><td>2C/3GHz/3MB/35W/DDR4-2400</td></tr> <tr><td>Pentium G4600</td><td>2C/3.6GHz/3MB/51W/DDR4-2400</td></tr> <tr><td>Pentium G4560T</td><td>2C/2.9GHz/3MB/35W/DDR4-2400</td></tr> <tr><td>Pentium G4560</td><td>2C/3.5GHz/3MB/54W/DDR4-2400</td></tr> <tr><td>Celeron G3950</td><td>2C/3GHz/2MB/51W/DDR4-2133</td></tr> <tr><td>Celeron G3930T</td><td>2C/2.7GHz/2MB/35W/DDR4-2133</td></tr> <tr><td>Celeron G3930</td><td>2C/2.9GHz/2MB/51W/DDR4-2133</td></tr> </tbody> </table>	Xeon E3-1280 v6	4C/3.9GHz/8MB/72W/DDR4-2400	Xeon E3-1275 v6	4C/3.8GHz/8MB/73W/DDR4-2400	Xeon E3-1270 v6	4C/3.8GHz/8MB/72W/DDR4-2400	Xeon E3-1245 v6	4C/3.7GHz/8MB/73W/DDR4-2400	Xeon E3-1240 v6	4C/3.7GHz/8MB/72W/DDR4-2400	Xeon E3-1230 v6	4C/3.5GHz/8MB/72W/DDR4-2400	Xeon E3-1225 v6	4C/3.3GHz/8MB/73W/DDR4-2400	Xeon E3-1220 v6	4C/3GHz/8MB/72W/DDR4-2400	Core i3-7320	2C/4.1GHz/4MB/51W/DDR4-2400	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	Pentium G4620	2C/3.7GHz/3MB/51W/DDR4-2400	Pentium G4600T	2C/3GHz/3MB/35W/DDR4-2400	Pentium G4600	2C/3.6GHz/3MB/51W/DDR4-2400	Pentium G4560T	2C/2.9GHz/3MB/35W/DDR4-2400	Pentium G4560	2C/3.5GHz/3MB/54W/DDR4-2400	Celeron G3950	2C/3GHz/2MB/51W/DDR4-2133	Celeron G3930T	2C/2.7GHz/2MB/35W/DDR4-2133	Celeron G3930	2C/2.9GHz/2MB/51W/DDR4-2133
	Xeon E3-1280 v6	4C/3.9GHz/8MB/72W/DDR4-2400																																									
	Xeon E3-1275 v6	4C/3.8GHz/8MB/73W/DDR4-2400																																									
	Xeon E3-1270 v6	4C/3.8GHz/8MB/72W/DDR4-2400																																									
	Xeon E3-1245 v6	4C/3.7GHz/8MB/73W/DDR4-2400																																									
	Xeon E3-1240 v6	4C/3.7GHz/8MB/72W/DDR4-2400																																									
	Xeon E3-1230 v6	4C/3.5GHz/8MB/72W/DDR4-2400																																									
	Xeon E3-1225 v6	4C/3.3GHz/8MB/73W/DDR4-2400																																									
	Xeon E3-1220 v6	4C/3GHz/8MB/72W/DDR4-2400																																									
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	"Skylake" processors:																																										
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	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																																									
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Core i3-6320	2C/3.9GHz/4MB/51W/DDR4-2133																																										
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Celeron G3900T	2C/2.6GHz/2MB/35W/DDR4-2133																																										
Chipset	Intel C236 Platform Controller Hub (PCH)																																										
Memory DIMMs	4 DIMM sockets with 2 channels, 2 DIMMs per channel. UDIMM. Up to DDR4-2400																																										
Memory capacity	64GB (16GB x 4)																																										
Memory protection	ECC																																										
RAID controller	<table border="1"> <thead> <tr> <th>RAID controller</th> <th>Drive type</th> <th>RAID support</th> </tr> </thead> <tbody> <tr> <td>Onboard RAID121i</td> <td>6Gbs SATA</td> <td>0/1/5/10</td> </tr> <tr> <td>RAID520i PCIe</td> <td>12Gbs SAS/SATA</td> <td>0/1/10, 5 with optional key</td> </tr> </tbody> </table>	RAID controller	Drive type	RAID support	Onboard RAID121i	6Gbs SATA	0/1/5/10	RAID520i PCIe	12Gbs SAS/SATA	0/1/10, 5 with optional key																																	
	RAID controller	Drive type	RAID support																																								
Onboard RAID121i	6Gbs SATA	0/1/5/10																																									
RAID520i PCIe	12Gbs SAS/SATA	0/1/10, 5 with optional key																																									
Disk bays	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																																									

Components	Specification	
SD module	Optional. Up to 2 SDHC flash cards via SD module, 8GB each	
Optical drive	Up to two half-height optical drives or one 9.5mm optical. DVD-ROM or DVD±RW	
Network interfaces	One Gigabit Ethernet port, Intel i219LM. Supports optional discrete network adapters via PCIe slots	
Security features	Power-on and administrator password. TPM (TCG 1.2-compliant)	
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. KVM is supported on models with Xeon E3-12x5 v5 processors	
Operating systems	Microsoft Windows Server 2016/2012 R2/2012, Windows MultiPoint Server 2012, Windows 10 Pro. Red Hat Enterprise Linux 6.7/7.2. SUSE Linux Enterprise Server 11/12. VMware vSphere (ESXi) 5.5U3/6.0U2	
Base warranty	1 or 3-year limited onsite service with 9x5/NBD	
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	
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	
HD Audio	Realtek ALC662 codec	
Front ports	Two USB 3.0	
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	
Noise emissions	Operating: < 35 dB(A). Idle: < 34 dB(A) (Maximum configuration)	
Environmental specification	Temperature - operating	50 °F to 95 °F (10 °C to 35 °C)
	Temperature - non operating (with package)	-40 °C to 60 °C
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating	8%-80%, non-condensing
	Humidity - storage (with package)	10%-90%, non-condensing



Note:
1. PCIe cards are optional.
2. Disk tray comes with the disk drive.

Disk Bays and PCIe Slots			
	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		

ThinkServer TS150 - TopSeller - 70LV

Product Specifications Reference (PSREF)

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Mgmt	OS	Warranty	Power Supply	Ann Date (m/y)
70LV003DEA	EMEA	Celeron G3920 2C/2.9GHz/2MB/51W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	10/16
70LV003EEA	EMEA	Pentium G4400 2C/3.3GHz/3MB/54W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	10/16
70LV003FEA	EMEA	Core i3-6320 2C/3.9GHz/4MB/51W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	10/16
70LV003GEA	EMEA	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	10/16
70LV003HEA	EMEA	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	1x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	10/16
70LV003JEA	EMEA	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	10/16
70LV003KEA	EMEA	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	10/16
70LV003LEA	EMEA	Pentium G4400 2C/3.3GHz/3MB/54W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC/3 available	Open	HH DVD	None	None	ISM	None	1-year	Fixed 250W Bronze	10/16
70LV003MEA	EMEA	Xeon E3-1245 v5 4C/3.5GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	Open	None	None	None	AMT	None	1-year	Fixed 250W Bronze	10/16
70LV003NEA	EMEA	Xeon E3-1275 v5 4C/3.6GHz/8MB/80W/DDR4-2133	2x16GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	Open	None	None	None	AMT	None	1-year	Fixed 250W Bronze	10/16

ThinkServer TS150 - TopSeller - 70LX

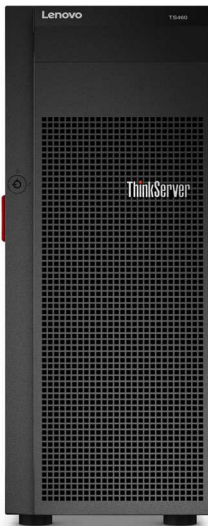
Product Specifications Reference (PSREF)

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Mgmt	OS	Warranty	Power Supply	Ann Date (m/y)
70LX001HEA	EMEA	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	10/16
70LX001JEA	EMEA	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	1x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	10/16
70LX001KEA	EMEA	Xeon E3-1225 v5 4C/3.3GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	10/16
70LX001LEA	EMEA	Xeon E3-1245 v5 4C/3.5GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	10/16
70LX001MEA	EMEA	Xeon E3-1275 v5 4C/3.6GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	10/16

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Mgmt	OS	Warranty	Power Supply	Ann Date (m/y)
70UB0015EA	EMEA	Core i3-7320 2C/4.1GHz/4MB/51W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	04/17
70UB0016EA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB0017EA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB0019EA	EMEA	Celeron G3930 2C/2.9GHz/2MB/51W/DDR4-2133	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	04/17
70UB001AEA	EMEA	Pentium G4560 2C/3.5GHz/3MB/54W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	04/17
70UB001BEA	EMEA	Pentium G4620 2C/3.7GHz/3MB/51W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	04/17
70UB001CEA	EMEA	Pentium G4620 2C/3.7GHz/3MB/51W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	3-year	Fixed 250W Bronze	04/17
70UB001DEA	EMEA	Core i3-7100 2C/3.9GHz/3MB/51W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	04/17
70UB001EEA	EMEA	Core i3-7100 2C/3.9GHz/3MB/51W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	ISM	None	3-year	Fixed 250W Bronze	04/17
70UB001FEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17
70UB001GEA	EMEA	Xeon E3-1245 v6 4C/3.7GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB001HEA	EMEA	Xeon E3-1245 v6 4C/3.7GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17
70UB001JEA	EMEA	Xeon E3-1275 v6 4C/3.8GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17
70UB001KEA	EMEA	Xeon E3-1275 v6 4C/3.8GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB001LEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	1x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB001MEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	1x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17
70UB001NEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Mgmt	OS	Warranty	Power Supply	Ann Date (m/y)
70UB001PEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17
70UB001QEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB001REA	EMEA	Xeon E3-1245 v6 4C/3.7GHz/8MB/73W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	None	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB001SEA	EMEA	Xeon E3-1245 v6 4C/3.7GHz/8MB/73W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	None	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17
70UB001TEA	EMEA	Xeon E3-1275 v6 4C/3.8GHz/8MB/73W/DDR4-2400	2x16GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	None	None	None	AMT	None	1-year	Fixed 250W Bronze	04/17
70UB001UEA	EMEA	Xeon E3-1275 v6 4C/3.8GHz/8MB/73W/DDR4-2400	2x16GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	None	None	None	AMT	None	3-year	Fixed 250W Bronze	04/17
70UB001VEA	EMEA	Pentium G4600 2C/3.6GHz/3MB/51W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC/3 available	Open	HH DVD	None	None	ISM	None	1-year	Fixed 250W Bronze	04/17
70UB0021EA	EMEA	Pentium G4560 2C/3.5GHz/3MB/54W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC/3 available	2x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	ISM	None	1-year	Fixed 250W Bronze	04/17

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Mgmt	OS	Warranty	Power Supply	Ann Date (m/y)
70UD000EEA	EMEA	Xeon E3-1245 v6 4C/3.7GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 400W Platinum	04/17
70UD000LEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	04/17
70UD000MEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 400W Platinum	04/17
70UD000NEA	EMEA	Xeon E3-1275 v6 4C/3.8GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	04/17
70UD000PEA	EMEA	Xeon E3-1275 v6 4C/3.8GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 400W Platinum	04/17
70UD000QEA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	04/17
70UD000REA	EMEA	Xeon E3-1225 v6 4C/3.3GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	Open	9.5mm DVD±RW	None	None	AMT	None	3-year	Fixed 400W Platinum	04/17
70UD000TEA	EMEA	Xeon E3-1245 v6 4C/3.7GHz/8MB/73W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID 121i	Up to 4x3.5" DC	2x1TB HDD 7.2K 3.5" SATA6Gbps	9.5mm DVD±RW	None	None	AMT	None	1-year	Fixed 400W Platinum	04/17

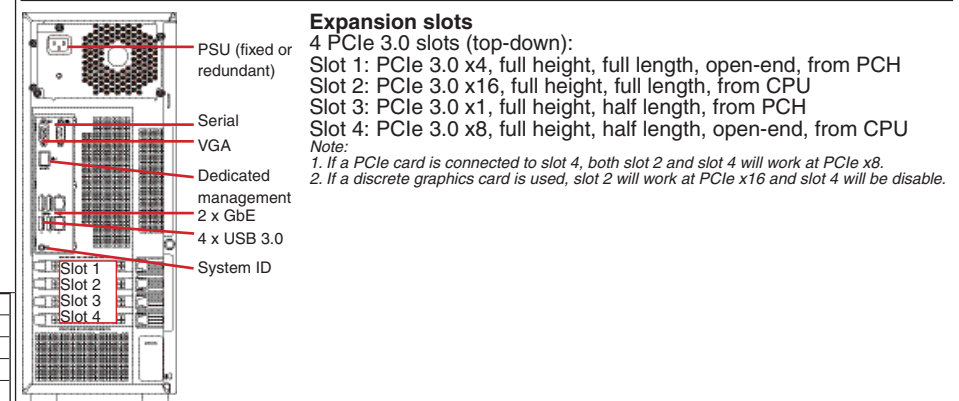


ThinkServer TS460 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification			
Dimensions	42L tower or 4U rack. Height: 443.5 mm (17.46 in) with foot stands. Width: 173 mm (6.81 in). Depth: 593 mm (23.35 in) including front door and handle of hot-swap power supply			
Weight	Maximum configuration: 57.32 lb (26.5 kg)			
Processor	Supports one of the following Intel "Kaby Lake" processors:			
	Xeon E3-1280 v6 4C/3.9GHz/8MB/72W/DDR4-2400			
	Xeon E3-1270 v6 4C/3.8GHz/8MB/72W/DDR4-2400			
	Xeon E3-1240 v6 4C/3.7GHz/8MB/72W/DDR4-2400			
	Xeon E3-1230 v6 4C/3.5GHz/8MB/72W/DDR4-2400			
	Xeon E3-1220 v6 4C/3GHz/8MB/72W/DDR4-2400			
	Core i3-7320 2C/4.1GHz/4MB/51W/DDR4-2400			
	Core i3-7300 2C/4GHz/4MB/51W/DDR4-2400			
	Core i3-7300T 2C/3.5GHz/4MB/35W/DDR4-2400			
	Core i3-7100 2C/3.9GHz/3MB/51W/DDR4-2400			
Core i3-7100T 2C/3.4GHz/3MB/35W/DDR4-2400				
Pentium G4620 2C/3.7GHz/3MB/51W/DDR4-2400				
Pentium G4600 2C/3.6GHz/3MB/51W/DDR4-2400				
Pentium G4600T 2C/3GHz/3MB/35W/DDR4-2400				
Pentium G4560 2C/3.5GHz/3MB/54W/DDR4-2400				
Pentium G4560T 2C/2.9GHz/3MB/35W/DDR4-2400				
Processor	Supports one of the following Intel "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			
	Core i3-6320 2C/3.9GHz/4MB/51W/DDR4-2133			
	Core i3-6300T 2C/3.3GHz/4MB/35W/DDR4-2133			
	Core i3-6300 2C/3.8GHz/4MB/51W/DDR4-2133			
	Core i3-6100T 2C/3.2GHz/3MB/35W/DDR4-2133			
Core i3-6100 2C/3.7GHz/3MB/51W/DDR4-2133				
Pentium G4520 2C/3.6GHz/3MB/51W/DDR4-2133				
Pentium G4500T 2C/3GHz/3MB/35W/DDR4-2133				
Pentium G4500 2C/3.5GHz/3MB/51W/DDR4-2133				
Pentium G4400T 2C/2.9GHz/3MB/35W/DDR4-2133				
Pentium G4400 2C/3.3GHz/3MB/54W/DDR4-2133				
Chipset	Intel C232 Platform Controller Hub (PCH)			
Memory DIMMs	4 DIMM sockets with 2-channels. UDIMM. DDR4-2133 or DDR4-2400			
Memory capacity	Up to 64GB (16GB x 4)			
Memory protection	ECC			
RAID controller	RAID controller			
	Drive type			
	RAID support			
RAID520i PCIe	6Gbs SATA	0/1/5/10		
RAID720i PCIe	12Gbs SAS/SATA	0/1/10, 5 with optional key		
RAID720i PCIe	12Gbs SAS/SATA	0/1/10/5/50, 6/60 with optional cache		
	Optional cache for RAID720i: 1GB memory, or 1GB, 2GB, 4GB flash with super capacitor.			
Disk drive bays	Supports one of the following configurations:			
	Disk bays configuration	RAID controller	Optical	Tape drive
	4x3.5" SATA non-hot swap	121i	up to 2	RDX up to 1 LTO -
	4x3.5" SATA hot-swap	121i	up to 2	up to 1 -
	4x3.5" SATA/SAS hot-swap	520i or 720i	up to 2	up to 1 up to 1, 520i only
	8x3.5" SATA/SAS hot-swap	520i or 720i	up to 2	up to 1 -
	8x2.5" SATA/SAS hot-swap	520i or 720i	up to 2	up to 1 -
	16x2.5" SATA/SAS hot-swap	520i or 720i	up to 2	up to 1 -
	4x3.5" + 8x2.5" SATA/SAS hot-swap	520i or 720i	up to 2	up to 1 -
	4 x 3.5" HS can be upgraded to 8 x 3.5" HS or 4 x 3.5" + 8 x 2.5" HS, 8 x 2.5" HS can be upgraded to 16 x 2.5" HS or 4 x 3.5" + 8 x 2.5" HS, redundant PSU models only, RAID520i/RAID720i and expansion kit is needed, more that 8 disk bays needs expander card. Also supports one M.2 SATA SSD, 32GB or 128GB.			
Supporting disk drives	3.5" SATA HDD, 7.2K 6Gbs, HS or NHS	1TB/2TB/3TB/4TB/6TB/8TB/10TB/12TB		
	3.5" SAS HDD, 7.2K 12Gbs, HS	1TB/2TB/3TB/4TB/6TB/8TB/10TB		
	2.5" SAS HDD, 10K 12Gbs, HS, 2.5" or 3.5" bay	300GB/600GB/900GB/1.2TB/1.8TB/2.4TB		
	2.5" SAS HDD, 15K 12Gbs, HS, 2.5" or 3.5" bay	300GB/600GB		
	2.5" SATA SSD, 6Gbs, HS, 2.5" or 3.5" bay	120GB/240GB/480GB/800GB/960GB		
	2.5" SATA HDD, 7.2K 6Gbs, HS	1TB/2TB		
M.2 SATA SSD	32GB/128GB			

Components	Specification			
Maximum internal storage	Up to 64TB with 8TB 3.5" SAS or SATA HDDs, 8 x 3.5" HS bay			
Optical drive	Two 5.25" bays. Up to 2 optical drives. DVD-ROM or DVD±RW. Half-height. 2nd optical drive will be disable if M.2 SATA SSD is used			
Tape drive	Supports one tape drive in 5.25" bay. RDX or LTO. LTO Tape drive needs RAID520i			
Network interfaces	Two integrated Gigabit Ethernet 1000BASE-T ports (RJ-45) with Intel i210. One dedicate management port with Realtek RTL8211E			
Systems management	UEFI. Onboard Aspeed AST2400 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC). Control Panel LEDs shows the status of power, disk drives, network, system. On rear system ID. Supports EasyStartup, Power Planner, Lenovo ThinkServer Diagnostics Standalone, ToolsCenter Suite CLI inventory module on ThinkServ-er, Lenovo xClarity Administrator			
Security features	Power-on and administrator password. Optional TPM, TCG 1.2 or 2.0 compliant.			
Operating systems	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 6.8/7.3(6.8 cannot support Kaby Lake processors). SUSE Linux Enterprise Server 12 SP2/11 SP4. VMware vSphere (ESXi) 6.0U2/6.5			
Base warranty	1 or 3-year limited onsite service with 9x5/NBD.			
Power supply	Supports one of the following, depending on models: • One fixed 300 watts, universal, 80 PLUS Bronze qualified. • Up to two redundant 450 watts, two maximum, rear access, hot-swap, 80 PLUS Gold qualified, universal, redundant with two power supplies			
Graphics	Integrated in onboard Aspeed AST2400 graphics/management processor. Optional NVIDIA Quadro K420			
Front ports	Two USB 3.0 (blue)			
Rear ports	One VGA, four USB 3.0, one RJ-45 (dedicated mgmt), two ethernet, one serial (9-pin). Add-on parallel or serial ports via optional PCIe adapters			
Noise emissions	Operating: < 43.6 dB(A). Idle: < 33 dB(A) (Maximum configuration)			
Environmental specification	All models supports ASHARE B. Models with the following configuration supports ASHARE A3: Xeon E3-1230 v5/8GBx2/DVD±RW/1TB SATAx4/RAID520i/450Wx2/TPM			
		ASHRAE A2	ASHRAE A3	ASHRAE B
	Temperature - operating	10°C to 35°C (50°F to 95°F)	5°C to 40°C (41°F to 104°F)	5°C to 35°C (41°F to 95°F)
	Temperature - storage (with package)	-40°C to 60°C (-40°F to 140°F)	-40°C to 60°C (-40°F to 140°F)	-40°C to 60°C (-40°F to 140°F)
	Altitude - operating	20% to 80% (non-condensing)	8% to 85% (non-condensing)	8% to 80% (non-condensing)
	Humidity - storage (with package)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
	Altitude - operating	0 m to 3048 m (0 ft to 10 000 ft) in an unpressurized environment		
	GREENGUARD certified, RoHS-compliant, Energy Star Server 2.1 qualified on redundant PSU models			



Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Management	Operating System	Warranty	Power Supply	Ann Date (mm/yy)
70TR000CEA	EMEA	Pentium G4400 2C/3.3GHz/3MB/54W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" NHS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	02/17
70TR000DEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" NHS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	02/17
70TR000EEA	EMEA	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" NHS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	02/17
70TR000FEA	EMEA	Xeon E3-1270 v5 4C/3.6GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" NHS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	02/17
70TR000GEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" NHS	1x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	02/17
70TR000HEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" NHS	2x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	02/17
70TR000JEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" NHS	1x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	TPM 2.0	None	1-year	Fixed 300W Bronze	02/17
70TR001NEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x3.5" NHS	2x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	06/17
70TR001UEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	2x300GB HDD 10K 2.5" SAS12Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	04/17
70TR001VEA	EMEA	Xeon E3-1270 v6 4C/3.8GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x3.5" NHS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	06/17
70TR001WEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x3.5" NHS	1x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	06/17
70TR001XEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID520i	8x2.5" HS	2x300GB HDD 10K 2.5" SAS12Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	Fixed 300W Bronze	06/17

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Management	Operating System	Warranty	Power Supply	Ann Date (mm/yy)
70TT0007EA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	02/17
70TT0008EA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	02/17
70TT0009EA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	1-year	1x450W Gold	02/17
70TT000AEA	EMEA	Xeon E3-1230 v5 4C/3.4GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	02/17
70TT000BEA	EMEA	Xeon E3-1240 v5 4C/3.5GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	02/17
70TT000CEA	EMEA	Xeon E3-1270 v5 4C/3.6GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	02/17
70TT000DEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	02/17
70TT000EEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	1-year	2x450W Gold	02/17
70TT000FEA	EMEA	Xeon E3-1240 v5 4C/3.5GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	02/17
70TT000GEA	EMEA	Xeon E3-1270 v5 4C/3.6GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	02/17
70TT001LEA	EMEA	Xeon E3-1240 v5 4C/3.5GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	02/17
70TT001MEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	02/17
70TT001NEA	EMEA	Xeon E3-1240 v5 4C/3.5GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	02/17
70TT001PEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x16GB UDIMM DDR4-2133 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	02/17
70TT002TEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	06/17
70TT002UEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	06/17
70TT003AEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID121i	4x3.5" HS	2x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	04/17

Model	Region	Processor	Memory	Storage Controller	Disk Bays	Disks	Optical	Add-on NIC	Add-on Ports	System Management	Operating System	Warranty	Power Supply	Ann Date (mm/yy)
70TT003BEA	EMEA	Xeon E3-1220 v5 4C/3.0GHz/8MB/80W/DDR4-2133	1x8GB UDIMM DDR4-2133 ECC	RAID520i	8x2.5" HS	2x300GB HDD 10K 2.5" SAS12Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	04/17
70TT003VEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	06/17
70TT003WEA	EMEA	Xeon E3-1240 v6 4C/3.7GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	06/17
70TT003XEA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	06/17
70TT003YEA	EMEA	Xeon E3-1270 v6 4C/3.8GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	06/17
70TT0040EA	EMEA	Xeon E3-1240 v6 4C/3.7GHz/8MB/72W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID520i	8x2.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	06/17
70TT0041EA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x16GB UDIMM DDR4-2400 ECC	RAID520i	4x3.5" HS	Open	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	06/17
70TT0042EA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID121i	4x3.5" NHS	2x1TB HDD 7.2K 3.5" SATA6Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	1x450W Gold	06/17
70TT0043EA	EMEA	Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400	1x8GB UDIMM DDR4-2400 ECC	RAID520i	8x2.5" HS	2x300GB HDD 10K 2.5" SAS12Gbps	HH DVD±RW	None	None	TPM 2.0	None	3-year	2x450W Gold	06/17

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Onsite / In-home Service: Parts and labor repair coverage where labor is provided onsite at your place of business.

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Included software: may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

Visit <http://psref.lenovo.com/> for the latest version of Product Specifications Reference.

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