

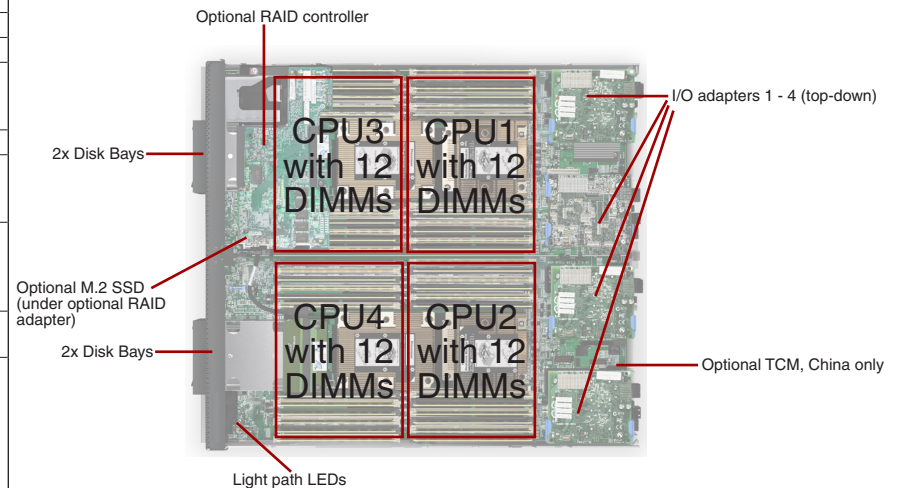
ThinkSystem SN850 Platform Specifications

Product Specifications Reference (PSREF)

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 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><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><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></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	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																															
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.																																
	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 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