ThinkServer TS460 70TT002UEA

Product
ThinkServer TS460

Region
EMEA

Machine Type
70TT

TopSeller
TopSeller

Processor
Xeon E3-1220 v6 4C/3.0GHz/8MB/72W/DDR4-2400

Memory
1x 16GB UDIMM DDR4-2400 ECC

Storage Controller
RAID 520i

Disk Bays
8x 2.5" HS

Disks
Open

Optical
HH DVD±RW

Additional Networking
None

Optional Ports
None

TPM
TPM 2.0

Operating System
None

Warranty
3-year

Power Supply
2x 450W Gold

Ann Date (mm/yy)
06/17

Note:
* Country Code "US" is for United States, "++" is for EMEA countries (e.g. AD - Saudi, Arabia, AT - Austria, BM - Bulgaria, etc.), "xx" is for EAST countries (e.g. BM - Bulgaria, CX - Hungary, CY - Cyprus, etc.), and "**" is for MEA countries (e.g. AD - Saudi, Arabia, ED - Egypt, EQ - Sweden, etc.). Please be aware that the EMEA/ EAST/MEA models listed above might not be available in all countries

WWW.LENOVO.COM

This publication was developed for products and services oered in the United States and E.M.E.A countries. Lenovo may not oer the products, services or features discussed in this document in other countries. Lenovo may withdraw an oering at any time. Information is subject to change without notice. Consult your local representative for information on oerings available in your area.

Lenovo reserves the right to change specifcations or other product information without notice. Lenovo is not responsible for photographic or typographical errors.

Lenovo provides this publication “as is” without warranty of any kind, either express or implied, including the implied warranties of merchantability or ftness for a particular purpose.

http://psref.lenovo.com

Visit psref website for the latest version of Product Specifcations Reference.

© Lenovo, 2017. All rights reserved.

ThinkServer TS460 Platform Specifications

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

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

Components	Specification
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
Onboard RAID121i	6Gbs SATA	0/1/5/10
RAID520i 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	
			RDX	LTO
4x3.5" SATA non-hot swap	121i	up to 2	up to 1	-
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.

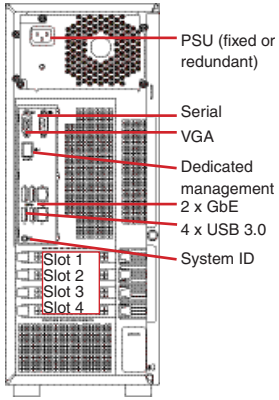
Supporting disk drives

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 ThinkServer, 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 follwing, 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



Expansion slots

4 PCIe 3.0 slots (top-down):
Slot 1: PCIe 3.0 x4, full height, full length, open-end, from PCH
Slot 2: PCIe 3.0 x16, full height, full length, from CPU
Slot 3: PCIe 3.0 x1, full height, half length, from PCH
Slot 4: PCIe 3.0 x8, full height, half length, open-end, from CPU

Note:
1. If a PCIe card is connected to slot 4, both slot 2 and slot 4 will work at PCIe x8.
2. If a discrete graphics card is used, slot 2 will work at PCIe x16 and slot 4 will be disable.

© Copyright Lenovo 2017. All rights reserved.

ThinkServer TS460