

M.2 drives

The server supports one or two M.2 form-factor SATA drives for use as an operating system boot solution. With two M.2 drives configured, the drives are configured by default as a RAID-1 mirrored pair for redundancy.

The M.2 drives install into an M.2 adapter which in turn is installed in a dedicated slot on the system board. See the internal view of the server in the [Components and connectors](#) section for the location of the M.2 slot.

There are two M.2 adapters supported, as listed in the following table.

Table 25. M.2 components

Part number	Feature code	Description	Maximum supported
7Y37A01092	AUMU	ThinkSystem M.2 Enablement Kit (contains the Single M.2 Boot Adapter; supports 1 drive)	1
7Y37A01093	AUMV	ThinkSystem M.2 with Mirroring Enablement Kit (contains the Dual M.2 Boot Adapter, supports 1 or 2 drives)	1

Supported drives are listed in the [Internal drive options](#) section.

For details about M.2 components, see the *ThinkSystem M.2 Drives and M.2 Adapters* product guide: <https://lenovopress.com/lp0769-thinksystem-m2-drives-adapters>

SED encryption key management with ISKLM

The server supports self-encrypting drives (SEDs) as listed in the [Internal drive options](#) section. To effectively manage a large deployment of these drives in Lenovo servers, IBM Security Key Lifecycle Manager (SKLM) offers a centralized key management solution. A Lenovo Feature on Demand (FoD) upgrade is used to enable this SKLM support in the management processor of the server.

The following table lists the part numbers and feature codes for the upgrades.

Table 26. FoD upgrades for SKLM support

Part number	Feature code	Description
Security Key Lifecycle Manager - FoD (United States, Canada, Asia Pacific, and Japan)		
00D9998	A5U1	SKLM for System x/ThinkSystem w/SEDs - FoD per Install with 1 year S&S
00D9999	AS6C	SKLM for System x/ThinkSystem w/SEDs - FoD per Install with 3 year S&S
Security Key Lifecycle Manager - FoD (Latin America, Europe, Middle East, and Africa)		
00FP648	A5U1	SKLM for System x/ThinkSystem w/SEDs - FoD per Install with 1 year S&S
00FP649	AS6C	SKLM for System x/ThinkSystem w/SEDs - FoD per Install with 3 year S&S

The IBM Security Key Lifecycle Manager software is available from Lenovo using the ordering information listed in the following table.

Table 27. IBM Security Key Lifecycle Manager licenses

Part number	Description
7S0A007FWW	IBM Security Key Lifecycle Manager Basic Edition Install License + SW Subscription & Support 12 Months
7S0A007HWW	IBM Security Key Lifecycle Manager For Raw Decimal Terabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months
7S0A007KWW	IBM Security Key Lifecycle Manager For Raw Decimal Petabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months
7S0A007MWW	IBM Security Key Lifecycle Manager For Usable Decimal Terabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months
7S0A007PWW	IBM Security Key Lifecycle Manager For Usable Decimal Petabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months

Controllers for internal storage

The following table lists the storage controllers and options for internal storage of the SR630 server.

Table 28. RAID controllers and HBAs for internal storage

Part number	Feature code	Description	Maximum quantity	I/O slots supported
12 Gb SAS/SATA RAID controllers - 8-port adapters				
7Y37A01082	AUNG	ThinkSystem RAID 530-8i PCIe 12Gb Adapter	1	4, 1
4Y37A78834	BMFT	ThinkSystem RAID 540-8i PCIe Gen4 12Gb Adapter	1	1
4Y37A72482	BJHK	ThinkSystem RAID 5350-8i PCIe 12Gb Adapter	1	1
7Y37A01083	AUNH	ThinkSystem RAID 730-8i 1GB Cache PCIe 12Gb Adapter	1	4, 1
4Y37A09722	B4RQ	ThinkSystem RAID 730-8i 2GB Flash PCIe 12Gb Adapter	1	4, 1
7Y37A01084	AUNJ	ThinkSystem RAID 930-8i 2GB Flash PCIe 12Gb Adapter	1	4, 1
4Y37A72483†	BJHL†	ThinkSystem RAID 9350-8i 2GB Flash PCIe 12Gb Adapter	1	1
4Y37A09728	B8NY	ThinkSystem RAID 940-8i 4GB Flash PCIe Gen4 12Gb Adapter	1	1
12 Gb SAS/SATA RAID controllers - 16-port adapters				
4Y37A09727	B6CE	ThinkSystem RAID 530-16i PCIe 12Gb Adapter	1	4, 1
7Y37A01085	AUNK	ThinkSystem RAID 930-16i 4GB Flash PCIe 12Gb Adapter	1	4, 1
4Y37A72485†	BJHN†	ThinkSystem RAID 9350-16i 4GB Flash PCIe 12Gb Adapter	1	1
4Y37A09721	B31E	ThinkSystem RAID 930-16i 8GB Flash PCIe 12Gb Adapter	1	4, 1
4Y37A78600	BM35	ThinkSystem RAID 940-16i 4GB Flash PCIe Gen4 12Gb Adapter	1	1
4Y37A09730	B8NZ	ThinkSystem RAID 940-16i 8GB Flash PCIe Gen4 12Gb Adapter	1	1
12 Gb SAS/SATA non-RAID HBAs				
7Y37A01088	AUNL	ThinkSystem 430-8i SAS/SATA 12Gb HBA	1	4, 1
4Y37A72480	BJHH	ThinkSystem 4350-8i SAS/SATA 12Gb HBA	1	1
7Y37A01089	AUNM	ThinkSystem 430-16i SAS/SATA 12Gb HBA	1	4, 1
4Y37A72481	BJHJ	ThinkSystem 4350-16i SAS/SATA 12Gb HBA	1	1
4Y37A78601	BM51	ThinkSystem 440-8i SAS/SATA PCIe Gen4 12Gb HBA	1	1

Part number	Feature code	Description	Maximum quantity	I/O slots supported
4Y37A78602	BM50	ThinkSystem 440-16i SAS/SATA PCIe Gen4 12Gb HBA	1	1
NVMe PCIe interfaces				
None	B9X7	Intel VROC (VMD NVMe RAID) Intel SSD Only (Standard)	1	Not applicable
4L47A39164	B96G	Intel VROC (VMD NVMe RAID) Premium (license upgrade - to enable RAID support for non-Intel NVMe SSDs)	1	Not applicable
7Y37A01081	AUV2	ThinkSystem 1610-4P NVMe Switch Adapter	2	2, 3*
4Y37A09719	B22D	ThinkSystem 810-4P NVMe Switch Adapter	2	4, 1

* Requires a PCIe x16 riser card.

† Field upgrades to add this adapter may also require a replacement system air duct. See the [RAID flash power module \(supercap\) support](#) section for details. CTO orders that include this adapter must have base BNPS or BNPR selected. See the [Models](#) section for information.

For a comparison of the functions of the supported storage adapters, see the ThinkSystem RAID Adapter and HBA Reference:

<https://lenovopress.com/lp1288-thinksystem-raid-adapter-and-hba-reference#sr630-support=SR630>

Configuration notes:

- Low profile SAS RAID controllers and HBAs for internal storage are supported in the dedicated PCIe x8 slot 4 on the system board. If a full-height GPU adapter is installed, the internal slot for a storage controller cannot be used; the storage controller should be installed in the PCIe slot 1.
- The 1610-4P NVMe Switch Adapters are supported in the low-profile PCIe x16 slots supplied by the PCIe Riser Cards 1 and 2.
- The 810-4P NVMe Switch Adapters are supported in the dedicated PCIe x8 slot 4 on the system board and a low-profile PCIe x8 slot supplied by the PCIe Riser Card 1.
- The total quantity of the 1610-4P and 810-4P NVMe Switch Adapters in the server must not exceed 2.
- Configurations using onboard NVMe and NVMe switch adapters support RAID using Intel VROC NVMe RAID as described in the [Intel VROC onboard SATA and NVMe RAID](#) section.
- The onboard NVMe interface provides 4x PCIe 3.0 x4 ports for connectivity to U.2 NVMe PCIe SSDs in the AnyBay drive bays, and it requires the second processor to be installed.
- In the configurations with one processor, the 1610-4P NVMe Switch Adapter provides 4x PCIe 3.0 x4 ports for connectivity to U.2 NVMe PCIe SSDs in the AnyBay drive bays, and it is supported in the PCIe x16 slot 2 supplied by the x8/x16 Riser Card 1.
- In the configurations without GPU installed, the total quantity of the RAID 730-8i 2GB, RAID 930-8i, RAID 930-16i, and RAID 930-8e controllers in the server must not exceed 2 (up to 2 supercapacitors can be mounted in the server).
- In the configurations with GPU installed, the total quantity of the RAID 730-8i 2GB, RAID 930-8i, RAID 930-16i, and RAID 930-8e controllers in the server must not exceed 1 (the storage controller can be installed only in the PCIe slot 1; the PCIe slots 3 and 4 cannot be used if the GPU adapter is installed).
- In the configurations with the RAID 730-8i 2GB controller, the RAID 930-8e controller cannot be used.

For 10x U.2 NVMe configurations, the onboard NVMe interface and two NVMe Switch Adapters provide connectivity with PCIe 3.0 x4 links to each of the U.2 NVMe PCIe SSDs. The 1610-4P NVMe Switch Adapter has a PCIe 3.0 x16 host interface, and the 810-4P NVMe Switch Adapter has a PCIe 3.0 x8 host interface.

Intel VROC onboard SATA and NVMe RAID

Intel VROC (Virtual RAID on CPU) is a feature of the Intel processor that enables RAID support. There are two separate functions of VROC:

- Intel VROC SATA RAID, formerly known as Intel RSTe
- Intel VROC NVMe RAID

VROC SATA RAID (RSTe) is available and supported with all SATA drives, both SATA SSDs and SATA HDDs. It offers a 6 Gb/s connection to each drive and on the SR630 implements RAID levels 0, 1, 5, and 10. Hot-spare functionality is also supported.

VROC NVMe RAID offers RAID support for any NVMe drives directly connected to the ports on the server's system board or via adapters such as NVMe retimers or NVMe switch adapters. On the SR630, it implements RAID levels 0, 1, 5, and 10. Hot-spare functionality is also supported.

Performance tip: For best performance with VROC NVMe RAID, the drives in an array should all be connected to the same processor. Spanning processors is possible however performance will be unpredictable and should be evaluated based on your workload.

By default, VROC NVMe RAID support is limited to use with only Intel-branded NVMe drives (feature B9X7). If you wish to enable RAID support for non-Intel NVMe SSDs, select the VROC Premium license using the ordering information in the following table. VROC Premium is fulfilled as a Feature on Demand (FoD) license and is activated via the XCC management processor user interface.

Table 29. VROC upgrade

Part number	Feature code	Description
4L47A39164	B96G	Intel VROC (VMD NVMe RAID) Premium

VROC Premium is only needed for non-Intel NVMe drives in a RAID configuration. You do not need the VROC Premium license upgrade under any of the following conditions:

- If you have SATA drives connected to the onboard SATA ports, you do not need VROC Premium
- If you have Intel NVMe drives connected to the onboard NVMe ports, you do not need VROC Premium
- If you have non-Intel NVMe drives connected to the onboard NVMe ports, but you don't want RAID support, you do not need VROC Premium

Virtualization support: Virtualization support for Intel VROC is as follows:

- **VROC SATA RAID (RSTe):** VROC SATA RAID is not supported by virtualization hypervisors such as ESXi, KVM, Xen, and Hyper-V. Virtualization is only supported on the onboard SATA ports in AHCI (non-RAID) mode.
- **VROC (VMD) NVMe RAID:** VROC (VMD) NVMe RAID is supported by KVM, Xen, and Hyper-V. ESXi is currently not supported. Windows and Linux OSes support VROC RAID NVMe, both for host boot functions and for guest OS function, and RAID-0, 1, 5, and 10 are supported.

No ESXi support: VROC NVMe RAID on the SR650 and SR630 is based on VROC 7.5 firmware and is currently not generally supported with VMware ESXi. Only Windows, RHEL and SLES are supported. ESXi support is currently only available using an older VROC version and requires a factory build via a Special Bid order. Support of ESXi is planned for 1Q/2022.

Internal drive options

The following tables list the drive options for internal storage of the server.

2.5-inch hot-swap drives:

- 2.5-inch hot-swap 12 Gb SAS HDDs
- 2.5-inch hot-swap 6 Gb SATA HDDs
- 2.5-inch hot-swap 12 Gb SAS SSDs
- 2.5-inch hot-swap 6 Gb SATA SSDs
- 2.5-inch hot-swap PCIe 4.0 NVMe SSDs
- 2.5-inch hot-swap PCIe 3.0 NVMe SSDs

3.5-inch hot-swap drives:

- 3.5-inch hot-swap 12 Gb SAS HDDs
- 3.5-inch hot-swap 6 Gb SATA HDDs
- 3.5-inch hot-swap 12 Gb SAS SSDs
- 3.5-inch hot-swap 6 Gb SATA SSDs
- 3.5-inch hot-swap PCIe 4.0 NVMe SSDs
- 3.5-inch hot-swap PCIe 3.0 NVMe SSDs

M.2 drives:

- M.2 SATA drives

M.2 drive support: The use of M.2 drives requires an additional adapter as described in the [M.2 drives](#) subsection.

PCIe 4.0 NVMe drive support: When installed in this server, PCIe 4.0 NVMe drives will operate at PCIe 3.0 speeds.

Table 30. 2.5-inch hot-swap 12 Gb SAS HDDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap HDDs - 12 Gb SAS 10K			
7XB7A00024	AULY	ThinkSystem 2.5" 300GB 10K SAS 12Gb Hot Swap 512n HDD	12
7XB7A00025	AULZ	ThinkSystem 2.5" 600GB 10K SAS 12Gb Hot Swap 512n HDD	12
7XB7A00026	AUM0	ThinkSystem 2.5" 900GB 10K SAS 12Gb Hot Swap 512n HDD	12
7XB7A00027	AUM1	ThinkSystem 2.5" 1.2TB 10K SAS 12Gb Hot Swap 512n HDD	12
7XB7A00028	AUM2	ThinkSystem 2.5" 1.8TB 10K SAS 12Gb Hot Swap 512e HDD	12
7XB7A00069	B0YS	ThinkSystem 2.5" 2.4TB 10K SAS 12Gb Hot Swap 512e HDD	12
2.5-inch hot-swap HDDs - 12 Gb SAS 15K			
7XB7A00021	AULV	ThinkSystem 2.5" 300GB 15K SAS 12Gb Hot Swap 512n HDD	12
7XB7A00022	AULW	ThinkSystem 2.5" 600GB 15K SAS 12Gb Hot Swap 512n HDD	12
7XB7A00023	AULX	ThinkSystem 2.5" 900GB 15K SAS 12Gb Hot Swap 512e HDD	12
2.5-inch hot-swap HDDs - 12 Gb NL SAS			
7XB7A00034	AUM6	ThinkSystem 2.5" 1TB 7.2K SAS 12Gb Hot Swap 512n HDD	12
7XB7A00035	AUM7	ThinkSystem 2.5" 2TB 7.2K SAS 12Gb Hot Swap 512n HDD	12
2.5-inch hot-swap SED HDDs - 12 Gb SAS 10K			
7XB7A00030	AUM4	ThinkSystem 2.5" 300GB 10K SAS 12Gb Hot Swap 512n HDD SED	12
7XB7A00031	AUM5	ThinkSystem 2.5" 600GB 10K SAS 12Gb Hot Swap 512n HDD SED	12
7XB7A00033	B0YX	ThinkSystem 2.5" 1.2TB 10K SAS 12Gb Hot Swap 512n HDD SED	12
7XB7A00070	B0YV	ThinkSystem 2.5" 2.4TB 10K SAS 12Gb Hot Swap 512e HDD FIPS	12
2.5-inch hot-swap SED HDDs - 12 Gb NL SAS			
7XB7A00064	B0YM	ThinkSystem 2.5" 2TB 7.2K SAS 12Gb Hot Swap 512e HDD FIPS	12

Table 31. 2.5-inch hot-swap 6 Gb SATA HDDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap HDDs - 6 Gb NL SATA			
7XB7A00036	AUUE	ThinkSystem 2.5" 1TB 7.2K SATA 6Gb Hot Swap 512n HDD	12
7XB7A00037	AUJJ	ThinkSystem 2.5" 2TB 7.2K SATA 6Gb Hot Swap 512e HDD	12

Table 32. 2.5-inch hot-swap 12 Gb SAS SSDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap SSDs - 12 Gb SAS - Write Intensive/Performance (10+ DDPD)			
4XB7A70006	BG07	ThinkSystem 2.5" Nytro 3732 400GB Performance SAS 12Gb Hot Swap SSD	12
4XB7A70005	BG06	ThinkSystem 2.5" Nytro 3732 800GB Performance SAS 12Gb Hot Swap SSD	12
4XB7A70004	BG05	ThinkSystem 2.5" Nytro 3732 1.6TB Performance SAS 12Gb Hot Swap SSD	12
4XB7A70003	BG04	ThinkSystem 2.5" Nytro 3732 3.2TB Performance SAS 12Gb Hot Swap SSD	12
4XB7A10230	B4Y5	ThinkSystem 2.5" SS530 800GB Performance SAS 12Gb Hot Swap SSD	12
2.5-inch hot-swap SSDs - 12 Gb SAS - Mixed Use/Mainstream (3-5 DDPD)			
4XB7A17062	B8HU	ThinkSystem 2.5" PM1645a 800GB Mainstream SAS 12Gb Hot Swap SSD	12
4XB7A17063	B8J4	ThinkSystem 2.5" PM1645a 1.6TB Mainstream SAS 12Gb Hot Swap SSD	12
4XB7A17064	B8JD	ThinkSystem 2.5" PM1645a 3.2TB Mainstream SAS 12Gb Hot Swap SSD	12
4XB7A17065	B8JA	ThinkSystem 2.5" PM1645a 6.4TB Mainstream SAS 12Gb Hot Swap SSD	12
4XB7A13655	B4A2	ThinkSystem 2.5" PM1645 3.2TB Mainstream SAS 12Gb Hot Swap SSD	12
2.5-inch hot-swap SSDs - 12 Gb SAS - Read Intensive/Entry/Capacity (<3 DDPD)			
4XB7A38175	B91A	ThinkSystem 2.5" PM1643a 960GB Entry SAS 12Gb Hot Swap SSD	12
4XB7A38176	B91B	ThinkSystem 2.5" PM1643a 1.92TB Entry SAS 12Gb Hot Swap SSD	12
4XB7A17054	B91C	ThinkSystem 2.5" PM1643a 3.84TB Entry SAS 12Gb Hot Swap SSD	12
4XB7A17055	B91D	ThinkSystem 2.5" PM1643a 7.68TB Entry SAS 12Gb Hot Swap SSD	12
4XB7A17056	BC4R	ThinkSystem 2.5" PM1643a 15.36TB Entry SAS 12Gb Hot Swap SSD	12
2.5-inch hot-swap SED SSDs - 12 Gb SAS - Write Intensive/Performance (10+ DDPD)			
4XB7A70007	BFZZ	ThinkSystem 2.5" Nytro 3732 800GB Performance SAS 12Gb Hot Swap SSD SED	12

Table 33. 2.5-inch hot-swap 6 Gb SATA SSDs

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap SSDs - 6 Gb SATA - Mixed Use/Mainstream (3-5 DDPD)			
4XB7A17125	BA7Q	ThinkSystem 2.5" S4620 480GB Mixed Use SATA 6Gb HS SSD	12
4XB7A17126	BA4T	ThinkSystem 2.5" S4620 960GB Mixed Use SATA 6Gb HS SSD	12
4XB7A17127	BA4U	ThinkSystem 2.5" S4620 1.92TB Mixed Use SATA 6Gb HS SSD	12
4XB7A17128	BK7L	ThinkSystem 2.5" S4620 3.84TB Mixed Use SATA 6Gb HS SSD	12
4XB7A17087	B8J1	ThinkSystem 2.5" 5300 240GB Mainstream SATA 6Gb Hot Swap SSD	12
4XB7A17088	B8HY	ThinkSystem 2.5" 5300 480GB Mainstream SATA 6Gb Hot Swap SSD	12
4XB7A17089	B8J6	ThinkSystem 2.5" 5300 960GB Mainstream SATA 6Gb Hot Swap SSD	12
4XB7A17090	B8JE	ThinkSystem 2.5" 5300 1.92TB Mainstream SATA 6Gb Hot Swap SSD	12
4XB7A17091	B8J7	ThinkSystem 2.5" 5300 3.84TB Mainstream SATA 6Gb Hot Swap SSD	12
4XB7A13633	B49L	ThinkSystem 2.5" S4610 240GB Mixed Use SATA 6Gb HS SSD	12
4XB7A13634	B49M	ThinkSystem 2.5" S4610 480GB Mixed Use SATA 6Gb HS SSD	12
4XB7A13635	B49N	ThinkSystem 2.5" S4610 960GB Mixed Use SATA 6Gb HS SSD	12

Part number	Feature	Description	Maximum supported
4XB7A13636	B49P	ThinkSystem 2.5" S4610 1.92TB Mixed Use SATA 6Gb HS SSD	12
4XB7A13637	B49Q	ThinkSystem 2.5" S4610 3.84TB Mixed Use SATA 6Gb HS SSD	12
2.5-inch hot-swap SSDs - 6 Gb SATA - Read Intensive/Entry (<3 DWPD)			
4XB7A72438	BM8B	ThinkSystem 2.5" PM893 480GB Read Intensive SATA 6Gb HS SSD	12
4XB7A72439	BM8A	ThinkSystem 2.5" PM893 960GB Read Intensive SATA 6Gb HS SSD	12
4XB7A72440	BM89	ThinkSystem 2.5" PM893 1.92TB Read Intensive SATA 6Gb HS SSD	12
4XB7A72441	BM88	ThinkSystem 2.5" PM893 3.84TB Read Intensive SATA 6Gb HS SSD	12
4XB7A72442	BM87	ThinkSystem 2.5" PM893 7.68TB Read Intensive SATA 6Gb HS SSD	12
4XB7A17072	B99D	ThinkSystem 2.5" S4520 240GB Read Intensive SATA 6Gb HS SSD	12
4XB7A17101	BA7G	ThinkSystem 2.5" S4520 480GB Read Intensive SATA 6Gb HS SSD	12
4XB7A17102	BA7H	ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD	12
4XB7A17103	BA7J	ThinkSystem 2.5" S4520 1.92TB Read Intensive SATA 6Gb HS SSD	12
4XB7A17104	BK77	ThinkSystem 2.5" S4520 3.84TB Read Intensive SATA 6Gb HS SSD	12
4XB7A17105	BK78	ThinkSystem 2.5" S4520 7.68TB Read Intensive SATA 6Gb HS SSD	12
4XB7A38271	BCTC	ThinkSystem 2.5" Multi Vendor 240GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A38272	BCTD	ThinkSystem 2.5" Multi Vendor 480GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A38273	BCTE	ThinkSystem 2.5" Multi Vendor 960GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A38274	BCTF	ThinkSystem 2.5" Multi Vendor 1.92TB Entry SATA 6Gb Hot Swap SSD	12
4XB7A38275	BCTG	ThinkSystem 2.5" Multi Vendor 3.84TB Entry SATA 6Gb Hot Swap SSD	12
4XB7A17075	B8HV	ThinkSystem 2.5" 5300 240GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A17076	B8JM	ThinkSystem 2.5" 5300 480GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A17077	B8HP	ThinkSystem 2.5" 5300 960GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A17078	B8J5	ThinkSystem 2.5" 5300 1.92TB Entry SATA 6Gb Hot Swap SSD	12
4XB7A17079	B8JP	ThinkSystem 2.5" 5300 3.84TB Entry SATA 6Gb Hot Swap SSD	12
4XB7A17080	B8J2	ThinkSystem 2.5" 5300 7.68TB Entry SATA 6Gb Hot Swap SSD	12
4XB7A38185	B9AC	ThinkSystem 2.5" 5210 960GB Entry SATA 6Gb Hot Swap QLC SSD	12
4XB7A38144	B7EW	ThinkSystem 2.5" 5210 1.92TB Entry SATA 6Gb Hot Swap QLC SSD	12
4XB7A38145	B7EX	ThinkSystem 2.5" 5210 3.84TB Entry SATA 6Gb Hot Swap QLC SSD	12
4XB7A38146	B7EY	ThinkSystem 2.5" 5210 7.68TB Entry SATA 6Gb Hot Swap QLC SSD	12
4XB7A10247	B498	ThinkSystem 2.5" S4510 240GB Read Intensive SATA 6Gb HS SSD	12
4XB7A10248	B499	ThinkSystem 2.5" S4510 480GB Read Intensive SATA 6Gb HS SSD	12
4XB7A10249	B49A	ThinkSystem 2.5" S4510 960GB Read Intensive SATA 6Gb HS SSD	12
4XB7A13622	B49B	ThinkSystem 2.5" S4510 1.92TB Read Intensive SATA 6Gb HS SSD	12
4XB7A13623	B49C	ThinkSystem 2.5" S4510 3.84TB Read Intensive SATA 6Gb HS SSD	12
4XB7A10195	B34H	ThinkSystem 2.5" PM883 240GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A10196	B34J	ThinkSystem 2.5" PM883 480GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A10197	B34K	ThinkSystem 2.5" PM883 960GB Entry SATA 6Gb Hot Swap SSD	12
4XB7A10198	B34L	ThinkSystem 2.5" PM883 1.92TB Entry SATA 6Gb Hot Swap SSD	12
4XB7A10199	B34M	ThinkSystem 2.5" PM883 3.84TB Entry SATA 6Gb Hot Swap SSD	12
4XB7A10200	B4D2	ThinkSystem 2.5" PM883 7.68TB Entry SATA 6Gb Hot Swap SSD	12

Part number	Feature	Description	Maximum supported
2.5-inch hot-swap SED SSDs - 6 Gb SATA - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A13972	BNEW	ThinkSystem 2.5" 5300 960GB Mainstream SATA 6Gb Hot Swap SSD SED	12
4XB7A38193	B93K	ThinkSystem 2.5" 5300 1.92TB Mainstream SATA 6Gb Hot Swap SSD SED	12
4XB7A64222	BEMB	ThinkSystem 2.5" 5300 3.84TB Mainstream SATA 6Gb Hot Swap SSD SED	12
2.5-inch hot-swap SED SSDs - 6 Gb SATA - Read Intensive/Entry (<3 DWPD)			
4XB7A38141	BE29	ThinkSystem 2.5" 5300 960GB Entry SATA 6Gb Hot Swap SSD SED	12
4XB7A38191	B93L	ThinkSystem 2.5" 5300 3.84TB Entry SATA 6Gb Hot Swap SSD SED	12
4XB7A38192	B93M	ThinkSystem 2.5" 5300 7.68TB Entry SATA 6Gb Hot Swap SSD SED	12

Table 34. 2.5-inch hot-swap PCIe 4.0 NVMe SSDs (operate at PCIe 3.0 speeds in this server)

Part number	Feature	Description	Maximum supported
2.5-inch SSDs - U.2 PCIe 4.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A17152	BCFV	ThinkSystem 2.5" U.2 P5600 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10
4XB7A17153	BCFR	ThinkSystem 2.5" U.2 P5600 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10
4XB7A17154	BCFS	ThinkSystem 2.5" U.2 P5600 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	10
2.5-inch SSDs - U.3 PCIe 4.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A64175	BE03	ThinkSystem U.3 Kioxia CM6-V 800GB Mainstream NVMe PCIe 4.0 x4 Hot Swap SSD	10
4XB7A17112	B96Z	ThinkSystem U.3 Kioxia CM6-V 1.6TB Mainstream NVMe PCIe4.0 x4 Hot Swap SSD	10
4XB7A17113	B96T	ThinkSystem U.3 Kioxia CM6-V 3.2TB Mainstream NVMe PCIe4.0 x4 Hot Swap SSD	10
4XB7A17114	B96P	ThinkSystem U.3 Kioxia CM6-V 6.4TB Mainstream NVMe PCIe4.0 x4 Hot Swap SSD	10
2.5-inch SSDs - U.2 PCIe 4.0 NVMe - Read Intensive/Entry (<3 DWPD)			
4XB7A17145	BCFT	ThinkSystem 2.5" U.2 P5500 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10
4XB7A17146	BCFW	ThinkSystem 2.5" U.2 P5500 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10
4XB7A17147	BCFU	ThinkSystem 2.5" U.2 P5500 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	10
4XB7A38197	BC4Z	ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD	10
4XB7A38283	BE2E	ThinkSystem U.2 PM1733 7.68TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD	10
4XB7A38284	BE2F	ThinkSystem U.2 PM1733 15.36TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD	10
2.5-inch SSDs - U.3 PCIe 4.0 NVMe - Read Intensive/Entry (<3 DWPD)			
4XB7A64141	BE2G	ThinkSystem U.3 Kioxia CM6-R 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD	10
4XB7A64142	BE2H	ThinkSystem U.3 Kioxia CM6-R 7.68TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD	10
2.5-inch SED SSDs - U.2 PCIe 4.0 NVMe - Read Intensive/Entry (<3 DWPD)			
4XB7A38257	BE2A	ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD SED	10
4XB7A38258	BE2B	ThinkSystem U.2 PM1733 7.68TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD SED	10
2.5-inch SED SSDs - U.3 PCIe 4.0 NVMe - Read Intensive/Entry (<3 DWPD)			
4XB7A38269	BE2C	ThinkSystem U.3 Kioxia CM6-R 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD SED	10
4XB7A38270	BE2D	ThinkSystem U.3 Kioxia CM6-R 7.68TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD SED	10

Table 35. 2.5-inch hot-swap PCIe 3.0 NVMe SSDs

Part number	Feature	Description	Maximum supported
2.5-inch SSDs - U.2 PCIe 3.0 NVMe - Write Intensive/Performance (10+ DWPD)			
7N47A00081	AUMJ	ThinkSystem 2.5" U.2 P4800X 375GB Write Intensive NVMe PCIe 3.0 x4 HS SSD	10
7N47A00083	B2ZJ	ThinkSystem 2.5" U.2 P4800X 750GB Write Intensive NVMe PCIe 3.0 x4 HS SSD	10
2.5-inch SSDs - U.2 PCIe 3.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A13936	B589	ThinkSystem U.2 Intel P4610 1.6TB Mainstream NVMe PCIe3.0 x4 Hot Swap SSD	10
4XB7A08518	B21Y	ThinkSystem U.2 Toshiba CM5-V 3.2TB Mainstream NVMe PCIe 3.0 x4 Hot Swap SSD	10
2.5-inch SSDs - U.2 PCIe 3.0 NVMe - Read Intensive/Entry (<3 DWPD)			
4XB7A10204	B58G	ThinkSystem 2.5" U.2 P4510 2.0TB Read Intensive NVMe PCIe 3.0 x4 HS SSD	10
4XB7A10205	B58H	ThinkSystem U.2 Intel P4510 4.0TB Entry NVMe PCIe3.0 x4 Hot Swap SSD	10
4XB7A08513	B58J	ThinkSystem U.2 Intel P4510 8.0TB Entry NVMe PCIe3.0 x4 Hot Swap SSD	10
4XB7A10175	B34N	ThinkSystem U.2 PM983 1.92TB Entry NVMe PCIe 3.0 x4 Hot Swap SSD	10
4XB7A10176	B34P	ThinkSystem U.2 PM983 3.84TB Entry NVMe PCIe 3.0 x4 Hot Swap SSD	10
4XB7A10177	B4D3	ThinkSystem U.2 PM983 7.68TB Entry NVMe PCIe3.0 x4 Hot Swap SSD	10

Note: NVMe PCIe SSDs support surprise hot removal and hot insertion, provided the operating system supports PCIe SSD hot-swap.

Table 36. 3.5-inch hot-swap 12 Gb SAS HDDs

Part number	Feature	Description	Maximum supported
3.5-inch hot-swap HDDs - 12 Gb SAS 10K			
7XB7A00063	B1JJ	ThinkSystem 3.5" 300GB 10K SAS 12Gb Hot Swap 512n HDD	4
3.5-inch hot-swap HDDs - 12 Gb SAS 15K			
7XB7A00038	AUU2	ThinkSystem 3.5" 300GB 15K SAS 12Gb Hot Swap 512n HDD	4
7XB7A00039	AUU3	ThinkSystem 3.5" 600GB 15K SAS 12Gb Hot Swap 512n HDD	4
7XB7A00040	AUUC	ThinkSystem 3.5" 900GB 15K SAS 12Gb Hot Swap 512e HDD	4
3.5-inch hot-swap HDDs - 12 Gb NL SAS			
7XB7A00041	AUU4	ThinkSystem 3.5" 1TB 7.2K SAS 12Gb Hot Swap 512n HDD	4
7XB7A00042	AUU5	ThinkSystem 3.5" 2TB 7.2K SAS 12Gb Hot Swap 512n HDD	4
7XB7A00043	AUU6	ThinkSystem 3.5" 4TB 7.2K SAS 12Gb Hot Swap 512n HDD	4
7XB7A00044	AUU7	ThinkSystem 3.5" 6TB 7.2K SAS 12Gb Hot Swap 512e HDD	4
7XB7A00045	B0YR	ThinkSystem 3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD	4
7XB7A00046	AUUG	ThinkSystem 3.5" 10TB 7.2K SAS 12Gb Hot Swap 512e HDD	4
7XB7A00067	B117	ThinkSystem 3.5" 12TB 7.2K SAS 12Gb Hot Swap 512e HDD	4
4XB7A13906	B496	ThinkSystem 3.5" 14TB 7.2K SAS 12Gb Hot Swap 512e HDD	4
4XB7A13911	B7EZ	ThinkSystem 3.5" 16TB 7.2K SAS 12Gb Hot Swap 512e HDD	4
4XB7A38266	BCFP	ThinkSystem 3.5" 18TB 7.2K SAS 12Gb Hot Swap 512e HDD	4
3.5-inch hot-swap SED HDDs - 12 Gb NL SAS			
7XB7A00065	B0YN	ThinkSystem 3.5" 2TB 7.2K SAS 12Gb Hot Swap 512e HDD FIPS	4
7XB7A00047	AUUH	ThinkSystem 3.5" 4TB 7.2K SAS 12Gb Hot Swap 512n HDD FIPS	4
7XB7A00048	B0YP	ThinkSystem 3.5" 6TB 7.2K SAS 12Gb Hot Swap 512e HDD FIPS	4
7XB7A00066	B0YQ	ThinkSystem 3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD FIPS	4

Table 37. 3.5-inch hot-swap 6 Gb SATA HDDs

Part number	Feature	Description	Maximum supported
3.5-inch hot-swap HDDs - 6 Gb NL SATA			
7XB7A00049	AUUF	ThinkSystem 3.5" 1TB 7.2K SATA 6Gb Hot Swap 512n HDD	4
7XB7A00050	AUUD	ThinkSystem 3.5" 2TB 7.2K SATA 6Gb Hot Swap 512n HDD	4
7XB7A00051	AUU8	ThinkSystem 3.5" 4TB 7.2K SATA 6Gb Hot Swap 512n HDD	4
7XB7A00052	AUUA	ThinkSystem 3.5" 6TB 7.2K SATA 6Gb Hot Swap 512e HDD	4
7XB7A00053	AUU9	ThinkSystem 3.5" 8TB 7.2K SATA 6Gb Hot Swap 512e HDD	4
7XB7A00054	AUUB	ThinkSystem 3.5" 10TB 7.2K SATA 6Gb Hot Swap 512e HDD	4
7XB7A00068	B118	ThinkSystem 3.5" 12TB 7.2K SATA 6Gb Hot Swap 512e HDD	4
4XB7A13907	B497	ThinkSystem 3.5" 14TB 7.2K SATA 6Gb Hot Swap 512e HDD	4
4XB7A13914	B7F0	ThinkSystem 3.5" 16TB 7.2K SATA 6Gb Hot Swap 512e HDD	4
4XB7A38130	BCFH	ThinkSystem 3.5" 18TB 7.2K SATA 6Gb Hot Swap 512e HDD	4

Table 38. 3.5-inch hot-swap 12 Gb SAS SSDs

Part number	Feature	Description	Maximum supported
3.5-inch hot-swap SSDs - 12 Gb SAS - Write Intensive/Performance (10+ DWPD)			
4XB7A70011	BG03	ThinkSystem 3.5" Nytro 3732 400GB Performance SAS 12Gb Hot Swap SSD	4
4XB7A70010	BG02	ThinkSystem 3.5" Nytro 3732 800GB Performance SAS 12Gb Hot Swap SSD	4
4XB7A70009	BG01	ThinkSystem 3.5" Nytro 3732 1.6TB Performance SAS 12Gb Hot Swap SSD	4
4XB7A70008	BG00	ThinkSystem 3.5" Nytro 3732 3.2TB Performance SAS 12Gb Hot Swap SSD	4
4XB7A10234	B4Y8	ThinkSystem 3.5" SS530 800GB Performance SAS 12Gb Hot Swap SSD	4
3.5-inch hot-swap SSDs - 12 Gb SAS - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A17066	B8HT	ThinkSystem 3.5" PM1645a 800GB Mainstream SAS 12Gb Hot Swap SSD	4
4XB7A17043	B8JN	ThinkSystem 3.5" PM1645a 1.6TB Mainstream SAS 12Gb Hot Swap SSD	4
4XB7A17067	B8JK	ThinkSystem 3.5" PM1645a 3.2TB Mainstream SAS 12Gb Hot Swap SSD	4
4XB7A17068	B8JG	ThinkSystem 3.5" PM1645a 6.4TB Mainstream SAS 12Gb Hot Swap SSD	4
4XB7A13659	B4A5	ThinkSystem 3.5" PM1645 3.2TB Mainstream SAS 12Gb Hot Swap SSD	4
3.5-inch hot-swap SSDs - 12 Gb SAS - Read Intensive/Entry/Capacity (<3 DWPD)			
4XB7A17058	B91E	ThinkSystem 3.5" PM1643a 3.84TB Entry SAS 12Gb Hot Swap SSD	4
4XB7A17059	BEVK	ThinkSystem 3.5" PM1643a 7.68TB Entry SAS 12Gb Hot Swap SSD	4

Table 39. 3.5-inch hot-swap 6 Gb SATA SSDs

Part number	Feature	Description	Maximum supported
3.5-inch hot-swap SSDs - 6 Gb SATA - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A17137	BA4W	ThinkSystem 3.5" S4620 480GB Mixed Use SATA 6Gb HS SSD	4
4XB7A17138	BA4X	ThinkSystem 3.5" S4620 960GB Mixed Use SATA 6Gb HS SSD	4
4XB7A17139	BA4Y	ThinkSystem 3.5" S4620 1.92TB Mixed Use SATA 6Gb HS SSD	4
4XB7A17140	BK7P	ThinkSystem 3.5" S4620 3.84TB Mixed Use SATA 6Gb HS SSD	4
4XB7A17096	B8JL	ThinkSystem 3.5" 5300 240GB Mainstream SATA 6Gb Hot Swap SSD	4
4XB7A17097	B8JF	ThinkSystem 3.5" 5300 480GB Mainstream SATA 6Gb Hot Swap SSD	4
4XB7A17098	B8J0	ThinkSystem 3.5" 5300 960GB Mainstream SATA 6Gb Hot Swap SSD	4
4XB7A17099	B8HR	ThinkSystem 3.5" 5300 1.92TB Mainstream SATA 6Gb Hot Swap SSD	4
4XB7A17100	B8HX	ThinkSystem 3.5" 5300 3.84TB Mainstream SATA 6Gb Hot Swap SSD	4
4XB7A13639	B49R	ThinkSystem 3.5" S4610 240GB Mixed Use SATA 6Gb HS SSD	4
4XB7A13640	B49S	ThinkSystem 3.5" S4610 480GB Mixed Use SATA 6Gb HS SSD	4
4XB7A13641	B49T	ThinkSystem 3.5" S4610 960GB Mixed Use SATA 6Gb HS SSD	4
4XB7A13642	B49U	ThinkSystem 3.5" S4610 1.92TB Mixed Use SATA 6Gb HS SSD	4
4XB7A13643	B49V	ThinkSystem 3.5" S4610 3.84TB Mixed Use SATA 6Gb HS SSD	4
3.5-inch hot-swap SSDs - 6 Gb SATA - Read Intensive/Entry (<3 DWPD)			
4XB7A17118	BA7K	ThinkSystem 3.5" S4520 240GB Read Intensive SATA 6Gb HS SSD	4
4XB7A17119	BA7L	ThinkSystem 3.5" S4520 480GB Read Intensive SATA 6Gb HS SSD	4

Part number	Feature	Description	Maximum supported
4XB7A17120	BA7M	ThinkSystem 3.5" S4520 960GB Read Intensive SATA 6Gb HS SSD	4
4XB7A17121	BA7N	ThinkSystem 3.5" S4520 1.92TB Read Intensive SATA 6Gb HS SSD	4
4XB7A17122	BK7F	ThinkSystem 3.5" S4520 3.84TB Read Intensive SATA 6Gb HS SSD	4
4XB7A17123	BK7G	ThinkSystem 3.5" S4520 7.68TB Read Intensive SATA 6Gb HS SSD	4
4XB7A38276	BCTH	ThinkSystem 3.5" Multi Vendor 240GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A38277	BCTJ	ThinkSystem 3.5" Multi Vendor 480GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A38278	BCTK	ThinkSystem 3.5" Multi Vendor 960GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A38279	BCTL	ThinkSystem 3.5" Multi Vendor 1.92TB Entry SATA 6Gb Hot Swap SSD	4
4XB7A38281	BCTM	ThinkSystem 3.5" Multi Vendor 3.84TB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17081	B8JB	ThinkSystem 3.5" 5300 240GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17082	B8J9	ThinkSystem 3.5" 5300 480GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17083	B8JC	ThinkSystem 3.5" 5300 960GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17084	B8HZ	ThinkSystem 3.5" 5300 1.92TB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17085	B8HQ	ThinkSystem 3.5" 5300 3.84TB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17086	B8J3	ThinkSystem 3.5" 5300 7.68TB Entry SATA 6Gb Hot Swap SSD	4
4XB7A13625	B49D	ThinkSystem 3.5" S4510 240GB Read Intensive SATA 6Gb HS SSD	4
4XB7A13626	B49E	ThinkSystem 3.5" S4510 480GB Read Intensive SATA 6Gb HS SSD	4
4XB7A13627	B49F	ThinkSystem 3.5" S4510 960GB Read Intensive SATA 6Gb HS SSD	4
4XB7A13628	B49G	ThinkSystem 3.5" S4510 1.92TB Read Intensive SATA 6Gb HS SSD	4
4XB7A13629	B49H	ThinkSystem 3.5" S4510 3.84TB Read Intensive SATA 6Gb HS SSD	4
4XB7A17176	B6TM	ThinkSystem 3.5" PM883 240GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17177	B6TN	ThinkSystem 3.5" PM883 480GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17178	B6TP	ThinkSystem 3.5" PM883 960GB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17179	B6JY	ThinkSystem 3.5" PM883 1.92TB Entry SATA 6Gb Hot Swap SSD	4
4XB7A17180	B6JZ	ThinkSystem 3.5" PM883 3.84TB Entry SATA 6Gb Hot Swap SSD	4

Table 40. 3.5-inch hot-swap PCIe 4.0 NVMe SSDs (operate at PCIe 3.0 speeds in this server)

Part number	Feature	Description	Maximum supported
3.5-inch SSDs - U.2 PCIe 4.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A17155	BCFM	ThinkSystem 3.5" U.2 P5600 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	4
4XB7A17156	BCFJ	ThinkSystem 3.5" U.2 P5600 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	4
4XB7A17157	BCFQ	ThinkSystem 3.5" U.2 P5600 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	4
3.5-inch SSDs - U.3 PCIe 4.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A64176	BE04	ThinkSystem 3.5" Kioxia CM6-V 800GB Mainstream NVMe PCIe 4.0 x4 Hot Swap SSD	4
4XB7A17115	B96V	ThinkSystem 3.5" Kioxia CM6-V 1.6TB Mainstream NVMe PCIe4.0 x4 Hot Swap SSD	4
4XB7A17116	B96K	ThinkSystem 3.5" Kioxia CM6-V 3.2TB Mainstream NVMe PCIe4.0 x4 Hot Swap SSD	4
4XB7A17117	B96W	ThinkSystem 3.5" Kioxia CM6-V 6.4TB Mainstream NVMe PCIe4.0 x4 Hot Swap SSD	4

Note: NVMe PCIe SSDs support surprise hot removal and hot insertion, provided the operating system supports PCIe SSD hot-swap.

Table 41. 3.5-inch hot-swap PCIe 3.0 NVMe SSDs

Part number	Feature	Description	Maximum supported
3.5-inch SSDs - U.2 PCIe 3.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)			
4XB7A13944	B58C	ThinkSystem 3.5" Intel P4610 1.6TB Mainstream NVMe PCIe3.0 x4 Hot Swap SSD	4
4XB7A08534	B221	ThinkSystem 3.5" Toshiba CM5-V 3.2TB Mainstream NVMe PCIe 3.0 x4 Hot Swap SSD	4
3.5-inch SSDs - U.2 PCIe 3.0 NVMe - Read Intensive/Entry (<3 DWPD)			
4XB7A10178	B34Q	ThinkSystem 3.5" PM983 1.92TB Entry NVMe PCIe 3.0 x4 Hot Swap SSD	4
4XB7A10179	B34R	ThinkSystem 3.5" PM983 3.84TB Entry NVMe PCIe 3.0 x4 Hot Swap SSD	4
4XB7A10180	B4D4	ThinkSystem 3.5" PM983 7.68TB Entry NVMe PCIe3.0 x4 Hot Swap SSD	4

Note: NVMe PCIe SSDs support surprise hot removal and hot insertion, provided the operating system supports PCIe SSD hot-swap.

Table 42. M.2 SATA drives

Part number	Feature	Description	Maximum supported
M.2 SSDs - 6 Gb SATA - Read Intensive/Entry (<3 DWPD)			
7N47A00129	AUUL	ThinkSystem M.2 32GB SATA 6Gbps Non-Hot Swap SSD	2
7N47A00130	AUUV	ThinkSystem M.2 128GB SATA 6Gbps Non-Hot Swap SSD	2
4XB7A17071	B8HS	ThinkSystem M.2 5300 240GB SATA 6Gbps Non-Hot Swap SSD	2
4XB7A17073	B919	ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD	2

USB memory key

For general portable storage needs, the server also supports the USB memory key option that is listed in the following table.

Table 43. USB memory key

Part number	Feature	Description
4X77A08621	B8NV	ThinkSystem 32GB USB Flash Drive

Optical drives

The server supports the external USB optical drive listed in the following table.

Table 44. External optical drive

Part number	Feature code	Description
7XA7A05926	AVV8	ThinkSystem External USB DVD RW Optical Disk Drive

The drive is based on the Lenovo Slim DVD Burner DB65 drive and supports the following formats: DVD-RAM, DVD-RW, DVD+RW, DVD+R, DVD-R, DVD-ROM, DVD-R DL, CD-RW, CD-R, CD-ROM.

I/O expansion

The SR630 server supports one LOM card slot and up to four PCIe slots: one slot on the system planar that is dedicated to an internal storage controller and up to three PCIe slots with different riser cards installed into two riser sockets on the system planar (one riser socket supports installation of one riser card).

The slot form factors are as follows:

- LOM card slot
- Slot 1: PCIe 3.0 x8, ML2 x8, or ML2 x16; low profile
- Slot 2: PCIe 3.0 x16 or x8; low profile or full-height, half-length
- Slot 3: PCIe 3.0 x16; low profile
- Slot 4: PCIe 3.0 x8 (dedicated to an internal storage controller)

Configuration notes:

- Slot 3 requires the second processor to be installed.
- Slots 1 and 2 are not present if the Rear HDD Kit is installed.
- The COM Port Upgrade Kit is installed in place of one of the PCIe slots 1, 2, or 3.

The locations of the PCIe slots are shown in the following figure.

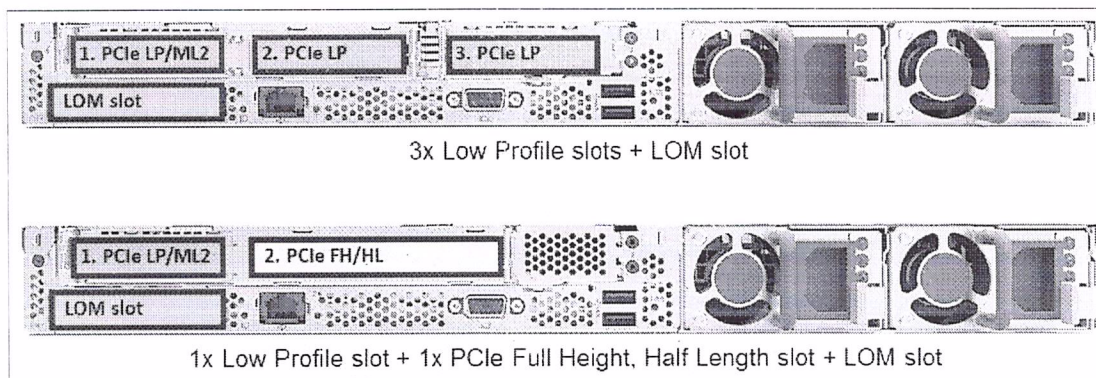


Figure 9. Slot locations

Riser 1 supplies slots 1 and 2, and Riser 2 supplies slot 3. The slots that are available for use depend on the number of riser cards that are installed and whether the second processor is installed, as shown in the following table.

Table 45. Slots available for use

Riser Card 1	Riser Card 2	Slots available for use	
		Processor 1	Processor 2
None	None	LOM, 4	-
None	PCIe x16	LOM, 4	3
PCIe x8/x16, PCIe x8ML2/x16, or PCIe x16ML2/x8	None	LOM, 1, 2, 4	-
PCIe x8/x16, PCIe x8ML2/x16, or PCIe x16ML2/x8	PCIe x16	LOM, 1, 2, 4	3

The following table lists available PCIe riser card options.

Table 46. PCIe riser cards and miscellaneous options

Part number	Feature code	Description	Maximum quantity
x8 Riser Card 1 options (Riser card 1 supplies slots 1 and 2)			
7XH7A02682	AUWC	ThinkSystem SR530/SR570/SR630 x8/x16 PCIe LP+LP Riser 1 Kit	1
7XH7A05893	None*	ThinkSystem SR530/SR570/SR630 x8/x16 PCIe LP+FH Riser 1 Kit	1
7XH7A02683	AUWE	ThinkSystem SR630 x8ML2/x16 PCIe LP+LP Riser 1 Kit	1
7XH7A05894	None*	ThinkSystem SR630 x8ML2/x16 PCIe LP+FH Riser 1 Kit	1
7XH7A02684	AUWD	ThinkSystem SR630 x16ML2/x8 PCIe LP+LP Riser 1 Kit	1
7XH7A05895	None*	ThinkSystem SR630 x16ML2/x8 PCIe LP+FH Riser 1 Kit	1
Riser Card 2 option (Riser card 2 supplies slot 3)			
7XH7A02685	AUWA	ThinkSystem SR530/SR570/SR630 x16 PCIe LP Riser 2 Kit	1
Serial port upgrade kit			
4Z17A80446	BMNJ	ThinkSystem COM Port Upgrade Kit v2	
7Z17A02577	AUSL	ThinkSystem COM Port Upgrade Kit	1

* The LP+FH Riser 1 can be factory-installed by selecting the feature codes of the LP+LP Riser 1 (AUWC, AUWD, or AUWE) and LP+FH Bracket (AUWS).

The COM Port Upgrade Kit, part number 7Z17A02577, is used for mounting the external serial port on the rear of the SR630. This option includes the bracket and the cable. The COM Port option is mounted in place of one of the PCIe slots 1, 2, or 3.

Network adapters

The SR630 server supports up to four onboard network ports with optional LOM cards that use the Intel Ethernet Connection X722 1/10 GbE technology integrated into the Intel C624 Platform Controller Hub (PCH). The server also supports ML2 adapters that are installed in the custom ML2 slot provided by an ML2 riser card. The LOM cards and ML2 network adapters support direct connectivity to the XClarity Controller via the Network Controller Sideband Interface (NSCI) for out-of-band systems management.

The integrated Intel Ethernet Connection X722 has the following features:

- Four 1/10 Gb Ethernet capable ports (no 10/100 Mb Ethernet support)
- NIC Teaming (load balancing and failover)
- Data Center Bridging
- iWARP (RDMA over IP)
- VMDq and SR-IOV virtualization (10 Gb speeds only, 4 PFs, 128 VFs per device)
- IEEE 802.1q Virtual Local Area Networks (VLANs)
- NVGRE, VXLAN, IPinGRE, and MACinUDP network virtualization
- IEEE 802.1Qbg Edge Virtual Bridging
- TCP, IP, and UDP checksum offload
- Large Send Offload (LSO) and Generic Send Offload (GSO)
- Receive Side Scaling (RSS) for TCP and UDP traffic
- Jumbo frames up to 9.5 Kbytes

The following table lists the network adapters that are supported with the SR630 server.

Table 47. Network adapters

Part number	Feature code	Description	Max qty#	I/O slots supported
LOM cards - Gigabit Ethernet				
7ZT7A00544	AUKG	ThinkSystem 1Gb 2-port RJ45 LOM	1	LOM slot
7ZT7A00545	AUKH	ThinkSystem 1Gb 4-port RJ45 LOM	1	LOM slot
LOM cards - 10 Gb Ethernet				
7ZT7A00548	AUKL	ThinkSystem 10Gb 2-port Base-T LOM	1	LOM slot
7ZT7A00546	AUKJ	ThinkSystem 10Gb 2-port SFP+ LOM	1*	LOM slot
7ZT7A00549	AUKM	ThinkSystem 10Gb 4-port Base-T LOM	1	LOM slot
7ZT7A00547	AUKK	ThinkSystem 10Gb 4-port SFP+ LOM	1*	LOM slot
ML2 adapters - Gigabit Ethernet				
7ZT7A00536	AUKW	ThinkSystem Intel I350-T4 ML2 1Gb 4-Port RJ45 Ethernet Adapter	1	1 (ML2)
ML2 adapters - 10 Gb Ethernet				
7ZT7A00497	AUKQ	Broadcom NX-E ML2 10Gb 2-Port Base-T Ethernet Adapter	1	1 (ML2)
01CV770	AU7Z	Emulex VFA5.2 ML2 2x10 GbE SFP+ Adapter and FCoE/iSCSI SW	1*	1 (ML2)
00JY940	ATRH	Intel X710-DA2 ML2 2x10GbE SFP+ Adapter	1*	1 (ML2)
ML2 adapters - 25 Gb Ethernet				
00MN990	ATZR	Mellanox ConnectX-4 Lx 10/25GbE SFP28 1-port ML2 Ethernet Adapter	1*	1 (ML2)
7ZT7A00507	AUKU	Mellanox ConnectX-4 Lx 10/25GbE SFP28 2-port ML2 Ethernet Adapter	1*	1 (ML2)

Part number	Feature code	Description	Max qty#	I/O slots supported
ML2 adapters - FDR InfiniBand				
7ZT7A00501	AUKR	Mellanox ConnectX-3 Pro ML2 FDR 2-Port QSFP VPI Adapter	1*	1 (ML2)
PCIe Low Profile adapters - 1 Gb Ethernet				
7ZT7A00482	AUZX	Broadcom 5720 1GbE RJ45 2-Port PCIe Ethernet Adapter	2 / 3	2, 3, 1
7ZT7A00484	AUZV	Broadcom 5719 1GbE RJ45 4-Port PCIe Ethernet Adapter	2 / 3	2, 3, 1
7ZT7A00533	AUZZ	ThinkSystem I350-F1 PCIe 1Gb 1-Port SFP Ethernet Adapter	2 / 3	2, 3, 1
7ZT7A00534	AUZY	ThinkSystem I350-T2 PCIe 1Gb 2-Port RJ45 Ethernet Adapter	2 / 3	2, 3, 1
7ZT7A00535	AUZW	ThinkSystem I350-T4 PCIe 1Gb 4-Port RJ45 Ethernet Adapter	2 / 3	2, 3, 1
PCIe Low Profile adapters - 10 Gb Ethernet				
7ZT7A00496	AUKP	Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	2 / 3	2, 3, 1
00AG570	AT7S	Emulex VFA5.2 2x10 GbE SFP+ PCIe Adapter	2 / 3*	2, 3, 1
00AG580	AT7T	Emulex VFA5.2 2x10 GbE SFP+ Adapter and FCoE/iSCSI SW	2 / 3*	2, 3, 1
00MM860	ATPX	Intel X550-T2 Dual Port 10GBase-T Adapter	2 / 3	2, 3, 1
7ZT7A00537	AUKX	Intel X710-DA2 PCIe 10Gb 2-Port SFP+ Ethernet Adapter	2 / 3*	2, 3, 1
4XC7A08225	B31G	QLogic QL41134 PCIe 10Gb 4-Port Base-T Ethernet Adapter	2 / 3	2, 3, 1
PCIe Full Height adapters - 10 Gb Ethernet				
7ZT7A00493	AUKN	Emulex OCE14104B-NX PCIe 10Gb 4-Port SFP+ Ethernet Adapter	1 / 1*	2
PCIe Low Profile adapters - 25 Gb Ethernet				
7ZT7A00505	AUKS	Broadcom 57412 10/25GbE SFP28 1-Port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
4XC7A08238	B5T0	Broadcom 57414 10/25GbE SFP28 2-port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
4XC7A08316	BD49	Broadcom 57454 10/25GbE SFP28 4-port PCIe Ethernet Adapter V2	1 / 1	2§
4XC7A08295	BCD6	Intel E810-DA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
7XC7A05523	B0WY	Intel XXV710-DA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
01GR250	AUAJ	Mellanox ConnectX-4 Lx 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
4XC7A62574	BEAP	Mellanox ConnectX-5 EN 10/25GbE SFP28 2-port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
4XC7A62580	BE4U	Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
4XC7A16683	B5XZ	Mellanox Innova-2 ConnectX-5 FPGA 25GbE 2-port Adapter	1 / 2*	2, 3†
4XC7A08228	B21R	QLogic QL41262 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
4XC7A62581	BHE2	Solarflare X2522-Plus 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	2 / 3*	2, 3, 1
PCIe Low Profile adapters - 40 Gb Ethernet				
00MM950	ATRN	Mellanox ConnectX-4 Lx 1x40GbE QSFP+ Adapter	2 / 3*	2, 3, 1
4XC7A08229	B31C	Mellanox ConnectX-5 Ex 25/40GbE 2-port Low-Latency Adapter	1 / 2*^	2, 3†
PCIe Low Profiles adapters - FDR InfiniBand				
7XC7A05524	B0WX	Mellanox ConnectX-4 PCIe FDR 1-Port QSFP VPI Adapter	2 / 3*	2, 3, 1
7ZT7A00500	AUVG	Mellanox ConnectX-4 PCIe FDR 2-Port QSFP VPI Adapter	2 / 3*	2, 3, 1
PCIe x16 Low Profile adapters - 100 Gb Ethernet / EDR InfiniBand				
00MM960	ATRP	Mellanox ConnectX-4 2x100GbE/EDR IB QSFP28 VPI Adapter	1 / 2*	2, 3†

Part number	Feature code	Description	Max qty#	I/O slots supported
4XC7A08248	B8PP	Mellanox ConnectX-6 Dx 100GbE QSFP56 2-port PCIe Ethernet Adapter	1 / 2*	2, 3†
4XC7A76757	BLC2	ThinkSystem Xilinx Alveo U50 Data Center Accelerator Adapter	1 / 2*	2, 3†
PCIe x16 Low Profile adapters - HDR InfiniBand				
4C57A15326	B4RC	Mellanox ConnectX-6 HDR/200GbE QSFP56 1-port PCIe 4 VPI Adapter	1 / 1*	2†‡
4C57A14179	B4RB	Mellanox HDR/200GbE 2x PCIe Aux Kit	1 / 1*	3†‡
4C57A14177	B4R9	Mellanox ConnectX-6 HDR100/100GbE QSFP56 1-port PCIe VPI Adapter	1 / 2*	2, 3†
4C57A14178	B4RA	Mellanox ConnectX-6 HDR100/100GbE QSFP56 2-port PCIe VPI Adapter	1 / 2*	2, 3†
PCIe Low Profile adapters - Omni-Path				
00WE023	AU0A	Intel OPA 100 Series Single-port PCIe 3.0 x8 HFA	1 / 3*	2, 3, 1
00WE027	AU0B	Intel OPA 100 Series Single-port PCIe 3.0 x16 HFA	1 / 2*	2, 3†

The maximum quantity shown is with one processor / two processors (this does not apply to LOM cards and ML2 adapters).

* The adapter comes without transceivers or cables; for ordering transceivers or cables, see the product guide for the adapter.

† The adapter is supported in the PCIe x16 slots supplied by the riser cards 1 and 2.

^ The 25 GbE connectivity requires the optional Mellanox QSA 100G to 25G Cable Adapter (4G17A10853) (one per port); the supported cables include 25 GbE passive DAC and active optical cables (25 GbE transceivers not supported)

‡ The ConnectX-6 HDR adapter is supported only in the configurations with two processors, and it requires the HDR/200GbE 2x PCIe Aux Kit.

§ In the SR630, this adapter requires a full-height bracket and must be installed in a full-height slot. The use of a low-profile bracket and slot is not supported.

Configuration notes:

- ML2 network adapters are supported in the ML2 x8 slot 1 supplied by the x8ML2/x16 Riser Card 1 (7XH7A02683 or 7XH7A05894).
- PCIe full-height network adapters are supported in the full-height PCIe x8 or x16 slot 2 supplied by the riser card 1.
- PCIe x16 Low Profile network adapters and Omni-Path adapters are supported in the full-height and low profile PCIe x16 slots supplied by the riser cards 1 and 2.
- PCIe Low Profile network adapters (except PCIe x16 adapters and Omni-Path adapters) are supported in the full-height and low profile PCIe x8 and x16 slots supplied by the riser cards 1 and 2.
- Supported transceivers or DAC cables should be purchased for the SFP+, SFP28, QSFP+, and QSFP28 adapters, and UTP Category 6 or Category 5e cables should be purchased for the 10 GbE (Cat6) or 1 GbE (Cat5e or Cat6) RJ-45 adapters. The maximum number of transceivers or cables that are supported per adapter equals the quantity of the adapter ports, and all adapter ports must have the same type of the transceiver or cable selected.

For more information, see the list of Product Guides in the Ethernet Adapters category:

<http://lenovopress.com/servers/options/ethernet#rl=product-guide>

SAS adapters for external storage

The following table lists SAS RAID controllers and HBAs for external storage attachments that are supported by the SR630 server.