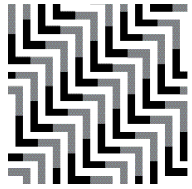


Lenovo ThinkSystem

PSREF



Product Specifications Reference

Version 540, April 2019

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

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Summary of Changes

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

April 3, 2019 - Version 540

- ▶ Add 2nd Xeon Scalable processor, add DDR4-2933 memory, add Intel Optane DC Persistent Memory

September 12, 2018 - Version 530

- ▶ Add ThinkSystem SR670

May 9, 2018 - Version 524

- ▶ Withdraw ThinkSystem SR650/SR630/SR550/SR530/SR850/ST550 LFOs to April 2018
- ▶ Update ThinkSystem SR650/SR630/SR590/SR530 LA LFOs to April 2018

April 18, 2018 - Version 523

- ▶ Update ThinkSystem SR650/630/550/530 LFOs to April 2018

November 29, 2017 - Version 516

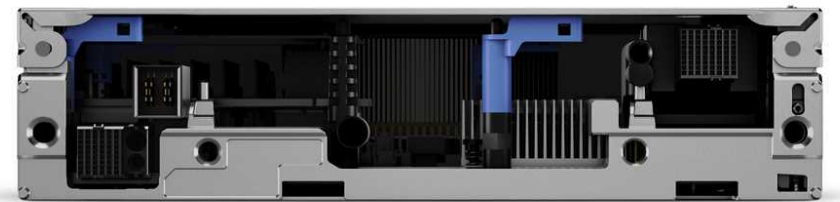
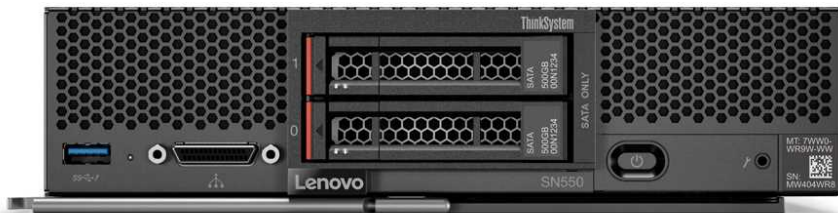
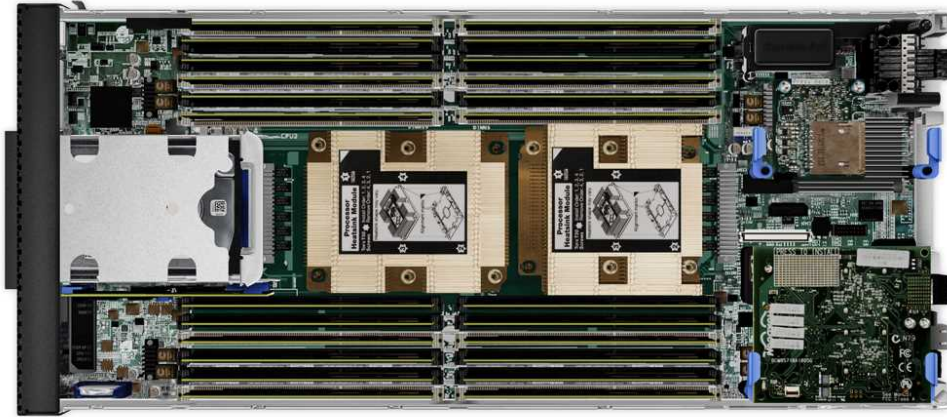
- ▶ Add new ThinkSystem SR860/SR590/SR570
- ▶ Add 128GB 3DS RDIMM, 480GB M.2 SSD, VMware ESXi 6.5U1, Red Hat Enterprise Linux 7.4 supports on compatible ThinkSystem servers

November 8, 2017 - Version 515

- ▶ Add ThinkSystem SN850/SN550/SD530 and ThinkSystem D2 Enclosure

July 12, 2017 - Version 509

- ▶ Initial version, includes ThinkSystem rack servers SR650/SR630/SR550/SR530, tower server ST550, and mission-critical servers SR850 and SR950.

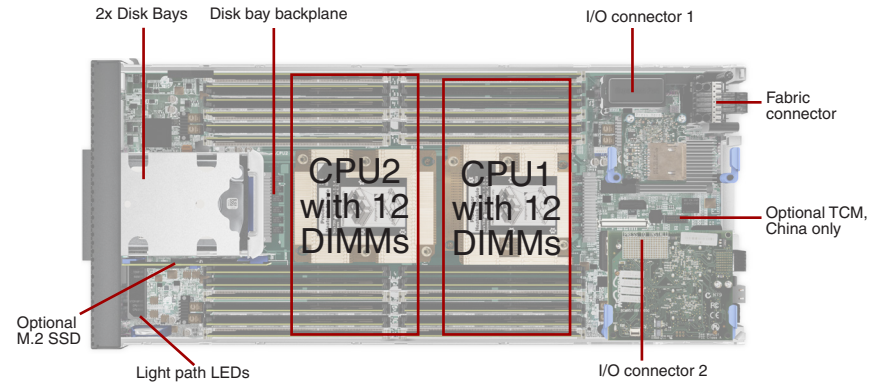


ThinkSystem SN550 Platform Specifications

Components	Specification																															
Form factor	Standard-width Flex System compute node																															
Dimensions	Height: 51 mm (2.0 in). Width: 215 mm (8.5 in). Depth: 493 mm (19.4 in)																															
Chassis support	Flex System Enterprise Chassis with CMM2																															
Weight	Maximum configuration: 15.6 lb (7.1 kg)																															
Processor	Up to two 165W Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 28 cores at 2.1GHz, up to 3.6GHz with 4 cores. Up to two UPI (Ultra Path Interconnect) links at maximum 10.4GT/s each																															
Chipset	Intel C624 Platform Controller Hub																															
Memory	Up to 24 DIMM sockets. Each processor supports up to 12 DIMM sockets with 6 channels. DDR4-2666. RDIMMs, LRDIMMs, and 3DS RDIMMs are supported, but memory types cannot be intermixed. 3DS RDIMM is planned to available later																															
Memory capacity	Up to 768GB with 24 x 32GB RDIMMs and two processors. Or up to 1.5TB with 24 x 64GB LRDIMMs and two processors. Or up to 3TB with 24 x 128GB 3DS RDIMMs and two -M suffix processors. -M suffix processor supports 1.5TB memory per socket, non -M suffix processor supports 768GB memory per socket																															
Memory protection	ECC, SDDC (for x4-based memory DIMMs), ADDDC (for x4-based memory DIMMs, requires Gold or Platinum processors), memory mirroring, and memory sparing																															
Storage controllers	Supports the following RAID/HBA adapters:																															
	<table border="1"> <thead> <tr> <th>Adapter</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> </tr> </thead> <tbody> <tr> <td>Onboard Intel RSTe</td> <td>6Gbps SATA</td> <td>SATA</td> <td>0/1</td> <td>Yes</td> <td>None</td> <td>None</td> <td>No</td> </tr> <tr> <td>530-4i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> </tr> <tr> <td>930-4i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1</td> <td>Yes</td> <td>2GB</td> <td>Flash backup</td> <td>Yes</td> </tr> </tbody> </table>	Adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Onboard Intel RSTe	6Gbps SATA	SATA	0/1	Yes	None	None	No	530-4i	12Gbps SAS	SATA/SAS	0/1	Yes	None	None	Yes	930-4i	12Gbps SAS	SATA/SAS	0/1	Yes	2GB	Flash backup
Adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath																									
Onboard Intel RSTe	6Gbps SATA	SATA	0/1	Yes	None	None	No																									
530-4i	12Gbps SAS	SATA/SAS	0/1	Yes	None	None	Yes																									
930-4i	12Gbps SAS	SATA/SAS	0/1	Yes	2GB	Flash backup	Yes																									
Disk drive bays	Two 2.5" hot-swap disk bays. Depending on server configuration and installed backplanes, the two bays can supports SATA, SATA/SAS, or SATA/NVMe disks. Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																															
Internal storage	2.5" NVMe SSD	800GB/960GB/1.6TB/1.92TB/3.84TB																														
	2.5" HDD, SATA6Gbps, 7,2K	1TB/2TB																														
	2.5" HDD, SAS12Gbps, 7,2K	1TB/2TB																														
	2.5" HDD, SAS12Gbps, 15K	300GB/600GB/900GB																														
	2.5" HDD, SAS12Gbps, 10K	300GB/600GB/900GB/1.2TB/1.8TB/2.4TB																														
	2.5" HDD, SAS12Gbps, 10K, SED	300GB/600GB																														
	2.5" SSD, SATA6Gbps	240GB/480GB/960GB/1.92TB/3.84TB																														
	2.5" SSD, SAS12Gbps	400GB/800GB/1.6TB/3.84TB/7.68TB/15.36TB																														
M.2 SATA SSD	32GB/128GB/480GB																															
Network interfaces	Optional 4x 10GbE LOM with fabric connector. The fabric connector is supported to routes the four 10GbE ports to Flex system chassis midplane. Optional adapters are supported, up to 2 adapters, up to 40GbE																															
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 and 2.0 compliant. Optional TCM, China only																															
Operating systems supported	Microsoft Windows Server 2016, 2012 R2, Red Hat Enterprise Linux 6 and 7 x64, SUSE Linux Enterprise Server 11 and 12 x64, VMware vSphere 6.0 and 6.5																															
Systems management	UEFI. Lenovo XClarity Controller with Pilot4 XE401 baseboard management controller (BMC), Predictive Failure Analysis, light path diagnostics panel, automatic server restart, remote presence. Support for Lenovo XClarity Administrator and Lenovo XClarity Energy Manager																															
GPU support	None																															
Base warranty	MT 7X16: 3-year limited onsite service with 9x5/NBD																															
Power supply	Power to the blade server is derived from the power supplies that are installed in the chassis. There are no server options regarding power supplies.																															
Video	Integrated Matrox G200 in XClarity Controller																															
Front ports	One USB 3.0, one console breakout cable port that provides local KVM and serial ports (cable standard with chassis, more cables optional).																															
Environmental specification	Supports ASHRAE A3.																															
	Temperature - operating	A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)																														
	Temperature - non operating (no package)	5°C to 45°C (41°F to 113°F)																														
	Temperature - non operating (with package)	-40°C to 60°C (-40°F to 140°F)																														
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)																														
	Humidity - operating, non-condensing	A3:8%~85%. A2:8%~80%																														
Humidity - storage (with package), non-condensing	8%~90%																															

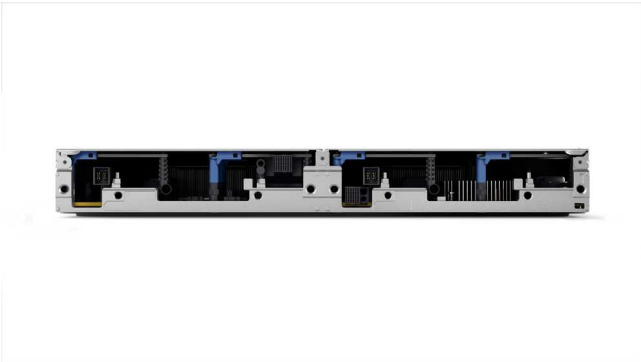
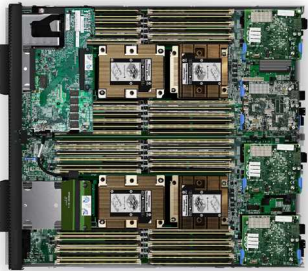
Expansion slots

Supports two PCIe 3.0 x16 I/O expansion connectors for attaching I/O adapter cards, each connector uses high-density, 216-pin PCIe connection. Please see I/O adapters below:



System unique options

7M27A03915	Lenovo SATA HDD/SSD Backplane for SN550
7M27A03916	Lenovo NVMe/SATA Backplane for SN550
7M27A03917	Lenovo RAID 930-4i-2GB 2 Drive Adapter Kit for SN550
7M27A03918	Lenovo RAID 530-4i 2 Drive Adapter Kit for SN550
7X77A01301	Lenovo 8GB TruDDR4 2666 MHz (1Rx8 1.2V) RDIMM
7X77A01302	Lenovo 16GB TruDDR4 2666 MHz (1Rx4 1.2V) RDIMM
7X77A01303	Lenovo 16GB TruDDR4 2666 MHz (2Rx8 1.2V) RDIMM
7X77A01304	Lenovo 32GB TruDDR4 2666 MHz (2Rx4 1.2V) RDIMM
7X77A01305	Lenovo 64GB TruDDR4 2666 MHz (4Rx4 1.2V) LRDIMM
00AG540	Flex System CN4052S 2-port 10Gb Virtual Fabric Adapter
00AG590	Flex System CN4054S 4-port 10Gb Virtual Fabric Adapter
01CV780	Flex System CN4052S 2-port 10Gb Virtual Fabric Adapter Advanced
01CV790	Flex System CN4054S 4-port 10Gb Virtual Fabric Adapter Advanced
7ZT7A00502	Lenovo Mellanox ConnectX-3 Mezz 40Gb 2-Port Ethernet Adapter
7ZT7A00520	Lenovo QLogic QML2692 Mezz 16Gb 2-Port Fibre Channel Adapter
7ZT7A00521	Lenovo Emulex LPm16002B-L Mezz 16Gb 2-Port Fibre Channel Adapter
7ZT7A00522	Lenovo Emulex LPm16004B-L Mezz 16Gb 4-Port Fibre Channel Adapter
7ZT7A00508	Lenovo Mellanox ConnectX-3 Mezz FDR 2-Port InfiniBand Adapter
7Y37A01092	Lenovo M.2 Enablement Kit
7Y37A01093	Lenovo M.2 with Mirroring Enablement Kit
7N47A00129	Lenovo M.2 32GB SATA 6Gbps Non-Hot-Swap SSD
7N47A00130	Lenovo M.2 128GB SATA 6Gbps Non-Hot-Swap SSD

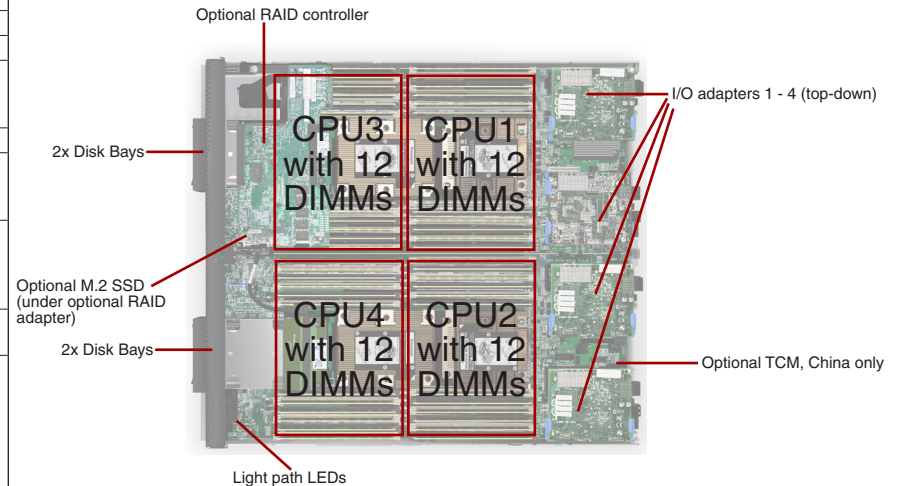


ThinkSystem SN850 Platform Specifications

Components	Specification																																
Form factor	Double-width Flex System compute node																																
Dimensions	Height: 55 mm (2.2 in). Width: 435 mm (17.1 in). Depth: 493 mm (19.4 in)																																
Chassis support	Flex System Enterprise Chassis with CMM2																																
Weight	Maximum configuration: 27 lb (12.3 kg)																																
Processor	Supports up to four 165W Intel Xeon Scalable family processors, Gold or Platinum. Up to 28 cores at 2.1GHz, up to 3.6GHz with 4 cores. Up to three UPI (Ultra Path Interconnect) links at maximum 10.4GT/s each																																
Chipset	Intel C624 Platform Controller Hub																																
Memory	Up to 48 DIMM sockets. Each processor supports up to 12 DIMM sockets with 6 channels. DDR4-2666. RDIMMs, LRDIMMs, and 3DS RDIMMs are supported, but memory types cannot be intermixed. 3DS RDIMM is planned to be available later																																
Memory capacity	Up to 1.5TB with 48 x 32GB RDIMMs and four processors. Or up to 3TB with 48 x 64GB LRDIMMs and four processors. Or up to 6TB with 48 x 128GB 3DS RDIMMs and four -M suffix processors. -M suffix processor supports 1.5TB memory per socket, non -M suffix processor supports 768GB memory per socket																																
Memory protection	ECC, SDDC (for x4-based memory DIMMs), ADDDC (for x4-based memory DIMMs), memory mirroring, and memory sparing.																																
Storage controllers	Supports the following RAID/HBA adapters: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Adapter</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> </tr> </thead> <tbody> <tr> <td>Onboard Intel RSTe</td> <td>6Gbps SATA</td> <td>SATA</td> <td>0/1/10/5</td> <td>Yes</td> <td>None</td> <td>None</td> <td>No</td> </tr> <tr> <td>530-4i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> </tr> <tr> <td>930-4i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/6</td> <td>Yes</td> <td>2GB</td> <td>Flash backup</td> <td>Yes</td> </tr> </tbody> </table>	Adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Onboard Intel RSTe	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No	530-4i	12Gbps SAS	SATA/SAS	0/1/10/5	Yes	None	None	Yes	930-4i	12Gbps SAS	SATA/SAS	0/1/10/5/6	Yes	2GB	Flash backup	Yes
Adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath																										
Onboard Intel RSTe	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No																										
530-4i	12Gbps SAS	SATA/SAS	0/1/10/5	Yes	None	None	Yes																										
930-4i	12Gbps SAS	SATA/SAS	0/1/10/5/6	Yes	2GB	Flash backup	Yes																										
Disk drive bays	Four 2.5" hot-swap disk bays. Depending on server configuration and installed backplanes, the four bays can support SATA, SATA/SAS, or SATA/NVMe disks. Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																																
Internal storage	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>2.5" NVMe SSD</td> <td>800GB/960GB/1.6TB/1.92TB/3.84TB</td> </tr> <tr> <td>2.5" HDD, SATA6Gbps, 7,2K</td> <td>1TB/2TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 7,2K</td> <td>1TB/2TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 15K</td> <td>300GB/600GB/900GB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 10K</td> <td>300GB/600GB/900GB/1.2TB/1.8TB/2.4TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 10K, SED</td> <td>300GB/600GB</td> </tr> <tr> <td>2.5" SSD, SATA6Gbps</td> <td>240GB/480GB/960GB/1.92TB/3.84TB</td> </tr> <tr> <td>2.5" SSD, SAS12Gbps</td> <td>400GB/1.6TB/15.36TB</td> </tr> <tr> <td>M.2 SATA SSD</td> <td>32GB/128GB/480GB</td> </tr> </tbody> </table>	2.5" NVMe SSD	800GB/960GB/1.6TB/1.92TB/3.84TB	2.5" HDD, SATA6Gbps, 7,2K	1TB/2TB	2.5" HDD, SAS12Gbps, 7,2K	1TB/2TB	2.5" HDD, SAS12Gbps, 15K	300GB/600GB/900GB	2.5" HDD, SAS12Gbps, 10K	300GB/600GB/900GB/1.2TB/1.8TB/2.4TB	2.5" HDD, SAS12Gbps, 10K, SED	300GB/600GB	2.5" SSD, SATA6Gbps	240GB/480GB/960GB/1.92TB/3.84TB	2.5" SSD, SAS12Gbps	400GB/1.6TB/15.36TB	M.2 SATA SSD	32GB/128GB/480GB														
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M.2 SATA SSD	32GB/128GB/480GB																																
Network interfaces	Optional 4x 10GbE LOM with fabric connector. The fabric connector is supported to routes the four 10GbE ports to Flex system chassis midplane. Optional adapters are supported, up to 4 adapters, up to 40GbE																																
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 and 2.0 compliant. Optional TCM, China only																																
Operating systems supported	Microsoft Windows Server 2016, 2012 R2, Red Hat Enterprise Linux 6 and 7 x64, SUSE Linux Enterprise Server 11 and 12 x64, VMware vSphere 6.0 and 6.5																																
Systems management	UEFI. Lenovo XClarity Controller with Pilot4 XE401 baseboard management controller (BMC), Predictive Failure Analysis, light path diagnostics panel, automatic server restart, remote presence. Support for Lenovo XClarity Administrator and Lenovo XClarity Energy Manager																																
GPU support	None																																
Base warranty	MT 7X15: 3-year limited onsite service with 9x5/NBD																																
Power supply	Power to the blade server is derived from the power supplies that are installed in the chassis. There are no server options regarding power supplies.																																
Video	Integrated Matrox G200 in XClarity Controller																																
Front ports	One USB 3.0, one console breakout cable port that provides local KVM and serial ports (cable standard with chassis, more cables optional).																																
Environmental specification	Supports ASHRAE A3. <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Temperature - operating</td> <td>A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)</td> </tr> <tr> <td>Temperature - non operating (no package)</td> <td>5°C to 45°C (41°F to 113°F)</td> </tr> <tr> <td>Temperature - non operating (with package)</td> <td>-40°C to 60°C (-40°F to 140°F)</td> </tr> <tr> <td>Altitude - operating</td> <td>(Unpressurized): 0-10000ft (0-3048m)</td> </tr> <tr> <td>Humidity - operating, non-condensing</td> <td>A3:8%~85%. A2:8%~80%</td> </tr> <tr> <td>Humidity - storage (with package), non-condensing</td> <td>8%~90%</td> </tr> </tbody> </table>	Temperature - operating	A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)	Temperature - non operating (no package)	5°C to 45°C (41°F to 113°F)	Temperature - non operating (with package)	-40°C to 60°C (-40°F to 140°F)	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)	Humidity - operating, non-condensing	A3:8%~85%. A2:8%~80%	Humidity - storage (with package), non-condensing	8%~90%																				
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Humidity - operating, non-condensing	A3:8%~85%. A2:8%~80%																																
Humidity - storage (with package), non-condensing	8%~90%																																

Expansion slots

Supports four PCIe 3.0 x16 I/O expansion connectors for attaching I/O adapter cards, each connector uses high-density, 216-pin PCIe connection. Please see I/O adapters below:



System unique options

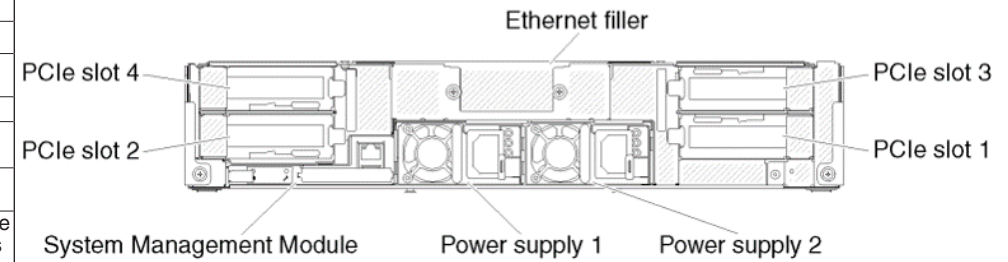
7M17A03930	Lenovo SATA HDD/SSD kit for SN850
7M17A03931	Lenovo NVMe/SATA Enablement Kit for SN850
7M17A03932	Lenovo RAID 530-4i 4 Drive Adapter Kit for SN850
7M17A03933	Lenovo RAID 930-4i-2GB 4 Drive Adapter Kit for SN850
7X77A01301	Lenovo 8GB TruDDR4 2666 MHz (1Rx8 1.2V) RDIMM
7X77A01302	Lenovo 16GB TruDDR4 2666 MHz (1Rx4 1.2V) RDIMM
7X77A01303	Lenovo 16GB TruDDR4 2666 MHz (2Rx8 1.2V) RDIMM
7X77A01304	Lenovo 32GB TruDDR4 2666 MHz (2Rx4 1.2V) RDIMM
7X77A01305	Lenovo 64GB TruDDR4 2666 MHz (4Rx4 1.2V) LRDIMM
00AG540	Flex System CN4052S 2-port 10Gb Virtual Fabric Adapter
00AG590	Flex System CN4054S 4-port 10Gb Virtual Fabric Adapter
01CV780	Flex System CN4052S 2-port 10Gb Virtual Fabric Adapter Advanced
01CV790	Flex System CN4054S 4-port 10Gb Virtual Fabric Adapter Advanced
7ZT7A00502	Lenovo Mellanox ConnectX-3 Mezz 40Gb 2-Port Ethernet Adapter
7ZT7A00520	Lenovo QLogic QML2692 Mezz 16Gb 2-Port Fibre Channel Adapter
7ZT7A00521	Lenovo Emulex LPm16002B-L Mezz 16Gb 2-Port Fibre Channel Adapter
7ZT7A00522	Lenovo Emulex LPm16004B-L Mezz 16Gb 4-Port Fibre Channel Adapter
7ZT7A00508	Lenovo Mellanox ConnectX-3 Mezz FDR 2-Port InfiniBand Adapter
7Y37A01092	Lenovo M.2 Enablement Kit
7Y37A01093	Lenovo M.2 with Mirroring Enablement Kit
7N47A00129	Lenovo M.2 32GB SATA 6Gbps Non-Hot-Swap SSD
7N47A00130	Lenovo M.2 128GB SATA 6Gbps Non-Hot-Swap SSD



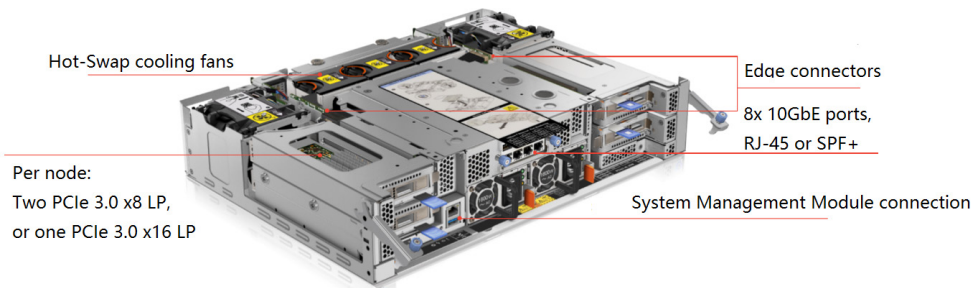
ThinkSystem D2 Enclosure Platform Specifications

Components	Specification
Form factor	2U rack
Dimensions	Height: 87 mm (3.5 in). Width: 488 mm (19.3 in). Depth: 892 mm (35.1 in)
Server support	Per enclosure: up to 4 servers per chassis Per 42U rack: up to 84 servers in 21 enclosures
Weight	Maximum configuration with four fully configured nodes: 121.2 lb (55 kg)
Network interfaces	Optional 8x 10 GbE ports Ethernet I/O Module (EIOM), SFP+ or RJ-45, two ports per server from chipset
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 and 2.0 compliant. Optional TCM, China only
Systems management	The hot-swappable System Management Module (SMM) is the management device for the enclosure. Provides integrated systems management functions and controls the power and cooling features of the enclosure. Provides remote browser and CLI-based user interfaces for remote access via the dedicated Gigabit Ethernet port. Remote access is to both the management functions of the enclosure as well as the XClarity Controller (XCC) in each server. SMM provides four LEDs: system error, identification, status, and system power. Each power supply has AC, DC and error LEDs
Base warranty	MT 7X20: 3-year limited onsite service with 9x5/NBD
Power supply	Up to two redundant hot-swap 1100W/1600W/2000W 80 PLUS Platinum qualified AC power supplies. 1600W and 2000W are 200V - 240V, 1100W is 100V - 240V
Cooling	Five hot-swap system fans, accessible via removable panel in the top cover of the enclosure

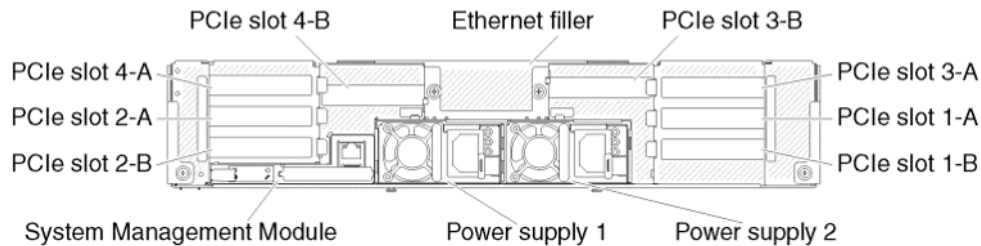
Expansion slots for PCIe 3.0 x16 models



Shuttle



Expansion slots for PCIe 3.0 x8 models





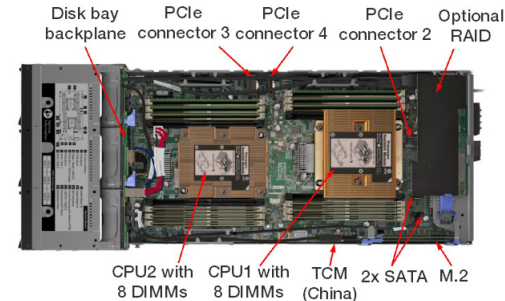
ThinkSystem SD530 Platform Specifications

Components	Specification																								
Form factor	Half-wide, 1U compute node																								
Dimensions	Height: 41 mm (1.7 in). Width: 222 mm (8.8 in). Depth: 562 mm (22.2 in)																								
Chassis support	ThinkSystem D2 Enclosure. 2U. Up to 4 ThinkSystem SD530 servers per enclosure																								
Weight	Maximum configuration: 16.6 lb (7.5 kg)																								
Processor	Up to two 165W Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 28 cores at 2.1GHz, up to 3.6GHz with 4 cores. Up to two UPI (Ultra Path Interconnect) links at maximum 10.4GT/s each																								
Chipset	Intel C624 Platform Controller Hub																								
Memory	Up to 12 or 16 DIMM sockets depending on the processor selected. Each processor supports up to 6 or 8 DIMM sockets. DDR4-2666. RDIMMs and LRDIMMs are supported, but memory types cannot be intermixed.																								
Memory capacity	16 DIMMs models: RDIMMs: Up to 512GB with 16x 32GB RDIMMs and two processors LRDIMMs: Up to 1TB with 16x 64GB LRDIMMs and two processors 12 DIMMs models: RDIMMs: Up to 384GB with 12x 32GB RDIMMs and two processors LRDIMMs: Up to 768GB with 12x 64GB LRDIMMs and two processors																								
Memory protection	ECC, Chipkill protection (for x4-based memory DIMMs), memory mirroring, and memory sparing																								
Storage controllers	Supports the following RAID adapters: <table border="1"> <thead> <tr> <th>Adapter</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> </tr> </thead> <tbody> <tr> <td>Onboard Intel RSTe</td> <td>6Gbps SATA</td> <td>SATA</td> <td>0/1/10/5</td> <td>Yes</td> <td>None</td> <td>None</td> <td>No</td> </tr> <tr> <td>530-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> </tr> </tbody> </table>	Adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Onboard Intel RSTe	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5	Yes	None	None	Yes
Adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath																		
Onboard Intel RSTe	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No																		
530-8i	12Gbps SAS	SATA/SAS	0/1/10/5	Yes	None	None	Yes																		
Disk drive bays	Up to four 2.5" hot-swap disk bays, or up to six 2.5" hot-swap disk bays, or up to six 2.5" hot-swap disk bays with two AnyBay. SAS support requires 530-8i. Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																								
Internal storage	<table border="1"> <tbody> <tr> <td>2.5" NVMe SSD</td> <td>800GB/960GB/1.6TB/1.92TB</td> </tr> <tr> <td>2.5" HDD, SATA6Gbps, 7,2K</td> <td>1TB/2TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 7,2K</td> <td>2TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 7,2K, SED</td> <td>1TB/2TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 15K</td> <td>300GB/600GB/900GB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 10K</td> <td>300GB/600GB/900GB/1.2TB/1.8TB/2.4TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 10K, SED</td> <td>2.4TB</td> </tr> <tr> <td>2.5" SSD, SATA6Gbps</td> <td>240GB/480GB/960GB/1.92TB/3.84TB</td> </tr> <tr> <td>2.5" SSD, SAS12Gbps</td> <td>400GB/800GB/1.6TB/3.84TB/7.68TB/15.36TB</td> </tr> <tr> <td>M.2 SATA SSD</td> <td>32GB/128GB</td> </tr> </tbody> </table>	2.5" NVMe SSD	800GB/960GB/1.6TB/1.92TB	2.5" HDD, SATA6Gbps, 7,2K	1TB/2TB	2.5" HDD, SAS12Gbps, 7,2K	2TB	2.5" HDD, SAS12Gbps, 7,2K, SED	1TB/2TB	2.5" HDD, SAS12Gbps, 15K	300GB/600GB/900GB	2.5" HDD, SAS12Gbps, 10K	300GB/600GB/900GB/1.2TB/1.8TB/2.4TB	2.5" HDD, SAS12Gbps, 10K, SED	2.4TB	2.5" SSD, SATA6Gbps	240GB/480GB/960GB/1.92TB/3.84TB	2.5" SSD, SAS12Gbps	400GB/800GB/1.6TB/3.84TB/7.68TB/15.36TB	M.2 SATA SSD	32GB/128GB				
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M.2 SATA SSD	32GB/128GB																								
Network interfaces	Two 10 GbE ports, SFP+ or RJ-45, routed through the Ethernet I/O Module at the rear of the D2 Enclosure. Networking ports are based on Intel Ethernet Connection X722 in chipset																								
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 and 2.0 compliant. Optional TCM, China only																								
Operating systems supported	Microsoft Windows Server 2016, 2012 R2, Red Hat Enterprise Linux 6 and 7 x64, SUSE Linux Enterprise Server 11 and 12 x64, VMware ESXi 6.0 and 6.5																								
Systems management	Operator panel with system error LED and ID and power controls. XClarity Controller embedded management, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management. Optional XClarity Controller Advanced to enable remote control functions. System Management Module (SMM) in the D2 Enclosure provides additional systemsmanagement functions																								
GPU support	None																								
Base warranty	MT 7X21: 3-year limited onsite service with 9x5/NBD																								
Power supply	Supplied by D2 Enclosure																								
Video	Integrated Matrox G200 in XClarity Controller																								
Front ports	Optional KVM breakout module for one USB 3.0 and one console breakout cable port for local KVM and serial ports. KVM breakout module will occupy one disk bay on 6x 2.5" disk bay model																								

Components	Specification	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized); 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:20%-80%
	Humidity - storage (with package), non-condensing	8%-90%
Models should meet the following requirements to support A3 and A4:		
<ul style="list-style-type: none"> • NVMe drives not installed • M.2 drives not installed 		

Expansion slots

Supports one PCIe 3.0 x16 low-profile slot, or two PCIe 3.0 x8 low-profile slots. Slots are housed in I/O shuttle in rear of the D2 Enclosure



Backplane and memory DIMM sockets supports by processor

Maxium DIMM Sockets	12 DIMMs		16 DIMMs	
Backplane	2x2	2x3	2x2	2x3
Xeon Bronze 3104	Yes	Yes	Yes	No
Xeon Bronze 3106	Yes	Yes	Yes	No
Xeon Silver 4108	Yes	Yes	Yes	No
Xeon Silver 4109T	Yes	No	No	No
Xeon Silver 4110	Yes	Yes	Yes	No
Xeon Silver 4112	Yes	Yes	Yes	No
Xeon Silver 4114	Yes	Yes	Yes	No
Xeon Silver 4116	Yes	Yes	Yes	No
Xeon Gold 5115	Yes	Yes	Yes	No
Xeon Gold 5118	Yes	Yes	Yes	No
Xeon Gold 5120	Yes	Yes	Yes	No
Xeon Gold 5120T	Yes	No	No	No
Xeon Gold 5122	Yes	No	No	No
Xeon Gold 6126	Yes	Yes	No	No
Xeon Gold 6130	Yes	Yes	Yes	No
Xeon Gold 6130T	Yes	No	No	No
Xeon Gold 6134	Yes	No	No	No
Xeon Gold 6136	Yes	No	No	No
Xeon Gold 6138	Yes	Yes	No	No
Xeon Gold 6138T	Yes	No	No	No
Xeon Gold 6140	Yes	Yes	No	No
Xeon Gold 6142	Yes	No	No	No
Xeon Gold 6148	Yes	No	No	No
Xeon Gold 6150	Yes	No	No	No
Xeon Gold 6152	Yes	Yes	No	No
Xeon Platinum 8153	Yes	Yes	Yes	No
Xeon Platinum 8156	Yes	No	No	No
Xeon Platinum 8158	Yes	No	No	No
Xeon Platinum 8160	Yes	No	No	No
Xeon Platinum 8164	Yes	No	No	No
Xeon Platinum 8170	Yes	No	No	No
Xeon Platinum 8176	Yes	No	No	No

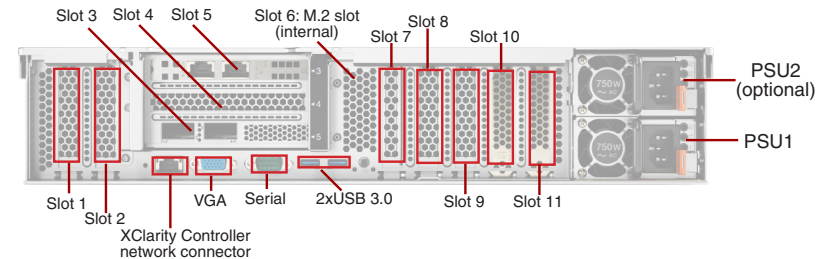


ThinkSystem SR850 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																										
Form factor	2U rack																																																																																										
Dimensions	Height: 86.5 mm (3.4 in). Width: 482 mm (19.0 in) with rack latches. Depth: 763.7 mm (30.1 in) without security bezel																																																																																										
Weight	Maximum configuration: 59.52 lb (27 kg)																																																																																										
Processor	Supports up to four 205W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Gold or Platinum. 2 processor sockets on system board, 2 processor sockets on optional processor and memory expansion tray. Up to 28 cores at 2.7GHz, up to 3.8GHz with 4 cores. Four processors are connected in ring topology with two 10.4GT/s UPI (Ultra Path Interconnect)																																																																																										
Chipset	Intel C624 Platform Controller Hub																																																																																										
Memory offering	Up to 48 DIMM sockets. 24 DIMM sockets on system main board, 24 DIMM sockets on optional processor and memory expansion tray. Each processor supports up to 12 DIMM sockets with 6 channels. Supports following:																																																																																										
	<table border="1"> <thead> <tr> <th>Memory Type</th> <th>Speed</th> <th>Offering</th> </tr> </thead> <tbody> <tr> <td>Intel Optane DC Persistent Memory</td> <td>DDR4-2666</td> <td>128GB/256GB/512GB</td> </tr> <tr> <td>RDIMM</td> <td>DDR4-2933</td> <td>8GB/16GB/32GB/64GB</td> </tr> <tr> <td>LRDIMM</td> <td>DDR4-2933</td> <td>64GB/128GB</td> </tr> <tr> <td>3DS RDIMM</td> <td>DDR4-2933</td> <td>128GB</td> </tr> <tr> <td>Performance+ RDIMM</td> <td>DDR4-2933</td> <td>16GB/32GB/64GB</td> </tr> <tr> <td>Performance+ 3DS RDIMM</td> <td>DDR4-2933</td> <td>128GB</td> </tr> <tr> <td>RDIMM</td> <td>DDR4-2666</td> <td>8GB/16GB/32GB</td> </tr> <tr> <td>LRDIMM</td> <td>DDR4-2666</td> <td>64GB</td> </tr> <tr> <td>3DS RDIMM</td> <td>DDR4-2666</td> <td>128GB</td> </tr> </tbody> </table>	Memory Type	Speed	Offering	Intel Optane DC Persistent Memory	DDR4-2666	128GB/256GB/512GB	RDIMM	DDR4-2933	8GB/16GB/32GB/64GB	LRDIMM	DDR4-2933	64GB/128GB	3DS RDIMM	DDR4-2933	128GB	Performance+ RDIMM	DDR4-2933	16GB/32GB/64GB	Performance+ 3DS RDIMM	DDR4-2933	128GB	RDIMM	DDR4-2666	8GB/16GB/32GB	LRDIMM	DDR4-2666	64GB	3DS RDIMM	DDR4-2666	128GB																																																												
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3DS RDIMM	DDR4-2666	128GB																																																																																									
Memory capacity	<ul style="list-style-type: none"> 6TB with 48x 128GB 3DS RDIMM and four M or L SKU processors 12TB with 24x 512GB DC Persistent Memory (memory mode) and four L SKU processors 15TB with 24x 512GB DC Persistent Memory (memory mode) + 24x 128GB 3DS RDIMM and four L SKU processors 																																																																																										
Memory protection	ECC, memory mirroring, and memory sparing																																																																																										
Storage controllers	Supports the following RAID/HBA adapters:																																																																																										
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<i>Note: 730-8i is available in China only</i>																																																																																											
Disk drive bays	Supports 8 front 2.5" SATA/SAS HS bays with maximum 4 AnyBay, or 16 front 2.5" SATA/SAS HS bays with maximum 8 AnyBay Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																																																																																										
Internal storage	2.5" HDD, SAS12Gbps, 7.2K	1TB/2TB																																																																																									
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	NVMe SSD, PCIe 3.0 x4, HHHL adapter	1.6TB/1.92TB/3.2TB/3.84TB																																																																																									
M.2 SATA SSD for boot	32GB/128GB/480GB																																																																																										
Optical	No internal optical bay. Optional USB DVD±RW optical drive																																																																																										
Network interfaces	One dedicated management port. One LOM slot for customized LOM with up to four RJ-45 or SFP+ ports, up to 10GbE. Wake-on-LAN and NC-SI are available on one port of LOM. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot.																																																																																										
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel																																																																																										
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.3/6.9. SUSE Linux Enterprise Server 12 SP2/11 SP4. VMware vSphere (ESXi) 6.5/6.0 U3																																																																																										
Systems management	XClarity Controller Advanced, optional upgrades to Enterprise is available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Light Path Diagnostics with optional LCD diagnostic pull-out panel																																																																																										
GPU support	None																																																																																										
Base warranty	MT 7X18: 1-year limited onsite service with 9x5/NBD MT 7X19: 3-year limited onsite service with 9x5/NBD																																																																																										
Power supply	Up to two redundant hot-swap 750W/1100W/1600W 80 PLUS Platinum qualified AC power supplies. 1600W Platinum are 200V - 240V, others are 100V - 240V																																																																																										

Components	Specification	
Video	Integrated Matrox G200 in XClarity Controller	
Cooling	Six hot-swap fans, N + 1 redundancy	
Front ports	One XClarity Controller USB connector, one USB 2.0 or USB 3.0 (model dependent), one optional VGA	
Rear ports	One VGA, two USB 3.0, one serial, one XClarity Controller network connector	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:20%-80%
	Humidity - storage (with package), non-condensing	8%-90%
<i>Models should meet the following requirements to support A3 and A4:</i>		
<ul style="list-style-type: none"> NVMe drives not installed PCIe flash adapter not installed M.2 SSD not installed 		
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/	



Note: All riser cards, expansion cards, and LOM adapters are optional. Slots are labelled as 1, 2, 3, 4, 5, 7, 8, 9, 10, 11. Slot 6 is internal M.2 slot for optional M.2 enablement kit

Expansion slots

Slot 1 (onboard)	PCIe 3.0 x16, low profile, requires 2nd CPU
Slot 2 (onboard)	PCIe 3.0 x8, low profile, requires 2nd CPU
Slot 3-5 (riser card)	Supports one of the following for riser card: Option 1: PCIe 3.0 x8/x8/x8 (slot 3-5). Full height, half length. Option 2: PCIe 3.0 x8/x8/x8 ML2 (slot 3-5). Full height, half length Option 4: PCIe 3.0 x8/x16 ML2 (slot 3 and 5). Full height, half length Slot 3 - 5 requires 2nd CPU
Slot 7 (onboard)	LOM, low profile
Slot 8 (onboard)	PCIe 3.0 x8, low profile
Slot 9 (onboard)	PCIe 3.0 x8, low profile
Slot 10 (onboard)	PCIe 3.0 x8, low profile
Slot 11 (onboard)	PCIe 3.0 x16, low profile

System unique options for ThinkSystem SR850

7B27A03953	ThinkSystem SR850/SR860 Processor and Memory Expansion Tray
7C57A03999	ThinkSystem SR850/SR860 2.5" Anybay 8-Bay BP Kit
7C57A03998	ThinkSystem SR850/SR860 2.5" SATA/SAS 8-Bay BP Kit
7X97A03954	ThinkSystem SR850 Front VGA Connector Upgrade Kit
7C57A03950	ThinkSystem SR850/SR860 x8/x8/x8 PCIe FH Riser Kit
7C57A03951	ThinkSystem SR850/SR860 x8/x8/x8ML2 PCIe FH Riser Kit
7C57A03952	ThinkSystem SR850/SR860 x8/x16ML2 PCIe FH Riser Kit

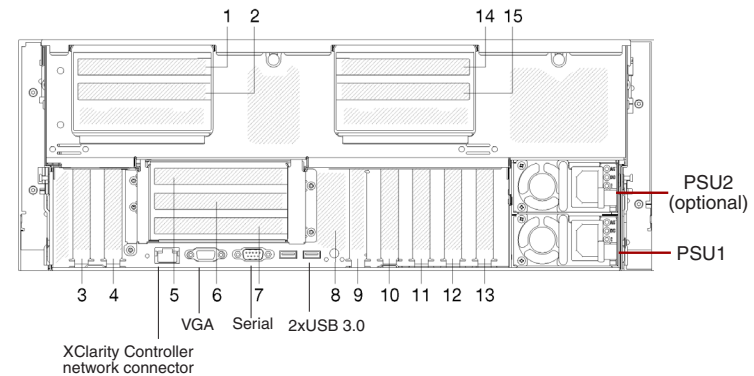


ThinkSystem SR860 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																										
Form factor	4U rack																																																																																										
Dimensions	Height: 175 mm (6.9 in). Width: 482 mm (19.0 in) with rack latches. Depth: 765.88 mm (30.15 in) without security bezel																																																																																										
Weight	Maximum configuration: 87.74 lb (39.8 kg)																																																																																										
Processor	Supports up to four 205W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Gold or Platinum. 2 processor sockets on system board, 2 processor sockets on optional processor and memory expansion tray. Up to 28 cores at 2.7GHz, up to 3.8GHz with 4 cores. Four processors are connected in ring topology with two 10.4GT/s UPI (Ultra Path Interconnect) per processor																																																																																										
Chipset	Intel C624 Platform Controller Hub																																																																																										
Memory	Up to 48 DIMM sockets. 24 DIMM sockets on system main board, 24 DIMM sockets on optional processor and memory expansion tray. Each processor supports up to 12 DIMM sockets with 6 channels. Supports following:																																																																																										
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3DS RDIMM	DDR4-2666	128GB																																																																																									
Memory capacity	<ul style="list-style-type: none"> 6TB with 48x 128GB 3DS RDIMM and four M or L SKU processors 12TB with 24x 512GB DC Persistent Memory (memory mode) and four L SKU processors 15TB with 24x 512GB DC Persistent Memory (memory mode) + 24x 128GB 3DS RDIMM and four L SKU processors 																																																																																										
Memory protection	ECC, memory mirroring, and memory sparing																																																																																										
Storage controllers	Supports the following RAID/HBA adapters:																																																																																										
	<table border="1"> <thead> <tr> <th>Feature</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> <th>Max qty</th> </tr> </thead> <tbody> <tr> <td>530-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> <td>2</td> </tr> <tr> <td>730-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>1GB</td> <td>None</td> <td>No</td> <td>2</td> </tr> <tr> <td>930-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>2GB</td> <td>Flash backup</td> <td>Yes</td> <td>2</td> </tr> <tr> <td>930-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> <td>1</td> </tr> <tr> <td>430-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>2</td> </tr> <tr> <td>430-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>1</td> </tr> <tr> <td>930-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> <td>4</td> </tr> <tr> <td>430-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>10</td> </tr> <tr> <td>430-16e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>10</td> </tr> </tbody> </table>	Feature	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Max qty	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes	2	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No	2	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes	2	930-16i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	1	430-8i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	2	430-16i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	1	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	4	430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	10	430-16e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	10
	Feature	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Max qty																																																																																		
	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes	2																																																																																		
	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No	2																																																																																		
	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes	2																																																																																		
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	430-16i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	1																																																																																		
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430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	10																																																																																			
430-16e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	10																																																																																			
<i>Note: 730-8i is available in China only</i>																																																																																											
Disk drive bays	Supports 8 front 2.5" SATA/SAS HS bays with maximum 4 AnyBay, or 16 front 2.5" SATA/SAS HS bays with maximum 8 AnyBay Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																																																																																										
Internal storage	2.5" HDD, SATA6Gbps, 7.2K																																																																																										
	2.5" HDD, SAS12Gbps, 7.2K																																																																																										
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NVMe SSD, PCIe 3.0 x4, HHHL adapter																																																																																											
M.2 SATA SSD for boot																																																																																											
Optical	No internal optical bay. Optional USB DVD±RW optical drive																																																																																										
Network interfaces	One dedicated management port. One LOM slot for customized LOM with up to four RJ-45 or SFP+ ports, up to 10GbE. Wake-on-LAN and NC-SI are available on one port of LOM. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot.																																																																																										
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel																																																																																										
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.4/6.9. SUSE Linux Enterprise Server 12 SP3/11 SP4. VMware ESXi 6.5 U1/6.0 U3																																																																																										
Systems management	XClarity Controller Advanced, optional upgrades to Enterprise is available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Light Path Diagnostics with optional LCD diagnostic pull-out panel																																																																																										
GPU support	Up to two NVIDIA Tesla M60 GPU accelerator, 300W each																																																																																										
Base warranty	MT 7X69: 3-year limited onsite service with 9x5/NBD MT 7X70: 1-year limited onsite service with 9x5/NBD																																																																																										
Power supply	Up to two redundant hot-swap 750W/1100W/1600W/2000W 80 PLUS Platinum qualified AC power supplies. 1600W and 2000W are 200V - 240V, others are 100V - 240V																																																																																										
Video	Integrated Matrox G200 in XClarity Controller																																																																																										

Components	Specification	
Cooling	Six hot-swap fans, N + 1 redundancy	
Front ports	One XClarity Controller USB connector, one USB 2.0 or USB 3.0 (model dependent), one VGA	
Rear ports	One VGA, two USB 3.0, one serial, one XClarity Controller network connector	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:8%-80%
Humidity - storage (with package), non-condensing	8%-90%	
<i>Models should meet the following requirements to support A3 and A4:</i>		
<ul style="list-style-type: none"> Two PSU installed NVMe drives not installed PCIe flash adapter not installed GPU not installed 		
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/	



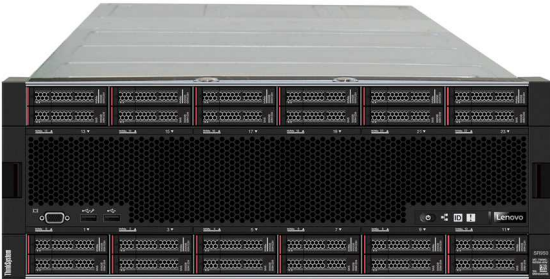
Expansion slots

Up to 13 PCIe slots with one LOM slot and one M.2 slot

Slot 1-2 (riser card 2)	One PCIe 3.0 x16 for GPU or two PCIe 3.0 x8, full height, full length
Slot 3 (onboard)	PCIe 3.0 x16, for riser card 2 or used as a low profile slot if riser card 2 not used
Slot 4 (onboard)	PCIe 3.0 x8, low profile
Slot 5-7 (riser card 1)	Supports one of the following for riser card: Option 1: PCIe 3.0 x8/x8/x8 (slot 5-7). Full height, half length Option 2: PCIe 3.0 x8/x8/x8 ML2 (slot 5-7). Full height, half length Option 4: PCIe 3.0 x8/x16 ML2 (slot 5 and 7). Full height, half length
Slot 8 (onboard)	M.2 slot for M.2 enablement kit, internal
Slot 9 (onboard)	LOM slot, low profile
Slot 10 -12 (onboard)	PCIe 3.0 x8, low profile
Slot 13 (onboard)	PCIe 3.0 x16, for riser card 3 or used as a low profile slot if riser card 3 not used
Slot 14-15 (riser card 3)	One PCIe 3.0 x16 for GPU or two PCIe 3.0 x8, full height, full length, 4 CPU required

System unique options for ThinkSystem SR850

7B27A03953	ThinkSystem SR850/SR860 Processor and Memory Expansion Tray
7C57A03999	ThinkSystem SR850/SR860 2.5" Anybay 8-Bay BP Kit
7C57A03998	ThinkSystem SR850/SR860 2.5" SATA/SAS 8-Bay BP Kit
7C57A03950	ThinkSystem 2U x8/x8/x8 PCIe FH Riser 1
7C57A03951	ThinkSystem 2U x8/x8/x8ML2 PCIe FH Riser 1
7C57A03952	ThinkSystem 2U x8/x16ML2 PCIe FH Riser 1
4C57A08184	ThinkSystem SR860 2x8 PCIe FH Riser 2 (Slot 1 & 2)
4C57A08186	ThinkSystem SR860 1x16 PCIe FH Riser 2 (Slot 1)
4C57A08185	ThinkSystem SR860 2x8 PCIe FH Riser 3 (Slot 14 & 15)
4C57A08187	ThinkSystem SR860 1x16 PCIe FHFL Riser 3 (Slot 14)
00KG655	NVIDIA Tesla M60 GPU, PCIe (Passive)

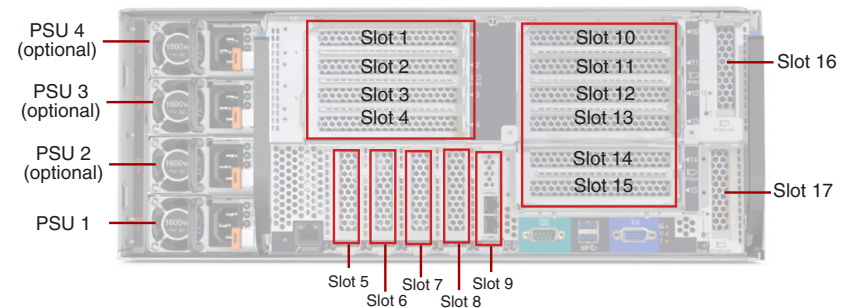


ThinkSystem SR950 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																	
Form factor	4U rack																																																																																	
Dimensions	Height: 175.8 mm (6.9 in). Width: 483 mm (19.0 in) at EIA Flange. Depth: 853 mm (33.6 in)																																																																																	
Weight	Maximum configuration: 129.4 lb (58.7 kg)																																																																																	
Processor	Supports up to four Gen 1 or Gen 2 Intel Xeon Scalable family processors, Gold or Platinum. Or up to eight Intel Xeon Scalable family processors, Platinum only. Processors and memory are located on system boards installed in compute trays: 2 processors per system board, 2 system boards per compute tray, up to 2 compute tray per system. Up to 28 cores at 2.7GHz, up to 3.8GHz with 4 cores. Up to three UPI (Ultra Path Interconnect) links at maximum 10.4GT/s each																																																																																	
Chipset	Intel C624 Platform Controller Hub																																																																																	
Memory offering	Up to 96 DIMM sockets. Each processor supports up to 12 DIMM sockets with 6 channels. Supports following:																																																																																	
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Memory capacity	<ul style="list-style-type: none"> 24TB with 96x 256GB 3DS RDIMM and eight L SKU processors 24TB with 48x 512GB DC Persistent Memory (memory mode) and eight L SKU processors 36TB with 48x 512GB DC Persistent Memory (memory mode) + 48x 256GB 3DS RDIMM and eight L SKU processors 																																																																																	
Memory protection	ECC, memory mirroring, and memory rank sparing.																																																																																	
Storage controllers	Up to two dedicated internal RAID slots for most RAID/HBA adapters. Supports the following RAID/HBA adapters:																																																																																	
	<table border="1"> <thead> <tr> <th>Feature</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> <th>Max qty</th> </tr> </thead> <tbody> <tr> <td>530-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> <td>2</td> </tr> <tr> <td>730-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>1GB</td> <td>None</td> <td>No</td> <td>2</td> </tr> <tr> <td>930-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>2GB</td> <td>Flash backup</td> <td>Yes</td> <td>2</td> </tr> <tr> <td>930-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> <td>2</td> </tr> <tr> <td>430-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>2</td> </tr> <tr> <td>430-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>2</td> </tr> <tr> <td>930-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> <td>4</td> </tr> <tr> <td>430-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>14</td> </tr> </tbody> </table>	Feature	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Max qty	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes	2	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No	2	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes	2	930-16i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	2	430-8i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	2	430-16i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	2	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	4	430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	14
	Feature	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Max qty																																																																									
	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes	2																																																																									
	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No	2																																																																									
	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes	2																																																																									
	930-16i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	2																																																																									
	430-8i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	2																																																																									
	430-16i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	2																																																																									
	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	4																																																																									
430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	14																																																																										
	Note: 730-8i is available in China only. 930-8e should be placed in slot 7 firstly. 430-8e should be placed in slot 5 firstly.																																																																																	
Disk drive bays	Up to 12 disk bays with maximum 6 AnyBay, or up to 24 disk bays with maximum 12 AnyBay. Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																																																																																	
Internal storage	2.5" NVMe SSD, AnyBay	800GB/960GB/1.6TB/1.92TB/3.84TB																																																																																
	2.5" HDD, SAS12Gbps, 7.2K	1TB/2TB																																																																																
	2.5" HDD, SAS12Gbps, 15K	300GB/600GB/900GB																																																																																
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	2.5" SSD, SATA6Gbps	240GB/480GB																																																																																
	2.5" SSD, SAS12Gbps	400GB/800GB/3.84TB/7.68TB																																																																																
	NVMe SSD, PCIe x4 HHL adapter	1.6TB/1.92TB/3.2TB/3.84TB																																																																																
M.2 SATA SSD	32GB/128GB																																																																																	
Network interfaces	One dedicated management port. One LOM slot for customized LOM with up to four RJ-45 or SFP+ ports, up to 10GbE. Wake-on-LAN and NC-SI are available on Port 0 of LOM. Optional ML2 or PCIe adapters are supported. One standard ML2 slot, one optional ML2 slot via optional riser card																																																																																	
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM, China only																																																																																	
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.3/6.9. SUSE Linux Enterprise Server 12 SP2/11 SP4. VMware vSphere (ESXi) 6.5/6.0 U3																																																																																	
Systems management	XClarity Controller Enterprise. XClarity Administrator. XClarity Energy Manager. XClarity Provisioning Manager. XClarity Essentials. Lenovo Capacity Planner. Light Path Diagnostics with LCD diagnostic pull-out panel																																																																																	
GPU support	None																																																																																	
Base warranty	MT 7X11: 1-year limited onsite service with 9x5/NBD MT 7X12: 3-year limited onsite service with 9x5/NBD MT 7X13: 3-year limited onsite service with 9x5/NBD, SAP HANA optimized																																																																																	

Components	Specification	
Power supply	Supports one, two or four hot-swap 1100W/1600W 80 PLUS Platinum qualified AC power supplies. Redundant with two or four power supplies (N+N, N = 1 or 2). 1600W Platinum is 200V - 240V, 1100W is 100V - 240V and de-rated to 1050W for operation from 110V input	
Video	Integrated Matrox G200 in XClarity Controller	
Cooling	Up to 12 hot-swap fans. N + 1 redundancy. 6 fans per compute tray, 3 fans per storage tray	
Front ports	One XClarity Controller USB connector, one USB 2.0, one VGA	
Rear ports	One VGA, two USB 3.0, one serial, one XClarity Controller network connector	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:20%~80%
Humidity - storage (with package), non-condensing	8%~90%	
	Models should meet the following requirements to support A3 and A4: <ul style="list-style-type: none"> 2.5" NVMe SSD and PCIe NVMe flash adapter not installed (NVMe devices are supported up to 35°C) Processors with TDP more than or equal to 150-watt not installed 	
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/	



Note: All riser cards, expansion cards, and LOM adapters are optional.

Expansion slots

Supports five standard expansion slots (slot 5 - 9) and up to 12 optional expansion slots (slot 1 - 4, 10 - 15, 16 - 17) via 3 riser cards. The slots are as follows:

Slot 1-4 (riser card 1)	Supports one of the following for riser card 1: Option 1: PCIe 3.0 x8/x8/x8 (slot 1-4). Full height, half length Option 2: PCIe 3.0 x16/x16 (slot 3 and 4). Full height, half length Option 3: PCIe 3.0 x16/x16/x16/x16 (slot 1-4). Full height, half length
Slot 5 (on main I/O tray)	PCIe 3.0 x16, low profile
Slot 6 (on main I/O tray)	PCIe 3.0 x16, low profile
Slot 7 (on main I/O tray)	PCIe 3.0 x8, low profile
Slot 8 (on main I/O tray)	PCIe 3.0 x16 ML2, low profile
Slot 9 (on main I/O tray)	LOM slot, low profile
Slot 10-15 (riser card 2)	Supports one of the following for riser card 2: Option 1: PCIe 3.0 x8/x8/x8 (slot 10-13). Full height, half length Option 2: PCIe 3.0 x16/x16 (slot 12 and 13). Full height, half length Option 3: PCIe 3.0 x16/x16/x16/x16/x16 ML2 (slot 10-15). Full height, half length
Slot 16-17 (riser card 3)	PCIe 3.0 x8, low profile

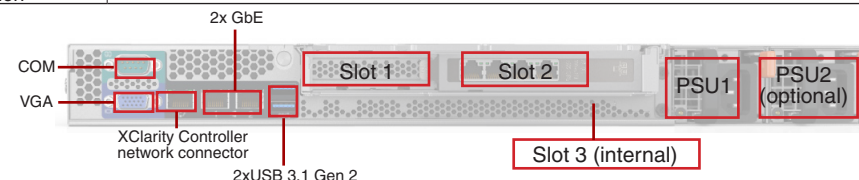
For riser cards configuration of each model, please see model configuration table.

ThinkSystem SR250 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																
Form factor	1U rack																																																																
Dimensions	Height: 43 mm (1.7 in), width: 434.4 mm (17.1 in), depth: 497.8 mm (19.6 in). The depth is counted from EIA flange front surface to rear of chassis																																																																
Weight	Maximum configuration: 27.1 lb (12.3 kg)																																																																
Processor	Up to one Intel Xeon E family processor, up to 95W, up to 6 cores at 3.8GHz, up to 12MB cache, up to DDR4-2666 memory speed. Or up to one 8th Intel Core i3 processor, up to 91W, up to 4 cores at 4.0GHz, up to 8MB cache, up to DDR4-2400 memory speed. Or up to one Intel Pentium Gold processor, up to 54W, 2 cores at 3.9GHz, 4MB cache, DDR4-2400 memory speed Or up to one Intel Celeron processor, up to 54W, 2 cores at 3.2GHz, 2MB cache, DDR4-2400 memory speed																																																																
Chipset	Intel C246 Platform Controller Hub																																																																
Memory	4 DIMM sockets with 2 channels, 2 DIMMs per channel. UDIMM. DDR4-2666.																																																																
Memory capacity	64GB with 4x 16GB UDIMMs																																																																
Memory protection	ECC																																																																
Storage controllers	Supports the following RAID/HBA adapters:																																																																
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	RAID adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath																																																									
	Onboard SATA	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No																																																									
	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes																																																									
	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No																																																									
	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes																																																									
	430-8i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-																																																									
	430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-																																																									
	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes																																																									
Disk drive bays	Supports 4 front 3.5" SATA simple-swap bays. Or 4 front 3.5" SATA/SAS HS bays. Or 8 front 2.5" SATA/SAS HS bays. Or 10x 2.5" HS bays with 8 SATA/SAS bays plus 2 Anybay. Optional one internal M.2 SSD for boot, consumes one onboard SATA port																																																																
Disk support	For 3.5" SS bay	3.5" HDD, SATA6Gbps, 7.2K 2.5" SSD, SATA6Gbps	1TB/2TB/4TB/6TB/8TB 240GB/480GB/960GB																																																														
	For 3.5" HS bay (3.5" disks or 2.5" disks with 3.5" tray)	3.5" HDD, SATA6Gbps, 7.2K	1TB/2TB/4TB/6TB/8TB																																																														
		2.5" HDD, SAS12Gbps, 15K	300GB/600GB/900GB																																																														
		2.5" SSD, SATA6Gbps	240GB/480GB/960GB																																																														
	For 2.5" HS bay	2.5" HDD, SATA6Gbps, 7.2K	1TB/2TB																																																														
		2.5" HDD, SAS12Gbps, 7.2K	1TB/2TB																																																														
		2.5" HDD, SAS12Gbps, 10K	300GB/300GB SED/600GB/900GB/1.2TB/1.8TB/2.4TB																																																														
M.2 SSD	2.5" SSD, SATA6Gbps 2.5" SSD, SATA6Gbps	240GB/480GB/960GB 32GB/128GB/480GB																																																															
Optical	None optical bay, using USB optical (External USB DVD-RW, PN: 7XA7A05926)																																																																
Network interfaces	Two onboard GbE port via integrated gigabit ethernet Broadcom BCM5720 plus one dedicated management port. Optional PCIe ethernet adapters are available																																																																
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 or 2.0 compliant, Optional TCM in China only. Optional chassis intrusion switch, Kensington lock, and pad lock																																																																
Operating systems supported	Microsoft Windows Server 2019/2016/2012 R2. Red Hat Enterprise Linux 7.5. SUSE Linux Enterprise Server 12 SP3. VMware vSphere (ESXi) 6.7/6.5 U2																																																																
Systems management	XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. LEDs on front panel show the status of power, ID, network, simple-swap disks, and system error																																																																
GPU support	Up to one optional GPU, NVIDIA Quadro P620																																																																
Base warranty	MT 7Y51: 3-year limited onsite service with 9x5/NBD MT 7Y52: 1-year limited onsite service with 9x5/NBD																																																																
Power supply	Supports one of the following PSU: <ul style="list-style-type: none"> One fixed power supply, 300W. 80 PLUS Gold certified. Up to two redundant hot-swap power supplies, 450W each. 80 PLUS Platinum certified 																																																																

Components	Specification
Video	Integrated Matrox G200 in XClarity Controller
Cooling	Four non-hot-swap system fans.
Front ports	One XClarity Controller USB connector, one USB 3.1 Gen 1. One optional VGA
Rear ports	2x USB 3.1 Gen 2. 2x RJ-45. 1x XClarity Controller network connector. 1x COM. 1x VGA
Environmental specification	Supports ASHRAE A2
Environmental certification	Energy Star Server 2.1 certified



Expansion slots

Supports up to three PCIe 3.0 slots as following:

Slot 1-2 (riser card)	Supports one of the following Option 1: PCIe 3.0 x8/x16 (slot 1-2). Low profile for x8, full height half length for x16, x16 is negotiable link width x8 Option 2: PCIe 3.0x16 (slot 2). Full height half length
Slot 3	Slot 3 is covered by riser card so this slot is not available
Slot 4	PCIe 3.0 x8 (negotiable link width x4), dedicated internal RAID slot

Partial options for ThinkSystem SR250

ThinkSystem 8GB TruDDR4 (1Rx8, 1.2V) 2666 MHz UDIMM	4ZC7A08696
ThinkSystem 16GB TruDDR4 (2Rx8, 1.2V) 2666 MHz UDIMM	4ZC7A08699
ThinkSystem 3.5" 1TB 7.2K SATA 6Gb Hot Swap 512n HDD	7XB7A00049
ThinkSystem 3.5" 8TB 7.2K SATA 6Gb Hot Swap 512e HDD	7XB7A00053
900GB 15K 12Gbps SAS 2.5" G4HS 512e HDD	7XB7A00023
300GB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00024
600GB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00025
900GB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00026
1.2TB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00027
1.8TB 10K 12Gbps SAS 2.5" G4HS 512e HDD	7XB7A00028
2.4TB 10K SAS 12Gb HS 512e HDD	7XB7A00069
300GB 10K 12Gbps SAS 2.5" G4HS SED	7XB7A00030
1TB 7.2K 12Gbps NL SAS 2.5" G4HS HDD	7XB7A00034
2TB 7.2K 12Gbps NL SAS 2.5" G4HS HDD	7XB7A00035
M.2 CV3 128GB SATA SSD	7N47A00130
ThinkSystem ST50/ST250 Rack Mount Kit	4M17A12785

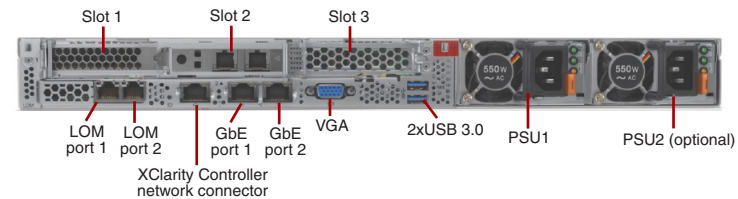


ThinkSystem SR530 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																				
Form factor	1U rack																																																																																				
Dimensions	Height: 43 mm (1.7 in). Width: 482 mm (19.0 in) with rack latches. Depth: 778.3 mm (30.64 in)																																																																																				
Weight	Maximum configuration: 35.27 lb (16 kg)																																																																																				
Processor	Up to two 125W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 22 cores at 1.9GHz, up to 3.8GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s																																																																																				
Chipset	Intel C622 Platform Controller Hub																																																																																				
Memory	Up to 12 DIMM sockets. Each processor supports up to 6 DIMM sockets with 6 channels. Supports following:																																																																																				
	<table border="1"> <thead> <tr> <th>Memory Type</th> <th>Speed</th> <th>Offering</th> </tr> </thead> <tbody> <tr> <td>RDIMM</td> <td>DDR4-2933</td> <td>8GB/16GB/32GB/64GB</td> </tr> <tr> <td>RDIMM</td> <td>DDR4-2666</td> <td>8GB/16GB/32GB</td> </tr> <tr> <td>LRDIMM</td> <td>DDR4-2666</td> <td>64GB</td> </tr> </tbody> </table>	Memory Type	Speed	Offering	RDIMM	DDR4-2933	8GB/16GB/32GB/64GB	RDIMM	DDR4-2666	8GB/16GB/32GB	LRDIMM	DDR4-2666	64GB																																																																								
	Memory Type	Speed	Offering																																																																																		
	RDIMM	DDR4-2933	8GB/16GB/32GB/64GB																																																																																		
RDIMM	DDR4-2666	8GB/16GB/32GB																																																																																			
LRDIMM	DDR4-2666	64GB																																																																																			
Memory capacity	768GB with 12x 64GB RDIMM and dual processor																																																																																				
Memory protection	ECC, memory mirroring, and memory sparing																																																																																				
Storage controllers	Supports the following RAID/HBA adapters:																																																																																				
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Internal storage	For 3.5" SS bay	3.5" HDD, SATA6Gbs, 7.2K	1TB/2TB/4TB/6TB/8TB/10TB																																																																																		
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Optical	No internal optical bay. Optional USB DVD±RW optical drive																																																																																				
Network interfaces	Integrated one dedicated management port plus two GbE ports. One LOM slot for customized LOM with two RJ-45 or SFP+ ports, up to 10GbE. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot. Up to two ports supports Wake-on-LAN and NC-SI (see right)																																																																																				
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel																																																																																				
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.4/7.3/6.9. SUSE Linux Enterprise Server 12 SP3/12 SP2/11 SP4. VMware ESXi 6.5U1/6.5/6.0 U3																																																																																				
Systems management	XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Provisioning Manager. Essentials. Light Path Diagnostics																																																																																				
GPU support	None																																																																																				

Components	Specification	
Base warranty	MT 7X07: 1-year limited onsite service with 9x5/NBD MT 7X08: 3-year limited onsite service with 9x5/NBD	
Power supply	Up to two redundant hot-swap 550W and 750W 80 PLUS Platinum qualified AC power supplies. Or up to two redundant hot-swap 750W Titanium qualified AC power supplies. 750W Titanium is 200V - 240V, others are 100V - 240V	
Video	Integrated Matrox G200 in XClarity Controller	
Cooling	Four fans (3+1) for single processor model, six fans (5+1) for dual processor model	
Front ports	One XClarity Controller USB, one USB 3.0, one optional VGA	
Rear ports	One VGA, two USB 3.0, two ethernet (RJ-45), one XClarity Controller connector. Optional COM port	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%-90%. A3: 8%-85%. A2: 20%~80%
Humidity - storage (with package), non-condensing	8%~90%	
<i>Models should meet the following requirements to support A3 and A4:</i> • Redundant power supplies required • No system fan fails		
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/	



Note: GbE port 1 and LOM port 1 support Wake-on-LAN and NC-SI. Riser cards, expansion cards, and LOM adapters are optional.

Expansion slots

Slot 1-2 (riser card 1)	Supports one of the following for riser card 1: Option 1: PCIe 3.0 x8/x16 (slot 1-2). Low profile for x8, low profile or full height half length for x16 Option 2: PCIe 3.0 x8/x8 ML2 (slot 1-2). Low profile
Slot 3 (riser card 2)	Option 1: PCIe 3.0 x 8, low profile, for single processor model Option 2: PCIe 3.0 x 16, low profile, for dual processor model When slot 2 is full height, slot 3 cannot be used

System unique options

Option	Description
ZXH7A05892	ThinkSystem SR530/SR570 x8/x8ML2 PCIe LP+LP Riser 1 kit
ZXH7A02682	ThinkSystem SR530/SR570/SR630 x8/x16 PCIe LP+LP Riser 1 Kit
ZXH7A05893	ThinkSystem SR530/SR570/SR630 x8/x16 PCIe LP+FH Riser 1 Kit
ZXH7A05891	ThinkSystem SR530/SR570 x8 PCIe LP Riser 2 kit
ZXH7A02685	ThinkSystem SR530/SR570/SR630 x16 PCIe LP Riser 2 Kit
Z17A02579	ThinkSystem SR530/SR570/SR630 Front VGA Connector Upgrade Kit
Z17A02581	ThinkSystem 1U Security Bezel
Z17A02577	ThinkSystem COM Port Upgrade Kit
ZXH7A05896	ThinkSystem SR530/SR630 2.5" SATA/SAS 8-Bay Backplane Kit

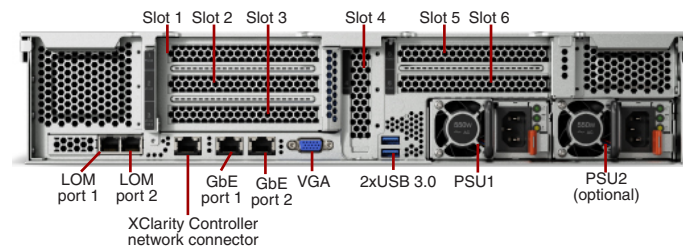


ThinkSystem SR550 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																																															
Form factor	2U rack																																																																																																															
Dimensions	Height: 86.5 mm (3.4 in). Width: 482 mm (19.0 in) with rack latches. Depth: 763.7 mm (30.1 in)																																																																																																															
Weight	Maximum configuration: 57.32 lb (26 kg)																																																																																																															
Processor	Up to two 125W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 22 cores at 1.9GHz, up to 3.8GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s																																																																																																															
Chipset	Intel C622 Platform Controller Hub																																																																																																															
Memory offering	Up to 12 DIMM sockets. Each processor supports up to 6 DIMM sockets with 6 channels. Supports following: <table border="1"> <thead> <tr> <th>Memory Type</th> <th>Speed</th> <th>Offering</th> </tr> </thead> <tbody> <tr> <td>RDIMM</td> <td>DDR4-2933</td> <td>8GB/16GB/32GB/64GB</td> </tr> <tr> <td>RDIMM</td> <td>DDR4-2666</td> <td>8GB/16GB/32GB</td> </tr> <tr> <td>LRDIMM</td> <td>DDR4-2666</td> <td>64GB</td> </tr> </tbody> </table>	Memory Type	Speed	Offering	RDIMM	DDR4-2933	8GB/16GB/32GB/64GB	RDIMM	DDR4-2666	8GB/16GB/32GB	LRDIMM	DDR4-2666	64GB																																																																																																			
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Optical	No internal optical bay. Optional USB DVD±RW optical drive																																																																																																															
Network interfaces	Integrated one dedicated management port plus two GbE ports. One LOM slot for customized LOM with two RJ-45 or SFP+ ports, up to 10GbE. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot. Up to two ports supports Wake-on-LAN and NC-SI (see right)																																																																																																															
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel																																																																																																															
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.4/7.3/6.9. SUSE Linux Enterprise Server 12 SP3/12 SP2/11 SP4. VMware ESXi 6.5U1/6.5/6.0 U3																																																																																																															
Systems management	XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Provisioning Manager. Essentials. Light Path Diagnostics																																																																																																															
GPU support	None																																																																																																															

Components	Specification												
Base warranty	MT 7X03: 1-year limited onsite service with 9x5/NBD MT 7X04: 3-year limited onsite service with 9x5/NBD												
Power supply	Up to two redundant hot-swap 550W and 750W 80 PLUS Platinum qualified AC power supplies. Or up to two redundant hot-swap 750W Titanium qualified AC power supplies. 750W Titanium is 200V - 240V, others are 100V - 240V												
Video	Integrated Matrox G200 in XClarity Controller												
Cooling	Three fans (2+1) for single processor model, four fans (3+1) for dual processor model												
Front ports	One XClarity Controller USB, one USB 3.0, one optional VGA												
Rear ports	One VGA, two USB 3.0, two ethernet (RJ-45) one XClarity Controller connector. Optional COM port												
Environmental specification	Supports ASHRAE A4 with limitations. <table border="1"> <tbody> <tr> <td>Temperature - operating</td> <td>A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)</td> </tr> <tr> <td>Temperature - non operating (no package)</td> <td>-10°C to 60°C (14°F to 140°F)</td> </tr> <tr> <td>Temperature - non operating (with package)</td> <td>-40°C to 70°C (-40°F to 158°F)</td> </tr> <tr> <td>Altitude - operating</td> <td>(Unpressurized): 0-10000ft (0-3048m)</td> </tr> <tr> <td>Humidity - operating, non-condensing</td> <td>A4: 8%-90%. A3:8%-85%. A2:20%~80%</td> </tr> <tr> <td>Humidity - storage (with package), non-condensing</td> <td>8%~90%</td> </tr> </tbody> </table> <p>Models should meet the following requirements to support A3 and A4:</p> <ul style="list-style-type: none"> • Redundant power supplies required • No system fan fails 	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)	Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:20%~80%	Humidity - storage (with package), non-condensing	8%~90%
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Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)												
Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:20%~80%												
Humidity - storage (with package), non-condensing	8%~90%												
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/												



Note: GbE port 1 and LOM port 1 support Wake-on-LAN and NC-SI. Riser cards, expansion cards, and LOM adapters are optional.

Expansion slots

Slot 1-3 (riser card 1)	Supports one of the following for riser card 1: Option 1: PCIe 3.0 x8/x8/x8 (slot 1-3). Full height, half length. Option 2: PCIe 3.0 x16/x8 (slot 1 and 3). Full height, half length Option 3: PCIe 3.0 x8/x8/x8 ML2 (slot 1-3). Full height, half length
Slot 4 (onboard)	PCIe 3.0 x8, low profile
Slot 5 (riser card 2)	PCIe 3.0 x16, full height, half length, requires 2nd CPU
Slot 6 (riser card 2)	PCIe 3.0 x8, full height, half length

System unique options

7XH7A02680	Lenovo SR550/SR590/SR650 x8/x8/x8ML2 PCIe FH Riser 1 Kit
7XH7A02679	Lenovo SR550/SR590/SR650 (x16/x8)/(x16/x16) PCIe FH Riser 2 Kit
7XH7A02678	Lenovo SR550/SR590/SR650 x16/x8 PCIe FH Riser 1 Kit
7XH7A02677	Lenovo SR550/SR590/SR650 x8/x8/x8 PCIe FH Riser 1 Kit
7Z17A02578	Lenovo SR550/SR590/SR650 EIA Latch w/ VGA Upgrade Kit
7XH7A026254	Lenovo SR550/SR650 2.5" SATA/SAS 8-Bay Backplane Kit
7Z17A02580	Lenovo 2U Security Bezel
7Z17A02577	Lenovo COM Port Upgrade Kit

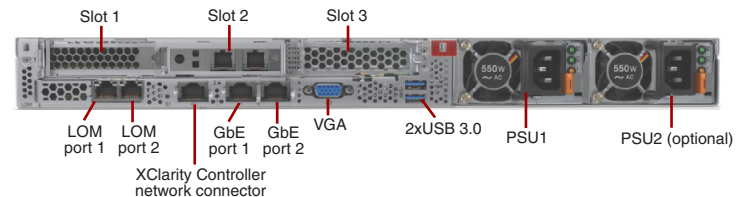


ThinkSystem SR570 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																											
Form factor	1U rack																																																																																											
Dimensions	Height: 43 mm (1.7 in). Width: 482 mm (19.0 in) with rack latches. Depth: 778.3 mm (30.64 in)																																																																																											
Weight	Maximum configuration: 35.27 lb (16 kg)																																																																																											
Processor	Up to two 150W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 26 cores at 2.0GHz, up to 3.8GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s each																																																																																											
Chipset	Intel C622 Platform Controller Hub																																																																																											
Memory offering	Up to 16 DIMM sockets. Each processor supports up to 8 DIMM sockets with 6 channels. Supports following:																																																																																											
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LRDIMM	DDR4-2666	8GB/16GB/32GB																																																																																										
Memory capacity	<ul style="list-style-type: none"> 1TB with 16x 64GB RDIMM and dual processor 2TB with 4x 512GB DC Persistent Memory and dual processor (Gen 2 or M SKU Gen 1) 2.76TB with 4x 512GB DC Persistent Memory + 12x 64GB RDIMM and processor (Gen 2 or M SKU Gen 1) 																																																																																											
Memory protection	ECC, memory mirroring, and memory sparing																																																																																											
Storage controllers	Supports the following RAID/HBA adapters:																																																																																											
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	RAID adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Max qty																																																																																			
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430-8e		12Gbs SAS	SATA/SAS	-	Yes	None	-	3																																																																																				
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930-8e	12Gbs SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes																																																																																					
<i>Note: 730-8i is available in China only</i>																																																																																												
Disk drive bays	Support 4 front 3.5" SATA simple-swap bays, or 4 front 3.5" SATA/SAS HS bays, or 8 front 2.5" SATA/SAS HS bays, or 10 front 2.5" SATA/SAS HS bays with 4 AnyBay. Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																																																																																											
Internal storage	For 3.5" SS bay	3.5" HDD, SATA6Gbs, 7.2K	1TB/2TB/4TB/6TB/8TB																																																																																									
	For 3.5" bay (3.5" disks or 2.5" disks with 3.5" tray)	3.5" HDD, SATA6Gbs, 7.2K	1TB/2TB/4TB/6TB/8TB/10TB																																																																																									
		3.5" HDD, SAS12Gbs, 7.2K	1TB/2TB/4TB/6TB/10TB																																																																																									
	For 2.5" bay	3.5" HDD, SAS12Gbs, 15K	300GB/600GB/900GB																																																																																									
		2.5" SSD, SATA6Gbs	240GB/480GB																																																																																									
		2.5" NVMe SSD, AnyBay	960GB/1.92TB/3.84TB																																																																																									
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Optical	No internal optical bay. Optional USB DVD±RW optical drive																																																																																											
Network interfaces	Integrated one dedicated management port plus two GbE ports. One LOM slot for customized LOM with two RJ-45 or SFP+ ports, up to 10GbE. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot. Up to two ports supports Wake-on-LAN and NC-SI (see right)																																																																																											
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel																																																																																											
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.3/6.9. SUSE Linux Enterprise Server 12 SP2/11 SP4. VMware ESXi 6.5/6.0 U3																																																																																											
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GPU support	None																																																																																											

Components	Specification	
Base warranty	MT 7Y02: 1-year limited onsite service with 9x5/NBD MT 7Y03: 3-year limited onsite service with 9x5/NBD	
Power supply	Up to two redundant hot-swap 550W and 750W 80 PLUS Platinum qualified AC power supplies. Or up to two redundant hot-swap 750W Titanium qualified AC power supplies. 750W Titanium is 200V - 240V, others are 100V - 240V	
Video	Integrated Matrox G200 in XClarity Controller	
Cooling	4x 3.5" or 8x 2.5" models: four fans for single processor model, six fans for dual processor model, all fans are 4028 10x 2.5" models: six fans for both single and dual processor models, all fans are 4056	
Front ports	One XClarity Controller USB, one USB 3.0, one optional VGA	
Rear ports	One VGA, two USB 3.0, two ethernet (RJ-45), one XClarity Controller connector. Optional COM port	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%~90%. A3:8%~85%. A2:8%~80%
	Humidity - storage (with package), non-condensing	8%~90%
	<i>Models should meet the following requirements to support A3 and A4:</i>	
	<ul style="list-style-type: none"> Redundant power supplies required No system fan fails No NVMe drive No rear two HS bays Processor TDP is less than or equal to 140 watts, and no Intel Xeon 6140 or 6152 processor is installed On 12x 3.5" models, no M.2 drives 	
	Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/



Note: GbE port 1 and LOM port 1 support Wake-on-LAN and NC-SI. Riser cards, expansion cards, and LOM adapters are optional.

Expansion slots

Slot 1-2 (riser card 1)	Supports one of the following for riser card 1: Option 1: PCIe 3.0 x8/x16 (slot 1-2). Low profile for x8, low profile or full height half length for x16 Option 2: PCIe 3.0 x8/x8 ML2 (slot 1-2). Low profile
Slot 3 (riser card 2)	Option 1: PCIe 3.0 x 8, low profile, for single processor model Option 2: PCIe 3.0 x 16, low profile, for dual processor model When slot 2 is full height, slot 3 cannot be used

System unique options

7XH7A05892	ThinkSystem SR530/SR570 x8/x8ML2 PCIe LP+LP Riser 1 Kit
7XH7A02682	ThinkSystem SR530/SR570/SR630 x8/x16 PCIe LP+LP Riser 1 Kit
7XH7A05893	ThinkSystem SR530/SR570/SR630 x8/x16 PCIe LP+FH Riser 1 Kit
7XH7A05891	ThinkSystem SR530/SR570 x8 PCIe LP Riser 2 Kit
7XH7A02685	ThinkSystem SR530/SR570/SR630 x16 PCIe LP Riser 2 Kit
7Z17A02579	ThinkSystem SR530/SR570/SR630 Front VGA Connector Upgrade Kit
7Z17A02581	ThinkSystem 1U Security Bezel
7Z17A02577	ThinkSystem COM Port Upgrade Kit
4XH7A08762	ThinkSystem SR570 2.5" SATA/SAS 8-Bay Backplane Kit

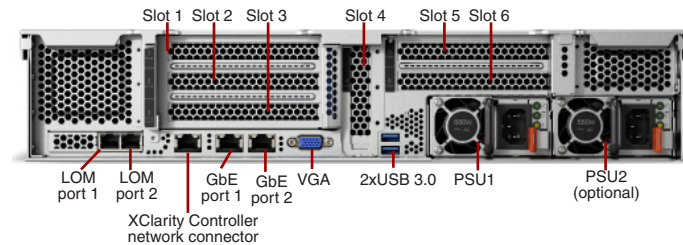


ThinkSystem SR590 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																																						
Form factor	2U rack																																																																																																						
Dimensions	Height: 86.5 mm (3.4 in). Width: 482 mm (19.0 in) with rack latches. Depth: 763.7 mm (30.1 in)																																																																																																						
Weight	Maximum configuration: 61.7 lb (28 kg)																																																																																																						
Processor	Up to two 150W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 26 cores at 2.0GHz, up to 3.8GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s each																																																																																																						
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Memory capacity	<ul style="list-style-type: none"> 1TB with 16x 64GB RDIMM and dual processor 2TB with 4x 512GB DC Persistent Memory and dual processor (Gen 2 or M SKU Gen 1) 2.76TB with 4x 512GB DC Persistent Memory + 12x 64GB RDIMM and processor (Gen 2 or M SKU Gen 1) 																																																																																																						
Memory protection	ECC, memory mirroring, and memory sparing																																																																																																						
Storage controllers	Supports the following RAID/HBA adapters:																																																																																																						
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Disk drive bays	Supports 3.5" Simple-swap bay up to 8, or 3.5" HS bay up to 12, or 2.5" HS bay up to 12. On 12x 3.5", 8x 2.5", or 16x 2.5" bay models, 4 bays can be upgraded to AnyBay. Optional 2 rear 3.5" HS bays are supported on 12 x 3.5" model, takes place in riser card 1 location. Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																																																																																																						
Internal storage	For 3.5" SS bay	3.5" HDD, SATA6Gbs, 7.2K	1TB/2TB/4TB/6TB/8TB																																																																																																				
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	For 3.5" bay (3.5" disks or 2.5" disks with 3.5" tray)	3.5" HDD, SAS12Gbs, 7.2K	1TB/2TB/4TB/6TB/10TB																																																																																																				
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M.2 boot drive	M.2 SATA SSD	32GB/128GB																																																																																																					

Components	Specification	
Power supply	Up to two redundant hot-swap 550W and 750W 80 PLUS Platinum qualified AC power supplies. Or up to two redundant hot-swap 750W Titanium qualified AC power supplies. 750W Titanium is 200V - 240V, others are 100V - 240V	
Video	Integrated Matrox G200 in XClarity Controller	
Cooling	Three fans (2+1) for single processor model, four fans (3+1) for dual processor model	
Front ports	One XClarity Controller USB, one USB 3.0, one optional VGA	
Rear ports	One VGA, two USB 3.0, two ethernet (RJ-45), one XClarity Controller connector. Optional COM port	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%-90%. A3: 8%-85%. A2: 8%-80%
	Humidity - storage (with package), non-condensing	8%-90%
	<i>Models should meet the following requirements to support A3 and A4:</i>	
	<ul style="list-style-type: none"> Redundant power supplies required No system fan fails No NVMe drive No rear two HS bays Processor TDP is less than or equal to 140 watts, and no Intel Xeon 6140 or 6152 processor is installed On 12x 3.5" models, no M.2 drives 	
	Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/



Note: GbE port 1 and LOM port 1 support Wake-on-LAN and NC-SI. Riser cards, expansion cards, and LOM adapters are optional.

Expansion slots

Slot 1-3 (riser card 1)	Supports one of the following for riser card 1: Option 1: PCIe 3.0 x8/x8/x8 (slot 1-3). Full height, half length. Option 2: PCIe 3.0 x16/x8 (slot 1 and 3). Full height, half length Option 3: PCIe 3.0 x8/x8/x8 ML2 (slot 1-3). Full height, half length Option 4: Two rear 3.5" disk bays, 12 x 3.5" models only
Slot 4 (onboard)	PCIe 3.0 x8, low profile
Slot 5 (riser card 2)	PCIe 3.0 x16, full height, half length, requires 2nd CPU
Slot 6 (riser card 2)	PCIe 3.0 x8, full height, half length

System unique options

7XH7A06253	ThinkSystem SR590/SR650 Rear HDD Kit
4XH7A08778	ThinkSystem SR550/SR590/SR650 x8/x8/x8ML2 PCIe FH Riser 1 Kit
4XH7A08779	ThinkSystem SR550/SR590/SR650 x16/x8 PCIe FH Riser 1 Kit
4XH7A08777	ThinkSystem SR550/SR590/SR650 x8/x8/x8 PCIe FH Riser 1 Kit
4XH7A08780	ThinkSystem SR550/SR590/SR650 x16/x8(or x16) PCIe FH Riser 2 Kit
7Z17A02578	ThinkSystem SR550/SR590/SR650 EIA Latch w/ VGA Upgrade Kit
7Z17A02580	ThinkSystem 2U Security Bezel
7Z17A02577	ThinkSystem COM Port Upgrade Kit
4XH7A08764	ThinkSystem SR590 2.5" Anybay 8-Bay Backplane Kit
4XH7A08763	ThinkSystem SR590 2.5" SATA/SAS 8-Bay Backplane Kit

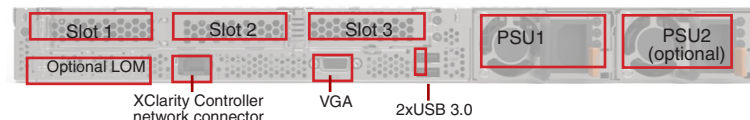


ThinkSystem SR630 Platform Specifications

Product Specifications Reference (PSREF)

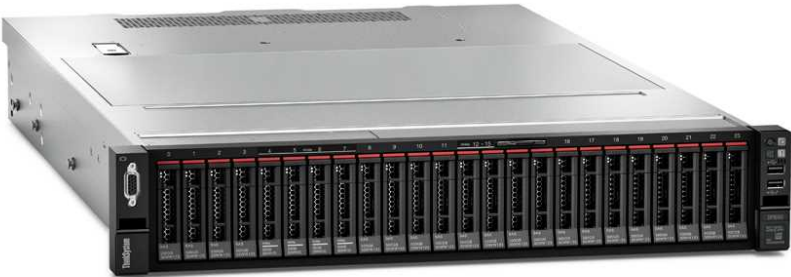
Components	Specification																																																																																										
Form factor	1U rack																																																																																										
Dimensions	Height: 43 mm (1.7 in). Width: 482 mm (19.0 in) with rack latches. Depth: 778.3 mm (30.64 in)																																																																																										
Weight	Maximum configuration: 41.9 lb (19 kg)																																																																																										
Processor	Up to two 205W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 28 cores at 2.7GHz, up to 3.8GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s																																																																																										
Chipset	Intel C624 Platform Controller Hub																																																																																										
Memory offering	Up to 24 DIMM sockets. Each processor supports up to 12 DIMM sockets with 6 channels. Supports following:																																																																																										
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Memory capacity	<ul style="list-style-type: none"> 3TB with 24x 128GB 3DS RDIMM and dual M or L SKU processor 6TB with 12x 512GB DC Persistent Memory and dual L SKU processor 7.5TB with 12x 512GB DC Persistent Memory + 12x 128GB 3DS RDIMM and dual L SKU processor 																																																																																										
Memory protection	ECC, memory mirroring, and memory sparing																																																																																										
Storage controllers	One dedicated internal RAID slot for most RAID/HBA adapters. Supports the following RAID/HBA adapters:																																																																																										
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2.5" NVMe SSD, AnyBay	800GB/960GB/1.6TB/1.92TB/3.84TB																																																																																										
PCIe 3.0 x4, HHHH adapter	NVMe SSD	1.6TB/1.92TB/3.2TB/3.84TB																																																																																									
M.2 boot drive	M.2 SATA SSD	32GB/128GB/480GB																																																																																									
Optical	No internal optical bay. Optional USB DVD±RW optical drive																																																																																										
Network interfaces	One dedicated management port. One LOM slot for customized LOM with up to four RJ-45 or SFP+ ports, up to 10GbE. Wake-on-LAN and NC-SI are available on Port 0 of LOM. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot.																																																																																										
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel																																																																																										
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.4/7.3/6.9. SUSE Linux Enterprise Server 12 SP3/12 SP2/11 SP4. VMware ESXi 6.5U1/6.5/6.0 U3																																																																																										

Components	Specification												
Systems management	XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Provisioning Manager. Essentials. Light Path Diagnostics												
GPU support	Requires riser card with PCIe x16 slot. 2nd or 3rd GPU requires 2nd CPU. Supports up to 1 FHFL and single width GPU adapters, or up to 3 LP and single width GPU adapters (Quadro P620)												
Base warranty	MT 7X01: 1-year limited onsite service with 9x5/NBD MT 7X02: 3-year limited onsite service with 9x5/NBD												
Power supply	Up to two redundant hot-swap 550W/750W/1100W 80 PLUS Platinum qualified power supplies. Or up to two redundant hot-swap 750W Titanium qualified power supplies. 750W Titanium is 200V - 240V, others are 100V - 240V												
Video	Integrated Matrox G200 in XClarity Controller												
Cooling	Five fans (4+1) for single processor model, seven fans (6+1) for dual processor model												
Front ports	One XClarity Controller USB connector, one USB 3.0, one optional VGA												
Rear ports	One VGA, two USB 3.0, one XClarity Controller network connector. Optional COM port												
Environmental specification	Supports ASHRAE A4 with limitations.												
	<table border="1"> <tbody> <tr> <td>Temperature - operating</td> <td>A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)</td> </tr> <tr> <td>Temperature - non operating (no package)</td> <td>-10°C to 60°C (14°F to 140°F)</td> </tr> <tr> <td>Temperature - non operating (with package)</td> <td>-40°C to 70°C (-40°F to 158°F)</td> </tr> <tr> <td>Altitude - operating</td> <td>(Unpressurized): 0-10000ft (0-3048m)</td> </tr> <tr> <td>Humidity - operating, non-condensing</td> <td>A4: 8%-90%. A3:8%-85%. A2:8%-80%</td> </tr> <tr> <td>Humidity - storage (with package), non-condensing</td> <td>8%-90%</td> </tr> </tbody> </table>	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)	Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:8%-80%	Humidity - storage (with package), non-condensing	8%-90%
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	Humidity - operating, non-condensing	A4: 8%-90%. A3:8%-85%. A2:8%-80%											
	Humidity - storage (with package), non-condensing	8%-90%											
	<i>Models should meet the following requirements to support A3 and A4:</i>												
	<ul style="list-style-type: none"> Processors with TDP higher than or equal to 150-Watt and Xeon 4112, 5122, 6126, 6128, 6132, 6134, 6134M, and 8156 processors not installed Both NVMe 2.5" SSD and NVMe PCIe adapter not installed GPU not installed Must have redundant PSU RAID super capacitor module cannot be installed on the bottom of the air baffle, but only can be installed on the chassis. 												
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/												



Expansion slots	
Slot 1-2 (riser card 1)	Supports one of the following for riser card 1: Option 1: PCIe 3.0 x8/x16 (slot 1-2). Low profile for x8, low profile or full height half length for x16 Option 2: PCIe 3.0 x8 ML2/x16 (slot 1-2). Low profile for x8 ML2, low profile or full height half length for x16 Option 3: PCIe 3.0 x16 ML2/x8 (slot 1-2). Low profile for x16 ML2, low profile or full height half length for x8 Option 4: 2x 2.5" drive bay, for 10 x 2.5" model only
Slot 3 (riser card 2)	PCIe 3.0 x 16, low profile, requires 2nd CPU. When slot 2 is full height, slot 3 cannot be used

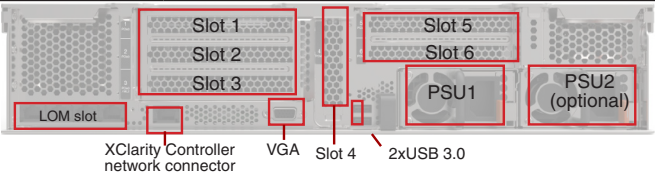
System unique options	
7XH7A05896	Lenovo SR530/SR570/SR630 2.5" SATA/SAS 8-Bay Backplane Kit
7XH7A05893	Lenovo SR530/SR570/SR630 x8/x16 PCIe LP+FH Riser 1 Kit
7XH7A05895	Lenovo SR630 x16ML2/x8 PCIe LP+FH Riser 1 Kit
7XH7A05894	Lenovo SR630 x8ML2/x16 PCIe LP+FH Riser 1 Kit
7XH7A02682	Lenovo SR530/SR570/SR630 x8/x16 PCIe LP+LP Riser 1 Kit
7XH7A02683	Lenovo SR630 x8ML2/x16 PCIe LP+LP Riser 1 Kit
7XH7A02684	Lenovo SR630 x16ML2/x8 PCIe LP+LP Riser 1 Kit
7XH7A02685	Lenovo SR530/SR570/SR630 x16 PCIe LP Riser 2 Kit
7XH7A06252	Lenovo SR630 Rear HDD Kit
Z17A02577	Lenovo COM Port Upgrade Kit
Z17A02579	Lenovo SR530/SR570/SR630 Front VGA Connector Upgrade Kit
Z17A02581	Lenovo 1U Security Bezel



ThinkSystem SR650 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																																			
Form factor	2U rack																																																																																																			
Dimensions	Height: 86.5 mm (3.4 in). Width: 482 mm (19.0 in) with rack latches. Depth: 763.7 mm (30.1 in)																																																																																																			
Weight	Maximum configuration: 70.54 lb (32 kg)																																																																																																			
Processor	Up to two 205W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 28 cores at 2.7GHz, up to 3.8GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s																																																																																																			
Chipset	Intel C624 Platform Controller Hub																																																																																																			
Memory offering	Up to 24 DIMM sockets. Each processor supports up to 12 DIMM sockets with 6 channels. Supports following:																																																																																																			
	<table border="1"> <thead> <tr> <th>Memory Type</th> <th>Speed</th> <th>Offering</th> </tr> </thead> <tbody> <tr> <td>Intel Optane DC Persistent Memory</td> <td>DDR4-2666</td> <td>128GB/256GB/512GB</td> </tr> <tr> <td>RDIMM</td> <td>DDR4-2933</td> <td>8GB/16GB/32GB/64GB</td> </tr> <tr> <td>3DS RDIMM</td> <td>DDR4-2933</td> <td>128GB</td> </tr> <tr> <td>Performance+ RDIMM</td> <td>DDR4-2933</td> <td>16GB/32GB/64GB</td> </tr> <tr> <td>Performance+ 3DS RDIMM</td> <td>DDR4-2933</td> <td>128GB</td> </tr> <tr> <td>RDIMM</td> <td>DDR4-2666</td> <td>8GB/16GB/32GB</td> </tr> <tr> <td>LRDIMM</td> <td>DDR4-2666</td> <td>64GB</td> </tr> <tr> <td>3DS RDIMM</td> <td>DDR4-2666</td> <td>64GB/128GB</td> </tr> </tbody> </table>	Memory Type	Speed	Offering	Intel Optane DC Persistent Memory	DDR4-2666	128GB/256GB/512GB	RDIMM	DDR4-2933	8GB/16GB/32GB/64GB	3DS RDIMM	DDR4-2933	128GB	Performance+ RDIMM	DDR4-2933	16GB/32GB/64GB	Performance+ 3DS RDIMM	DDR4-2933	128GB	RDIMM	DDR4-2666	8GB/16GB/32GB	LRDIMM	DDR4-2666	64GB	3DS RDIMM	DDR4-2666	64GB/128GB																																																																								
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Memory capacity	<ul style="list-style-type: none"> 3TB with 24x 128GB 3DS RDIMM and dual M or L SKU processor 6TB with 12x 512GB DC Persistent Memory (memory mode) and dual L SKU processor 7.5TB with 12x 512GB DC Persistent Memory (memory mode) + 12x 128GB 3DS RDIMM and dual L SKU processor 																																																																																																			
Memory protection	ECC, memory mirroring, and memory sparing																																																																																																			
Storage controllers	One dedicated internal RAID slot for most RAID/HBA adapters.																																																																																																			
	<table border="1"> <thead> <tr> <th>Feature</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> <th>Max qty</th> </tr> </thead> <tbody> <tr> <td>530-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> <td>2</td> </tr> <tr> <td>730-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>1GB</td> <td>None</td> <td>No</td> <td>3</td> </tr> <tr> <td>930-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>2GB</td> <td>Flash backup</td> <td>Yes</td> <td>3</td> </tr> <tr> <td>930-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> <td>1</td> </tr> <tr> <td>930-24i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> <td>1</td> </tr> <tr> <td>430-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>3</td> </tr> <tr> <td>430-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>1</td> </tr> <tr> <td>930-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> <td>5</td> </tr> <tr> <td>430-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>5</td> </tr> <tr> <td>430-16e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> <td>5</td> </tr> </tbody> </table>	Feature	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Max qty	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes	2	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No	3	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes	3	930-16i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	1	930-24i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	1	430-8i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	3	430-16i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	1	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	5	430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	5	430-16e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	5
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Note: 730-8i is available in China only. 930-8e, 430-8e, and 430-16e will be placed in slot 4 firstly. 930-24i will be placed in slot 1 firstly.																																																																																																				
Disk drive bays	Supports the following disk bay configurations, optional rear bay occupies riser card 1 location:																																																																																																			
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Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring																																																																																																				
Internal storage	<table border="1"> <tbody> <tr> <td rowspan="4">For 3.5" bay (3.5" disks or 2.5" disks with 3.5" tray)</td> <td>3.5" HDD, SATA6Gbps, 7.2K</td> <td>1TB/2TB/4TB/6TB/8TB/10TB</td> </tr> <tr> <td>3.5" HDD, SAS12Gbps, 7.2K</td> <td>1TB/2TB/4TB/4TB SED FIPS/6TB/10TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 15K</td> <td>300GB/600GB</td> </tr> <tr> <td>2.5" SSD, SATA6Gbps</td> <td>240GB/480GB</td> </tr> <tr> <td rowspan="10">For 2.5" bay</td> <td>2.5" NVMe SSD, AnyBay</td> <td>960GB/1.92TB/3.84TB</td> </tr> <tr> <td>2.5" HDD, SATA6Gbps, 7.2K</td> <td>1TB/2TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 7.2K</td> <td>1TB/2TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 10K</td> <td>300GB/300GB SED/600GB/600GB SED/900GB/1.2TB/1.8TB</td> </tr> <tr> <td>2.5" HDD, SAS12Gbps, 15K</td> <td>300GB/600GB/900GB</td> </tr> <tr> <td>2.5" SSD, SAS12Gbps</td> <td>400GB/800GB/3.84TB/7.68TB</td> </tr> <tr> <td>2.5" SSD, SATA6Gbps</td> <td>240GB/480GB</td> </tr> <tr> <td>2.5" NVMe SSD, AnyBay</td> <td>800GB/960GB/1.6TB/1.92TB/3.84TB</td> </tr> <tr> <td>PCIe 3.0 x4, HHHL adapter</td> <td>NVMe SSD</td> <td>1.6TB/1.92TB/3.2TB/3.84TB</td> </tr> <tr> <td>M.2 boot drive</td> <td>M.2 SATA SSD</td> <td>32GB/128GB/480GB</td> </tr> </tbody> </table>	For 3.5" bay (3.5" disks or 2.5" disks with 3.5" tray)	3.5" HDD, SATA6Gbps, 7.2K	1TB/2TB/4TB/6TB/8TB/10TB	3.5" HDD, SAS12Gbps, 7.2K	1TB/2TB/4TB/4TB SED FIPS/6TB/10TB	2.5" HDD, SAS12Gbps, 15K	300GB/600GB	2.5" SSD, SATA6Gbps	240GB/480GB	For 2.5" bay	2.5" NVMe SSD, AnyBay	960GB/1.92TB/3.84TB	2.5" HDD, SATA6Gbps, 7.2K	1TB/2TB	2.5" HDD, SAS12Gbps, 7.2K	1TB/2TB	2.5" HDD, SAS12Gbps, 10K	300GB/300GB SED/600GB/600GB SED/900GB/1.2TB/1.8TB	2.5" HDD, SAS12Gbps, 15K	300GB/600GB/900GB	2.5" SSD, SAS12Gbps	400GB/800GB/3.84TB/7.68TB	2.5" SSD, SATA6Gbps	240GB/480GB	2.5" NVMe SSD, AnyBay	800GB/960GB/1.6TB/1.92TB/3.84TB	PCIe 3.0 x4, HHHL adapter	NVMe SSD	1.6TB/1.92TB/3.2TB/3.84TB	M.2 boot drive	M.2 SATA SSD	32GB/128GB/480GB																																																																			
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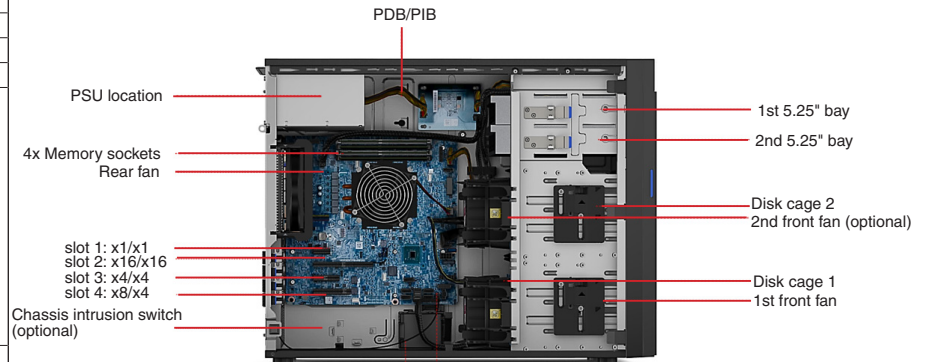
Components	Specification												
Optical	No internal optical bay. Optional USB DVD±RW optical drive												
Network interfaces	One dedicated management port. One LOM slot for customized LOM with up to four RJ-45 or SFP+ ports, up to 10GbE. Wake-on-LAN and NC-SI are available on Port 0 of LOM. Optional ML2 or PCIe adapters are supported. ML2 adapter requires riser card with ML2 slot.												
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel												
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.4/7.3/6.9. SUSE Linux Enterprise Server 12 SP3/12 SP2/11 SP4. VMware ESXi 6.5U1/6.5/6.0 U3												
Systems management	XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Provisioning Manager. Essentials. Light Path Diagnostics												
GPU support	Requires riser card with PCIe x16 slot. 2nd or 3rd GPU requires 2nd CPU. Supports up to 2 FHFL and double width GPU adapters, or up to 3 FHFL and single width GPU adapters												
Base warranty	MT 7X05: 1-year limited onsite service with 9x5/NBD MT 7X06: 3-year limited onsite service with 9x5/NBD												
Power supply	Up to two redundant hot-swap 550W/750W/1100W/1600W 80 PLUS Platinum qualified AC power supplies. Or up to two redundant hot-swap 750W Titanium qualified AC power supplies. 750W Titanium and 1600W Platinum are 200V - 240V, others are 100V - 240V												
Video	Integrated Matrox G200 in XClarity Controller												
Cooling	Five fans (4+1) for single processor model, six fans (5+1) for dual processor model												
Front ports	One XClarity Controller USB connector, one USB 3.0, one optional VGA												
Rear ports	One VGA, two USB 3.0, one XClarity Controller network connector. Optional COM port												
Environmental specification	Supports ASHRAE A4 with limitations.												
	<table border="1"> <tbody> <tr> <td>Temperature - operating</td> <td>A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)</td> </tr> <tr> <td>Temperature - non operating (no package)</td> <td>-10°C to 60°C (14°F to 140°F)</td> </tr> <tr> <td>Temperature - non operating (with package)</td> <td>-40°C to 70°C (-40°F to 158°F)</td> </tr> <tr> <td>Altitude - operating</td> <td>(Unpressurized): 0-10000ft (0-3048m)</td> </tr> <tr> <td>Humidity - operating, non-condensing</td> <td>A4: 8%-90%. A3: 8%-85%. A2: 8%-80%</td> </tr> <tr> <td>Humidity - storage (with package), non-condensing</td> <td>8%-90%</td> </tr> </tbody> </table>	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)	Humidity - operating, non-condensing	A4: 8%-90%. A3: 8%-85%. A2: 8%-80%	Humidity - storage (with package), non-condensing	8%-90%
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)											
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	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)											
	Humidity - operating, non-condensing	A4: 8%-90%. A3: 8%-85%. A2: 8%-80%											
	Humidity - storage (with package), non-condensing	8%-90%											
	Models should meet the following requirements to support A3 and A4:												
	<ul style="list-style-type: none"> NVMe drives not installed PCIe flash adapter not installed Graphic processing unit (GPU) not installed Must have redundant PSU Certain processors not installed: <ul style="list-style-type: none"> Processors with TDP more than or equal to 150-watt not installed On 16 x 2.5", 24 x 2.5", and 12 x 3.5" models, the following processors not installed: Intel Xeon 4112, 5122, 6126, 6128*, 6132*, 6134, 6134M*, and 8156 processors (Processors marked with * will be available later) 												
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/												
													
Expansion slots													
Slot 1-3 (riser card 1)	Supports one of the following for riser card 1: Option 1: PCIe 3.0 x8/x8/x8 (slot 1-3). Full height, half length. Option 2: PCIe 3.0 x16/x8 (slot 1 and 3). Full height, full length for x16. Full height, half length for x8 Option 3: PCIe 3.0 x8/x8/x8 ML2 (slot 1-3). Full height, half length Option 4: PCIe 3.0 x8/x16 ML2 (slot 1 and 3). Full height, half length Option 5: Two rear 3.5" disk bays, 12 x 3.5" models only												
Slot 4 (onboard)	PCIe 3.0 x8, low profile												
Slot 5 (riser card 2)	PCIe 3.0 x16, full height, full length, requires 2nd CPU												
Slot 6 (riser card 2)	PCIe 3.0 x16, full height, half length, requires 2nd CPU												

ThinkSystem ST250 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																																																																								
Form factor	Tower or 4U rack with optional rack mount kit																																																																																								
Dimensions	Height: 430 mm (16.93 in), width: 175 mm (6.89 in), depth: 565.7 mm (22.27 in)																																																																																								
Weight	Maximum configuration: 51.94 lb (23.56 kg)																																																																																								
Processor	Up to one Intel Xeon E family processor, up to 95W, up to 6 cores at 3.8GHz, up to 12MB cache, up to DDR4-2666 memory speed. Or up to one 8th Intel Core i3 processor, up to 91W, up to 4 cores at 4.0GHz, up to 8MB cache, up to DDR4-2400 memory speed. Or up to one Intel Pentium Gold processor, up to 54W, 2 cores at 3.9GHz, 4MB cache, DDR4-2400 memory speed																																																																																								
Chipset	Intel C246 Platform Controller Hub																																																																																								
Memory	4 DIMM sockets with 2 channels, 2 DIMMs per channel. UDIMM. DDR4-2666.																																																																																								
Memory capacity	64GB with 4x 16GB UDIMMs																																																																																								
Memory protection	ECC																																																																																								
Storage controllers	Supports the following RAID/HBA adapters:																																																																																								
	<table border="1"> <thead> <tr> <th>RAID adapter</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> </tr> </thead> <tbody> <tr> <td>Onboard SATA</td> <td>6Gbps SATA</td> <td>SATA</td> <td>0/1/10/5</td> <td>Yes</td> <td>None</td> <td>None</td> <td>No</td> </tr> <tr> <td>530-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> </tr> <tr> <td>730-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>1GB</td> <td>None</td> <td>No</td> </tr> <tr> <td>930-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>2GB</td> <td>Flash backup</td> <td>Yes</td> </tr> <tr> <td>930-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> </tr> <tr> <td>430-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> </tr> <tr> <td>430-16i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> </tr> <tr> <td>430-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> </tr> <tr> <td>430-16e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> </tr> <tr> <td>930-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> </tr> </tbody> </table>	RAID adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Onboard SATA	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes	930-16i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes	430-8i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	430-16i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	430-16e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes
	RAID adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath																																																																																	
	Onboard SATA	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No																																																																																	
	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes																																																																																	
	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No																																																																																	
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430-16e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-																																																																																		
930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes																																																																																		
Disk drive bays	Supports 4 or 8 front 3.5" SATA simple-swap bays. Or 4 or 8 front 3.5" SATA/SAS HS bays. Or 8 or 16 front 2.5" SATA/SAS HS bays. Or 4x 3.5" plus 8x 2.5" hybrid SATA/SAS HS bays. Optional one internal M.2 SSD for boot, consumes one onboard SATA port																																																																																								
Disk support	For 3.5" SS bay	3.5" HDD, SATA6Gbps, 7.2K 2.5" SSD, SATA6Gbps	1TB/2TB/4TB/6TB/8TB 240GB/480GB/960GB																																																																																						
	For 3.5" HS bay (3.5" disks or 2.5" disks with 3.5" tray)	3.5" HDD, SATA6Gbps, 7.2K 2.5" HDD, SAS12Gbps, 15K 2.5" SSD, SATA6Gbps	1TB/2TB/4TB/6TB/8TB 300GB/600GB/900GB 240GB/480GB/960GB																																																																																						
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	For 2.5" HS bay	2.5" HDD, SAS12Gbps, 10K 2.5" HDD, SAS12Gbps, 15K 2.5" SSD, SATA6Gbps	300GB/300GB SED/600GB/900GB/1.2TB/1.8TB/2.4TB 300GB/600GB/900GB 240GB/480GB/960GB																																																																																						
		2.5" SSD, SATA6Gbps	32GB/128GB/480GB																																																																																						
		M.2 SSD	M.2 SATA SSD																																																																																						
	Optical	Two 5.25" bays for half-height optical, LTO-7 SAS or RDX USB 3.0 tape drive. Up to two optical or one tape drive																																																																																							
Network interfaces	Two onboard GbE port via integrated gigabit ethernet Broadcom BCM5720 plus one dedicated management port. Optional PCIe ethernet adapters are available																																																																																								
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 or 2.0 compliant, Optional TCM in China only. Optional chassis intrusion switch, Kensington lock, and pad lock																																																																																								
Operating systems supported	Microsoft Windows Server 2019/2016/2012 R2. Red Hat Enterprise Linux 7.5. SUSE Linux Enterprise Server 12 SP3. VMware vSphere (ESXi) 6.7/6.5 U2																																																																																								
Systems management	XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. LEDs on front panel show the status of power, ID, network, simple-swap disks, and system error																																																																																								
GPU support	Up to one optional GPU, NVIDIA Quadro P620 or Quadro P2000																																																																																								
Base warranty	MT 7Y45: 3-year limited onsite service with 9x5/NBD MT 7Y46: 1-year limited onsite service with 9x5/NBD																																																																																								
Power supply	Supports one of the following PSU: <ul style="list-style-type: none"> One fixed power supply, 250W. 80 PLUS Platinum certified. Up to two redundant hot-swap power supplies, 550W each. 80 PLUS Platinum certified 																																																																																								

Components	Specification
Video	Integrated Matrox G200 in XClarity Controller
Cooling	One fixed rear fan, one fixed front fan, CPU fan, PSU fan. One optional front fan for 2nd disk drive cage
Front ports	One XClarity Controller USB connector, one USB 3.1 Gen 1
Rear ports	2x USB 3.1 Gen 2. 2x USB 3.1 Gen 1. 2x RJ-45. 1x XClarity Controller network connector. 1x COM. 1x VGA
Environmental specification	Supports ASHRAE A2
Environmental certification	Energy Star Server 2.1 certified



Expansion slots

Supports three PCIe 3.0 slots as following:

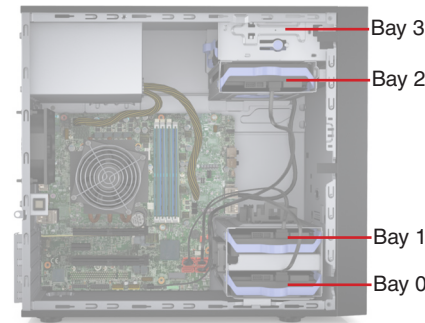
Slot 1	PCIe 3.0 x1, full height, half length, links to PCH
Slot 2	PCIe 3.0 x16, full height, half length, links to CPU
Slot 3	PCIe 3.0 x4, full height, half length, links to PCH
Slot 4	PCIe 3.0 x8 (negotiable link width x4), full height, half length, links to PCH

Partial options for ThinkSystem ST250

ThinkSystem 8GB TruDDR4 (1Rx8, 1.2V) 2666 MHz UDIMM	4ZC7A08696
ThinkSystem 16GB TruDDR4 (2Rx8, 1.2V) 2666 MHz UDIMM	4ZC7A08699
ThinkSystem 3.5" 1TB 7.2K SATA 6Gb Hot Swap 512n HDD	7XB7A00049
ThinkSystem 3.5" 8TB 7.2K SATA 6Gb Hot Swap 512e HDD	7XB7A00053
900GB 15K 12Gbps SAS 2.5" G4HS 512e HDD	7XB7A00023
300GB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00024
600GB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00025
900GB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00026
1.2TB 10K 12Gbps SAS 2.5" G4HS HDD	7XB7A00027
1.8TB 10K 12Gbps SAS 2.5" G4HS 512e HDD	7XB7A00028
2.4TB 10K SAS 12Gb HS 512e HDD	7XB7A00069
300GB 10K 12Gbps SAS 2.5" G4HS SED	7XB7A00030
1TB 7.2K 12Gbps NL SAS 2.5" G4HS HDD	7XB7A00034
2TB 7.2K 12Gbps NL SAS 2.5" G4HS HDD	7XB7A00035
M.2 CV3 128GB SATA SSD	7N47A00130
ThinkSystem ST50/ST250 Rack Mount Kit	4M17A12785

ThinkSystem ST50 Platform Specifications

Components	Specification																																																																
Form factor	Tower or 4U rack with optional rack mount kit																																																																
Dimensions	Height: 375 mm (14.76 in), width: 175 mm (6.89 in), depth: 407 mm (16.0 in)																																																																
Weight	Maximum configuration: 24.7 lb (11.2 kg)																																																																
Processor	Up to one Intel Xeon E family processor, up to 95W, up to 6 cores at 3.8GHz, up to 12MB cache, up to DDR4-2666 memory speed. Or up to one 8th Intel Core i3 processor, up to 91W, up to 4 cores at 4.0GHz, up to 8MB cache, up to DDR4-2400 memory speed. Or up to one Intel Pentium Gold processor, up to 54W, 2 cores at 3.9GHz, 4MB cache, DDR4-2400 memory speed Or up to one Intel Celeron processor, up to 54W, 2 cores at 3.2GHz, 2MB cache, DDR4-2400 memory speed																																																																
Chipset	Intel C246 Platform Controller Hub																																																																
Memory	4 DIMM sockets with 2 channels, 2 DIMMs per channel. UDIMM. DDR4-2666. Non-ECC UDIMM are supported in China only																																																																
Memory capacity	64GB with 4x 16GB UDIMMs, both ECC and Non-ECC																																																																
Memory protection	ECC																																																																
Storage controllers	Supports the following RAID/HBA adapters:																																																																
	<table border="1"> <thead> <tr> <th>RAID adapter</th> <th>Interface</th> <th>Drive type</th> <th>RAID levels</th> <th>JBOD</th> <th>Cache</th> <th>Cache protection</th> <th>FastPath</th> </tr> </thead> <tbody> <tr> <td>Onboard SATA</td> <td>6Gbps SATA</td> <td>SATA</td> <td>0/1/10/5</td> <td>Yes</td> <td>None</td> <td>None</td> <td>No</td> </tr> <tr> <td>530-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>None</td> <td>None</td> <td>Yes</td> </tr> <tr> <td>730-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50</td> <td>Yes</td> <td>1GB</td> <td>None</td> <td>No</td> </tr> <tr> <td>930-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>2GB</td> <td>Flash backup</td> <td>Yes</td> </tr> <tr> <td>430-8i</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> </tr> <tr> <td>430-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>-</td> <td>Yes</td> <td>None</td> <td>None</td> <td>-</td> </tr> <tr> <td>930-8e</td> <td>12Gbps SAS</td> <td>SATA/SAS</td> <td>0/1/10/5/50/6/60</td> <td>Yes</td> <td>4GB</td> <td>Flash backup</td> <td>Yes</td> </tr> </tbody> </table>	RAID adapter	Interface	Drive type	RAID levels	JBOD	Cache	Cache protection	FastPath	Onboard SATA	6Gbps SATA	SATA	0/1/10/5	Yes	None	None	No	530-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	None	None	Yes	730-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50	Yes	1GB	None	No	930-8i	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	2GB	Flash backup	Yes	430-8i	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	430-8e	12Gbps SAS	SATA/SAS	-	Yes	None	None	-	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes
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	930-8e	12Gbps SAS	SATA/SAS	0/1/10/5/50/6/60	Yes	4GB	Flash backup	Yes																																																									
Disk drive bays	Up to 4x 3.5"/2.5" Non-hot swap SATA/SAS cabled drive, HDD, SSD, or mixing of HDD and SSD. 4th bay is optional with 5.25" to 3.5" conversion kit and occupies 5.25" bay																																																																
SD card reader	Up to two SD card with optional SD card module, 32GB or 64GB																																																																
Disk support	<table border="1"> <tbody> <tr> <td>3.5" HDD, SATA6Gbps, 7.2K</td> <td>1TB/2TB/4TB/6TB/8TB</td> </tr> <tr> <td>2.5" SSD, SATA6Gbps</td> <td>240GB/480GB/960GB</td> </tr> <tr> <td>SD card</td> <td>32GB/64GB</td> </tr> </tbody> </table>	3.5" HDD, SATA6Gbps, 7.2K	1TB/2TB/4TB/6TB/8TB	2.5" SSD, SATA6Gbps	240GB/480GB/960GB	SD card	32GB/64GB																																																										
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2.5" SSD, SATA6Gbps	240GB/480GB/960GB																																																																
SD card	32GB/64GB																																																																
Optical	One 5.25" bays for half-height optical, LTO-7 SAS or RDX USB 3.0 tape drive, or 4th disk bay plus one slim optical																																																																
Network interfaces	One onboard GbE port via integrated gigabit ethernet Intel i219LM, supports Wake-on-LAN. Optional PCIe ethernet adapters are available																																																																
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 or 2.0 compliant, Optional TCM in China only. Optional chassis intrusion switch, Kensington lock, and pad lock																																																																
Operating systems supported	Microsoft Windows Server 2019/2016. Red Hat Enterprise Linux 7.5. VMware vSphere (ESXi) 6.5 U2																																																																
Systems management	Intel Active Management Technology 12 on Xeon models, Intel Standard Manageability on other models																																																																
GPU support	Up to one optional NVIDIA Quadro P620																																																																
Base warranty	MT 7Y48: 3-year limited onsite service with 9x5/NBD MT 7Y49: 1-year limited onsite service with 9x5/NBD																																																																
Power supply	Supports one 250W or 400W power supply, 100V - 240V, 92% PSU. Climate Savers Computing Platinum and 80 PLUS Platinum qualified. 400W PSU supports one 6+2-pin aux power connector.																																																																
Video	Integrated Intel UHD Graphics P630 in -G suffix Xeon processors, or Intel UHD Graphics 630 in Core i3, or Intel UHD Graphics 610 in Pentium and Celeron processors																																																																
Cooling	Two fixed system fans, CPU fan, PSU fan, and optional media bay fan																																																																
Front ports	2x USB 3.1 Gen 1 Type A																																																																
Rear ports	2x USB 3.1 Gen 1 Type A. 2x USB 2.0 Type-A. 1x RJ-45. 1x COM. 1x line-out. 2x DP (DP needs Core, Pentium, Celeron, or -G suffix Xeon processor)																																																																
Environmental specification	Supports ASHRAE A2																																																																
Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/																																																																



Disk bays

Bay 0	3.5" bay, HDD or SSD
Bay 1	3.5" bay, HDD or SSD
Bay 2	3.5" bay, HDD or SSD
Bay 3	One of the following: <ul style="list-style-type: none"> • half-height optical • tape drive • 3.5" bay + slim optical

Expansion slots

Supports three PCIe 3.0 slots as following:

Slot 1	PCIe 3.0 x16, full height, half length, links to CPU
Slot 2	PCIe 3.0 x1, full height, half length, links to PCH
Slot 3	PCIe 3.0 x16 (negotiable link width x4), full height, half length, links to PCH

Partial options for ThinkSystem ST50

ThinkSystem 8GB TruDDR4 (1Rx8, 1.2V) 2666 MHz UDIMM	4ZC7A08696
ThinkSystem 16GB TruDDR4 (2Rx8, 1.2V) 2666 MHz UDIMM	4ZC7A08699
ThinkSystem ST50 3.5" 1TB 7.2K SATA 6Gb Non-Hot Swap 512n HDD	4XB7A13554
ThinkSystem ST50 3.5" 2TB 7.2K SATA 6Gb Non-Hot Swap 512n HDD	4XB7A13555
ThinkSystem ST50 3.5" 4TB 7.2K SATA 6Gb Non-Hot Swap 512n HDD	4XB7A13556
ThinkSystem ST50 3.5" 6TB 7.2K SATA 6Gb Non-Hot Swap 512e HDD	4XB7A13557
ThinkSystem ST50 3.5" 8TB 7.2K SATA 6Gb Non-Hot Swap 512e HDD	4XB7A13558
ThinkSystem ST50 3.5" Intel S4510 240GB Entry SATA 6Gb Non Hot Swap SSD	4XB7A14914
ThinkSystem ST50 3.5" Intel S4510 480GB Entry SATA 6Gb Non Hot Swap SSD	4XB7A14915
ThinkSystem ST50 3.5" Intel S4510 960GB Entry SATA 6Gb Non Hot Swap SSD	4XB7A14916
ThinkSystem ST50 HH ODD / Tape Cable Kit	4Z57A13568
ST50 5.25 to 3.5 HDD kit W/ Slim ODD	4M17A12096
ST50 DP to HDMI Dongle Kit	4X97A12100
ST50 DP to VGA Dongle Kit	4X97A12099
ThinkSystem ST50 Super Cap Bracket & Cable Kit	4M17A12094
ST50 Dual SD Cards Adapter Kit	4M17A12095
ThinkSystem ST50/ST250 Rack Mount Kit	4M17A12785



ThinkSystem ST550 Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification		
Form factor	Tower or 4U rack		
Dimensions	Without foot stands and security door: Height: 425.5 mm (16.8 in). Width: 175.8 mm (6.92 in). Depth: 666.4 mm (26.24 in)		
Weight	Maximum configuration: 81.35 lb (36.9 kg)		
Processor	Up to two 125W Gen 1 or Gen 2 Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 20 cores at 2.0GHz, up to 3.8GHz with 4 cores. Two processors are connected with two UPI (Ultra Path Interconnect) links up to 10.4GT/s		
Chipset	Intel C621 Platform Controller Hub		
Memory	Up to 12 DIMM sockets. Each processor supports up to 6 DIMM sockets with 6 channels. DDR4-2933 or DDR4-2666. RDIMMs		
Memory capacity	Up to 768GB with 12 x 64 GB DIMMs and two processors		
Memory protection	ECC, memory mirroring, and memory sparing		
Storage controllers	Supports the following RAID/HBA adapters:		
	<i>Note: 730-8i is available in China only. All RAID/HBA adapters should be placed in slot 1 firstly.</i>		
Disk drive bays	Supports 4 or 8 front 3.5" SATA simple-swap bays. Or 4 or 8 front 3.5" SATA/SAS HS bays. Or 8 or 16 front 2.5" SATA/SAS HS bays with maximum 4 AnyBay. Optional 4 front 2.5" HS bays are supported on hot-swap models, takes place in two 5.25" bays location Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring		
Internal storage	For 3.5" SS bay	3.5" HDD, SATA6Gbps, 7.2K	1TB/2TB/4TB/6TB/8TB/10TB
	For 3.5" bay (3.5" disks or 2.5" disks with 3.5" tray)	3.5" HDD, SATA6Gbps, 7.2K	1TB/2TB/4TB/6TB/8TB/10TB
		3.5" HDD, SAS12Gbps, 7.2K	1TB/2TB/4TB/6TB/10TB
		2.5" HDD, SAS12Gbps, 15K	300GB/600GB
		2.5" SSD, SATA6Gbps	240GB/480GB
		2.5" HDD, SATA6Gbps, 7.2K	1TB/2TB
		2.5" HDD, SAS12Gbps, 7.2K	1TB/2TB
		2.5" HDD, SAS12Gbps, 10K	300GB/600GB/900GB/1.2TB/1.8TB
		2.5" HDD, SAS12Gbps, 15K	300GB/600GB/900GB
		2.5" SSD, SAS12Gbps	400GB/800GB/3.84TB
	2.5" SSD, SATA6Gbps	240GB/480GB	
	2.5" NVMe SSD, AnyBay	1.92TB/3.84TB	
	M.2 SATA SSD	32GB/128GB/480GB	
Optical	Two 5.25" bays for optical and tape drive. Supports DVD-ROM or DVD±RW drives, half-height. Supports LTO-6 SAS, LTO-7 SAS, and RDX USB 3.0 tape drives		
Network interfaces	Integrated one dedicated management port plus two GbE ports. Optional PCIe adapters are supported. NC-SI and Wake-on-LAN are available on GbE port 1 (See right)		
Security features	Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel. Optional chassis intrusion switch		
Operating systems supported	Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.3/6.9. SUSE Linux Enterprise Server 12 SP2/11 SP4. VMware vSphere (ESXi) 6.5/6.0 U3		
Systems management	XClarity Controller Standard, optional upgrades to Advanced or Enterprise are available. Energy Manager. XClarity Administrator. Provisioning Manager. Essentials. LEDs on front panel show the status of power, ID, network, simple-swap disks, and system error		
GPU support	Up to two optional NVIDIA Quadro P2000 or Quadro P6000		

Components	Specification	
Base warranty	MT 7X09: 1-year limited onsite service with 9x5/NBD MT 7X10: 3-year limited onsite service with 9x5/NBD	
Power supply	Supports one fixed 450W 80 PLUS Gold qualified AC power supply, non-hot swap, no redundant. Or up to two redundant hot-swap 550W/750W/100W 80 PLUS Platinum qualified AC power supplies. Or up to two redundant hot-swap 750W Titanium qualified AC power supplies. 750W Titanium is 200V - 240V, others are 100V - 240V	
Video	Integrated Matrox G200 in XClarity Controller	
Cooling	Up to four fans with one for redundant. Two fans for single processor, three fans for dual processor or single processor with 4 x 2.5" HS bay installed. 4th fan is N + 1 redundant or GPU installed	
Front ports	One XClarity Controller USB connector, one USB 3.0	
Rear ports	One VGA, two USB 3.0, four USB 2.0, two ethernet (RJ-45), one XClarity Controller network connector. Optional COM port	
Environmental specification	Supports ASHRAE A4 with limitations.	
	Temperature - operating	A4: 5°C to 45°C (41°F to 113°F) A3: 5°C to 40°C (41°F to 104°F) A2: 10°C to 35°C (50°F to 95°F)
	Temperature - non operating (no package)	-10°C to 60°C (14°F to 140°F)
	Temperature - non operating (with package)	-40°C to 70°C (-40°F to 158°F)
	Altitude - operating	(Unpressurized): 0-10000ft (0-3048m)
	Humidity - operating, non-condensing	A4: 8%-90%. A3: 8%-85%. A2: 20%-80%
	Humidity - storage (with package), non-condensing	8%-90%
	<i>Models should meet the following requirements to support A3 and A4:</i>	
	<ul style="list-style-type: none"> System rear fan required, no system fan fail 450W fixed power supply not installed, redundant power supplies required NVMe SSD not installed GPU not installed When 4 x 2.5" bay installed, only support up to 2TB SAS HDD/SSD and all SATA HDD/SSD 	
	Environmental certification	Energy Star Server 2.1 certified. More environmental information please see: www.lenovo.com/social_responsibility/us/en/environment/

Expansion slots	
Slot 1 (CPU1)	PCIe 3.0 x8, full height, half length
Slot 2 (CPU1)	PCIe 3.0 x16, full height, half length
Slot 3 (CPU1)	PCIe 3.0 x16, full height, full length, double-width
Slot 4 (CPU2)	PCIe 3.0 x16 (x8 elec), full height, full length
Slot 5 (CPU2)	PCIe 3.0 x16, full height, full length, double-width
Slot 6 (CPU1)	PCIe 3.0 x8 (x4 elec), full height, full length

Note: All expansion cards and redundant PSU are optional.

System unique options	
7X77A03475	ThinkSystem ST550 2.5" SATA/SAS 4-Bay Backplane Kit
7X77A03476	ThinkSystem ST550 2.5" Anybay 8-Bay Backplane Kit
7TP7A04369	ThinkSystem ST550 2.5" 8-Bay Backplane Kit
7TP7A04370	ThinkSystem ST550 3.5" SATA/SAS 4-Bay Backplane kit
7X77A03481	ThinkSystem ST550 3.5" Simple Swap Bracket Plate
7X77A03484	ThinkSystem ST550 4U Security Bezel
7X77A03485	ThinkSystem ST550 CMA kit
7X77A03488	ThinkSystem ST550 4U Tower to Rack Conversion Kit
7Z17A02577	ThinkSystem ST550 COM Port Upgrade Kit
7XH7A06781	ThinkSystem ST550 Front Mid FAN Module for 4x2.5" ODD conversion
7TP7A04371	ThinkSystem ST550 Rear FAN Module for RDN FAN

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Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.

Lenovo Services:

Carry-in or Mail-in Service: Parts and labor repair coverage where the customer is responsible for shipping (including packaging) or delivery to authorized warranty provider or repair center.

Depot or Courier Service: Parts and labor repair coverage where shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

Expedited Depot: Parts and labor coverage with expedited turnaround. Shipping (including packaging) or delivery to the repair center is paid for by Lenovo.

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

If Lenovo determines your product problem is covered by the product warranty and cannot be resolved over the telephone, a technician will be dispatched to arrive onsite, typically the next day.

International Warranty Service (IWS): PC repair coverage for customers who require a critical warranty repair while travelling internationally. Visit www.lenovo.com/internationalwarranty for details. Visit www.lenovo.com/warranty for Lenovo Warranty Services terms and conditions for complete details and restrictions.

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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