

## Lenovo ThinkSystem SR630 V3 Server Product Guide

The Lenovo ThinkSystem SR630 V3 is an ideal 2-socket 1U rack server for small businesses up to large enterprises that need industry-leading reliability, management, and security, as well as maximizing performance and flexibility for future growth. The SR630 V3 is based on the new 5th generation Intel Xeon Scalable processor family (formerly codenamed "Emerald Rapids").

The SR630 V3 is designed to handle a wide range of workloads, such as databases, virtualization and cloud computing, infrastructure security, systems management, enterprise applications, collaboration/email, streaming media, web, and HPC.



Figure 1. Lenovo ThinkSystem SR630 V3

[360° View](#)

[Full 3D Tour](#)

### Did you know?

The SR630 V3 server has been designed to take advantage of the features of the 5th generation Intel Xeon Scalable processors, such as the full performance of 385W 64-core processors, support for 5600 MHz memory and PCIe Gen 5.0 support. The server also offers onboard NVMe PCIe ports that allow direct connections to 16x NVMe SSDs, which results in faster access to store and access data.

## Key features

Combining performance and flexibility, the SR630 V3 server is a great choice for enterprises of all sizes. The server offers a broad selection of drive and slot configurations and offers numerous high performance features. Outstanding reliability, availability, and serviceability (RAS) and high-efficiency design can improve your business environment and can help save operational costs.

## Scalability and performance

The ThinkSystem SR630 V3 offers numerous features to boost performance, improve scalability and reduce costs:

- Supports one or two 5th Gen Intel Xeon Processor Scalable processors
  - Up to 64 cores and 128 threads
  - Core speeds of up to 3.9 GHz
  - TDP ratings of up to 385 W
- Supports one or two 4th Gen Intel Xeon Processor Scalable processors
  - Up to 60 cores and 120 threads
  - Core speeds of up to 3.7 GHz
  - TDP ratings of up to 350 W
- Support for DDR5 memory DIMMs to maximize the performance of the memory subsystem:
  - Up to 32 DDR5 memory DIMMs, 16 DIMMs per processor
  - 8 memory channels per processor (2 DIMMs per channel)
  - Supports 1 DIMM per channel operating at 5600 MHz (5th Gen processors) or 4800 MHz (4th Gen processors)
  - Supports 2 DIMMs per channel operating at 4800 MHz (5th Gen processors) or 4400 MHz (4th Gen processors)
  - Using 256GB 3DS RDIMMs, the server supports up to 8TB of system memory
- Supports up to three single-width GPUs, each up to 75W for substantial processing power in a 1U system.
- Supports up to 12x 2.5-inch hot-swap drive bays, by using combinations of front-accessible (up to 10 bays) and rear-accessible (2 bays).
- Supports four 3.5-inch drive bays for lower-cost high-capacity HDD storage.
- Supports 16x EDSFF NVMe drives, a new form factor drive for high-density and high-performance storage.
- Supports up to 16x NVMe drives without oversubscription of PCIe lanes (1:1 connectivity) and without the need for additional NVMe adapters. The use of NVMe drives maximizes drive I/O performance, in terms of throughput and latency.
- Supports 12x SATA drives using the onboard SATA controller (no additional adapter needed), enabling lower cost, high capacity storage solution.
- Supports 12x SAS drives using a variety of 12Gb RAID controllers and SAS HBAs.
- Supports high-speed RAID controllers providing 12 Gb SAS connectivity to the drive backplanes. A variety of PCIe 3.0 and PCIe 4.0 RAID adapters are available.
- Supports up to two externally accessible 7mm hot-swap drives for operating system boot functions. Optional RAID-0 or RAID-1.
- Supports M.2 drives for convenient operating system boot functions. Available M.2 adapters support either one M.2 drive or two M.2 drives. Optional RAID-0 or RAID-1.
- Supports up to 5x PCIe slots, 3x at the rear of the server and 2x at the front of the server. Also supports 1x OCP 3.0 slot, either in the front or in the rear.
- The server is Compute Express Link (CXL) v1.1 Ready. With CXL 1.1 for next-generation workloads, you can reduce compute latency in the data center and lower TCO. CXL is a protocol that runs across

the standard PCIe physical layer and can support both standard PCIe devices as well as CXL devices on the same link.

- The server has a dedicated industry-standard OCP 3.0 small form factor (SFF) slot supporting a variety of Ethernet network adapters. A simple-swap mechanism with a thumbscrew and pull-tab enables tool-less installation and removal of the adapter. The adapter supports shared BMC network sideband connectivity to enable out-of-band systems management.
- The server offers PCI Express 5.0 I/O expansion capabilities that doubles the theoretical maximum bandwidth of PCIe 4.0 (32GT/s in each direction for PCIe Gen 5, compared to 16 GT/s with PCIe Gen 4 and 8 GT/s with PCIe Gen 3). A PCIe 5.0 x16 slot provides 128 GB/s bandwidth, enough to support a dual-port 200GbE network connection.

### **Availability and serviceability**

The SR630 V3 provides many features to simplify serviceability and increase system uptime:

- Designed to run 24 hours a day, 7 days a week
- The server offers Single Device Data Correction (SDDC, also known as Chipkill), Adaptive Double-Device Data Correction (ADDDC, also known as Redundant Bit Steering or RBS), and memory mirroring for redundancy in the event of a non-correctable memory failure. Note: ADDDC is not supported with 9x4 RDIMMs.
- The server offers hot-swap drives, supporting RAID redundancy for data protection and greater system uptime.
- Available M.2 boot adapters support RAID-1 (using Intel VROC) which can enable two SATA or two NVMe M.2 drives to be configured as a redundant pair.
- The server has up to two hot-swap redundant power supplies and up to eight hot-swap redundant fans to provide availability for business-critical applications.
- Optional front-accessible slots and drives so that most major components and cables (except power) are located at the front of the server
- The light path diagnostics feature uses LEDs to lead the technician to failed (or failing) components, which simplifies servicing, speeds up problem resolution, and helps improve system availability.
- Solid-state drives (SSDs) offer more reliability and performance than traditional mechanical HDDs for greater uptime.
- Proactive Platform Alerts (including PFA and SMART alerts): Processors, voltage regulators, memory, internal storage (SAS/SATA HDDs and SSDs, NVMe SSDs, M.2 storage), fans, power supplies, RAID controllers, server ambient and subcomponent temperatures. Alerts can be surfaced through the XClarity Controller to managers such as Lenovo XClarity Administrator, VMware vCenter, and Microsoft System Center. These proactive alerts let you take appropriate actions in advance of possible failure, thereby increasing server uptime and application availability.
- The built-in XClarity Controller continuously monitors system parameters, triggers alerts, and performs recovery actions in case of failures to minimize downtime.
- Built-in diagnostics in UEFI, using Lenovo XClarity Provisioning Manager, speed up troubleshooting tasks to reduce service time.
- Lenovo XClarity Provisioning Manager supports diagnostics and can save service data to a USB key drive or remote CIFS share folder for troubleshooting and reduce service time.
- Auto restart in the event of a momentary loss of AC power (based on power policy setting in the XClarity Controller service processor)
- Offers a diagnostics port on the front of the server to allow you to attach an external diagnostics handset for enhanced systems management capabilities.
- Support for the XClarity Administrator Mobile app running on a supported smartphone or tablet and connected to the server through the service-enabled USB port, enables additional local systems management functions.

- Three-year or one-year customer-replaceable unit and onsite limited warranty (varies by geography), 9 x 5 next business day. Optional service upgrades are available.

### **Manageability and security**

Systems management features simplify local and remote management of the SR630 V3:

- The server includes XClarity Controller 2 (XCC2) to monitor server availability. Optional upgrade to XCC Platinum to provide remote control (keyboard video mouse) functions, support for the mounting of remote media files (ISO and IMG image files), boot capture, power capping and new XCC2 Platinum features. New XCC2 Platinum features include System Guard, new security modes including a CNSA-compliant mode, a FIPS 140-3-compliant mode and enhanced NIST 800-193 support, and a new Neighbor Group feature.
- Dedicated Ethernet port at the rear of the server for remote management (BMC management). Optional support for a second dedicated BMC management port, installed in the OCP adapter bay.
- Lenovo XClarity Administrator offers comprehensive hardware management tools that help to increase uptime, reduce costs and improve productivity through advanced server management capabilities.
- UEFI-based Lenovo XClarity Provisioning Manager, accessible from F1 during boot, provides system inventory information, graphical UEFI Setup, platform update function, RAID Setup wizard, operating system installation function, and diagnostic functions.
- Support for Lenovo XClarity Energy Manager which captures real-time power and temperature data from the server and provides automated controls to lower energy costs.
- An integrated industry-standard Unified Extensible Firmware Interface (UEFI) enables improved setup, configuration, and updates, and simplifies error handling.
- Support for industry standard management protocols, IPMI 2.0, SNMP 3.0, Redfish REST API, serial console via IPMI
- An integrated hardware Trusted Platform Module (TPM) supporting TPM 2.0 enables advanced cryptographic functionality, such as digital signatures and remote attestation.
- Administrator and power-on passwords help protect from unauthorized access to the server.
- Supports Secure Boot to ensure only a digitally signed operating system can be used. Supported with HDDs and SSDs, as well as 7mm and M.2 drives.
- Industry-standard Advanced Encryption Standard (AES) NI support for faster, stronger encryption.
- Intel Execute Disable Bit functionality can prevent certain classes of malicious buffer overflow attacks when combined with a supported operating system.
- Intel Trusted Execution Technology provides enhanced security through hardware-based resistance to malicious software attacks, allowing an application to run in its own isolated space, protected from all other software running on a system.
- Additional physical security features are an available chassis intrusion switch and available lockable front bezel.

### **Energy efficiency**

The SR630 V3 offers the following energy-efficiency features to save energy, reduce operational costs, and increase energy availability:

- The server supports an advanced direct-water cooling (DWC) capability with the Lenovo Neptune Processor DWC Module, where heat from the processors is removed from the rack and the data center using an open loop and coolant distribution units, resulting in lower energy costs
- Energy-efficient system board components help lower operational costs.
- High-efficiency power supplies with 80 PLUS Platinum and Titanium certifications
- Solid-state drives (SSDs) consume as much as 80% less power than traditional spinning 2.5-inch HDDs.

- Support for Lenovo XClarity Energy Manager provides advanced data center power notification, analysis, and policy-based management to help achieve lower heat output and reduced cooling needs.
- The server uses hexagonal ventilation holes, which can be grouped more densely than round holes, providing more efficient airflow through the system and thus keeping your system cooler.

## Comparing the SR630 V3 to the SR630 V2

The ThinkSystem SR630 V3 improves on the previous generation SR630 V2, as summarized in the following table.

Table 1. Comparing the SR630 V3 to the previous generation SR630 V2

Feature	SR630 V2	SR630 V3	Benefits
Processor	<ul style="list-style-type: none"> <li>• 2x 3rd Gen Intel Xeon Scalable Processors</li> <li>• Up to 40 cores</li> <li>• TDP ratings up to 270W</li> <li>• 64x PCIe 4.0 lanes per processor</li> </ul>	<ul style="list-style-type: none"> <li>• 2x 5th Gen or 4th Gen Intel Xeon Scalable Processors</li> <li>• Up to 64 cores</li> <li>• TDP ratings up to 385W</li> <li>• 80x PCIe 5.0 lanes per processor</li> </ul>	<ul style="list-style-type: none"> <li>• Significant increase in cores per processor</li> <li>• Increased performance</li> <li>• Consolidation of more apps on same number of servers, reducing costs</li> <li>• New PCIe 5.0 support means higher performance networking and NVMe storage</li> </ul>
Memory	<ul style="list-style-type: none"> <li>• DDR4 memory operating up to 3200 MHz</li> <li>• 8 channels per CPU</li> <li>• 32 DIMMs (16 per processor), 2 DIMMs per channel</li> <li>• Supports RDIMMs and 3DS RDIMMs</li> <li>• Up to 8TB of system memory</li> <li>• Intel Optane Persistent Memory 200 Series</li> </ul>	<ul style="list-style-type: none"> <li>• DDR5 memory operating up to 5600 MHz</li> <li>• 8 channels per CPU</li> <li>• 32 DIMMs (16 per processor), 2 DIMMs per channel</li> <li>• Supports RDIMMs, 3DS RDIMMs and 9x4 RDIMMs</li> <li>• Up to 8TB of system memory</li> <li>• No support for Intel Optane Persistent Memory</li> </ul>	<ul style="list-style-type: none"> <li>• New DDR5 memory offers significant performance improvements over DDR4</li> <li>• Support for lower-cost 9x4 DIMMs</li> </ul>
Internal storage	<ul style="list-style-type: none"> <li>• Front: 4x 3.5" SAS/SATA or AnyBay hot-swap drive bays</li> <li>• Front: Up to 8x SAS/SATA hot-swap drives bays</li> <li>• Front: 10x 2.5" SAS/SATA/NVMe (up to 4 AnyBay or 10x NVMe)</li> <li>• Front: 16x E1.S EDSFF NVMe hot-swap drive bays</li> <li>• Rear: Up to 2x 2.5" SAS/SATA or NVMe hot-swap drive bays</li> <li>• Rear: 2x 7mm SATA or NVMe hot-swap drive bays, optional RAID</li> <li>• 12x Onboard NVMe ports</li> <li>• 2x Internal M.2 with optional RAID</li> </ul>	<ul style="list-style-type: none"> <li>• Front: 4x 3.5" SAS/SATA hot-swap drive bays</li> <li>• Front: Up to 8x SAS/SATA hot-swap drives bays</li> <li>• Front: 10x 2.5" SAS/SATA/NVMe (up to 4 AnyBay or 10x NVMe)</li> <li>• Front: 16x E1.S EDSFF NVMe hot-swap drive bays</li> <li>• Front: 4x 2.5" SAS/SATA + 3x PCIe slots (LP, FH, OCP)</li> <li>• Rear: Up to 2x 2.5" SAS/SATA or NVMe hot-swap drive bays</li> <li>• Rear: 2x 7mm SATA or NVMe hot-swap drive bays. Optional RAID.</li> <li>• 16x Onboard NVMe ports</li> <li>• 2x Internal M.2 with optional RAID support</li> </ul>	<ul style="list-style-type: none"> <li>• Flexible storage offerings</li> <li>• Support for up to 12x 2.5" NVMe drives</li> <li>• New front PCIe slots configuration</li> <li>• No support for M.2 with RAID</li> <li>• No support for 4x 3.5" AnyBay drive bays</li> <li>• Additional NVMe ports means no need for Retimer adapters, freeing up slots for other adapters</li> </ul>

Feature	SR630 V2	SR630 V3	Benefits
RAID	<ul style="list-style-type: none"> <li>8-port and 16-port RAID adapters with up to 8GB flash</li> <li>Support for Lenovo and Broadcom adapters</li> <li>Support for PCIe or Internal cabled (CFF) form factor adapters</li> <li>Support for NVMe drives connected to 940 RAID adapters (Tri-Mode)</li> <li>Storage HBAs available</li> <li>PCIe 3.0 and PCIe 4.0 adapter choices</li> </ul>	<ul style="list-style-type: none"> <li>8-port and 16-port RAID adapters with up to 8GB flash</li> <li>Support for Lenovo and Broadcom adapters</li> <li>Support for PCIe or Internal cabled (CFF) form factor adapters</li> <li>Support for NVMe drives connected to 940 RAID adapters (Tri-Mode)</li> <li>Storage HBAs available</li> <li>PCIe 3.0 and PCIe 4.0 adapter choices with support for Gen 5 adapters when available</li> </ul>	<ul style="list-style-type: none"> <li>Consistent RAID/HBA support</li> <li>Flexible config solution</li> <li>PCIe Gen 5 allows for greater storage performance</li> </ul>
Networking	<ul style="list-style-type: none"> <li>OCP 3.0 slot with PCIe Gen 4 x16 interface (rear of server)</li> <li>Additional PCIe adapters supported</li> <li>1GbE dedicated Management port</li> </ul>	<ul style="list-style-type: none"> <li>OCP 3.0 slot with PCIe Gen 5 x16 interface (rear) or PCIe Gen4 x16 interface (front)</li> <li>Additional PCIe adapters supported</li> <li>1GbE dedicated Management port</li> </ul>	<ul style="list-style-type: none"> <li>Improved performance with PCIe Gen 5</li> <li>Optional front-accessible OCP slot</li> </ul>
PCIe	<ul style="list-style-type: none"> <li>Up to 3x PCIe Gen 4 slots (support up to 3x 75W GPUs)</li> <li>Supports either 3x slots (all LP) or 2x slots (LP + FH)</li> <li>FH slot connects to CPU 1 (slot 2)</li> <li>1x OCP 3.0 slot (rear)</li> <li>Supports a RAID/HBA in CFF form factor (does not occupy a PCIe slot)</li> </ul>	<ul style="list-style-type: none"> <li>Up to 2x PCIe Gen 5 slots + 1x PCIe Gen 4 slot (support up to 3x 75W GPUs)</li> <li>Supports either 3x slots (all LP) or 2x slots (LP + FH)</li> <li>FH slot connects to either CPU 1 (slot 2) or CPU 2 (slot 3)</li> <li>1x OCP 3.0 slot, either rear or front</li> <li>Supports a RAID/HBA in CFF form factor (does not occupy a PCIe slot)</li> <li>Support for 3x front-accessible slots (2x PCIe + 1x OCP) with 4 drive bays</li> </ul>	<ul style="list-style-type: none"> <li>PCIe Gen 5 allows for greater I/O performance</li> <li>Flexible PCIe offerings</li> <li>Front-accessible slots available</li> </ul>
Management and security	<ul style="list-style-type: none"> <li>XClarity Controller</li> <li>Support for full XClarity toolset including XClarity Administrator</li> <li>Platform Firmware Resiliency (PFR) hardware Root of Trust (RoT)</li> <li>Tamper Switch security solution (intrusion switch)</li> </ul>	<ul style="list-style-type: none"> <li>Integrated XClarity Controller 2</li> <li>Support for full XClarity toolset including XClarity Administrator</li> <li>Platform Firmware Resiliency (PFR) hardware Root of Trust (RoT)</li> <li>Tamper Switch security solution (intrusion switch)</li> </ul>	<ul style="list-style-type: none"> <li>New XCC2 offers improved management capabilities</li> <li>Same system management tool with previous generation</li> <li>Silicon-level security solution</li> </ul>

Feature	SR630 V2	SR630 V3	Benefits
Power	<ul style="list-style-type: none"> <li>• 500W, 750W, 1100W, 1800W AC Platinum/Titanium Hot Plug PSU</li> <li>• 1100W -48VDC Platinum general support</li> <li>• 240V HVDC support for PRC customers</li> <li>• Active-Standby mode</li> </ul>	<ul style="list-style-type: none"> <li>• 750W, 1100W, 1800W AC Platinum/Titanium Hot Plug PSU</li> <li>• 1100W -48VDC Platinum general support</li> <li>• 240V HVDC support for PRC customers</li> <li>• Active-Standby mode</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple PSU offerings to suit the configuration selected</li> <li>• New ErP Lot 9-compliant offerings</li> <li>• Support for Telco customers with -48V requirements</li> </ul>

## Components and connectors

The following figure shows the front of the SR630 V3.

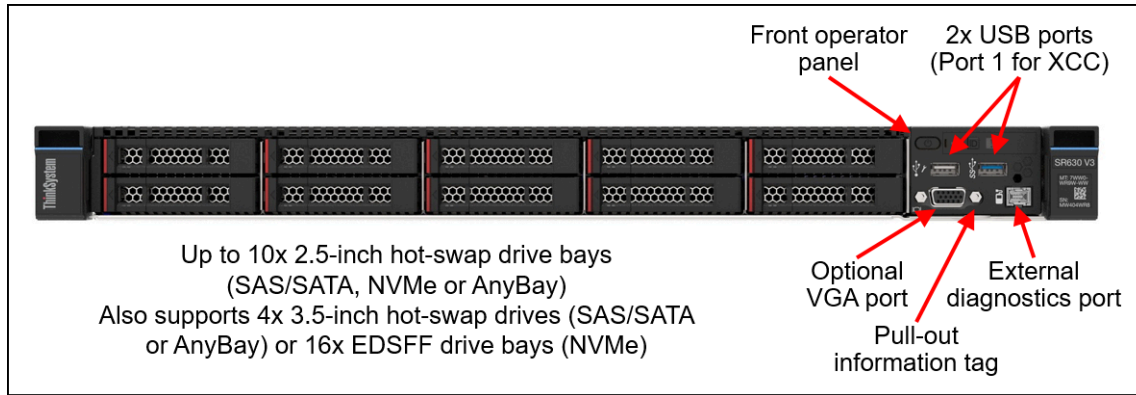


Figure 2. Front view of the ThinkSystem SR630 V3 with 2.5-inch drive bays

For details on the front ports, including the optional front VGA port and front external diagnostic port, see the [Local management](#) section.

The following figure shows the various front configurations supported by the SR630 V3. As shown, the server supports 2.5-inch, 3.5-inch or E1.S EDSFF drive bays. In some configurations, the front of the server includes a pull-out operator panel with LCD display. The SR630 V3 also supports a configuration with 4x 2.5-inch drive bays + 3x front-accessible PCIe slots - a low-profile slot, a full-height slot, and an OCP 3.0 slot.

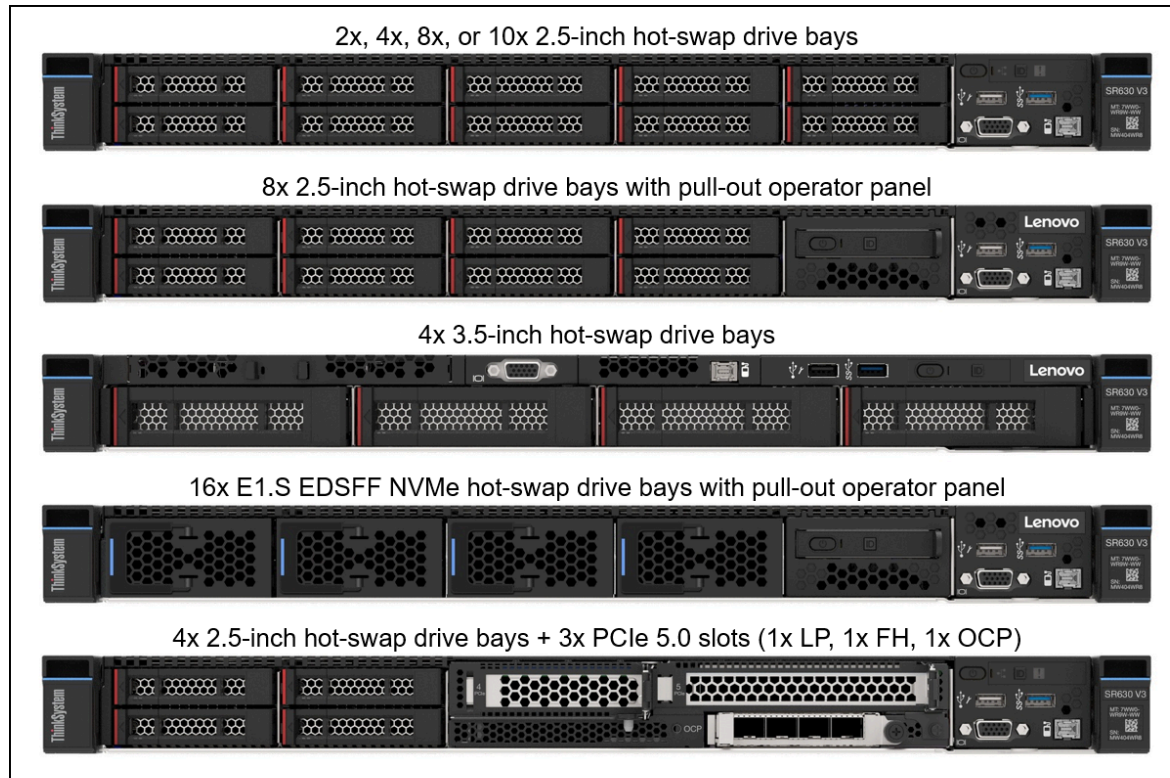


Figure 3. Front configurations of the ThinkSystem SR630 V3

The following figure shows the components visible from the rear of the server. As shown, there are five different configurations available, including two with rear-mounted drive bays: two 2.5-inch hot-swap drive bays (SAS, SATA or NVMe) or 7mm thickness hot-swap drives (SATA or NVMe). There are two configurations with a full-height slot, one where both slots are connected to CPU 1, and the other where the full-height slot is connected to CPU 2.

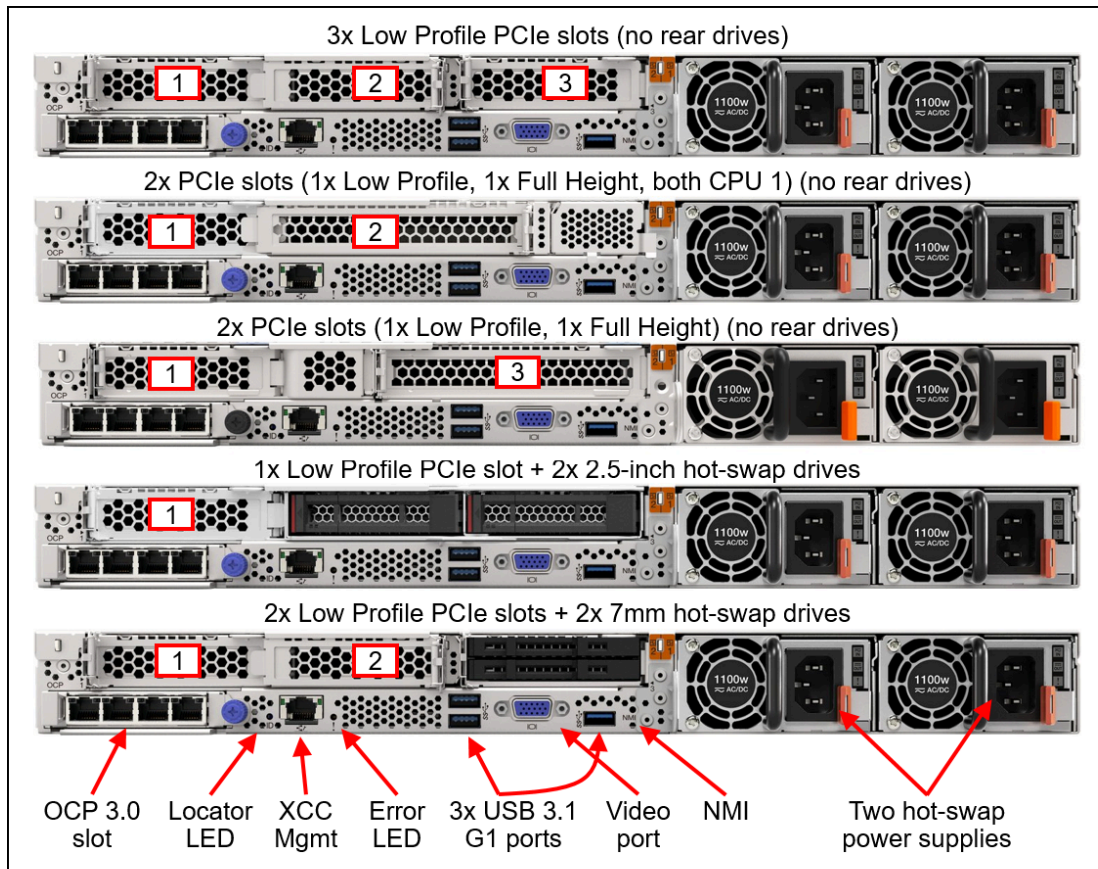


Figure 4. Rear view of the Lenovo ThinkSystem SR630 V3

The following figure shows the locations of key components inside the server.

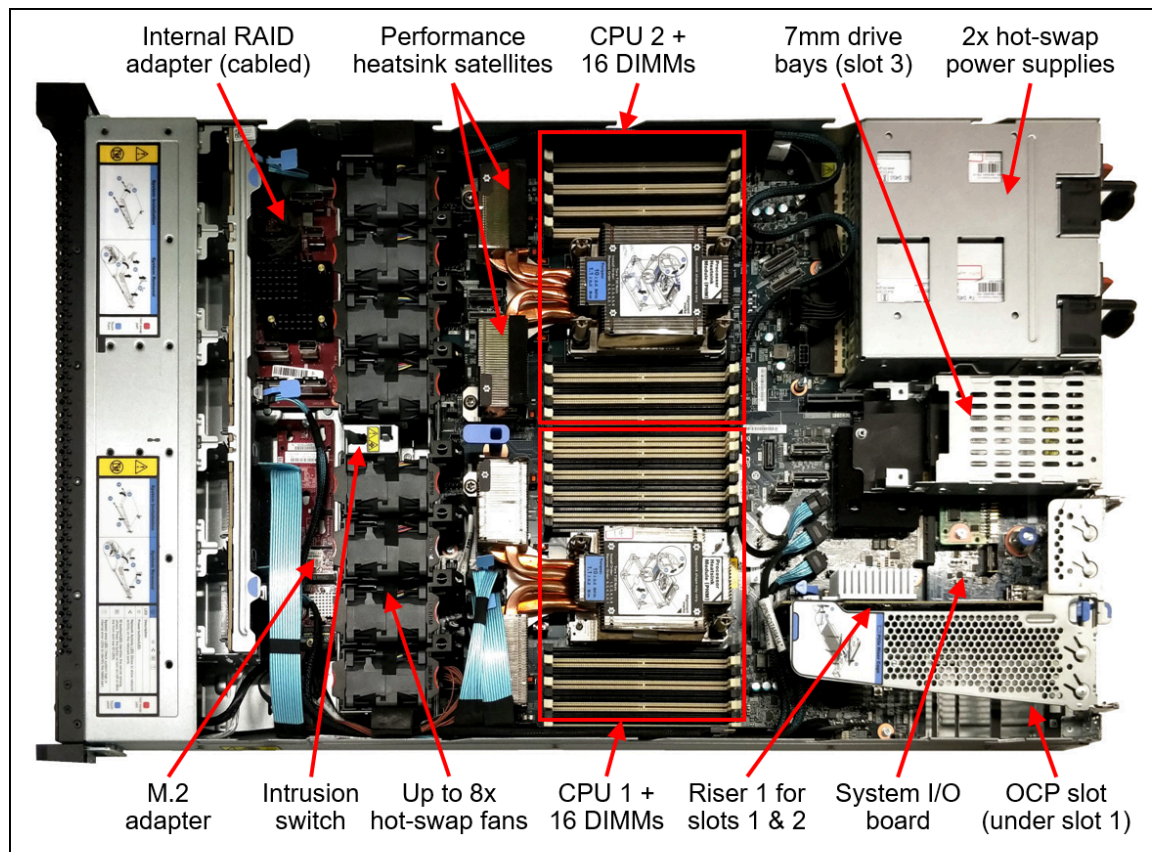


Figure 5. Internal view of the Lenovo ThinkSystem SR630 V3

## System architecture

The following figure shows the architectural block diagram of the SR630 V3, showing the major components and their connections.

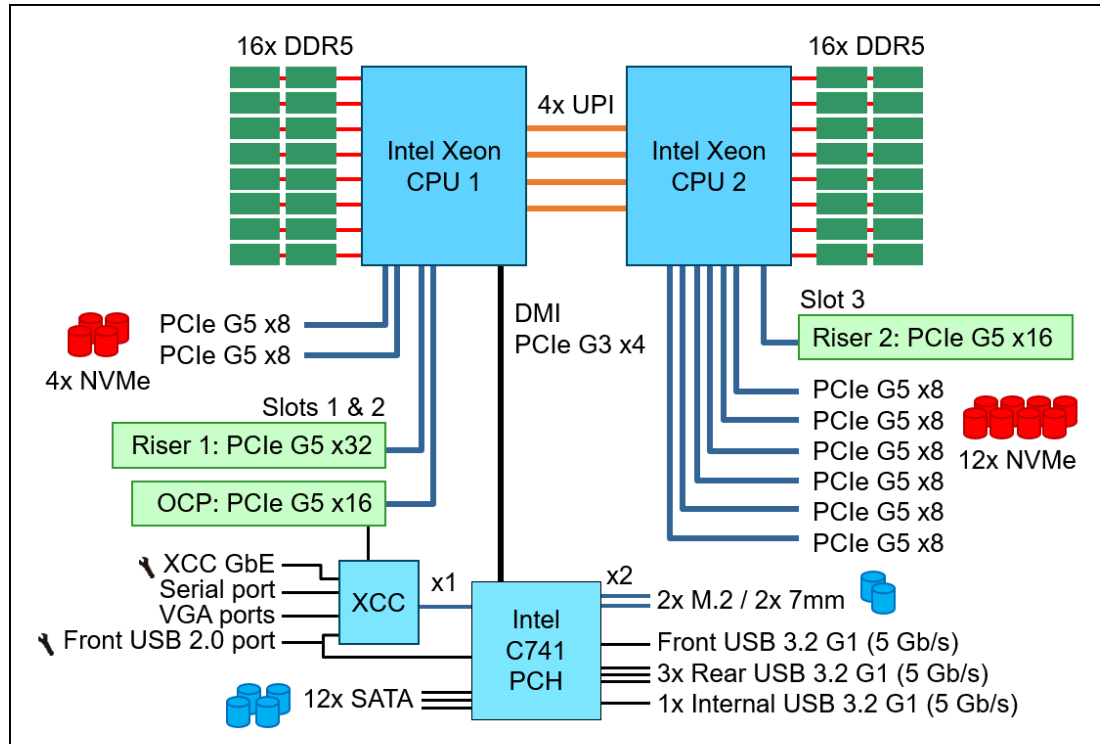


Figure 6. SR630 V3 system architectural block diagram

## Standard specifications

The following table lists the standard specifications.

Table 2. Standard specifications

Components	Specification
Machine types	7D72 - 1 year warranty 7D73 - 3 year warranty
Form factor	1U rack.
Processor	One or two 5th Gen Intel Xeon Scalable processors (formerly codenamed "Emerald Rapids"), or one or two 4th Gen Intel Xeon Scalable processors (formerly codenamed "Sapphire Rapids"). Supports processors up to 64 cores, core speeds of up to 3.9 GHz, and TDP ratings of up to 385 W.
Chipset	Intel C741 "Emmitsburg" chipset, part of the platform codenamed "Eagle Stream"
Memory	32 DIMM slots with two processors (16 DIMM slots per processor). Each processor has 8 memory channels, with 2 DIMMs per channel (DPC). Lenovo TruDDR5 RDIMMs, 9x4 RDIMMs, and 3DS RDIMMs are supported. DIMMs operate at up to 5600 MHz at 1 DPC and up to 4800 MHz at 2 DPC.
Persistent memory	No support.
Memory maximum	Up to 8TB by using 32x 256GB 3DS RDIMMs
Memory protection	ECC, SDDC (for x4-based memory DIMMs), ADDDC (for x4-based memory DIMMs excluding 9x4 RDIMMs, requires Platinum or Gold processors), and memory mirroring.
Disk drive bays	<p>Up to 4x 3.5-inch or 12x 2.5-inch or 16x EDSFF hot-swap drive bays:</p> <ul style="list-style-type: none"> <li>• Front bays can be one of the following: <ul style="list-style-type: none"> <li>◦ 10x 2.5-inch hot-swap: All AnyBay</li> <li>◦ 10x 2.5-inch hot-swap: All NVMe</li> <li>◦ 10x 2.5-inch hot-swap: 6x SAS/SATA + 4x AnyBay</li> <li>◦ 10x 2.5-inch hot-swap: 6x SAS/SATA + 4x NVMe</li> <li>◦ 10x 2.5-inch hot-swap: 6x SAS/SATA + 2x AnyBay + 2x NVMe</li> <li>◦ 8x 2.5-inch hot-swap SAS/SATA</li> <li>◦ 16x EDSFF E1.S form factor hot-swap drives</li> <li>◦ 4x 3.5-inch hot-swap SAS/SATA</li> <li>◦ 4x 3.5-inch hot-swap AnyBay</li> </ul> </li> <li>• Rear can be one of the following: <ul style="list-style-type: none"> <li>◦ 2x 2.5-inch hot-swap SAS/SATA bays</li> <li>◦ 2x 2.5-inch hot-swap NVMe bays</li> <li>◦ 2x 7mm 2.5-inch hot-swap SATA bays</li> <li>◦ 2x 7mm 2.5-inch hot-swap NVMe bays</li> </ul> </li> <li>• Internal M.2 module supporting up to two M.2 drives, for OS boot and drive storage support</li> </ul> <p>See <a href="#">Supported drive bay combinations</a> for details. AnyBay bays support SAS, SATA or NVMe drives. NVMe bays only support NVMe drives. Rear drive bays can be used in conjunction with 2.5-inch front drive bays. The server supports up to 12x NVMe drives all with direct connections (no oversubscription).</p>

Components	Specification
Maximum internal storage	<ul style="list-style-type: none"> <li>• 2.5-inch drives: <ul style="list-style-type: none"> <li>◦ 368.64TB using 12x 30.72TB 2.5-inch SAS SSDs</li> <li>◦ 92.16TB using 12x 7.68TB 2.5-inch SATA SSDs</li> <li>◦ 1,474.56TB using 12x 122.88TB 2.5-inch NVMe SSDs</li> <li>◦ 28.8TB using 12x 2.4TB 2.5-inch SAS HDDs</li> </ul> </li> <li>• EDSFF drives <ul style="list-style-type: none"> <li>◦ 122.88TB using 16x 7.68TB E1.S EDSFF NVMe SSDs</li> </ul> </li> <li>• 3.5-inch drives: <ul style="list-style-type: none"> <li>◦ 96TB using 4x 24TB 3.5-inch SAS HDDs</li> <li>◦ 96TB using 4x 24TB 3.5-inch SATA HDDs</li> <li>◦ 61.44TB using 4x 15.36TB 3.5-inch SAS SSDs</li> <li>◦ 30.72TB using 4x 7.68TB 3.5-inch SATA SSDs</li> <li>◦ 51.2TB using 4x 12.8TB 3.5-inch NVMe SSDs</li> </ul> </li> </ul>
Storage controller	<ul style="list-style-type: none"> <li>• 12x Onboard SATA ports (Intel VROC SATA RAID, formerly known as Intel RSTe RAID)</li> <li>• Up to 16x Onboard NVMe ports (includes Intel VROC NVMe RAID, with optional license for non-Intel NVMe SSDs)</li> <li>• NVMe Retimer Adapter (supports Intel VROC NVMe RAID)</li> <li>• 12 Gb SAS/SATA RAID adapters <ul style="list-style-type: none"> <li>◦ 8, 16 or 32 ports</li> <li>◦ Up to 8GB flash-backed cache</li> <li>◦ PCIe 4.0 or PCIe 3.0 host interface</li> </ul> </li> <li>• 12 Gb SAS/SATA HBA (non-RAID) <ul style="list-style-type: none"> <li>◦ 8-port and 16-port</li> <li>◦ PCIe 4.0 or PCIe 3.0 host interface</li> </ul> </li> </ul>
Optical drive bays	No internal optical drive.
Tape drive bays	No internal backup drive.
Network interfaces	Dedicated OCP 3.0 SFF slot with PCIe 5.0 x16 host interface. Supports a variety of 2-port and 4-port adapters with 1, 10, 25 and 100 GbE network connectivity. One port can optionally be shared with the XClarity Controller (XCC) management processor for Wake-on-LAN and NC-SI support.
PCI Expansion slots	<p>Up to 5x slots, 3x at the rear and 2x at the front, plus 1 OCP 3.0 slot.</p> <p>Rear: Up to 3x PCIe slots (2x PCIe 5.0, 1x PCIe 4.0), all with rear access, plus a slot dedicated to the OCP adapter. Slot availability is based on riser selection and rear drive bay selection. Slot 3 requires two processors.</p> <p>Four choices for rear-access slots:</p> <ul style="list-style-type: none"> <li>• 3x PCIe x16 low-profile slots</li> <li>• 1x PCIe x16 full-height half-length slot + 1x PCIe x16 low-profile slot</li> <li>• 1x PCIe x16 low-profile slot (also supports 2x rear 2.5-inch drive bays)</li> <li>• 2x PCIe x16 low-profile slot (also supports 2x rear 7mm 2.5-inch drive bays)</li> </ul> <p>For 2.5-inch front drive configurations, the server supports the installation of a CFF RAID adapter or HBA in a dedicated area that does not consume any of the PCIe slots.</p> <p>Front: The server also supports slots at the front of the server:</p> <ul style="list-style-type: none"> <li>• 1x PCIe x16 or x8 full-height half-length slot</li> <li>• 1x PCIe x8 low-profile slot</li> <li>• 1x OCP 3.0 slot (mutually exclusive with the OCP slot at the rear)</li> </ul> <p><b>Note:</b> Not all slots are available in a 1-processor configuration. See the <a href="#">I/O expansion</a> for details.</p>

Components	Specification
GPU support	Supports up to 3x single-wide GPUs
Ports	<p>Front: 1x USB 3.2 G1 (5 Gb/s) port, 1x USB 2.0 port (also for XCC local management), External diagnostics port, optional VGA port.</p> <p>Rear: 3x USB 3.2 G1 (5 Gb/s) ports, 1x VGA video port, 1x RJ-45 1GbE systems management port for XCC remote management. Optional DB-9 COM serial port (installs in a PCIe slot). Optional second RJ-45 1GbE systems management port for XCC remote management (installed in OCP adapter slot).</p> <p>Internal: 1x USB 3.2 G1 connector for operating system or license key purposes</p>
Cooling	Up to 8x N+1 dual-rotor redundant hot-swap 40 mm fans, configuration dependent. One fan integrated in each power supply. For high-performance CPUs, the SR630 V3 also offers a closed-loop liquid-cooled heatsink design to more effectively remove heat from the processors. For customers with water infrastructure in their data center, the SR630 V3 also offers open-loop water cooling for efficient heat removal.
Power supply	Up to two hot-swap redundant AC power supplies, 80 PLUS Platinum or 80 PLUS Titanium certification. 750 W, 1100 W and 1800 W AC options, supporting 220 V AC. 750 W and 1100 W options also support 110V input supply. In China only, all power supply options support 240 V DC. Also available is a 1100W power supply with a -48V DC input.
Video	Embedded graphics with 16 MB memory with 2D hardware accelerator, integrated into the XClarity Controller 2 management controller. Maximum resolution is 1920x1200 32bpp at 60Hz.
Hot-swap parts	Drives, power supplies, and fans.
Systems management	Operator panel with status LEDs. Optional External Diagnostics Handset with LCD display. Models with 8x 2.5-inch front drive bays can optionally support an Integrated Diagnostics Panel. XClarity Controller 2 (XCC2) embedded management based on the ASPEED AST2600 baseboard management controller (BMC), XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management. Optional XCC Platinum to enable remote control functions and other features.
Security features	Chassis intrusion switch, Power-on password, administrator's password, Root of Trust module supporting TPM 2.0 and Platform Firmware Resiliency (PFR). Optional lockable front security bezel.
Operating systems supported	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware ESXi, Ubuntu Server. See the <a href="#">Operating system support</a> section for specifics.
Limited warranty	Three-year or one-year (model dependent) customer-replaceable unit and onsite limited warranty with 9x5 next business day (NBD).
Service and support	Optional service upgrades are available through Lenovo Services: 4-hour or 2-hour response time, 6-hour fix time, 1-year or 2-year warranty extension, software support for Lenovo hardware and some third-party applications.
Dimensions	Width: 440 mm (17.3 in.), height: 43 mm (1.7 in.), depth: 773 mm (30.4 in.). See <a href="#">Physical and electrical specifications</a> for details.
Weight	Maximum weight: 20.8 kg (45.9 lb)

## Top Choice

Lenovo offers two “quick-ship” programs to make it easy for our customers to get quick delivery of our offerings:

- **Top Choice Express (TCE):** A Configure-to-Order (CTO) model that uses a "best of" subset of components. It allows for customization while maintaining significantly faster lead times than standard CTO.

Top Choice Express (TCE) is the way to get custom configurations as quickly as possible. It allows DCSC configurator users to configure systems in **CTO Mode**, selecting the required hardware components while still benefiting from faster turnaround than traditional CTO. These configurations are built and fully integrated by Lenovo Manufacturing, with simple configuration steps, instant pricing, and quicker delivery.

To see which components are TCE, check the TCE column in the various component tables in this product guide. **Green cells** mean that the component is enabled for ordering with Top Choice Express in all regions world-wide. **Orange cells** with the **i** symbol mean that the component is enable for Top Choice Express in only some regions. Mouse over or tap on the cell to see which regions have it enabled for TCE.

Note: Top Choice Express is for configure-to-order builds only, not for standalone option part numbers.

- **Top Choice Stock (TCS):** Pre-built, fixed-configuration units held in distribution. They are the "Ready-to-Ship" inventory options for customers who need a server quickly.

Top Choice Stock (TCS) is used in **Preconfigured Mode**, starting from a standard pre-built configuration and adding option components as needed. Systems are assembled and fulfilled by Lenovo partners, enabling quick order processing and fast shipment through distribution. This path supports rapid delivery while maintaining flexibility through add-on options. For details of TCS models, see the [Preconfigured Models](#) section.

Note: Ship dates are estimates only; actual ship times may vary based on platform and component availability, order processing, logistics, and external factors beyond Lenovo’s control. Lenovo is not liable for delays.

## Models

ThinkSystem SR630 V3 models can be configured by using the [Lenovo Data Center Solution Configurator \(DCSC\)](#).

Topics in this section:

- [CTO models](#)
- [Base feature codes](#)
- [Preconfigured models](#)

### CTO models

ThinkSystem SR630 V3 models can be configured by using the [Lenovo Data Center Solution Configurator \(DCSC\)](#).

Configure-to-order (CTO) models are used to create models with factory-integrated server customizations. For CTO models, two types of base CTO models are available for the SR630 V3 as listed in the columns in the following table:

- General purpose base CTO models are for general business (non-HPC) and is selectable by choosing **General Purpose** mode in DCSC.

- AI and HPC base models are intended for Artificial Intelligence (AI) and High Performance Computing (HPC) configurations and solutions are enabled using the **AI & HPC Hardware - ThinkSystem Hardware** mode in DCSC. These configurations, along with Lenovo EveryScale Solutions, can also be built using [System x and Cluster Solutions Configurator \(x-config\)](#). **Tip:** Some HPC and AI models are not listed in DCSC and can only be configured in x-config.

**"For AI" models:** The base CTO models listed in the table with "for AI" in the names are the only base models that support high-performance GPUs and accelerators (Controlled GPUs). These models are classified under US Government ECCN regulations and have limited market and customer availability. All other base models do not support high-performance GPUs.

Preconfigured server models may also be available for the SR630 V3, however these are region-specific; that is, each region may define their own server models, and not all server models are available in every region.

The following table lists the base CTO models of the ThinkSystem SR630 V3 server.

Table 3. Base CTO models

Machine Type/Model General purpose	Machine Type/Model for AI and HPC	Description
7D73CTO1WW	7D73CTOLWW	ThinkSystem SR630 V3 - 3yr Warranty
7D73CTOBWW	7D73CTOHWW	ThinkSystem SR630 V3 - 3yr Warranty for AI
7D72CTO1WW	7D72CTOLWW	ThinkSystem SR630 V3 - 1yr Warranty
7D74CTO1WW	7D74CTOLWW	ThinkSystem SR630 V3 – SAP HANA configurations with 3-year base warranty

### Base feature codes

Models of the SR630 V3 are defined based on whether the server has 2.5-inch drive bays at the front (called the 10x 2.5" chassis or simply the 2.5-inch chassis) or whether it has 3.5-inch drive bays at the front (called the 3.5-inch chassis). For models, the feature codes for these chassis bases are as listed in the following table.

Table 4. Chassis base feature codes

Feature code	Description	Top Choice Express	Purpose
BLK4	ThinkSystem V3 1U 10x2.5" Chassis	TCE ⓘ	4x, 8x, or 10x front 2.5-inch hot-swap drives without front PCIe slots, or 16x EDSFF E1.S drive bays
BLK3	ThinkSystem V3 1U 4x3.5" Chassis	TCE ⓘ	4x front 3.5-inch hot-swap drive bays
BQ7M	ThinkSystem V3 1U 4x2.5" Chassis	Not TCE	Front PCIe slots with 4x 2.5-inch hot-swap drive bays

## Preconfigured models

The following tables list the available preconfigured models, grouped by region.

- [Models for Asia Pacific region](#)
- [Models for Australia and New Zealand](#)
- [Models for Brazil](#)
- [Models for EMEA region](#)
- [Models for India](#)
- [Models for Latin American countries \(except Brazil\)](#)

Refer to the Specifications section for information about standard features of the server.

Common to all models:

- Power supplies are Platinum unless otherwise stated
- All models include a Toolless Slide Rail Kit

### Models for Asia Pacific region

The following table lists the models for the Asia Pacific region: Australia, Bangladesh, Brunei, Hong Kong, India, Japan, Korea, Sri Lanka, Malaysia, New Zealand, Philippines, Singapore, Thailand, Taiwan, Vietnam

Table 5. Models for Asia Pacific markets

Model	Top Choice Stock	Intel Xeon Scalable processor†	Memory	RAID	Drive bays	OCP	Slots	Power supply	Fans	Front VGA	Front diag	XCC2	Intru switch
Models with a 3-year warranty (machine type 7D73)													
<b>Models with 5th Gen Intel Xeon Scalable processors</b>													
7D73A08NAP	N	1x Silver 4509Y 8C 125W 2.6G	1x 16GB	940-8i 4GB	4x 3.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A08RAP	N	1x Silver 4509Y 8C 125W 2.6G	1x 16GB	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A097AP	N	1x Silver 4509Y 8C 125W 2.6G	1x 16GB	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A09QAP	Y	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A09TAP	Y	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	4x 3.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A09WAP	Y	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A08YAP	N	1x Silver 4510 12C 150W 2.4G	1x 16GB	940-8i 4GB	4x 3.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A096AP	N	1x Silver 4510 12C 150W 2.4G	1x 16GB	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A09RAP	Y	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	4x 3.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A09UAP	Y	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A08TAP	N	1x Silver 4514Y 16C 150W 2.0G	1x 16GB 1Rx8	940-8i 4GB	4x 3.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt
7D73A08ZAP	N	1x Silver 4514Y 16C 150W 2.0G	1x 16GB 1Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt

† Processor description: Processor model, number of cores, thermal design power (TDP), core frequency

## Models for Australia and New Zealand

Common to all Australia and New Zealand models:

- All models include a Toolless Slide Rail Kit and Cable Management Arm

Table 6. Models for Australia and New Zealand

Model	Top Choice Stock	Intel Xeon Scalable processor†	Memory	RAID	Drive bays	OCP	Slots	Power supply	Fans	Front VGA	Front diag	XCC2	Intru switch
Models with a 3-year warranty (machine type 7D73)													
<b>Models with 5th Gen Intel Xeon Scalable processors</b>													
7D73A04KAU	N	1x Silver 4514Y 16C 150W 2.0G	1x 32GB 2Rx8	940-8i 4GB Tri	10x 2.5" Any; Open bay	Open	2x LP Gen4	1x750W	6x Perf	Yes	Yes	Std	Opt

† Processor description: Processor model, number of cores, thermal design power (TDP), core frequency

## Models for Brazil

Table 7. Models for Brazil

Model	Top Choice Stock	Intel Xeon Scalable processor†	Memory	RAID	Drive bays	OCP	Slots	Power supply	Fans	Front VGA	Front diag	XCC2	Intru switch
Models with a 3-year warranty (machine type 7D73)													
<b>Models with 5th Gen Intel Xeon Scalable processors</b>													
7D73A08LBR	N	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay; 2x 480GB VA M.2; 1x M.2 B540i RAID	4-1Gb 5719	2x LP Gen4	2x750W	6x Perf	Opt	Yes	Std	Opt
7D731007BR	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen5	2x750W	6x Perf	Opt	Yes	Plat	Yes
7D731008BR	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen5	2x750W	6x Perf	Opt	Yes	Plat	Yes
7D73100LBR	N	1x Silver 4510 12C 150W 2.4G	1x 64GB	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	1x1100W	6x Perf	Opt	No	Plat	Yes
7D73100PBR	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 2Rx8	Option	Option 2.5"; Open bay	Open	Open	1x1100W	6x Perf	Opt	No	Plat	Yes
7D73A08KBR	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay; 2x 480GB VA M.2; 1x M.2 B540i RAID	4-1Gb 5719	2x LP Gen4	2x750W	6x Perf	Opt	Yes	Std	Opt
7D73100HBR	N	1x Silver 4514Y 16C 150W 2.0G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	2x750W	6x Perf	Opt	No	Plat	Yes
7D73100KBR	N	1x Silver 4514Y 16C 150W 2.0G	1x 64GB 2Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	1x1100W	6x Perf	Opt	No	Plat	Yes

† Processor description: Processor model, number of cores, thermal design power (TDP), core frequency

## Models for EMEA region

Table 8. Models for EMEA region

Model	Top Choice Stock	Intel Xeon Scalable processor†	Memory	RAID	Drive bays	OCP	Slots	Power supply	Fans	Front VGA	Front diag	XCC2	Intru switch
Models with a 3-year warranty (machine type 7D73)													
<b>Models with 5th Gen Intel Xeon Scalable processors</b>													
7D73A03WEA	N	1x Silver 4509Y 8C 125W 2.6G	1x 64GB	940-8i 4GB	8x 2.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Yes	Plat	Yes
7D73A03ZEA	Y	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Yes	Plat	Yes
7D73A068EA	N	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	4x 3.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Opt	Plat	Yes
7D731009EA	Y	1x Silver 4510 12C 150W 2.4G	1x 32GB 2Rx8	Option	Option 2.5"; Open bay	Open	Open	1x1100W Titanium	6x Perf	Opt	No	Plat	Yes
7D73100AEA	Y	1x Silver 4510 12C 150W 2.4G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	1x1100W Titanium	6x Perf	Opt	No	Plat	Yes
7D73100BEA	N	1x Silver 4510 12C 150W 2.4G	1x 64GB	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	1x1100W Titanium	6x Perf	Opt	No	Plat	Yes
7D73A03YEA	N	1x Silver 4510 12C 150W 2.4G	1x 64GB	940-8i 4GB	8x 2.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Yes	Plat	Yes
7D73A045EA	Y	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Yes	Plat	Yes
7D73A069EA	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	4x 3.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Opt	Plat	Yes
7D73100CEA	Y	1x Silver 4514Y 16C 150W 2.0G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	2x750W Titanium	6x Perf	Opt	No	Plat	Yes
7D73A06EEA	Y	1x Gold 6526Y 16C 195W 2.8G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Yes	Plat	Yes

† Processor description: Processor model, number of cores, thermal design power (TDP), core frequency

## Models for India

**AP models:** Customers in India also have access to the [Asia Pacific region](#) models.

Table 9. Models for India

Model	Top Choice Stock	Intel Xeon Scalable processor†	Memory	RAID	Drive bays	OCP	Slots	Power supply	Fans	Front VGA	Front diag	XCC2	Intru switch
Models with a 3-year warranty (machine type 7D73)													
<b>Models with 5th Gen Intel Xeon Scalable processors</b>													
7D73A094SG	N	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	2x750W	6x Perf	Yes	Yes	Plat	Yes
7D73A08XSG	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen4	2x750W	6x Perf	Yes	Yes	Plat	Yes
7D73A055SG	N	1x Silver 4514Y 16C 150W 2.0G	1x 32GB 2Rx8	940-8i 4GB Tri	10x 2.5" Any; Open bay	2- 10GbT 57416	LP+FH Gen5	2x1100W	6x Perf	Opt	Yes	Std	Opt
7D73A054SG	N	1x Silver 4516Y+ 24C 185W 2.2G	1x 32GB 2Rx8	940-8i 4GB Tri	10x 2.5" Any; Open bay	2- 10GbT 57416	LP+FH Gen5	2x1100W	6x Perf	Opt	Yes	Std	Opt
7D73A059SG	N	1x Gold 6530 32C 270W 2.1G	1x 32GB 2Rx8	940-8i 4GB Tri	10x 2.5" Any; Open bay	2- 10GbT 57416	LP+FH Gen5	2x1100W	6x Perf	Opt	Yes	Std	Opt

† Processor description: Processor model, number of cores, thermal design power (TDP), core frequency

## Models for Latin American countries (except Brazil)

Table 11. Models with a 3-year warranty for Latin American countries (except Brazil)

Model	Top Choice Stock	Intel Xeon Scalable processor†	Memory	RAID	Drive bays	OCP	Slots	Power supply	Fans	Front VGA	Front diag	XCC2	Intru switch
Models with a 3-year warranty (machine type 7D73)													
<b>Models with 5th Gen Intel Xeon Scalable processors</b>													
7D73A03ZLA	N	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Yes	Plat	Yes
7D73A05ALA	N	1x Silver 4509Y 8C 125W 2.6G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	Open	2x LP Gen4	1x1100W Titanium	6x Perf	Opt	Yes	Plat	Yes
7D731001LA	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen5	1x750W	6x Perf	Opt	Yes	Plat	Yes
7D731002LA	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 1Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen5	1x750W	6x Perf	Opt	Yes	Plat	Yes
7D73100JLA	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	1x1100W	6x Perf	Opt	No	Plat	Yes
7D73100MLA	N	1x Silver 4510 12C 150W 2.4G	1x 64GB	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	1x1100W	6x Perf	Opt	No	Plat	Yes
7D73100QLA	N	1x Silver 4510 12C 150W 2.4G	1x 32GB 2Rx8	Option	Option 2.5"; Open bay	Open	Open	1x1100W	6x Perf	Opt	No	Plat	Yes
7D731003LA	N	1x Silver 4514Y 16C 150W 2.0G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen5	2x750W	6x Perf	Opt	Yes	Plat	Yes
7D731004LA	N	1x Silver 4514Y 16C 150W 2.0G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	4-1Gb 5719	2x LP Gen5	2x750W	6x Perf	Opt	Yes	Plat	Yes
7D73100GLA	N	1x Silver 4514Y 16C 150W 2.0G	1x 32GB 2Rx8	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	2x750W	6x Perf	Opt	No	Plat	Yes
7D73100NLA	N	1x Silver 4514Y 16C 150W 2.0G	1x 64GB 2Rx4	940-8i 4GB	8x 2.5" SAS; Open bay	Open	LP+FH Gen5	1x1100W	6x Perf	Opt	No	Plat	Yes

† Processor description: Processor model, number of cores, thermal design power (TDP), core frequency

## Processors

The SR630 V3 supports processors in the 5th Gen and 4th Gen Intel Xeon Scalable Processor families. The server supports one or two processors.

Topics in this section:

- [Processor options](#)
- [Processor features](#)
- [One-processor configurations](#)
- [Thermal requirements by processor](#)
- [Lenovo Neptune Liquid to Air Module - Closed-loop liquid cooling](#)
- [Lenovo Processor Neptune Core Module - Open-loop liquid cooling](#)
- [UEFI operating modes](#)

## Processor options

All supported processors have the following characteristics:

- 8 DDR5 memory channels at 2 DIMMs per channel
- Up to 4 UPI links between processors at up to 20 GT/s
- Up to 80 PCIe 5.0 I/O lanes

The following table lists the 5th Gen processors that are currently supported by the SR630 V3. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

Table 13. 5th Gen Intel Xeon Processor support

Part number	Feature code	SKU	Description	Top Choice Express	Quantity supported
CTO only	BYVT	3508U	Intel Xeon Bronze 3508U 8C 125W 2.1GHz Processor	Not TCE	1*
4XG7A91484	BYW3	4509Y	ThinkSystem SR630 V3 Intel Xeon Silver 4509Y 8C 125W 2.6GHz Processor Option Kit w/o Fan	TCE ⓘ	2
4XG7A91483	BYW4	4510	ThinkSystem SR630 V3 Intel Xeon Silver 4510 12C 150W 2.4GHz Processor Option Kit w/o Fan	TCE ⓘ	2
4XG7A91496	BYVS	4510T	ThinkSystem SR630 V3 Intel Xeon Silver 4510T 12C 115W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91482	BYVP	4514Y	ThinkSystem SR630 V3 Intel Xeon Silver 4514Y 16C 150W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91481	BYW6	4516Y+	ThinkSystem SR630 V3 Intel Xeon Silver 4516Y+ 24C 185W 2.2GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYVU	5512U	Intel Xeon Gold 5512U 28C 185W 2.1GHz Processor	Not TCE	1*
4XG7A91495	BYVW	5515+	ThinkSystem SR630 V3 Intel Xeon Gold 5515+ 8C 165W 3.2GHz Processor Option Kit w/o Fan	TCE ⓘ	2
4XG7A91480	BYW7	5520+	ThinkSystem SR630 V3 Intel Xeon Gold 5520+ 28C 205W 2.2GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91494	BYVX	6526Y	ThinkSystem SR630 V3 Intel Xeon Gold 6526Y 16C 195W 2.8GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91479	BYWK	6530	ThinkSystem SR630 V3 Intel Xeon Gold 6530 32C 270W 2.1GHz Processor Option Kit w/o Fan	TCE ⓘ	2
4XG7A91491	BYW0	6534	ThinkSystem SR630 V3 Intel Xeon Gold 6534 8C 195W 3.9GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91828	BYVQ	6538N	ThinkSystem SR630 V3 Intel Xeon Gold 6538N 32C 205W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91478	BYW8	6538Y+	ThinkSystem SR630 V3 Intel Xeon Gold 6538Y+ 32C 225W 2.2GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91493	BYVY	6542Y	ThinkSystem SR630 V3 Intel Xeon Gold 6542Y 24C 250W 2.9GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91490	BYW1	6544Y	ThinkSystem SR630 V3 Intel Xeon Gold 6544Y 16C 270W 3.6GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91827	BYVR	6548N	ThinkSystem SR630 V3 Intel Xeon Gold 6548N 32C 250W 2.8GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91492	BYVZ	6548Y+	ThinkSystem SR630 V3 Intel Xeon Gold 6548Y+ 32C 250W 2.5GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91498	BYW9	6554S	ThinkSystem SR630 V3 Intel Xeon Gold 6554S 36C 270W 2.2GHz Processor Option Kit w/o Fan	Not TCE	2

Part number	Feature code	SKU	Description	Top Choice Express	Quantity supported
CTO only	BYVW	6558Q	Intel Xeon Gold 6558Q 32C 350W 3.2GHz Processor	Not TCE	2
4XG7A91477	BYW5	8558	ThinkSystem SR630 V3 Intel Xeon Platinum 8558 48C 330W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91497	BYWA	8558P	ThinkSystem SR630 V3 Intel Xeon Platinum 8558P 48C 350W 2.7GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYWE	8558U	Intel Xeon Platinum 8558U 48C 300W 2.0GHz Processor	Not TCE	1*
4XG7A91489	BYW2	8562Y+	ThinkSystem SR630 V3 Intel Xeon Platinum 8562Y+ 32C 300W 2.8GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91488	BYWF	8568Y+	ThinkSystem SR630 V3 Intel Xeon Platinum 8568Y+ 48C 350W 2.3GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91487	BYWG	8570	ThinkSystem SR630 V3 Intel Xeon Platinum 8570 56C 350W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYWD	8571N	Intel Xeon Platinum 8571N 52C 300W 2.4GHz Processor	Not TCE	1*
4XG7A91486	BYWH	8580	ThinkSystem SR630 V3 Intel Xeon Platinum 8580 60C 350W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYWC	8581V	Intel Xeon Platinum 8581V 60C 270W 2.0GHz Processor	Not TCE	1*
4XG7A91485	BYWJ	8592+	ThinkSystem SR630 V3 Intel Xeon Platinum 8592+ 64C 350W 1.9GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A91829	BYWB	8592V	ThinkSystem SR630 V3 Intel Xeon Platinum 8592V 64C 330W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYXG	8593Q	Intel Xeon Platinum 8593Q 64C 385W 2.2GHz Processor	Not TCE	2

\* These processors are single-socket capable processors and are only available in configure-to-order builds or in preconfigured models. Not available as option part numbers.

The following table lists the 4th Gen processors that are currently supported by the SR630 V3.

Table 14. 4th Gen Intel Xeon Processor support

Part number	Feature code	SKU	Description	Top Choice Express	Maximum quantity
CTO only	BQ68	3408U	Intel Xeon Bronze 3408U 8C 125W 1.8GHz Processor	Not TCE	1*
4XG7A83807	BQ64	4410T	ThinkSystem SR630 V3 Intel Xeon Silver 4410T 10C 150W 2.7GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83810	BQ67	4410Y	ThinkSystem SR630 V3 Intel Xeon Silver 4410Y 12C 150W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83812	BQ69	4416+	ThinkSystem SR630 V3 Intel Xeon Silver 4416+ 20C 165W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BQ6J	5411N	Intel Xeon Gold 5411N 24C 165W 1.9GHz Processor	Not TCE	1*
CTO only	BU1V	5412U	Intel Xeon Gold 5412U 24C 185W 2.1GHz Processor	Not TCE	1*
4XG7A83806	BQ63	5415+	ThinkSystem SR630 V3 Intel Xeon Gold 5415+ 8C 150W 2.9GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83823	BQ6L	5416S	ThinkSystem SR630 V3 Intel Xeon Gold 5416S 16C 150W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83820	BQ6H	5418N	ThinkSystem SR630 V3 Intel Xeon Gold 5418N 24C 165W 1.8GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83809	BQ66	5418Y	ThinkSystem SR630 V3 Intel Xeon Gold 5418Y 24C 185W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2

Part number	Feature code	SKU	Description	Top Choice Express	Maximum quantity
4XG7A83808	BQ65	5420+	ThinkSystem SR630 V3 Intel Xeon Gold 5420+ 28C 205W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BXHX	5423N	Intel Xeon Gold 5423N 20C 145W 2.1GHz Processor	Not TCE	1*
CTO only	BXHY	5433N	Intel Xeon Gold 5433N 20C 160W 2.3GHz Processor	Not TCE	1*
CTO only	BYQK	6403N	Intel Xeon Gold 6403N 24C 185W 1.9GHz Processor	Not TCE	1*
CTO only	BPPD	6414U	Intel Xeon Gold 6414U 32C 250W 2.0GHz Processor	Not TCE	1*
4XG7A83815	BQ6C	6416H	ThinkSystem SR630 V3 Intel Xeon Gold 6416H 18C 165W 2.2GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83814	BQ6B	6418H	ThinkSystem SR630 V3 Intel Xeon Gold 6418H 24C 185W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYQH	6423N	Intel Xeon Gold 6423N 28C 195W 2.0GHz Processor	Not TCE	1*
4XG7A83803	BPQF	6426Y	ThinkSystem SR630 V3 Intel Xeon Gold 6426Y 16C 185W 2.5GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83818	BQ6F	6428N	ThinkSystem SR630 V3 Intel Xeon Gold 6428N 32C 185W 1.8GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83777	BPPC	6430	ThinkSystem SR630 V3 Intel Xeon Gold 6430 32C 270W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYQJ	6433N	Intel Xeon Gold 6433N 32C 205W 2.0GHz Processor	Not TCE	1*
4XG7A83801	BPQC	6434	ThinkSystem SR630 V3 Intel Xeon Gold 6434 8C 195W 3.7GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83817	BQ6E	6434H	ThinkSystem SR630 V3 Intel Xeon Gold 6434H 8C 195W 3.7GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83822	BQ6K	6438M	ThinkSystem SR630 V3 Intel Xeon Gold 6438M 32C 205W 2.2-2.2GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83816	BQ6D	6438N	ThinkSystem SR630 V3 Intel Xeon Gold 6438N 32C 205W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83804	BQ62	6438Y+	ThinkSystem SR630 V3 Intel Xeon Gold 6438Y+ 32C 205W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83802	BPQE	6442Y	ThinkSystem SR630 V3 Intel Xeon Gold 6442Y 24C 225W 2.6GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BYQG	6443N	Intel Xeon Gold 6443N 32C 195W 1.6GHz Processor	Not TCE	1*
4XG7A83800	BPQB	6444Y	ThinkSystem SR630 V3 Intel Xeon Gold 6444Y 16C 270W 3.6GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83813	BQ6A	6448H	ThinkSystem SR630 V3 Intel Xeon Gold 6448H 32C 250W 2.4GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83805	BPQD	6448Y	ThinkSystem SR630 V3 Intel Xeon Gold 6448Y 32C 225W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83788	BPPM	6454S	ThinkSystem SR630 V3 Intel Xeon Gold 6454S 32C 270W 2.2GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BPQG	6458Q	Intel Xeon Gold 6458Q 32C 350W 3.1GHz Processor	Not TCE	2
4XG7A83785	BPPH	8444H	ThinkSystem SR630 V3 Intel Xeon Platinum 8444H 16C 270W 2.9GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83783	BPPG	8450H	ThinkSystem SR630 V3 Intel Xeon Platinum 8450H 28C 250W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83778	BPPB	8452Y	ThinkSystem SR630 V3 Intel Xeon Platinum 8452Y 36C 300W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2

Part number	Feature code	SKU	Description	Top Choice Express	Maximum quantity
4XG7A83782	BPPF	8454H	ThinkSystem SR630 V3 Intel Xeon Platinum 8454H 32C 270W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83795	BPPT	8458P	ThinkSystem SR630 V3 Intel Xeon Platinum 8458P 44C 350W 2.7GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83781	BPPN	8460H	ThinkSystem SR630 V3 Intel Xeon Platinum 8460H 40C 330W 2.2GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83789	BPPQ	8460Y+	ThinkSystem SR630 V3 Intel Xeon Platinum 8460Y+ 40C 300W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BPPK	8461V	Intel Xeon Platinum 8461V 48C 300W 2.2GHz Processor	Not TCE	1*
4XG7A83799	BPQA	8462Y+	ThinkSystem SR630 V3 Intel Xeon Platinum 8462Y+ 32C 300W 2.8GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83796	BPPU	8468	ThinkSystem SR630 V3 Intel Xeon Platinum 8468 48C 350W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83780	BPPE	8468H	ThinkSystem SR630 V3 Intel Xeon Platinum 8468H 48C 330W 2.1GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83791	BPPP	8468V	ThinkSystem SR630 V3 Intel Xeon Platinum 8468V 48C 330W 2.4GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83797	BN0N	8470	ThinkSystem SR630 V3 Intel Xeon Platinum 8470 52C 350W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83786	BPPJ	8470N	ThinkSystem SR630 V3 Intel Xeon Platinum 8470N 52C 300W 1.7GHz Processor Option Kit w/o Fan	Not TCE	2
CTO only	BN0P	8470Q	Intel Xeon Platinum 8470Q 52C 350W 2.1GHz Processor	Not TCE	2
4XG7A83798	BN0M	8480+	ThinkSystem SR630 V3 Intel Xeon Platinum 8480+ 56C 350W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A90851	BXNW	8480CL	ThinkSystem SR630 V3 Intel Xeon Platinum 8480CL 56C 350W 2.0GHz Processor Option Kit w/o Fan	Not TCE	2
4XG7A83794	BPPS	8490H	ThinkSystem SR630 V3 Intel Xeon Platinum 8490H 60C 350W 1.9GHz Processor Option Kit w/o Fan	Not TCE	2

\* These processors are single-socket capable processors and are only available in configure-to-order builds or in preconfigured models. Not available as option part numbers.

Configuration notes:

- Processor options include a heatsink but do not include a system fan
- Single-processor configurations are not supported

### Processor features

Processors supported by the SR630 V3 introduce new embedded accelerators to add even more processing capability:

- QuickAssist Technology (Intel QAT)

Help reduce system resource consumption by providing accelerated cryptography, key protection, and data compression with Intel QuickAssist Technology (Intel QAT). By offloading encryption and decryption, this built-in accelerator helps free up processor cores and helps systems serve a larger number of clients.

- Intel Dynamic Load Balancer (Intel DLB)

Improve the system performance related to handling network data on multi-core Intel Xeon Scalable processors. Intel Dynamic Load Balancer (Intel DLB) enables the efficient distribution of network processing across multiple CPU cores/threads and dynamically distributes network data across multiple CPU cores for processing as the system load varies. Intel DLB also restores the order of networking data packets processed simultaneously on CPU cores.

- Intel Data Streaming Accelerator (Intel DSA)

Drive high performance for storage, networking, and data-intensive workloads by improving streaming data movement and transformation operations. Intel Data Streaming Accelerator (Intel DSA) is designed to offload the most common data movement tasks that cause overhead in data center-scale deployments. Intel DSA helps speed up data movement across the CPU, memory, and caches, as well as all attached memory, storage, and network devices.

- Intel In-Memory Analytics Accelerator (Intel IAA)

Run database and analytics workloads faster, with potentially greater power efficiency. Intel In-Memory Analytics Accelerator (Intel IAA) increases query throughput and decreases the memory footprint for in-memory database and big data analytics workloads. Intel IAA is ideal for in-memory databases, open source databases and data stores like RocksDB, Redis, Cassandra, and MySQL.

- Intel Advanced Matrix Extensions (Intel AMX)

Intel Advanced Matrix Extensions (Intel AMX) is a built-in accelerator in all Silver, Gold, and Platinum processors that significantly improves deep learning training and inference. With Intel AMX, you can fine-tune deep learning models or train small to medium models in just minutes. Intel AMX offers discrete accelerator performance without added hardware and complexity.

The processors also support a separate and encrypted memory space, known as the SGX Enclave, for use by Intel Software Guard Extensions (SGX). The size of the SGX Enclave supported varies by processor model. Intel SGX offers hardware-based memory encryption that isolates specific application code and data in memory. It allows user-level code to allocate private regions of memory (enclaves) which are designed to be protected from processes running at higher privilege levels.

The following table summarizes the key features of all supported 5th Gen processors in the SR630 V3.

Table 15. 5th Gen Intel Xeon Processor features

CPU model	Die	Cores/ threads	Core speed (Base / TB max†)	L3 cache*	Max memory speed	UPI 2.0 links & speed	PCIe lanes	TDP	Accelerators				SGX Enclave Size
									QAT	DLB	DSA	IAA	
3508U	EE LCC	8 / 8**	2.1 / 2.2 GHz	22.5 MB*	4400 MHz	None‡	80	125W	0	0	1	0	64GB
4509Y	EE LCC	8 / 16	2.6 / 4.1 GHz	22.5 MB*	4400 MHz	2 / 16 GT/s	80	125W	0	0	1	0	64GB
4510	EE LCC	12 / 24	2.4 / 4.1 GHz	30 MB*	4400 MHz	2 / 16 GT/s	80	150W	0	0	1	0	64GB
4510T	EE LCC	12 / 24	2.0 / 3.7 GHz	30 MB*	4400 MHz	2 / 16 GT/s	80	115W	0	0	1	0	64GB
4514Y	MCC	16 / 32	2.0 / 3.4 GHz	30 MB	4400 MHz	2 / 16 GT/s	80	150W	0	0	1	0	64GB
4516Y+	MCC	24 / 48	2.2 / 3.7 GHz	45 MB	4400 MHz	2 / 16 GT/s	80	185W	1	1	1	1	64GB
5512U	MCC	28 / 56	2.1 / 3.7 GHz	52.5 MB	4800 MHz	None‡	80	185W	0	0	1	0	128GB
5515+	MCC	8 / 16	3.2 / 4.1 GHz	22.5 MB*	4800 MHz	3 / 20 GT/s	80	165W	1	1	1	1	128GB
5520+	MCC	28 / 56	2.2 / 4.0 GHz	52.5 MB	4800 MHz	3 / 20 GT/s	80	205W	1	1	1	1	128GB
6526Y	MCC	16 / 32	2.8 / 3.9 GHz	37.5 MB*	5200 MHz	3 / 20 GT/s	80	195W	0	0	1	0	128GB
6530	XCC	32 / 64	2.1 / 4.0 GHz	160 MB*	4800 MHz	3 / 20 GT/s	80	270W	0	0	1	0	128GB
6534	MCC	8 / 16	3.9 / 4.2 GHz	22.5 MB*	4800 MHz	3 / 20 GT/s	80	195W	0	0	1	0	128GB
6538N	MCC	32 / 64	2.1 / 4.1 GHz	60 MB	5200 MHz	3 / 20 GT/s	80	205W	2	2	1	0	128GB
6538Y+	MCC	32 / 64	2.2 / 4.0 GHz	60 MB	5200 MHz	3 / 20 GT/s	80	225W	1	1	1	1	128GB
6542Y	MCC	24 / 48	2.9 / 4.1 GHz	60 MB*	5200 MHz	3 / 20 GT/s	80	250W	0	0	1	0	128GB
6544Y	MCC	16 / 32	3.6 / 4.1 GHz	45 MB*	5200 MHz	3 / 20 GT/s	80	270W	0	0	1	0	128GB
6548N	MCC	32 / 64	2.8 / 4.1 GHz	60 MB	5200 MHz	3 / 20 GT/s	80	250W	2	2	1	0	128GB
6548Y+	MCC	32 / 64	2.5 / 4.1 GHz	60 MB	5200 MHz	3 / 20 GT/s	80	250W	1	1	1	1	128GB
6554S	XCC	36 / 72	2.2 / 4.0 GHz	180 MB*	5200 MHz	4 / 20 GT/s	80	270W	4	4	4	0	128GB
6558Q	MCC	32 / 64	3.2 / 4.1 GHz	60 MB	5200 MHz	3 / 20 GT/s	80	350W	0	0	1	0	128GB
8558	XCC	48 / 96	2.1 / 4.0 GHz	260 MB*	5200 MHz	4 / 20 GT/s	80	330W	0	0	1	0	512GB
8558P	XCC	48 / 96	2.7 / 4.0 GHz	260 MB*	5600 MHz	3 / 20 GT/s	80	350W	1	1	1	1	512GB
8558U	XCC	48 / 96	2.0 / 4.0 GHz	260 MB*	4800 MHz	None‡	80	300W	0	0	1	0	512GB
8562Y+	MCC	32 / 64	2.8 / 4.1 GHz	60 MB	5600 MHz	3 / 20 GT/s	80	300W	1	1	1	1	512GB
8568Y+	XCC	48 / 96	2.3 / 4.0 GHz	300 MB*	5600 MHz	4 / 20 GT/s	80	350W	1	1	1	1	512GB
8570	XCC	56 / 112	2.1 / 4.0 GHz	300 MB*	5600 MHz	4 / 20 GT/s	80	350W	0	0	1	0	512GB
8571N	XCC	52 / 104	2.4 / 4.0 GHz	300 MB*	4800 MHz	None‡	80	300W	4	4	4	4	512GB
8580	XCC	60 / 120	2.0 / 4.0 GHz	300 MB*	5600 MHz	4 / 20 GT/s	80	350W	0	0	1	0	512GB
8581V	XCC	60 / 120	2.0 / 3.9 GHz	300 MB*	4800 MHz	None‡	80	270W	1	1	1	1	512GB
8592+	XCC	64 / 128	1.9 / 3.9 GHz	320 MB*	5600 MHz	4 / 20 GT/s	80	350W	1	1	1	1	512GB
8592V	XCC	64 / 128	2.0 / 3.9 GHz	320 MB*	4800 MHz	3 / 20 GT/s	80	330W	1	1	1	1	512GB
8593Q	XCC	64 / 128	2.2 / 3.9 GHz	320 MB*	5600 MHz	4 / 20 GT/s	80	385W	1	1	1	1	512GB

† The maximum single-core frequency at with the processor is capable of operating

\* L3 cache is 1.875 MB per core or larger. Processors with a larger L3 cache per core are marked with an \*

\*\* Bronze 3508U aprocessor does not support Hyper-Threading Technology

‡ SKUs with a U suffix as well as some other SKUs have no UPI links and are are single-socket only

The following table summarizes the key features of all supported 4th Gen processors in the SR630 V3.

Table 16. 4th Gen Intel Xeon Processor features

CPU model	Die	Cores/ threads	Core speed (Base / TB max†)	L3 cache*	Max memory speed	UPI 2.0 links & speed	PCIe lanes	TDP	Accelerators				SGX Enclave Size
									QAT	DLB	DSA	IAA	
3408U	MCC	8 / 8**	1.8 / 1.9 GHz	22.5 MB*	4000 MHz	None‡	80	125W	0	0	1	0	64GB

CPU model	Die	Cores/ threads	Core speed (Base / TB max†)	L3 cache*	Max memory speed	UPI 2.0 links & speed	PCIe lanes	TDP	Accelerators				SGX Enclave Size
									QAT	DLB	DSA	IAA	
4410T	MCC	10 / 20	2.7 / 4.0 GHz	26.25 MB*	4000 MHz	2 / 16 GT/s	80	150W	0	0	1	0	64GB
4410Y	MCC	12 / 24	2.0 / 3.9 GHz	30 MB*	4000 MHz	2 / 16 GT/s	80	150W	0	0	1	0	64GB
4416+	MCC	20 / 40	2.0 / 3.9 GHz	37.5 MB	4000 MHz	2 / 16 GT/s	80	165W	1	1	1	1	64GB
5411N	MCC	24 / 48	1.9 / 3.9 GHz	45 MB	4400 MHz	None‡	80	165W	2	2	1	0	128GB
5412U	MCC	24 / 48	2.1 / 3.9 GHz	45 MB	4400 MHz	None‡	80	185W	0	0	1	0	128GB
5415+	MCC	8 / 16	2.9 / 4.1 GHz	22.5 MB*	4400 MHz	3 / 16 GT/s	80	150W	1	1	1	1	128GB
5416S	MCC	16 / 32	2.0 / 4.0 GHz	30 MB	4400 MHz	3 / 16 GT/s	80	150W	2	2	1	0	128GB
5418N	MCC	24 / 48	1.8 / 3.8 GHz	45 MB	4000 MHz	3 / 16 GT/s	80	165W	2	2	1	0	128GB
5418Y	MCC	24 / 48	2.0 / 3.8 GHz	45 MB	4400 MHz	3 / 16 GT/s	80	185W	0	0	1	0	128GB
5420+	MCC	28 / 56	2.0 / 4.1 GHz	52.5 MB	4400 MHz	3 / 16 GT/s	80	205W	1	1	1	1	128GB
5423N	LCC	20 / 40	2.1 / 4.0 GHz	37.5 MB	4000 MHz	None‡	48	145W	0	0	1	0	128GB
5433N	LCC	24 / 48	1.9 / 3.6 GHz	45 MB	4000 MHz	None‡	48	160W	0	0	1	0	128GB
6403N	MCC	24 / 48	1.9 / 3.6 GHz	45 MB	4000 MHz	None‡	64	185W	0	0	1	0	128GB
6414U	XCC	32 / 64	2.0 / 3.4 GHz	60 MB	4800 MHz	None‡	80	250W	0	0	1	0	128GB
6416H	MCC	18 / 36	2.2 / 4.2 GHz	45 MB*	4800 MHz	3 / 16 GT/s	80	165W	0	0	1	1	512GB
6418H	MCC	24 / 48	2.1 / 4.0 GHz	60 MB*	4800 MHz	3 / 16 GT/s	80	185W	0	0	1	1	512GB
6423N	MCC	28 / 56	2.0 / 3.6 GHz	52.5 MB	4400 MHz	None‡	64	195W	0	0	1	0	128GB
6426Y	MCC	16 / 32	2.5 / 4.1 GHz	37.5 MB*	4800 MHz	3 / 16 GT/s	80	185W	0	0	1	0	128GB
6428N	MCC	32 / 64	1.8 / 3.8 GHz	60 MB	4000 MHz	3 / 16 GT/s	80	185W	2	2	1	0	128GB
6430	XCC	32 / 64	2.1 / 3.4 GHz	60 MB	4400 MHz	3 / 16 GT/s	80	270W	0	0	1	0	128GB
6433N	MCC	32 / 64	2.0 / 3.6 GHz	60 MB	4400 MHz	None‡	64	205W	0	0	1	0	128GB
6434	MCC	8 / 16	3.7 / 4.1 GHz	22.5 MB*	4800 MHz	3 / 16 GT/s	80	195W	0	0	1	0	128GB
6434H	MCC	8 / 16	3.7 / 4.1 GHz	22.5 MB*	4800 MHz	3 / 16 GT/s	80	195W	0	0	1	1	512GB
6438M	MCC	32 / 64	2.2 / 3.9 GHz	60 MB	4800 MHz	3 / 16 GT/s	80	205W	0	0	1	1	128GB
6438N	MCC	32 / 64	2.0 / 3.6 GHz	60 MB	4800 MHz	3 / 16 GT/s	80	205W	2	2	1	0	128GB
6438Y+	MCC	32 / 64	2.0 / 4.0 GHz	60 MB	4800 MHz	3 / 16 GT/s	80	205W	1	1	1	1	128GB
6442Y	MCC	24 / 48	2.6 / 4.0 GHz	60 MB*	4800 MHz	3 / 16 GT/s	80	225W	0	0	1	0	128GB
6443N	MCC	32 / 64	2.0 / 3.6 GHz	60 MB	4400 MHz	None‡	64	195W	0	0	1	0	128GB
6444Y	MCC	16 / 32	3.6 / 4.1 GHz	45 MB*	4800 MHz	3 / 16 GT/s	80	270W	0	0	1	0	128GB
6448H	MCC	32 / 64	2.4 / 4.1 GHz	60 MB	4800 MHz	3 / 16 GT/s	80	250W	2	2	1	1	512GB
6448Y	MCC	32 / 64	2.1 / 4.1 GHz	60 MB	4800 MHz	3 / 16 GT/s	80	225W	0	0	1	0	128GB
6454S	XCC	32 / 64	2.2 / 3.4 GHz	60 MB	4800 MHz	4 / 16 GT/s	80	270W	4	4	4	0	128GB
6458Q	MCC	32 / 64	3.1 / 4.0 GHz	60 MB	4800 MHz	3 / 16 GT/s	80	350W	0	0	1	0	128GB
8444H	XCC	16 / 32	2.9 / 4.0 GHz	45 MB*	4800 MHz	4 / 16 GT/s	80	270W	0	0	4	4	512GB
8450H	XCC	28 / 56	2.0 / 3.5 GHz	75 MB*	4800 MHz	4 / 16 GT/s	80	250W	0	0	4	4	512GB
8452Y	XCC	36 / 72	2.0 / 3.2 GHz	67.5 MB	4800 MHz	4 / 16 GT/s	80	300W	0	0	1	0	128GB
8454H	XCC	32 / 64	2.1 / 3.4 GHz	82.5 MB*	4800 MHz	4 / 16 GT/s	80	270W	4	4	4	4	512GB
8458P	XCC	44 / 88	2.7 / 3.8 GHz	82.5 MB	4800 MHz	3 / 16 GT/s	80	350W	1	1	1	1	512GB
8460H	XCC	40 / 80	2.2 / 3.8 GHz	105 MB*	4800 MHz	4 / 16 GT/s	80	330W	0	0	4	4	512GB
8460Y+	XCC	40 / 80	2.0 / 3.7 GHz	105 MB*	4800 MHz	4 / 16 GT/s	80	300W	1	1	1	1	128GB
8461V	XCC	48 / 96	2.2 / 3.7 GHz	97.5 MB*	4800 MHz	None‡	80	300W	1	1	1	1	128GB
8462Y+	XCC	32 / 64	2.8 / 4.1 GHz	60 MB	4800 MHz	3 / 16 GT/s	80	300W	1	1	1	1	128GB
8468	XCC	48 / 96	2.1 / 3.8 GHz	105 MB*	4800 MHz	4 / 16 GT/s	80	350W	0	0	1	0	512GB
8468H	XCC	48 / 96	2.1 / 3.8 GHz	105 MB*	4800 MHz	4 / 16 GT/s	80	330W	4	4	4	4	512GB
8468V	XCC	48 / 96	2.4 / 3.8 GHz	97.5 MB*	4800 MHz	3 / 16 GT/s	80	330W	1	1	1	1	128GB

CPU model	Die	Cores/ threads	Core speed (Base / TB max†)	L3 cache*	Max memory speed	UPI 2.0 links & speed	PCIe lanes	TDP	Accelerators				SGX Enclave Size
									QAT	DLB	DSA	IAA	
8470	XCC	52 / 104	2.0 / 3.8 GHz	105 MB*	4800 MHz	4 / 16 GT/s	80	350W	0	0	1	0	512GB
8470N	XCC	52 / 104	1.7 / 3.6 GHz	97.5 MB	4800 MHz	4 / 16 GT/s	80	300W	4	4	4	0	128GB
8470Q	XCC	52 / 104	2.1 / 3.8 GHz	105 MB*	4800 MHz	4 / 16 GT/s	80	350W	0	0	1	0	512GB
8480+	XCC	56 / 112	2.0 / 3.8 GHz	105 MB	4800 MHz	4 / 16 GT/s	80	350W	1	1	1	1	512GB
8480CL	XCC	56 / 112	2.0 / 3.8 GHz	105 MB	4800 MHz	4 / 16 GT/s	80	350W	1	1	1	1	512GB
8490H	XCC	60 / 120	1.9 / 3.5 GHz	112.5 MB	4800 MHz	4 / 16 GT/s	80	350W	4	4	4	4	512GB

† The maximum single-core frequency at which the processor is capable of operating

\* L3 cache is 1.875 MB per core or larger. Processors with a larger L3 cache per core are marked with an \*

\*\* Bronze 3408U processor does not support Hyper-Threading Technology

‡ SKUs with a U suffix as well as some other SKUs have no UPI links and are single-socket only

## One-processor configurations

The SR630 V3 can be used with only one processor installed. Most core functions of the server (including the XClarity Controller) are connected to processor 1 as shown in the [System architecture](#) section.

With only one processor, the server has the following capabilities:

- 16 memory DIMMs for a 2TB maximum
- Two PCIe slots, Slot 1 and Slot 2 are available; Slot 3 is not available
- OCP 3.0 slot
- Up to 4x NVMe front drives using onboard connections
- 7mm drives
- M.2 drives
- Internal RAID adapter or HBA (CFF form factor)

## Thermal requirements by processor

For processors with a TDP of more than 300W, the server can be configured in one of the following ways:

- Configure the open-loop liquid processor cooling, as described in the [Lenovo Neptune Processor DWC Module](#) section below, or
- Configure the closed-loop liquid processor cooling, as described in the [Lenovo Neptune Liquid to Air Module](#) section below, or
- Limit the drive backplanes used to only one of the 4-bay front drive backplanes (features BCGB or BPC9 as described in the [Front drive bays](#) section)

For additional thermal requirements for processors, see the Thermal Rules section in the Lenovo Docs site for the SR630 V3:

[https://pubs.lenovo.com/sr630-v3/thermal\\_rules](https://pubs.lenovo.com/sr630-v3/thermal_rules)

The SR630 V3 supports four different processor cooling solutions, depending on the configuration, as listed in the following table.

Table 17. Processor cooling options

Feature code	Description	Top Choice Express	Purpose
BPFK	Standard Heatsink	Not TCE	Standard 1U heatsink. Automatically selected based on the server configuration.
BP50	ThinkSystem SR630 V3 Performance Heatsink (Neptune Thermal Transfer Module)	Not TCE	Performance 1U heatsink with two satellite heatsinks. Automatically selected based on the server configuration.

Feature code	Description	Top Choice Express	Purpose
BRU2	ThinkSystem SR630 V3 Neptune Liquid to Air Module	Not TCE	Enables closed-loop liquid cooling of the processors. See the <a href="#">Lenovo Neptune Liquid to Air Module</a> section.
BXBC	ThinkSystem V3 1U/2U Neptune Processor Direct Water Cooling Module	Not TCE	Enables open-loop liquid cooling of the processors. See the <a href="#">Lenovo Neptune Processor DWC Module</a> section.

The selection of the heatsink will be automatically derived by the configurator and depends on the processor and other components selected. Use the tables in the Lenovo Docs site to determine the requirements for each heatsink:

[https://pubs.lenovo.com/sr630-v3/thermal\\_rules](https://pubs.lenovo.com/sr630-v3/thermal_rules)

### Lenovo Neptune Liquid to Air Module - Closed-loop liquid cooling

The Lenovo Neptune Liquid to Air (L2A) Module is a closed-loop liquid-cooled processor heatsink, and is primarily used for processors with a TDP of more than 300W. Without the closed-loop heatsink, the use of processors > 300W TDP requires that only 4x front 2.5-inch drive bays be configured. The use of the closed-loop heatsink allows for 10x SAS/SATA or NVMe drives bays.

**Ambient temperature:** The use of the closed-loop liquid-cooled heatsinks requires that the ambient temperature be no more than 25°C.

The following figure shows the placement of the components in the closed-loop liquid-cooled solution. Cold plates are mounted on top of each processor and these are connected via aluminum tubes to a radiator that is placed in front of the system fans. The tubes contain a mixture of water and ethylene glycol (EGW). The liquid is actively pumped through the pipes in a closed loop to remove the heat from the processors.

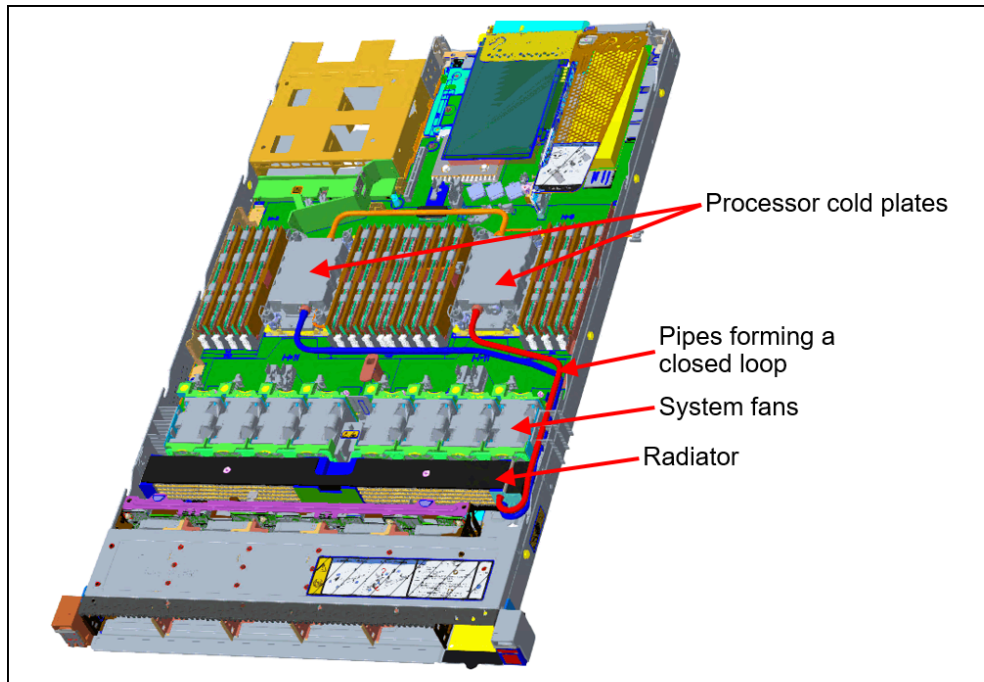


Figure 7. SR630 V3 with Neptune Liquid to Air Module

The Neptune Liquid to Air Module is only available in CTO orders, not as a field upgrade. Ordering information is listed in the following table.

Table 18. Ordering information

Part number	Feature code	Description	Top Choice Express
CTO only	BRU2*	ThinkSystem SR630 V3 Neptune Liquid to Air Module	Not TCE

\* In DCSC, this feature code is listed in the Processor tab

To enable closed-loop liquid-cooled heatsink in the DCSC configurator:

1. Select Base as ThinkSystem V3 1U 10x2.5" Chassis (feature BLK4)
2. Select Datacenter Environment of 25 Degrees Celsius (feature BL0H)
3. Select ThinkSystem SR630 V3 Neptune Liquid to Air Module (feature BRU2)
4. Select a processor with TDP > 300W

The closed-loop liquid-cooled heatsink has the following requirements:

- Either one or two CPUs are supported
- One of the following 2.5-inch front drive bay configurations:
  - 10x 2.5" SAS/SATA
  - 10x 2.5" NVMe
  - 6x SAS/SATA + 2x AnyBay + 2x NVMe
  - 6x SAS/SATA + 4x AnyBay
  - 8x 2.5" SAS/SATA
  - 8x 2.5" U.2 drives with one processor
- 3.5-inch and EDSFF front drive bays are not supported
- If a RAID 940 or 9350 adapter is configured:
  - RAID supercap must be installed in slot 3
  - 7mm drives are not supported
- The following components are not supported:
  - 256GB 3DS RDIMMs
  - Rear 2.5-inch drives
  - GPUs
  - M.2 drives
  - Any internal RAID/HBAs (CFF form factor)
- 25°C ambient temperature

For more information, see the Thermal Rules page for the Liquid to Air Module:

[https://pubs.lenovo.com/sr630-v3/thermal\\_rules#thermal\\_rules\\_\\_thermal\\_rules\\_for\\_servers\\_with\\_lacm](https://pubs.lenovo.com/sr630-v3/thermal_rules#thermal_rules__thermal_rules_for_servers_with_lacm)

### Lenovo Processor Neptune Core Module - Open-loop liquid cooling

The SR630 V3 also supports advanced direct-water cooling (DWC) capability with the Lenovo Processor Neptune Core Module. This module implements a liquid cooling solution where heat from the processors is removed from the rack and the data center using an open loop and coolant distribution units.

With the Processor Neptune Core Module, all heat generated by the processors is removed from the server using water. This means that the server fans and data center air conditioning units only need to remove the heat generated by the other components. This results in lower air conditioning costs and it enables the use of slower fans which results in lower overall power consumption.

Typical power saving of 26% (up to 17.2KW per rack) are possible, based on 35x SR630 V3 servers in a rack (DC level PUE weighted) at 30°C ambient temperature. Power savings are configuration dependent.

The following figure shows the Lenovo Processor Neptune Core Module.

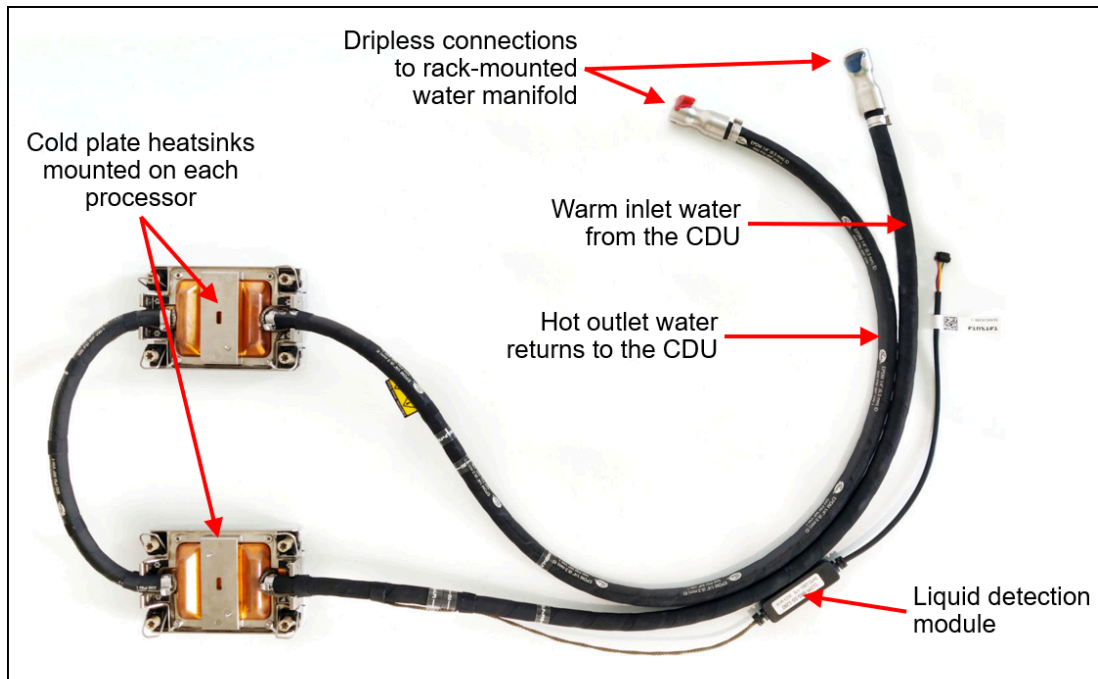


Figure 8. Lenovo Processor Neptune Core Module

The Processor Neptune Core Module also includes a leak detection module which can detect a leakage of more than 0.5ml (about 10 drops) along the length of the tube and then issue an event to the XClarity Controller. XCC will then post an error to the System Event Log and enable further actions. Once the liquid evaporates, a further event is issued to XCC.

The Processor Neptune Core Module is only available in CTO orders, not as a field upgrade. Ordering information is listed in the following table.

Table 19. Lenovo Processor Neptune Core Module

Part number	Feature code	Description	Top Choice Express
CTO only	BXBC*	ThinkSystem V3 1U/2U Neptune Processor Direct Water Cooling Solution	Not TCE

\* In DCSC, this feature code is listed in the Processor tab

Configuration notes:

- The Processor Neptune Core Module requires water infrastructure be available in the rack cabinet and data center, as described in the [Water infrastructure](#) section.
- All processor SKUs are supported
- Either one or two CPUs are supported
- All front drive bay configurations are supported
- Slot 2 is not available for adapters - the water loop is routed through the space otherwise occupied by slot 2
- Only the following slot configurations are supported:
  - 2x Low profile x16 slots, in slot 1 and slot 3
  - 1x Low profile x16 slot in slot 1, and 2x 7mm drives in slot 3
- Rear 2.5-inch drive bays are not supported

- RAID flash power module (supercap) support is limited only to positions 1 (2.5-inch drives only) or position 3 (slot 3), as described in the [RAID flash power module \(supercap\) support](#) section. Location 2 on the air baffle is not supported.
- M.2 adapters are supported based on the configurations in the [Storage configurations](#) section
- Standard fans can be configured in most configurations
- The use of a cable management arm (CMA) is not supported

For more information, see the Thermal Rules page for the direct water cooling module:  
[https://pubs.lenovo.com/sr630-v3/thermal\\_rules#server-models-with-direct-water-cooling-module](https://pubs.lenovo.com/sr630-v3/thermal_rules#server-models-with-direct-water-cooling-module)

The following figure shows the Lenovo Neptune Processor DWC Module installed in the SR630 V3.

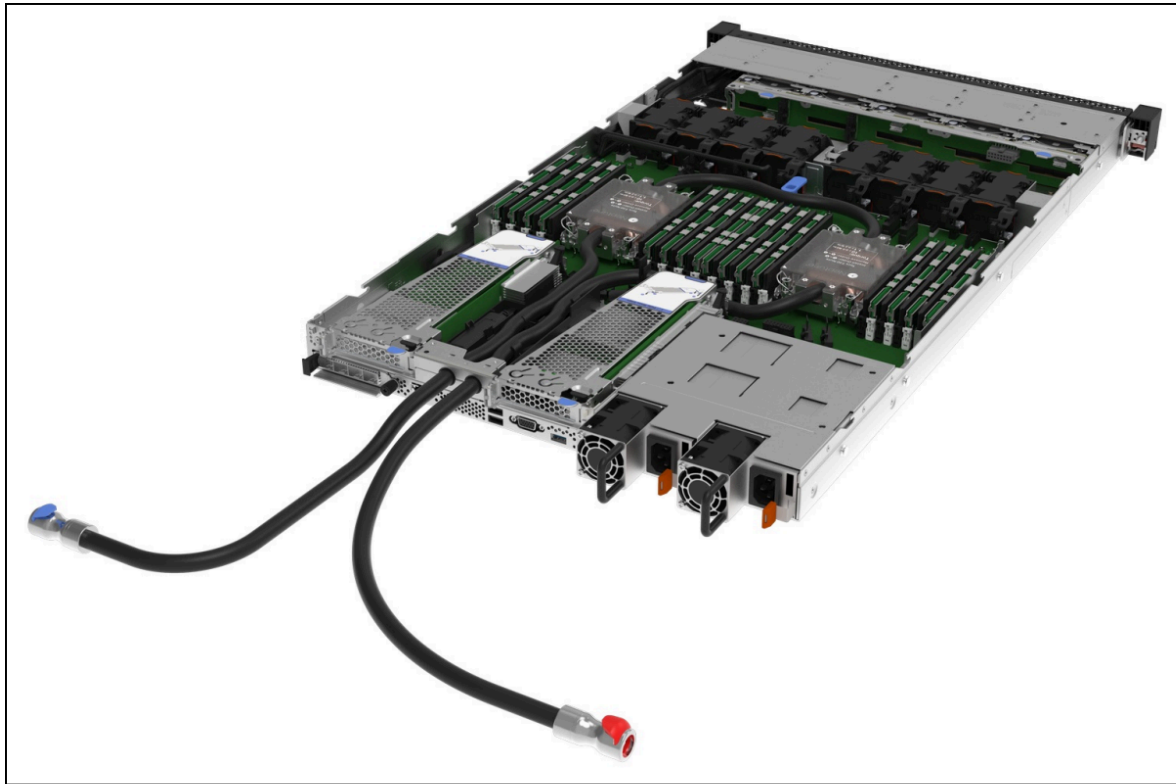


Figure 9. Lenovo Neptune Processor DWC Module installed in the SR630 V3

### UEFI operating modes

The SR630 V3 offers preset operating modes that affect energy consumption and performance. These modes are a collection of predefined low-level UEFI settings that simplify the task of tuning the server to suit your business and workload requirements.

The following table lists the feature codes that allow you to specify the mode you wish to preset in the factory for CTO orders.

**UK and EU customers:** For compliance with the ERP Lot9 regulation, you should select feature BFYE. For some systems, you may not be able to make a selection, in which case, it will be automatically derived by the configurator.

Table 20. UEFI operating mode presets in DCSC

Feature code	Description	Top Choice Express
BFYB	Operating mode selection for: "Maximum Performance Mode"	TCE ⓘ
BFYC	Operating mode selection for: "Minimal Power Mode"	TCE ⓘ
BFYD	Operating mode selection for: "Efficiency Favoring Power Savings Mode"	TCE ⓘ
BFYE	Operating mode selection for: "Efficiency - Favoring Performance Mode"	TCE ⓘ

The preset modes for the SR630 V3 are as follows:

- **Maximum Performance Mode** (feature BFYB): Achieves maximum performance but with higher power consumption and lower energy efficiency.
- **Minimal Power Mode** (feature BFYC): Minimize the absolute power consumption of the system.
- **Efficiency Favoring Power Savings Mode** (feature BFYD): Maximize the performance/watt efficiency with a bias towards power savings. This is the favored mode for SPECpower benchmark testing, for example.
- **Efficiency Favoring Performance Mode** (feature BFYE): Maximize the performance/watt efficiency with a bias towards performance. This is the favored mode for Energy Star certification, for example.

For details about these preset modes, and all other performance and power efficiency UEFI settings offered in the SR630 V3, see the paper "Tuning UEFI Settings for Performance and Energy Efficiency on Intel Xeon Scalable Processor-Based ThinkSystem Servers", available from <https://lenovopress.lenovo.com/lp1477>.

## Memory options

The SR630 V3 uses Lenovo TruDDR5 memory operating at up to 5600 MHz. The server supports up to 32 DIMMs with 2 processors. The processors have 8 memory channels and support 2 DIMMs per channel (DPC). The server supports up to 8TB of memory using 32x 256GB 3DS RDIMMs and two processors.

With 5th Gen Intel Xeon processors, DIMMs operate at the following speeds, up to the memory bus speed of the processor selected. See the [Processor features](#) section for specifics.

- 1 DIMM per channel (DPC) using RDIMMs: Up to 5600 MHz
- 1 DPC using 3DS RDIMMs: Up to 5200 MHz
- 2 DPC using RDIMMs or 3DS RDIMMs: Up to 4400 MHz
- 2 DPC using Performance+ RDIMMs: Up to 4800 MHz

With 4th Gen Intel Xeon processors, DIMMs operate at the following speeds, up to the memory bus speed of the processor selected:

- 1 DPC: Up to 4800 MHz
- 2 DPC: Up to 4400 MHz

Lenovo TruDDR5 memory uses the highest quality components that are sourced from Tier 1 DRAM suppliers and only memory that meets the strict requirements of Lenovo is selected. It is compatibility tested and tuned to maximize performance and reliability. From a service and support standpoint, Lenovo TruDDR5 memory automatically assumes the system warranty, and Lenovo provides service and support worldwide.

The following table lists the 5600 MHz memory options that are currently supported by the SR630 V3. These DIMMs are only supported with 5th Gen Intel Xeon processors, with the exceptions listed in the memory rules below.

Table 21. 5600 MHz memory options

Part number	Feature code	Description	Top Choice Express	DRAM technology
<b>10x4 RDIMMs - 5600 MHz</b>				
4X77A88049	BWHW	ThinkSystem 32GB TruDDR5 5600MHz (1Rx4) RDIMM	Not TCE	16Gb
4X77A88052	BWHS	ThinkSystem 64GB TruDDR5 5600MHz (2Rx4) RDIMM	TCE ⓘ	16Gb
4X77A88058	BWHV	ThinkSystem 96GB TruDDR5 5600MHz (2Rx4) RDIMM	Not TCE	24Gb
4X77A93887	C4EA	ThinkSystem 128GB TruDDR5 5600MHz (2Rx4) RDIMM	Not TCE	32Gb
<b>x8 RDIMMs - 5600 MHz</b>				
4X77A88087	BWJE	ThinkSystem 16GB TruDDR5 5600MHz (1Rx8) RDIMM	Not TCE	16Gb
4X77A88051	BWJC	ThinkSystem 32GB TruDDR5 5600MHz (2Rx8) RDIMM	TCE ⓘ	16Gb
<b>3DS RDIMMs - 5600 MHz</b>				
4X77A88055	BX8X	ThinkSystem 256GB TruDDR5 5600 MHz (8Rx4) 3DS RDIMM	Not TCE	16Gb

The following table lists the 4800 MHz memory options that are currently supported by the SR630 V3. These DIMMs are only supported with 4th Gen Intel Xeon processors plus four specific 5th Gen processors as listed

in the memory rules below. The 128GB 5600MHz RDIMM is also supported with 4th Gen processors.

Table 22. 4800 MHz memory options

Part number	Feature code	Description	Top Choice Express	DRAM technology
10x4 RDIMMs - 4800 MHz				
4X77A77030	BNF6	ThinkSystem 32GB TruDDR5 4800MHz (1Rx4) 10x4 RDIMM	Not TCE	16Gb
4X77A77032	BNF9	ThinkSystem 64GB TruDDR5 4800MHz (2Rx4) 10x4 RDIMM	TCE ⓘ	16Gb
4X77A87034	BZC2	ThinkSystem 96GB TruDDR5 4800MHz (2Rx4) RDIMM	Not TCE	24Gb
4X77A93887	C4EA	ThinkSystem 128GB TruDDR5 5600MHz (2Rx4) RDIMM	Not TCE	32Gb
x8 RDIMMs - 4800 MHz				
4X77A77029	BKTL	ThinkSystem 16GB TruDDR5 4800MHz (1Rx8) RDIMM	Not TCE	16Gb
4X77A77031	BKTM	ThinkSystem 32GB TruDDR5 4800MHz (2Rx8) RDIMM	TCE ⓘ	16Gb

For more information on DDR5 memory, see the Lenovo Press paper, *Introduction to DDR5 Memory*, available from <https://lenovopress.com/lp1618>.

The following rules apply when selecting the memory configuration:

- In DCSC, 4800 MHz memory can only be selected with 4th Gen Intel Xeon Scalable processors, and 5600 MHz memory can only be selected with 5th Gen Intel Xeon Scalable processors. The only exceptions are listed below.
- An exception to the above rule is the following 5600 MHz DIMM which is supported with both 4th Gen and 5th Gen processors (operates at up to 4800 MHz with 4th Gen processors):
  - ThinkSystem 128GB TruDDR5 5600MHz (2Rx4) RDIMM, 4X77A93887
- An additional exception to the above rule are the following 5th Gen processors:
  - Intel Xeon Bronze 3508U 8C 125W 2.1GHz Processor
  - Intel Xeon Silver 4509Y 8C 125W 2.6GHz Processor
  - Intel Xeon Silver 4510 12C 150W 2.4GHz Processor
  - Intel Xeon Silver 4510T 12C 115W 2.0GHz Processor

These 4 processors support:

- All 4800 MHz memory DIMMs
- ThinkSystem 16GB TruDDR5 5600MHz (1Rx8) RDIMM, 4X77A88087
- ThinkSystem 32GB TruDDR5 5600MHz (2Rx8) RDIMM, 4X77A88051
- ThinkSystem 64GB TruDDR5 5600MHz (2Rx4) RDIMM, 4X77A88052
- ThinkSystem 128GB TruDDR5 5600MHz (2Rx4) RDIMM, 4X77A93887
- The SR630 V3 only supports quantities of 1, 2, 4, 6, 8, 12, or 16 DIMMs per processor; other quantities not supported. Additional quantity requirements:
  - 5th Gen Intel Xeon processors:
    - 24GB and 48GB DIMMs are only supported in quantities 1, 6, 8 per processor (2, 4, 12, 16 not supported)
    - 96GB DIMMs are only supported in quantities 1, 6, 8, 12, 16 per processor (2, 4 not supported)
  - 4th Gen Intel Xeon processors:

- 24GB and 48GB DIMMs are only supported in quantity 8 per processor
  - 96GB DIMMs are only supported in quantities 8, 16 per processor
- The 48GB RDIMM (4X77A87033) and 96GB RDIMM (4X77A87034) are supported with all 4th Gen processors
- The server supports three types of DIMMs: 9x4 RDIMMs, RDIMMs, and 3DS RDIMMs; UDIMMs and LRDIMMs are not supported
- Mixing of DIMM types is not supported (9x4 DIMMs with 10x4 RDIMMs, 9x4 DIMMs with 3DS RDIMMs, 10x4 RDIMMs with 3DS RDIMMs)
- Mixing of DRAM technology (16Gb, 24Gb, 32Gb) is not supported. See the column in the above table.
- Mixing of 24GB, 48GB and 96GB DIMMs (24Gb DRAM) is not supported; if using any of these DIMMs then all installed memory must be the same part number
- Mixing x4 and x8 DIMMs is not supported
- Mixing of DIMM rank counts is supported. Follow the required installation order installing the DIMMs with the higher rank counts first.
- Mixing of DIMM capacities is supported, however only two different capacities are supported across all channels of the processor. Follow the required installation order installing the larger DIMMs first.
- Memory mirroring is not supported with 9x4 DIMMs
- The mixing of 128GB 3DS RDIMMs and 256GB 3DS RDIMMs is supported
- The use of the 128GB 3D RDIMM feature BY8F has the following requirements for thermal reasons:
  - Performance fans are required
  - Rear 2.5-inch drives are not supported
  - GPUs are not supported
  - Additional ambient temperature requirements - see [https://pubs.lenovo.com/sr630-v3/thermal\\_rules](https://pubs.lenovo.com/sr630-v3/thermal_rules) for information

For best performance, consider the following:

- Ensure the memory installed is at least the same speed as the memory bus of the selected processor.
- Populate all 8 memory channels.

The following memory protection technologies are supported:

- ECC detection/correction
- Bounded Fault detection/correction
- SDDC (for 10x4-based memory DIMMs; look for "x4" in the DIMM description)
- ADDDC (for 10x4-based memory DIMMs, not supported with 9x4 DIMMs)
- Memory mirroring

See the Lenovo Press article, [RAS Features of the Lenovo ThinkSystem Intel Servers](#) for more information about memory RAS features.

If memory channel mirroring is used, then DIMMs must be installed in pairs (minimum of one pair per processor), and both DIMMs in the pair must be identical in type and size. 50% of the installed capacity is available to the operating system.

Memory rank sparing is implemented using ADDDC/ADC-SR/ADDDC-MR to provide DRAM-level sparing feature support.

## Internal storage

The SR630 V3 supports 4x 3.5-inch or 12x 2.5-inch or 16x EDSFF drive bays, depending on the selected chassis and backplane configuration. The server also supports configurations without any drive bays if desired.

The server supports front and rear drive bays, are as follows:

- Front:
  - 4x 3.5-inch hot-swap bays, or
  - Up to 10x 2.5-inch hot-swap bays, or
  - 16x EDSFF hot-swap bays
- Rear:
  - 2x 2.5-inch hot-swap bays, or
  - 2x 7mm hot-swap drives bays

All drives are hot-swap and are accessible from the front or from the rear.

The server also supports one or two M.2 drives, installed in an M.2 adapter internal to the server.

In this section:

- [NVMe drive support](#)
- [Tri-Mode support - RAID 940 adapters](#)
- [Front drive bays](#)
- [Rear 2.5-inch and 7mm drive bays](#)
- [Storage configurations](#)
- [Field upgrades](#)
- [RAID flash power module \(supercap\) support](#)
- [M.2 drives](#)
- [SED encryption key management with SKLM](#)

## NVMe drive support

The SR630 V3 supports NVMe drives to maximize storage performance:

- In 2.5-inch front drive configurations, the server supports up to 12 NVMe drives without oversubscription (that is, each x4 drive has a dedicated x4 connection (4 lanes) to the processor):
  - 10x 2.5-inch NVMe drives at the front
  - 2x 2.5-inch NVMe drives at the rear
- In 3.5-inch front drive configurations, the server supports up to 6 NVMe drives without oversubscription:
  - 4x 3.5-inch NVMe drives at the front
  - 2x 2.5-inch NVMe drives at the rear
- In EDSFF front drive configurations, the server supports up to 16 NVMe drives without oversubscription:
  - 16x E1.S NVMe drives at the front

The specifics of these configurations are covered in the [Storage configurations](#) section.

In addition, the SR630 V3 supports two 7mm NVMe drives for use as boot drives.

## Tri-Mode support - RAID 940 adapters

The RAID 940 adapters support NVMe through a feature named Tri-Mode support (or Trimode support). This feature enables the use of NVMe U.3 drives at the same time as SAS and SATA drives. Tri-Mode requires an AnyBay backplane. Cabling of the controller to the backplanes is the same as with SAS/SATA drives, and the NVMe drives are connected via a PCIe x1 link to the controller.

NVMe drives connected using Tri-Mode support provide better performance than SAS or SATA drives: A SATA SSD has a data rate of 6Gbps, a SAS SSD has a data rate of 12Gbps, whereas an NVMe U.3 Gen 4 SSD with a PCIe x1 link will have a data rate of 16Gbps. NVMe drives typically also have lower latency and higher IOPS compared to SAS and SATA drives. Tri-Mode is supported with U.3 NVMe drives and requires an AnyBay backplane.

**Tri-Mode requires U.3 drives:** Only NVMe drives with a U.3 interface are supported. U.2 drives are not supported. See the [Internal drive options](#) section for the U.3 drives supported by the server.

## Front drive bays

The front drive bay zone supports the following configurations. All drives are hot-swap.

- 3.5-inch hot-swap drive bays
  - 4x SAS/SATA 3.5-inch
  - 4x AnyBay 3.5-inch (PCIe Gen4)
- 2.5-inch hot-swap drive bays without support for front PCIe slots
  - 4x SAS/SATA
  - 4x NVMe (PCIe Gen4 or Gen5)
  - 8x SAS/SATA
  - 10x SAS/SATA
  - 6x SAS/SATA + 4x AnyBay (PCIe Gen4 or Gen5)
  - 6x SAS/SATA + 2x AnyBay + 2x NVMe (PCIe Gen4 or Gen5)
  - 10x AnyBay (PCIe Gen4 or Gen5)
  - 10x NVMe (PCIe Gen4 or Gen5)
- 2.5-inch hot-swap drive bays with support for front PCIe slots
  - 2x NVMe (PCIe Gen4)
  - 4x NVMe (PCIe Gen4 or Gen5)
  - 4x AnyBay (PCIe Gen5)
- EDSFF drive bays
  - 16x E1.S (9.5mm or 15mm) hot-swap NVMe drive bays (PCIe Gen4)
- Drive-less 2.5-inch configuration - No backplane and no drives (supports [field upgrades](#))
- Drive-less 3.5-inch configuration - No backplane and no drives (supports [field upgrades](#))

These configurations are shown in the following two figures. The feature codes listed correspond to the feature codes listed in the table below the figures.

The following figure shows the supported 3.5-inch and EDSFF drive bay configurations. EDSFF drive configurations can be configured with or without an Integrated Diagnostics Panel with pull-out LCD display. See the [Local management](#) section for details.

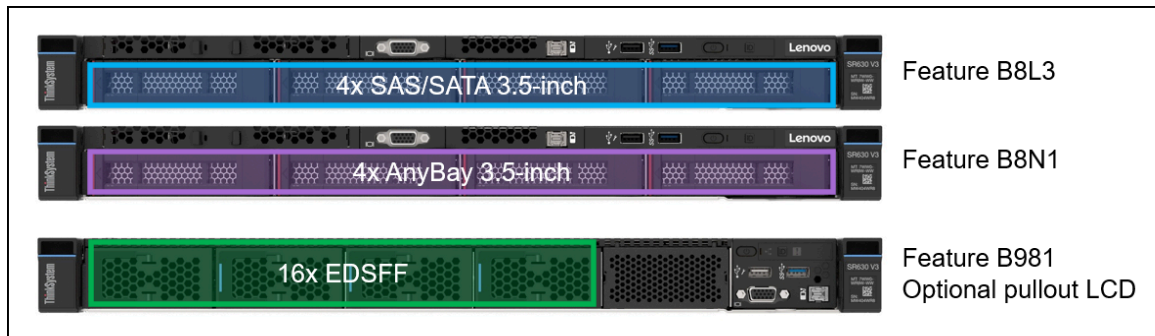


Figure 10. SR630 V3 front drive bay configurations - 3.5-inch and EDSFF drive bays

The following figure shows the supported 2.5-inch drive bay configurations without PCIe slot support.

8x 2.5-inch drive configurations can be configured with or without an Integrated Diagnostics Panel with pull-out LCD display. See the [Local management](#) section for details.

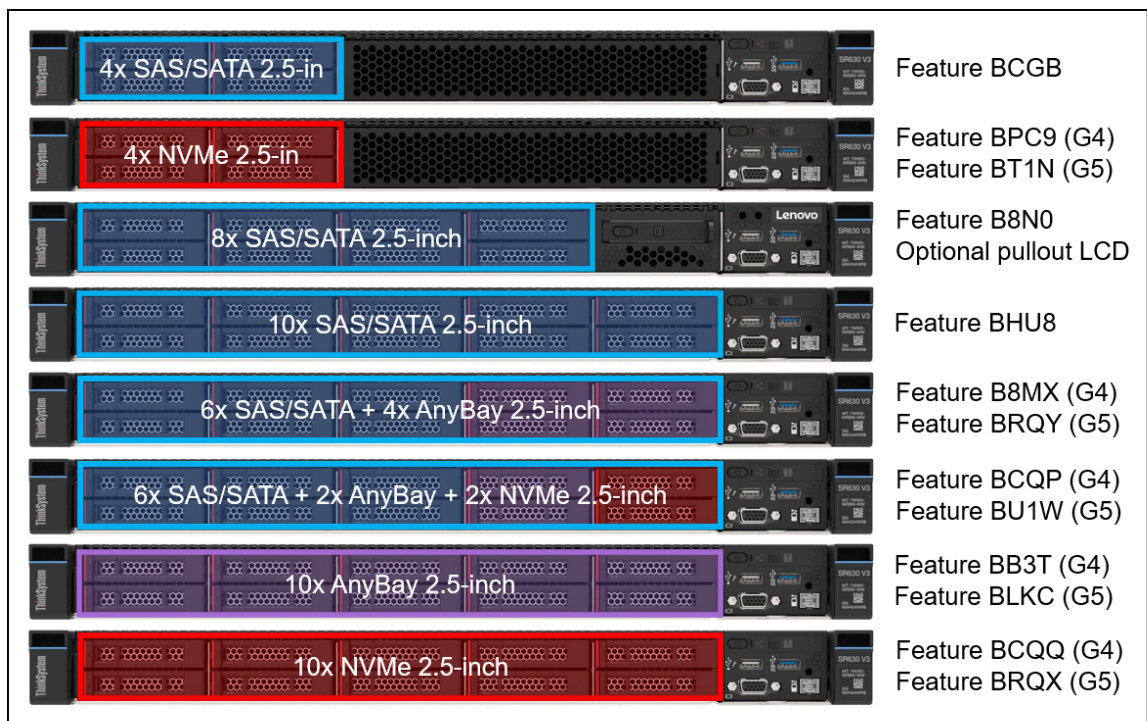


Figure 11. SR630 V3 front drive bay configurations - 2.5-inch drive bays without front PCIe slot support

The following figure shows the supported 2.5-inch drive bays drive bay configurations with front PCIe slot support. Front slots can be used with rear slots. See the [I/O expansion](#) for details.

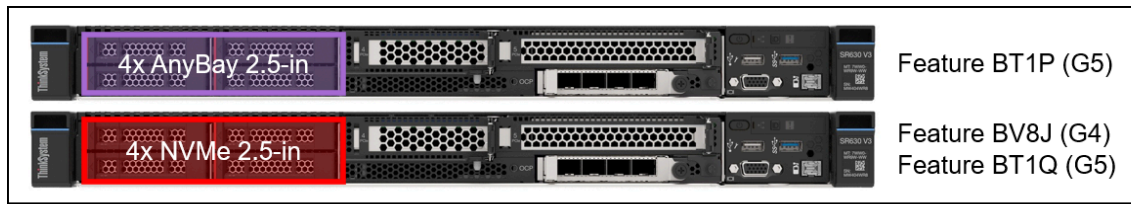


Figure 12. SR630 V3 front drive bay configurations - 2.5-inch drive bays with front PCIe slot support

The backplanes used to provide these drive bays are listed in the following table. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

**Field upgrades:** Most front backplanes are available as part numbers for field upgrades using upgrade kits, as described in the [Field upgrades](#) section below.

Table 23. Backplanes for front drive bays

Feature code	Description	Top Choice Express	PCIe Gen	SAS Gen	Max Qty
Front 3.5-inch drive backplanes					
B8L3	ThinkSystem 1U/2U 4x3.5" SAS/SATA Backplane	TCE ①	-	12Gb	1
B8N1	ThinkSystem 1U 4x3.5" AnyBay Backplane	Not TCE	Gen4	24Gb	1
Front EDSFF drive backplanes					
B981	ThinkSystem 1U 16xEDSFF Backplane	Not TCE	Gen4	-	1
Front 2.5-inch drive backplanes - 4 drive bays - no support for front PCIe slots					
BCGB	ThinkSystem 1U 4x2.5" SAS/SATA Backplane	Not TCE	-	12Gb	1
BPC9	ThinkSystem 1U 4x 2.5" NVMe Gen 4 Backplane	Not TCE	Gen4	-	1
BT1N	ThinkSystem V3 1U 4x2.5" Gen5 NVMe Backplane	Not TCE	Gen5	-	1
Front 2.5-inch drive backplanes - 8 drive bays					
B8N0	ThinkSystem 1U 8x2.5" SAS/SATA Backplane	TCE ①	-	12Gb	1
Front 2.5-inch drive backplanes - 10 drive bays					
BRQY	ThinkSystem 1U 2.5" 6 SAS/SATA 4 AnyBay Gen5 Backplane	Not TCE	Gen5	24Gb	1
BU1W	ThinkSystem 1U 10x2.5" (6x SAS/SATA 2x AnyBay 2x NVMe) Gen5 Backplane	TCE ①	Gen5	24Gb	1
BB3T	ThinkSystem 1U 10x2.5" AnyBay Backplane	TCE ①	Gen4	24Gb	1
BLKC	ThinkSystem V3 1U 10x2.5" AnyBay Gen5 Backplane	TCE ①	Gen5	24Gb	1*
BCQQ	ThinkSystem 1U 10x2.5" NVMe Backplane	Not TCE	Gen4	-	1
BRQX	ThinkSystem 1U 2.5" 10 NVMe Gen5 Backplane	TCE ①	Gen5	-	1
Front 2.5-inch drive backplanes - 4 drive bays - with front PCIe slot support					
BT1P	ThinkSystem V3 1U Front I/O 4x2.5" Gen5 AnyBay Backplane	Not TCE	Gen5	24Gb	1
BV8J	ThinkSystem V3 1U 4x2.5" Gen4 NVMe Backplane with 4x2.5" Chassis	Not TCE	Gen4	-	1
BT1Q	ThinkSystem V3 1U Front I/O 4x2.5" Gen5 NVMe Backplane	Not TCE	Gen5	-	1

## Rear 2.5-inch and 7mm drive bays

The SR630 V3 supports hot-swap drives installed at the rear of the server chassis. Supported configurations are as follows:

- 2x 2.5-inch hot-swap SAS/SATA drive bays
- 2x 2.5-inch hot-swap NVMe drive bays (PCIe Gen 4)
- 2x 7mm SAS/SATA drive bays
- 2x 7mm NVMe drive bays (PCIe Gen 4)

The configurations are shown in the following figure.

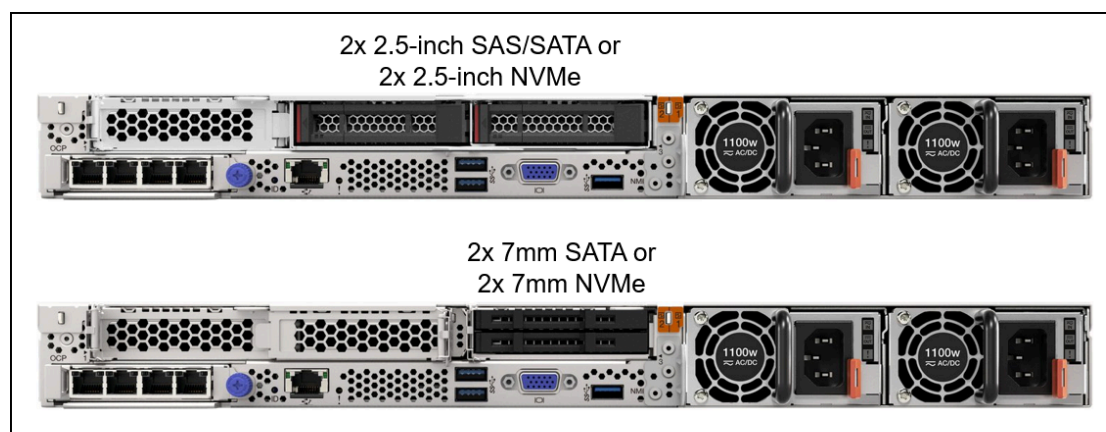


Figure 13. Rear drive bay configurations

The backplanes used to provide these drive bays in CTO orders are listed in the following table. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information. Backplanes are also available as part numbers for field upgrades using upgrade kits, as described in the [Field upgrades](#) section below.

The SR630 V3 supports two 7mm drive options installed in slot 3:

- 7mm drive backplane supporting SATA or NVMe drives, without integrated RAID. Optional RAID functionality is provided by a separate RAID adapter installed in a slot.
- 7mm drive backplane supporting NVMe drives (no SATA support) with integrated RAID support via an onboard Marvell 88NR2241 NVMe RAID controller

Table 24. Backplanes for rear drive bays

Feature code	Description	Top Choice Express	Maximum supported
Rear - 2.5-inch drive backplanes			
B8MY	ThinkSystem 1U 2x2.5" SAS/SATA Rear Backplane	Not TCE	1
BDY6	ThinkSystem 1U 2x2.5" NVMe Rear Backplane	Not TCE	1
Rear - 7mm drive backplane			
BU0N	ThinkSystem 7mm SATA/NVMe 2-Bay Rear Enablement Kit v2	Not TCE	1
B8Q2	ThinkSystem 1U 7mm Drive Kit w/ NVMe RAID (Marvell RAID)	Not TCE	1
BYFG	ThinkSystem 7mm SATA/NVMe 2-Bay Rear Hot-Swap RAID Enablement Kit (Broadcom RAID)	Not TCE	1
VROC RAID support for ThinkSystem 7mm SATA/NVMe 2-Bay Rear Enablement Kit v2 (BU0N) (optional)			

Feature code	Description	Top Choice Express	Maximum supported
BS7U	On Board SATA Software RAID Mode for 7mm (VROC SATA)	TCE ⓘ	1
BS7R	Intel VROC (VMD NVMe RAID) Standard for 7mm (VROC NVMe)	TCE ⓘ	1
BZ4Y	Intel VROC RAID1 Only for 7mm (VROC NVMe)	TCE ⓘ	1
Hardware RAID support for ThinkSystem 7mm SATA/NVMe 2-Bay Rear Enablement Kit v2 (BU0N) (optional; an alternative to VROC)			
BVL4	ThinkSystem RAID 540-8i for 7MM NVMe boot Enablement	Not TCE	1

The use of rear 2.5-inch drive bays has the following configuration rules:

- With 2.5-inch rear drive bays, only slot 1 is available. Slot 2 and 3 are not available

The use of the 7mm rear drive bays has the following configuration rules:

- 7mm rear drive bays occupy slot 3; slots 1 and 2 are available and slot 2 is a low profile slot. Slot 3 is not available.
- M.2 and 7mm drives are mutually exclusive: they are not supported together in the same configuration
- For ThinkSystem 7mm SATA/NVMe 2-Bay Rear Enablement Kit v2 (feature BU0N):
  - The adapter supports either SATA drives or NVMe drives but not both. You specify SATA or NVMe in the configurator using feature codes BTTV (SATA) or BTTW (NVMe).
  - RAID support is implemented using VROC (no adapter needed) or with the use of an additional RAID adapter installed in a slot
  - If RAID is enabled using VROC, select these feature codes:
    - VROC SATA support: On Board SATA Software RAID Mode for 7mm (feature BS7U)
    - VROC NVMe support:
      - Intel VROC (VMD NVMe RAID) Standard for 7mm (feature BS7R)
      - Intel VROC RAID1 Only for 7mm (feature BZ4Y)
  - If RAID is enabled using a RAID adapter, the adapter is installed in PCIe slot 1 or 2:
    - RAID support for 7mm NVMe drives requires a RAID 540-8i adapter operating in Tri-Mode (feature BVL4)
  - The use of VROC SATA RAID is not supported by virtualization hypervisors such as ESXi, KVM, Xen, and Hyper-V. VROC NVMe RAID is supported by hypervisors, however.
- For ThinkSystem 1U 7mm Drive Kit w/ NVMe RAID (feature B8Q2)
  - The adapter only supports NVMe drives
  - RAID functionality is integrated into the M.2 adapter using a Marvell 88NR2241 NVMe RAID Controller
- For ThinkSystem 7mm SATA/NVMe 2-Bay Rear Hot-Swap RAID Enablement Kit (feature BYFG)
  - The 7mm drive bays support either SATA drives or NVMe drives but not both.
  - RAID functionality is integrated into the 7mm backplane using a Broadcom RAID Controller

**Field upgrades:** Rear backplanes are available as part numbers for field upgrades using upgrade kits, as described in the [Field upgrades](#) section below.

## Storage configurations

This section describes the various combinations of front and rear drives that the server supports, as well as M.2 support.

**Tip:** These tables are based on Config Matrix V3.1

In this section:

- [Overview - 3.5-inch front bays](#)
- [Overview - 2.5-inch front bays without front slots](#)
- [Overview - 2.5-inch front bays with front slots](#)
- [Details - 3.5-inch drive bay chassis configurations](#)
- [Details - 2.5-inch drive bay chassis configurations without front slots](#)
- [Details - 2.5-inch drive bay chassis configurations with front slots](#)

The following tables summarize the storage configurations for the SR630 V3. For details, including processor requirements, M.2 and 7mm support, and controller selections, see the Details tables.

### Overview - 3.5-inch front bays

The following table summarizes the configurations that use 3.5-inch front drive bays.

Click to jump down to the [details of the 3.5-inch configurations](#).

Return to [Storage configurations](#).

Table 25. Overview - 3.5-inch front bays

Config	Total drives (NVMe)	Front				Rear		Backplanes
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe	
1	4 (0)	4	0	0	0	0	0	4x3.5" SAS/SATA (B8L3)
2	6 (2)	4	0	0	0	0	2	Front: 4x3.5" SAS/SATA (B8L3); Rear: 2x 2.5" NVMe G4 (BDY6)
3	6 (0)	4	0	0	0	2	0	Front: 4x3.5" SAS/SATA (B8L3); Rear: 2x 2.5" SAS/SATA (B8MY)
4	4 (0)	4	0	0	0	0	0	4x3.5" SAS/SATA (B8L3)
5	4 (4)	0	4	0	0	0	0	4x3.5" AnyBay G4 (B8N1)
6	6 (6)	0	4	0	0	0	2	Front: 4x3.5" AnyBay G4 (B8N1); Rear: 2x 2.5" NVMe G4 (BDY6)
7	6 (4)	0	4	0	0	2	0	Front: 4x3.5" AnyBay G4 (B8N1); Rear: 2x 2.5" SAS/SATA (B8MY)
8	4 (4)	0	4	0	0	0	0	4x3.5" AnyBay G4 (B8N1)
30	4 (4)	0	4	0	0	0	0	4x3.5" AnyBay G4 (B8N1)

### Overview - 2.5-inch front bays without front slots

The following table summarizes the configurations that use 2.5-inch front drive bays but do not support front PCIe slots.

Click to jump down to the [details of the 2.5-inch configurations](#).

Return to [Storage configurations](#).

Table 26. Overview - 2.5-inch front bays without front slots

Config	Total drives (NVMe)	Front				Rear		Backplanes
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe	
18	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
19	12 (12)	0	10	0	0	0	2	Front: 10x2.5" AnyBay G4 (BB3T); Rear: 2x 2.5" NVMe G4 (BDY6)
21	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
22	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
23	10 (0)	8	0	0	0	2	0	Front: 8x2.5" SAS/SATA (B8N0); Rear: 2x 2.5" SAS/SATA (B8MY)
24	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
25	16 (16)	0	0	0	16	0	0	16xEDSFF (B981)
26	4 (0)	4	0	0	0	0	0	4x2.5" SAS/SATA (BCGB)
27	4 (0)	4	0	0	0	0	0	4x2.5" SAS/SATA (BCGB)
28	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)
28	12 (12)	0	0	10	0	0	2	Front: 10x2.5" NVMe G4 (BCQQ); Rear: 2x 2.5" NVMe G4 (BDY6)
28	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)
29	8 (8)	0	8	0	0	0	0	10x2.5" AnyBay G4 (BB3T) (8 bays max)
29A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
31	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)
31	6 (4)	0	0	4	0	2	0	Front: 4x2.5" NVMe G4 (BPC9); Rear: 2x 2.5" SAS/SATA (B8MY)
31	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)
31	6 (6)	0	0	4	0	0	2	Front: 4x2.5" NVMe G4 (BPC9); Rear: 2x 2.5" NVMe G4 (BDY6)
31A	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)
31A	6 (4)	0	0	4	0	2	0	Front: 4x2.5" NVMe G4 (BPC9); Rear: 2x 2.5" SAS/SATA (B8MY)
31A	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)
35	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35A	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35A	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35A	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35A	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
35A	8 (0)	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)
48	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
48A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
48	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
48A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
48	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
48A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)
36	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)
36A	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)
37	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)

Config	Total drives (NVMe)	Front				Rear		Backplanes
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe	
37A	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)
38	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)
38A	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)
49	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
49A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
49	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
49A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
49	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
49A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
39	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)
39A	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)
40	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
40A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
40	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
40A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
40	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
40A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
40	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
40A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
40	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
40A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
40	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
40A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
50	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)
50A	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)
41	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41B	12 (12)	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)
41	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41B	12 (12)	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)
41	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41B	12 (12)	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)
41	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41B	12 (12)	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)
41	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)

Config	Total drives (NVMe)	Front				Rear		Backplanes
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe	
41A	10 (10)	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)
41B	12 (12)	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)
42	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42B	12 (4)	6	4	0	0	2	0	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" SAS/SATA (B8MY)
42C	12 (6)	6	4	0	0	0	2	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" NVMe G4 (BDY6)
42	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42B	12 (4)	6	4	0	0	2	0	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" SAS/SATA (B8MY)
42C	12 (6)	6	4	0	0	0	2	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" NVMe G4 (BDY6)
42	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42B	12 (4)	6	4	0	0	2	0	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" SAS/SATA (B8MY)
42C	12 (6)	6	4	0	0	0	2	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" NVMe G4 (BDY6)
42	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42B	12 (4)	6	4	0	0	2	0	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" SAS/SATA (B8MY)
42C	12 (6)	6	4	0	0	0	2	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" NVMe G4 (BDY6)
42	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42A	10 (4)	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)
42B	12 (4)	6	4	0	0	2	0	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" SAS/SATA (B8MY)
42C	12 (6)	6	4	0	0	0	2	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" NVMe G4 (BDY6)
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)

Config	Total drives (NVMe)	Front				Rear		Backplanes
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe	
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
43A	10 (4)	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)
44	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)
44A	10 (10)	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)
44B	12 (12)	0	0	10	0	0	2	<b>Front:</b> 10x2.5" NVMe G5 (BRQX); <b>Rear:</b> 2x 2.5" NVMe G4 (BDY6)
45	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)
45A	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)
46	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)
46A	8 (8)	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)
47	8 (8)	0	8	0	0	0	0	10x2.5" AnyBay G4 (BB3T) (8 bays max)
47A	8 (8)	0	8	0	0	0	0	10x2.5" AnyBay G4 (BB3T) (8 bays max)
51	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)
51A	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)

#### Overview - 2.5-inch front bays with front slots

The following table summarizes the configurations that use 2.5-inch front drive bays and support front PCIe slots.

Click to jump down to the [details of the 2.5-inch configurations](#).

Return to [Storage configurations](#).

Table 27. Overview - 2.5-inch front bays with front slots

Config	Total drives (NVMe)	Front				Rear		Backplanes
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe	
52	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G4 (BV8J)
52A	6 (4)	0	0	4	0	2	0	<b>Front:</b> 4x2.5" NVMe G4 (BV8J); <b>Rear:</b> 2x 2.5" SAS/SATA (B8MY)
52B	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G4 (BV8J)
54	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1Q)
54A	6 (4)	0	0	4	0	2	0	<b>Front:</b> 4x2.5" NVMe G5 (BT1Q); <b>Rear:</b> 2x 2.5" SAS/SATA (B8MY)
54B	4 (4)	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1Q)
55	4 (4)	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)
55A	6 (4)	0	4	0	0	2	0	<b>Front:</b> 4x2.5" AnyBay G5 (BT1P); <b>Rear:</b> 2x 2.5" SAS/SATA (B8MY)
55B	6 (6)	0	4	0	0	0	2	<b>Front:</b> 4x2.5" AnyBay G5 (BT1P); <b>Rear:</b> 2x 2.5" NVMe G4 (BDY6)
55C	4 (4)	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)
56	4 (4)	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)
56A	4 (4)	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)

Config	Total drives (NVMe)	Front				Rear		Backplanes
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe	
56B	6 (4)	0	4	0	0	2	0	Front: 4x2.5" AnyBay G5 (BT1P); Rear: 2x 2.5" SAS/SATA (B8MY)
56C	6 (6)	0	4	0	0	0	2	Front: 4x2.5" AnyBay G5 (BT1P); Rear: 2x 2.5" NVMe G4 (BDY6)

**Details - 3.5-inch front bays**

The following table lists the detailed configurations that use 3.5-inch front drive bays.

Click to go back to the [overview of 3.5-inch configurations](#).

Return to [Storage configurations](#).

In the table:

- **M.2 + VROC (SATA)** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with SATA drives. RAID is optional, provided using VROC.
- **M.2 + VROC (NVMe)** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with NVMe drives. RAID is optional, provided using VROC.
- **M.2 + RAID adapter** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with either a RAID 5350-8i adapter (supporting SATA drives) or a RAID 540-8i (supporting NVMe drives). Adapter installs in a rear PCIe slot.
- **M.2 Integrated RAID** means the M.2 NVMe RAID adapter (4Y37A09750) with the integrated Marvell controller, or the M.2 B540i-2i SATA/NVMe adapter (4Y37A90063) with integrated Broadcom controller. RAID-0 and RAID-1 are supported.
- **7mm + VROC (SATA)** means the 7mm SATA/NVMe kit (BU0N) with SATA drives. RAID is optional, provided using VROC.
- **7mm + VROC (NVMe)** means the 7mm SATA/NVMe kit (BU0N) with NVMe drives. RAID is optional, provided using VROC.
- **7mm + RAID adapter** means the 7mm SATA/NVMe kit (BU0N) with either a RAID 5350-8i adapter (supporting SATA drives) or a RAID 540-8i (supporting NVMe drives). Adapter installs in a rear PCIe slot.
- **7mm Integrated RAID** means the 7mm NVMe RAID kit (B8Q2) with integrated Marvell controller or the 7mm SATA/NVMe RAID kit (BYFG) with integrated Broadcom controller. RAID-0 and RAID-1 are supported.

Table 28. Details - 3.5-inch front bays

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
1-1	1 or 2	4	0	0	0	0	0	4x3.5" SAS/SATA (B8L3)	N	N	N	Y	N	N	N	N	OB SATA
1-2	1 or 2								N	N	N	Y	N	N	N	N	(5350-8i or 9350-8i)
1-3	1 or 2								N	N	N	Y	N	N	N	N	4350-8i
1-4	1 or 2								N	N	N	Y	N	N	N	N	(940-8i or 540-8i)
1-5	1 or 2								N	N	N	Y	N	N	N	N	440-8i

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers					
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID						
2-1	2 only	4	0	0	0	0	2	Front: 4x3.5" SAS/SATA (B8L3); Rear: 2x 2.5" NVMe G4 (BDY6)	N	N	N	Y	N	N	N	N	Front: OB SATA; Rear: OB NVMe					
2-2	2 only								N	N	N	Y	N	N	N	N		Front: (5350-8i or 9350-8i); Rear: OB NVMe				
2-3	2 only								N	N	N	Y	N	N	N	N			Front: 4350-8i; Rear: OB NVMe			
2-4	2 only								N	N	N	Y	N	N	N	N				Front: (940-8i or 540-8i); Rear: OB NVMe		
2-5	2 only								N	N	N	Y	N	N	N	N					Front: 440-8i; Rear: OB NVMe	
3-1	1 or 2	4	0	0	0	2	0	Front: 4x3.5" SAS/SATA (B8L3); Rear: 2x 2.5" SAS/SATA (B8MY)	N	N	N	Y	N	N	N	N	OB SATA (5350-8i or 9350-8i)					
3-2	1 or 2								N	N	N	Y	N	N	N	N		4350-8i (940-8i or 540-8i)				
3-3	1 or 2								N	N	N	Y	N	N	N	N			440-8i			
3-4	1 or 2								N	N	N	Y	N	N	N	N				OB SATA (5350-8i or 9350-8i)		
3-5	1 or 2								N	N	N	Y	N	N	N	N					4350-8i (940-8i or 540-8i)	
4-1	1 or 2	4	0	0	0	0	0	4x3.5" SAS/SATA (B8L3)	N	N	N	N	Y	Y	Y	Y	OB SATA (5350-8i or 9350-8i)					
4-2	1 or 2								N	N	N	N	Y	Y	Y	Y		4350-8i (940-8i or 540-8i)				
4-3	1 or 2								N	N	N	N	Y	Y	Y	Y			440-8i			
4-4	1 or 2								N	N	N	N	Y	Y	Y	Y				OB SATA + OB NVMe (5350-8i or 9350-8i) + OB NVMe		
4-5	1 or 2								N	N	N	N	Y	Y	Y	Y					4350-8i + OB NVMe (940-8i or 540-8i) + OB NVMe	
5-1	1 or 2	0	4	0	0	0	0	4x3.5" AnyBay G4 (B8N1)	N	N	N	Y	N	N	N	N	440-8i + OB NVMe (9350-16i + OB NVMe (540-16i or 940-16i) + OB NVMe					
5-2	1 or 2								N	N	N	Y	N	N	N	N		9350-16i + OB NVMe (540-16i or 940-16i) + OB NVMe				
5-3	1 or 2								N	N	N	Y	N	N	N	N			9350-16i + OB NVMe (540-16i or 940-16i) + OB NVMe			
5-4	1 or 2								N	N	N	Y	N	N	N	N				9350-16i + OB NVMe (540-16i or 940-16i) + OB NVMe		
5-5	1 or 2								N	N	N	Y	N	N	N	N					9350-16i + OB NVMe (540-16i or 940-16i) + OB NVMe	
5-6	1 or 2								N	N	N	Y	N	N	N	N						9350-16i + OB NVMe (540-16i or 940-16i) + OB NVMe
5-7	1 or 2								N	N	N	Y	N	N	N	N						

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers					
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID						
6-1	2 only	0	4	0	0	0	2	Front: 4x3.5" AnyBay G4 (B8N1); Rear: 2x 2.5" NVMe G4 (BDY6)	N	N	N	Y	N	N	N	N	Front: OB SATA + OB NVMe; Rear: OB NVMe					
6-2	2 only								N	N	N	Y	N	N	N	N		Front: (5350-8i or 9350-8i) + OB NVMe; Rear: OB NVMe				
6-3	2 only								N	N	N	Y	N	N	N	N			Front: 4350-8i + OB NVMe; Rear: OB NVMe			
6-4	2 only								N	N	N	Y	N	N	N	N				Front: (940-8i or 540-8i) + OB NVMe; Rear: OB NVMe		
6-5	2 only								N	N	N	Y	N	N	N	N					Front: 440-8i + OB NVMe; Rear: OB NVMe	
6-6	2 only								N	N	N	Y	N	N	N	N						Front: 9350-16i + OB NVMe; Rear: OB NVMe
6-7	2 only								N	N	N	Y	N	N	N	N						
7-1	1 or 2	0	4	0	0	2	0	Front: 4x3.5" AnyBay G4 (B8N1); Rear: 2x 2.5" SAS/SATA (B8MY)	N	N	N	Y	N	N	N	N	OB SATA + OB NVMe					
7-2	1 or 2								N	N	N	Y	N	N	N	N		(5350-8i or 9350-8i) + OB NVMe				
7-3	1 or 2								N	N	N	Y	N	N	N	N			4350-8i + OB NVMe			
7-4	1 or 2								N	N	N	Y	N	N	N	N				(940-8i or 540-8i) + OB NVMe		
7-5	1 or 2								N	N	N	Y	N	N	N	N					440-8i + OB NVMe	
7-6	1 or 2								N	N	N	Y	N	N	N	N						9350-16i + OB NVMe
7-7	1 or 2								N	N	N	Y	N	N	N	N						
8-1	1 or 2	0	4	0	0	0	0	4x3.5" AnyBay G4 (B8N1)	N	N	N	N	Y	Y*	Y	Y	OB SATA + OB NVMe					
8-2	1 or 2								N	N	N	N	Y	Y*	Y	Y		(5350-8i or 9350-8i) + OB NVMe				
8-3	1 or 2								N	N	N	N	Y	Y*	Y	Y			4350-8i + OB NVMe			
8-4	1 or 2								N	N	N	N	Y	Y*	Y	Y				(940-8i or 540-8i) + OB NVMe		
8-5	1 or 2								N	N	N	N	Y	Y*	Y	Y					440-8i + OB NVMe	
8-6	1 or 2								N	N	N	N	Y	Y*	Y	Y						9350-16i + OB NVMe
8-7	1 or 2								N	N	N	N	Y	Y*	Y	Y						
30-1	1 or 2	0	4	0	0	0	0	4x3.5" AnyBay G4 (B8N1)	N	N	N	Y	N	N	N	N	940-8i Tri-mode					

\* For M.2 and 7mm: Requires 2 processors; not supported with only 1 processor installed

**Details - 2.5-inch front bays without front slots**

The following table lists the detailed configurations that use 2.5-inch front drive bays without front PCIe slots.

Click to go back to the [overview of 2.5-inch configurations](#).

Return to [Storage configurations](#).

In the table:

- **M.2 + VROC (SATA)** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with SATA drives. RAID is optional, provided using VROC.
- **M.2 + VROC (NVMe)** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with NVMe drives. RAID is optional, provided using VROC.
- **M.2 + RAID adapter** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with either a RAID 5350-8i adapter (supporting SATA drives) or a RAID 540-8i (supporting NVMe drives)
- **M.2 Integrated RAID** means the M.2 NVMe RAID adapter (4Y37A09750) with the integrated Marvell controller, or the M.2 B540i-2i SATA/NVMe adapter (4Y37A90063) with integrated Broadcom controller. RAID-0 and RAID-1 are supported.
- **7mm + VROC (SATA)** means the 7mm SATA/NVMe kit (BU0N) with SATA drives. RAID is optional, provided using VROC.
- **7mm + VROC (NVMe)** means the 7mm SATA/NVMe kit (BU0N) with NVMe drives. RAID is optional, provided using VROC.
- **7mm + RAID adapter** means the 7mm SATA/NVMe kit (BU0N) with either a RAID 5350-8i adapter (supporting SATA drives) or a RAID 540-8i (supporting NVMe drives)
- **7mm Integrated RAID** means the 7mm NVMe RAID kit (B8Q2) with integrated Marvell controller or the 7mm SATA/NVMe RAID kit (BYFG) with integrated Broadcom controller. RAID-0 and RAID-1 are supported.

Table 29. Details - 2.5-inch front bays without front slots

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/ SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
18-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	Y	Y	Y	Y	N	N	N	N	9350-16i + OB NVMe
18-2	2 only								Y	Y	Y	Y	N	N	N	N	9350-16i + OB NVMe
18-3	2 only								Y	Y	Y	Y	N	N	N	N	(940-16i or 540-16i) + OB NVMe
18-4	2 only								Y	Y	Y	Y	N	N	N	N	440-16i + OB NVMe
19-1	2 only	0	10	0	0	0	2	Front: 10x2.5" AnyBay G4 (BB3T); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: 9350-16i + OB NVMe; Rear: OB NVMe
19-2	2 only								Y	Y	Y	Y	N	N	N	N	Front: 9350-16i + OB NVMe; Rear: OB NVMe
19-3	2 only								Y	Y	Y	Y	N	N	N	N	Front: (940-16i or 540-16i) + OB NVMe; Rear: OB NVMe
19-4	2 only								Y	Y	Y	Y	N	N	N	N	Front: 440-16i + OB NVMe; Rear: OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
21-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	N	N	N	N	Y	Y	Y	Y	9350-16i + OB NVMe
21-2	2 only								N	N	N	N	Y	Y	Y	Y	9350-16i + OB NVMe
21-3	2 only								N	N	N	N	Y	Y	Y	Y	(940-16i or 540-16i) + OB NVMe
21-4	2 only								N	N	N	N	Y	Y	Y	Y	440-16i + OB NVMe
22-1	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	Y	Y	Y	Y	N	N	N	N	OB SATA
22-2	1 or 2								Y	Y	Y	Y	N	N	N	N	(5350-8i or 9350-8i)
22-3	1 or 2								Y	Y	Y	Y	N	N	N	N	4350-8i
22-4	1 or 2								Y	Y	Y	Y	N	N	N	N	(940-8i or 540-8i)
22-5	1 or 2								Y	Y	Y	Y	N	N	N	N	440-8i
22-6	1 or 2								Y	Y	Y	Y	N	N	N	N	9350-16i
22-7	1 or 2								Y	Y	Y	Y	N	N	N	N	(540-16i or 940-16i)
22-8	1 or 2								Y	Y	Y	Y	N	N	N	N	(5350-8i CFF or 9350-8i CFF or 9350-16i CFF)
22-9	1 or 2								Y	Y	Y	Y	N	N	N	N	940-16i CFF
22-10	1 or 2								Y	Y	Y	Y	N	N	N	N	440-16i CFF
22-12	1 only								Y	Y	Y	Y	N	N	N	N	(9350-8i or 9350-16i)
22-13	1 only								Y	Y	Y	Y	N	N	N	N	940-16i CFF
22-11	1 only	Y	Y	Y	Y	N	N	N	N	440-16i CFF							
23-1	1 or 2	8	0	0	0	2	0	Front: 8x2.5" SAS/SATA (B8N0); Rear: 2x 2.5" SAS/SATA (B8MY)	Y	Y	Y	Y	N	N	N	N	OB SATA
23-2	1 or 2								Y	Y	Y	Y	N	N	N	N	Front: (5350-8i or 9350-8i); Rear: OB SATA
23-3	1 or 2								Y	Y	Y	Y	N	N	N	N	Front: 4350-8i; Rear: OB SATA
23-4	1 or 2								Y	Y	Y	Y	N	N	N	N	Front: (940-8i or 540-8i); Rear: OB SATA
23-5	1 or 2								Y	Y	Y	Y	N	N	N	N	Front: 440-8i; Rear: OB SATA
23-6	2 only								Y	Y	Y	Y	N	N	N	N	9350-16i CFF
23-7	2 only								Y	Y	Y	Y	N	N	N	N	940-16i CFF
23-8	2 only								Y	Y	Y	Y	N	N	N	N	440-16i CFF
23-9	2 only								Y	Y	Y	Y	N	N	N	N	Front: (5350-8i CFF or 9350-8i CFF); Rear: OB SATA
23-10	1 only								Y	Y	Y	Y	N	N	N	N	Front: (5350-8i CFF or 9350-8i CFF); Rear: OB SATA
23-11	1 only								Y	Y	Y	Y	N	N	N	N	9350-16i CFF
23-12	1 only								Y	Y	Y	Y	N	N	N	N	940-16i CFF
23-13	1 only								Y	Y	Y	Y	N	N	N	N	440-16i CFF

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
24-1	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	Y	Y	Y	Y	OB SATA
24-2	1 or 2								N	N	N	N	Y	Y	Y	Y	(5350-8i or 9350-8i)
24-3	1 or 2								N	N	N	N	Y	Y	Y	Y	4350-8i
24-4	1 or 2								N	N	N	N	Y	Y	Y	Y	(940-8i or 540-8i)
24-5	1 or 2								N	N	N	N	Y	Y	Y	Y	440-8i
24-6	2 only								N	N	N	N	Y	Y	Y	Y	(5350-8i CFF or 9350-8i CFF or 9350-16i CFF)
24-7	2 only								N	N	N	N	Y	Y	Y	Y	940-16i CFF
24-8	2 only								N	N	N	N	Y	Y	Y	Y	440-16i CFF
24-9	1 only								N	N	N	N	Y	Y	Y	Y	(5350-8i CFF or 9350-8i CFF or 9350-16i CFF)
24-10	1 only								N	N	N	N	Y	Y	Y	Y	940-16i CFF
24-11	1 only								N	N	N	N	Y	Y	Y	Y	440-16i CFF
25-1	2 only	0	0	0	16	0	0	16xEDSFF (B981)	Y	Y	Y	Y	N	N	N	N	Retimer + OB NVMe
26-1	1 or 2	4	0	0	0	0	0	4x2.5" SAS/SATA (BCGB)	N	N	N	N	Y	Y	Y	Y	OB SATA
26-2	1 or 2								N	N	N	N	Y	Y	Y	Y	(5350-8i or 9350-8i)
26-3	1 or 2								N	N	N	N	Y	Y	Y	Y	4350-8i
26-4	1 or 2								N	N	N	N	Y	Y	Y	Y	(940-8i or 540-8i)
26-5	1 or 2								N	N	N	N	Y	Y	Y	Y	440-8i
27-1	1 or 2	4	0	0	0	0	0	4x2.5" SAS/SATA (BCGB)	Y	Y	Y	Y	N	N	N	N	OB SATA
27-2	1 or 2								Y	Y	Y	Y	N	N	N	N	(5350-8i or 9350-8i)
27-3	1 or 2								Y	Y	Y	Y	N	N	N	N	4350-8i
27-4	1 or 2								Y	Y	Y	Y	N	N	N	N	(940-8i or 540-8i)
27-5	1 or 2								Y	Y	Y	Y	N	N	N	N	440-8i
28-1	2 only	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)	Y	Y	Y	Y	N	N	N	N	OB NVMe
28-3	2 only	0	0	10	0	0	2	<b>Front:</b> 10x2.5" NVMe G4 (BCQQ); <b>Rear:</b> 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	<b>Front:</b> OB NVMe; <b>Rear:</b> OB NVMe
28-4	2 only	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)	N	N	N	N	Y	Y	Y	Y	OB NVMe
29-1	1 or 2	0	8	0	0	0	0	10x2.5" AnyBay G4 (BB3T) (8 bays max)	Y	Y	Y	Y	N	N	N	N	940-8i Tri-mode
29-2	1 or 2								Y	Y	Y	Y	N	N	N	N	9450-8i Tri-mode
29A-1	1 or 2	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	Y	Y	Y	Y	N	N	N	N	940-16i Tri-mode
29A-2	1 or 2								Y	Y	Y	Y	N	N	N	N	9450-16i Tri-mode
31-1	2 only	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)	Y	Y	Y	Y	N	N	N	N	OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
31-2	2 only	0	0	4	0	2	0	Front: 4x2.5" NVMe G4 (BPC9); Rear: 2x 2.5" SAS/SATA (B8MY)	Y	Y	Y	Y	N	N	N	N	Front: OB NVMe; Rear: OB SATA
31-3	2 only	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)	N	N	N	N	Y	Y	Y	Y	OB NVMe
31-4	2 only	0	0	4	0	0	2	Front: 4x2.5" NVMe G4 (BPC9); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: OB NVMe; Rear: OB NVMe
31A-1	1 only	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)	Y	N	Y	Y	N	N	N	N	OB NVMe
31A-2	1 only	0	0	4	0	2	0	Front: 4x2.5" NVMe G4 (BPC9); Rear: 2x 2.5" SAS/SATA (B8MY)	Y	N	Y	Y	N	N	N	N	Front: OB NVMe; Rear: OB SATA
31A-3	1 only	0	0	4	0	0	0	4x2.5" NVMe G4 (BPC9)	N	N	N	N	Y	N	Y	Y	OB NVMe
31A-4	1 only								Y	Y	Y	Y	N	N	N	N	Retimer
31A-5	1 only								Y	Y	Y	Y	N	N	N	N	Retimer
35-1	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	N	N	N	N	OB SATA
35A-1	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	Y	Y	Y	Y	OB SATA
35-2	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	N	N	N	N	(5350-8i or 9350-8i)
35A-2	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	Y	Y	Y	Y	(5350-8i or 9350-8i)
35-3	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	N	N	N	N	4350-8i
35A-3	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	Y	Y	Y	Y	4350-8i
35-4	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	N	N	N	N	(940-8i or 540-8i)
35A-4	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	Y	Y	Y	Y	(940-8i or 540-8i)
35-5	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	N	N	N	N	440-8i
35A-5	1 or 2	8	0	0	0	0	0	8x2.5" SAS/SATA (B8N0)	N	N	N	N	N	N	N	N	440-8i
48-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	N	N	N	N	N	N	N	N	OB SATA + OB NVMe
48A-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	N	N	N	N	Y	Y	Y	Y	OB SATA + OB NVMe
48-2	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	N	N	N	N	N	N	N	N	(9350-16i or 4350-16i) + OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
48A-2	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	N	N	N	N	Y	Y	Y	Y	(9350-16i or 4350-16i) + OB NVMe
48-3	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	N	N	N	N	N	N	N	N	(940-16i or 540-16i or 440-16i) + OB NVMe
48A-3	2 only	0	10	0	0	0	0	10x2.5" AnyBay G4 (BB3T)	N	N	N	N	Y	Y	Y	Y	(940-16i or 540-16i or 440-16i) + OB NVMe
36-1	2 only	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)	N	N	N	N	N	N	N	N	OB NVMe + OB NVMe
36A-1	2 only	0	0	10	0	0	0	10x2.5" NVMe G4 (BCQQ)	N	N	N	N	Y	Y	Y	Y	OB NVMe + OB NVMe
37-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)	N	N	N	N	N	N	N	N	Retimer + OB NVMe
37A-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)	N	N	N	N	Y	N	Y	Y	Retimer + OB NVMe
38-1	2 only	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)	N	N	N	N	N	N	N	N	OB NVMe
38A-1	2 only	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)	N	N	N	N	Y	Y	Y	Y	OB NVMe
49-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	N	N	N	N	OB SATA + OB NVMe
49A-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	OB SATA + OB NVMe
49-2	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	N	N	N	N	(9350-16i or 4350-16i) + OB NVMe
49A-2	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	(9350-16i or 4350-16i) + OB NVMe
49-3	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	N	N	N	N	(940-16i or 540-16i or 440-16i) + OB NVMe
49A-3	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	(940-16i or 540-16i or 440-16i) + OB NVMe
39-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)	N	N	N	N	N	N	N	N	Retimer G5 + OB NVMe
39A-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)	N	N	N	N	Y	N	Y	Y	Retimer G5 + OB NVMe
40-1	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	N	N	N	N	OB SATA + OB NVMe
40A-1	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	Y	Y*	Y	Y	OB SATA + OB NVMe
40-2	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	N	N	N	N	(9350-16i or 4350-16i) + OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
40A-2	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	Y	Y*	Y	Y	(9350-16i or 4350-16i) + OB NVMe
40-3	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	N	N	N	N	(940-16i or 540-16i or 440-16i) + OB NVMe
40A-3	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	Y	Y*	Y	Y	(940-16i or 540-16i or 440-16i) + OB NVMe
40-4	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	N	N	N	N	OB SATA + OB NVMe
40A-4	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y*	Y	Y	OB SATA + OB NVMe
40-5	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	N	N	N	N	(5350-8i or 9350-8i or 9350-16i or 4350-8i or 4350-16i) + OB NVMe
40A-5	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y*	Y	Y	(5350-8i or 9350-8i or 9350-16i or 4350-8i or 4350-16i) + OB NVMe
40-6	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	N	N	N	N	(940-8i or 940-16i or 540-8i or 540-16i or 440-8i or 440-16i) + OB NVMe
40A-6	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y*	Y	Y	(940-8i or 940-16i or 540-8i or 540-16i or 440-8i or 440-16i) + OB NVMe
50-1	1 or 2	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)	N	N	N	N	N	N	N	N	OB NVMe
50A-1	1 or 2	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)	N	N	N	N	Y	Y*	Y	Y	OB NVMe
41-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	Y	Y	Y	Y	N	N	N	N	OB SATA + OB NVMe
41A-1	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	OB SATA + OB NVMe
41B-1	2 only	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: OB SATA + OB NVMe; Rear: OB NVMe
41-2	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	Y	Y	Y	Y	N	N	N	N	(5350-16i or 9350-16i) + OB NVMe
41A-2	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	(5350-16i or 9350-16i) + OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
41B-2	2 only	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: (5350-16i or 9350-16i) + OB NVMe; Rear: OB NVMe
41-3	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	Y	Y	Y	Y	N	N	N	N	4350-16i + OB NVMe
41A-3	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	4350-16i + OB NVMe
41B-3	2 only	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: 4350-16i + OB NVMe; Rear: OB NVMe
41-4	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	Y	Y	Y	Y	N	N	N	N	(940-16i or 540-16i) + OB NVMe
41A-4	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	(940-16i or 540-16i) + OB NVMe
41B-4	2 only	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: (940-16i or 540-16i) + OB NVMe; Rear: OB NVMe
41-5	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	Y	Y	Y	Y	N	N	N	N	440-16i + OB NVMe
41A-5	2 only	0	10	0	0	0	0	10x2.5" AnyBay G5 (BLKC)	N	N	N	N	Y	Y	Y	Y	440-16i + OB NVMe
41B-5	2 only	0	10	0	0	0	2	Front: 10x2.5" AnyBay G5 (BLKC); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: 440-16i; Rear: OB NVMe
42-1	2 only	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	Y	Y	Y	Y	N	N	N	N	9350-16i CFF + OB NVMe
42A-1	2 only	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	Y	Y	Y	Y	9350-16i CFF + OB NVMe
42B-1	2 only	6	4	0	0	2	0	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" SAS/SATA (B8MY)	Y	Y	Y	Y	N	N	N	N	9350-16i CFF + OB NVMe
42C-1	2 only	6	4	0	0	0	2	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: 9350-16i CFF + OB NVMe; Rear: OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
42-2	2 only	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	Y	Y	Y	Y	N	N	N	N	940-16i CFF + OB NVMe
42A-2	2 only	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	Y	Y	Y	Y	940-16i CFF + OB NVMe
42B-2	2 only	6	4	0	0	2	0	<b>Front:</b> 6xSAS/SATA + 4xAnyBay G5 (BRQY); <b>Rear:</b> 2x 2.5" SAS/SATA (B8MY)	Y	Y	Y	Y	N	N	N	N	940-16i CFF + OB NVMe
42C-2	2 only	6	4	0	0	0	2	<b>Front:</b> 6xSAS/SATA + 4xAnyBay G5 (BRQY); <b>Rear:</b> 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	<b>Front:</b> 940-16i CFF + OB NVMe; <b>Rear:</b> OB NVMe
42-3	2 only	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	Y	Y	Y	Y	N	N	N	N	440-16i CFF + OB NVMe
42A-3	2 only	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	Y	Y	Y	Y	440-16i CFF + OB NVMe
42B-3	2 only	6	4	0	0	2	0	<b>Front:</b> 6xSAS/SATA + 4xAnyBay G5 (BRQY); <b>Rear:</b> 2x 2.5" SAS/SATA (B8MY)	Y	Y	Y	Y	N	N	N	N	440-16i CFF + OB NVMe
42C-3	2 only	6	4	0	0	0	2	<b>Front:</b> 6xSAS/SATA + 4xAnyBay G5 (BRQY); <b>Rear:</b> 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	<b>Front:</b> 440-16i CFF + OB NVMe; <b>Rear:</b> OB NVMe
42-4	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	Y	Y*	Y	Y	N	N	N	N	9350-16i + OB NVMe
42-5	1 or 2								Y	Y*	Y	Y	N	N	N	N	(940-16i or 540-16i) + OB NVMe
42-6	1 or 2								Y	Y*	Y	Y	N	N	N	N	4350-16i + OB NVMe
42-7	1 or 2								Y	Y*	Y	Y	N	N	N	N	440-16i + OB NVMe
42-8	1 or 2								Y	Y*	Y	Y	N	N	N	N	OB SATA + OB NVMe
42A-4	1 or 2	6	4	0	0	0	0	6xSAS/SATA + 4xAnyBay G5 (BRQY)	N	N	N	N	Y	Y*	Y	Y	9350-16i + OB NVMe
42A-5	1 or 2								N	N	N	N	Y	Y*	Y	Y	(940-16i or 540-16i) + OB NVMe
42A-6	1 or 2								N	N	N	N	Y	Y*	Y	Y	4350-16i + OB NVMe
42A-7	1 or 2								N	N	N	N	Y	Y*	Y	Y	440-16i + OB NVMe
42A-8	1 or 2								N	N	N	N	Y	Y*	Y	Y	OB SATA + OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
42B-4	1 or 2	6	4	0	0	2	0	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" SAS/SATA (B8MY)	Y	Y*	Y	Y	N	N	N	N	9350-16i + OB NVMe
42B-5	1 or 2								Y	Y*	Y	Y	N	N	N	N	(940-16i or 540-16i) + OB NVMe
42B-6	1 or 2								Y	Y*	Y	Y	N	N	N	N	4350-16i + OB NVMe
42B-7	1 or 2								Y	Y*	Y	Y	N	N	N	N	440-16i + OB NVMe
42C-4	2 only	6	4	0	0	0	2	Front: 6xSAS/SATA + 4xAnyBay G5 (BRQY); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: 9350-16i + OB NVMe; Rear: OB NVMe
42C-5	2 only								Y	Y	Y	Y	N	N	N	N	Front: (940-16i or 540-16i) + OB NVMe; Rear: OB NVMe
42C-6	2 only								Y	Y	Y	Y	N	N	N	N	Front: 4350-16i + OB NVMe; Rear: OB NVMe
42C-7	2 only								Y	Y	Y	Y	N	N	N	N	Front: 440-16i + OB NVMe; Rear: OB NVMe
42C-8	2 only								Y	Y	Y	Y	N	N	N	N	Front: OB SATA + OB NVMe; Rear: OB NVMe
43-1	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	Y	Y*	Y	Y	N	N	N	N	(5350-8i or 9350-8i or 9350-16i) + OB NVMe
43A-1	1 or 2								N	N	N	N	Y	Y*	Y	Y	(5350-8i or 9350-8i or 9350-16i) + OB NVMe
43-2	1 or 2								Y	Y*	Y	Y	N	N	N	N	(940-8i or 940-16i or 540-8i or 540-16i) + OB NVMe
43A-2	1 or 2								N	N	N	N	Y	Y*	Y	Y	(940-8i or 940-16i or 540-8i or 540-16i) + OB NVMe
43-3	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	Y	Y*	Y	Y	N	N	N	N	(4350-8i or 4350-16i) + OB NVMe
43A-3	1 or 2								N	N	N	N	Y	Y*	Y	Y	(4350-8i or 4350-16i) + OB NVMe
43-4	1 or 2								Y	Y*	Y	Y	N	N	N	N	(440-8i or 440-16i) + OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
43A-4	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y*	Y	Y	(440-8i or 440-16i) + OB NVMe
43-5	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	Y	Y*	Y	Y	N	N	N	N	OB SATA + OB NVMe
43A-5	1 or 2	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y*	Y	Y	OB SATA + OB NVMe
43-6	2 only	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	Y	Y	Y	Y	N	N	N	N	(5350-8i CFF or 9350-8i CFF or 9350-16i CFF) + OB NVMe
43A-6	2 only	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y	Y	Y	(5350-8i CFF or 9350-8i CFF or 9350-16i CFF) + OB NVMe
43-7	2 only	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	Y	Y	Y	Y	N	N	N	N	940-16i CFF + OB NVMe
43A-7	2 only	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y	Y	Y	940-16i CFF + OB NVMe
43-8	2 only	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	Y	Y	Y	Y	N	N	N	N	440-16i CFF + OB NVMe
43A-8	2 only	6	2	2	0	0	0	6xSAS/SATA + 2xAnyBay + 2xNVMe G5 (BU1W)	N	N	N	N	Y	Y	Y	Y	440-16i CFF + OB NVMe
44-1	2 only	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)	Y	Y	Y	Y	N	N	N	N	OB NVMe
44A-1	2 only	0	0	10	0	0	0	10x2.5" NVMe G5 (BRQX)	N	N	N	N	Y	Y	Y	Y	OB NVMe
44B-1	2 only	0	0	10	0	0	2	Front: 10x2.5" NVMe G5 (BRQX); Rear: 2x 2.5" NVMe G4 (BDY6)	Y	Y	Y	Y	N	N	N	N	Front: OB NVMe; Rear: OB NVMe
45-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)	Y	N	Y	Y	N	N	N	N	Retimer G5 + OB NVMe
45A-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G5 (BRQX) (8 bays max)	N	N	N	N	Y	N	Y	Y	Retimer G5 + OB NVMe

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
46-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)	Y	N	Y	Y	N	N	N	N	Retimer + OB NVMe
46A-1	1 only	0	0	8	0	0	0	10x2.5" NVMe G4 (BCQQ) (8 bays max)	N	N	N	N	Y	N	Y	Y	Retimer + OB NVMe
47-1	1 only	0	8	0	0	0	0	10x2.5" AnyBay G4 (BB3T) (8 bays max)	Y	N	Y	Y	N	N	N	N	OB SATA + OB NVMe + Retimer
47A-1	1 only	0	8	0	0	0	0	10x2.5" AnyBay G4 (BB3T) (8 bays max)	N	N	N	N	Y	N	Y	Y	OB SATA + OB NVMe + Retimer
51-1	1 or 2	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)	Y	Y*	Y	Y	N	N	N	N	OB NVMe
51A-1	1 or 2	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1N)	N	N	N	N	Y	Y*	Y	Y	OB NVMe

\* For M.2 and 7mm: Requires 2 processors; not supported with only 1 processor installed

#### Details - 2.5-inch front bays with front slots

The following table lists the detailed configurations that use 2.5-inch front drive bays without front PCIe slots.

Click to go back to the [overview of 2.5-inch configurations](#).

Return to [Storage configurations](#).

In the table:

- **M.2 + VROC (SATA)** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with SATA drives. RAID is optional, provided using VROC.
- **M.2 + VROC (NVMe)** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with NVMe drives. RAID is optional, provided using VROC.
- **M.2 + RAID adapter** means the M.2 SATA/x4 NVMe adapter (4Y37A79663) with either a RAID 5350-8i adapter (supporting SATA drives) or a RAID 540-8i (supporting NVMe drives)
- **M.2 Integrated RAID** means the M.2 NVMe RAID adapter (4Y37A09750) with the integrated Marvell controller, or the M.2 B540i-2i SATA/NVMe adapter (4Y37A90063) with integrated Broadcom controller. RAID-0 and RAID-1 are supported.
- **7mm + VROC (SATA)** means the 7mm SATA/NVMe kit (BU0N) with SATA drives. RAID is optional, provided using VROC.
- **7mm + VROC (NVMe)** means the 7mm SATA/NVMe kit (BU0N) with NVMe drives. RAID is optional, provided using VROC.
- **7mm + RAID adapter** means the 7mm SATA/NVMe kit (BU0N) with either a RAID 5350-8i adapter (supporting SATA drives) or a RAID 540-8i (supporting NVMe drives)
- **7mm Integrated RAID** means the 7mm NVMe RAID kit (B8Q2) with integrated Marvell controller or the 7mm SATA/NVMe RAID kit (BYFG) with integrated Broadcom controller. RAID-0 and RAID-1 are supported.

Table 30. Details - 2.5-inch front bays with front slots

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers			
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID				
52-1	2 only	0	0	4	0	0	0	4x2.5" NVMe G4 (BV8J)	N	N	N	N	N	N	N	N	N	OB NVMe		
52A-1	2 only	0	0	4	0	2	0	Front: 4x2.5" NVMe G4 (BV8J); Rear: 2x 2.5" SAS/SATA (B8MY)	N	N	N	N	N	N	N	N	N	Front: OB NVMe; Rear: OB SATA		
52B-1	2 only	0	0	4	0	0	0	4x2.5" NVMe G4 (BV8J)	N	N	N	N	Y	N	Y	Y	Y	OB NVMe		
54-1	2 only	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1Q)	N	N	N	N	N	N	N	N	N	OB NVMe		
54A-1	2 only	0	0	4	0	2	0	Front: 4x2.5" NVMe G5 (BT1Q); Rear: 2x 2.5" SAS/SATA (B8MY)	N	N	N	N	N	N	N	N	N	Front: OB NVMe; Rear: OB SATA		
54B-1	2 only	0	0	4	0	0	0	4x2.5" NVMe G5 (BT1Q)	N	N	N	N	Y	N	Y	Y	Y	OB NVMe		
55-1	2 only	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)	N	N	N	N	N	N	N	N	N	OB SATA + OB NVMe		
55-2	2 only								N	N	N	N	N	N	N	N	N	N	N	(5350-8i or 9350-8i or 4350-8i) + OB NVMe
55-3	2 only								N	N	N	N	N	N	N	N	N	N	N	(940-8i or 540-8i or 440-8i) + OB NVMe
55A-1	2 only	0	4	0	0	2	0	Front: 4x2.5" AnyBay G5 (BT1P); Rear: 2x 2.5" SAS/SATA (B8MY)	N	N	N	N	N	N	N	N	N	OB SATA + OB NVMe		
55A-2	2 only								N	N	N	N	N	N	N	N	N	N	N	(5350-8i or 9350-8i or 4350-8i) + OB NVMe
55A-3	2 only								N	N	N	N	N	N	N	N	N	N	N	(940-8i or 540-8i or 440-8i) + OB NVMe
55B-1	2 only	0	4	0	0	0	2	Front: 4x2.5" AnyBay G5 (BT1P); Rear: 2x 2.5" NVMe G4 (BDY6)	N	N	N	N	N	N	N	N	N	Front: OB SATA + OB NVMe; Rear: OB NVMe		
55B-2	2 only								N	N	N	N	N	N	N	N	N	N	N	Front: (5350-8i or 9350-8i or 4350-8i) + OB NVMe; Rear: OB NVMe
55B-3	2 only								N	N	N	N	N	N	N	N	N	N	N	Front: (940-8i or 540-8i or 440-8i) + OB NVMe; Rear: OB NVMe
55C-1	2 only	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)	N	N	N	N	Y	N	Y	Y	Y	OB SATA + OB NVMe		
55C-2	2 only								N	N	N	N	N	N	Y	N	Y	Y	Y	(5350-8i or 9350-8i or 4350-8i) + OB NVMe
55C-3	2 only								N	N	N	N	N	N	Y	N	Y	Y	Y	(940-8i or 540-8i or 440-8i) + OB NVMe
56-1	2 only	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)	N	N	N	N	N	N	N	N	N	940-8i Tri-mode		

Config	CPUs	Front				Rear		Backplanes	M.2				7mm				Supported controllers
		SAS/SATA	Any Bay	NVMe	EDSFF	2.5" SAS	2.5" NVMe		M.2 + VROC (SATA)	M.2 + VROC (NVMe)	M.2 + RAID adapter	M.2 Integrated RAID	7mm + VROC (SATA)	7mm + VROC (NVMe)	7mm + RAID adapter	7mm Integrated RAID	
56A-1	2 only	0	4	0	0	0	0	4x2.5" AnyBay G5 (BT1P)	N	N	N	N	Y	N	Y	Y	940-8i Tri-mode
56B-1	2 only	0	4	0	0	2	0	Front: 4x2.5" AnyBay G5 (BT1P); Rear: 2x 2.5" SAS/SATA (B8MY)	N	N	N	N	N	N	N	N	Front: 940-8i Tri-mode; Rear: OB SATA
56C-1	2 only	0	4	0	0	0	2	Front: 4x2.5" AnyBay G5 (BT1P); Rear: 2x 2.5" NVMe G4 (BDY6)	N	N	N	N	N	N	N	N	Front: 940-8i Tri-mode; Rear: OB NVMe

\* For M.2 and 7mm: Requires 2 processors; not supported with only 1 processor installed

### Field upgrades

The SR630 V3 is orderable without drive bays, allowing you to add a backplane, cabling and controllers as field upgrades. The following table summarizes the option part numbers you will need to order for each available drive configuration.

In this section:

- [Front & rear drive bays](#)
- [Upgrades to Internal \(CFF\) RAID adapter](#)
- [Upgrades to a Retimer adapter](#)
- [7mm drive bay upgrades](#)
- [2.5-inch drive bay fillers](#)

### Front & rear drive bays

Configuration rules:

- For front drive bays, backplane kits do not include cables. Cables must be ordered separately.
- For Rear drive bays, backplane kits included cables.
- There is no upgrade path to add drive bays if the SR630 V3 already has a backplane, without removing the existing backplane. For example, you cannot upgrade an 8x 2.5-inch drive bay to 10 bays without first removing the existing backplane.
- EDSFF configurations are CTO only. There are no field upgrades to EDSFF drives.

Table 31. Front drive bay field upgrades for servers without drive bays

Desired drive configuration (starting from zero bays)	Backplane and cable kits required (click the link to show the content of the option kit)
Front drive bays - 3.5-inch	
4x 3.5-inch SAS/SATA	1. 4XH7A83854, <a href="#">ThinkSystem V3 1U 4x3.5" SAS/SATA Backplane Option Kit</a> 2. 4X97A83824, <a href="#">ThinkSystem SR630 V3 4x3.5" SAS/SATA Backplane Cable Kit</a>

<b>Desired drive configuration (starting from zero bays)</b>	<b>Backplane and cable kits required (click the link to show the content of the option kit)</b>
4x 3.5-inch AnyBay Gen4	<ol style="list-style-type: none"> <li>1. 4XH7A83853, <a href="#">ThinkSystem V3 1U 4x3.5" AnyBay Backplane Option Kit</a></li> <li>2. 4X97A83825, <a href="#">ThinkSystem SR630 V3 4x3.5" AnyBay Backplane SAS/SATA Cable Kit</a></li> <li>3. 4X97A83826, <a href="#">ThinkSystem SR630 V3 4x3.5" AnyBay Backplane NVMe Cable kit</a></li> </ol>
<b>Front drive bays - 2.5-inch</b>	
4x 2.5-inch SAS/SATA	<ol style="list-style-type: none"> <li>1. 4XH7A83855, <a href="#">ThinkSystem V3 1U 4x2.5" SAS/SATA Backplane Option Kit</a></li> <li>2. 4X97A83836, <a href="#">ThinkSystem SR630 V3 4x2.5" SAS/SATA Backplane Cable Kit</a></li> </ol>
4x 2.5-inch NVMe Gen4	<ol style="list-style-type: none"> <li>1. 4XH7A83852, <a href="#">ThinkSystem V3 1U 4x2.5" NVMe Backplane Option Kit</a></li> <li>2. 4X97A85012, <a href="#">ThinkSystem SR630 V3 4x2.5" NVMe Backplane Cable Kit</a></li> </ol>
4x 2.5-inch NVMe Gen5	<ol style="list-style-type: none"> <li>1. 4XH7A90196, <a href="#">ThinkSystem V3 1U 4x2.5" AnyBay Gen5 Backplane Option Kit</a></li> <li>2. 4X97A90203, <a href="#">ThinkSystem SR630 V3 Front I/O 4x2.5" AnyBay Gen5 Backplane NVM Cable Kit</a></li> </ol>
8x 2.5-inch SAS/SATA	<ol style="list-style-type: none"> <li>1. 4XH7A83850, <a href="#">ThinkSystem V3 1U 8x2.5" SAS/SATA Backplane Option Kit</a></li> <li>2. 4X97A83828, <a href="#">ThinkSystem SR630 V3 8x2.5" SAS/SATA Backplane Cable Kit</a></li> </ol>
10x 2.5-inch SAS/SATA	<ol style="list-style-type: none"> <li>1. 4XH7A83858, <a href="#">ThinkSystem V3 1U 10x2.5" SAS/SATA Backplane Option Kit</a></li> <li>2. 4X97A83833, <a href="#">ThinkSystem SR630 V3 6xSAS/SATA+4xAnyBay Backplane SAS/SATA Cable Kit</a></li> </ol>
10x 2.5-inch NVMe Gen4	<ol style="list-style-type: none"> <li>1. 4XH7A87142, <a href="#">ThinkSystem V3 1U 10x2.5" NVMe Backplane Gen4 Option Kit</a></li> <li>2. 4X97A83829, <a href="#">ThinkSystem SR630 V3 10x2.5" AnyBay Backplane NVMe Cable Kit</a></li> </ol>
10x 2.5-inch NVMe Gen5	<ol style="list-style-type: none"> <li>1. 4XH7A87139, <a href="#">ThinkSystem V3 1U 10x2.5" NVMe Backplane Gen5 Option Kit</a></li> <li>2. 4X97A87136, <a href="#">ThinkSystem SR630 V3 10x2.5" Gen5 AnyBay Backplane NVMe Cable Kit</a></li> </ol>
10x 2.5-inch AnyBay Gen4	<ol style="list-style-type: none"> <li>1. 4XH7A83859, <a href="#">ThinkSystem V3 1U 10x2.5" AnyBay Backplane Option Kit</a></li> <li>2. 4X97A83830, <a href="#">ThinkSystem SR630 V3 10x2.5" AnyBay Backplane SAS/SATA Cable Kit</a></li> <li>3. 4X97A83829, <a href="#">ThinkSystem SR630 V3 10x2.5" AnyBay Backplane NVMe Cable Kit</a></li> </ol>
10x 2.5-inch AnyBay Gen5	<ol style="list-style-type: none"> <li>1. 4XH7A83851, <a href="#">ThinkSystem V3 1U 10x2.5" AnyBay Backplane Gen5 Option Kit</a></li> <li>2. 4X97A87135, <a href="#">ThinkSystem SR630 V3 10x2.5" Gen5 AnyBay Backplane SAS/SATA Cable Kit</a></li> <li>3. 4X97A87136, <a href="#">ThinkSystem SR630 V3 10x2.5" Gen5 AnyBay Backplane NVMe Cable Kit</a></li> </ol>
10x 2.5-inch Gen4 (6x SAS/SATA + 4x AnyBay)	<ol style="list-style-type: none"> <li>1. 4XH7A83856, <a href="#">ThinkSystem V3 1U 6x2.5" SAS/SATA+ 4xAnyBay Backplane Option Kit</a></li> <li>2. 4X97A83833, <a href="#">ThinkSystem SR630 V3 6xSAS/SATA+4xAnyBay Backplane SAS/SATA Cable Kit</a></li> <li>3. 4X97A87134, <a href="#">ThinkSystem SR630 V3 6xSAS/SATA+4xAnyBay Backplane NVMe Cable Kit</a></li> </ol>
10x 2.5-inch Gen5 (6x SAS/SATA + 4x AnyBay)	<ol style="list-style-type: none"> <li>1. 4XH7A87140, <a href="#">ThinkSystem V3 1U 6x2.5" SAS/SATA+4xGen5 AnyBay Backplane Option Kit</a></li> <li>2. 4X97A87135, <a href="#">ThinkSystem SR630 V3 10x2.5" Gen5 AnyBay Backplane SAS/SATA Cable Kit</a></li> <li>3. 4X97A87136, <a href="#">ThinkSystem SR630 V3 10x2.5" Gen5 AnyBay Backplane NVMe Cable Kit</a></li> </ol>
10x 2.5-inch Gen4 (6x SAS/SATA + 2x AnyBay + 2x NVMe)	<ol style="list-style-type: none"> <li>1. 4XH7A83857, <a href="#">ThinkSystem SR630 V3 6x2.5" SAS/SATA+2xNVMe+2xAnyBay Backplane Option Kit</a></li> <li>2. 4X97A83828, <a href="#">ThinkSystem SR630 V3 8x2.5" SAS/SATA Backplane Cable Kit</a></li> <li>3. 4X97A87134, <a href="#">ThinkSystem SR630 V3 6xSAS/SATA+4xAnyBay Backplane NVMe Cable Kit</a></li> </ol>

Desired drive configuration (starting from zero bays)	Backplane and cable kits required (click the link to show the content of the option kit)
10x 2.5-inch Gen5 (6x SAS/SATA + 2x AnyBay + 2x NVMe)	<ol style="list-style-type: none"> <li>4XH7A87141, <a href="#">ThinkSystem V3 1U 6x2.5" SAS/SATA+2xGen5 NVMe+2xGen5 AnyBay Backplane Option Kit</a></li> <li>4X97A87135, <a href="#">ThinkSystem SR630 V3 10x2.5" Gen5 AnyBay Backplane SAS/SATA Cable Kit</a></li> <li>4X97A87136, <a href="#">ThinkSystem SR630 V3 10x2.5" Gen5 AnyBay Backplane NVMe Cable Kit</a></li> </ol>
Front drive bays with front PCIe slot support - 2.5-inch	
4x 2.5-inch NVMe Gen4	<ol style="list-style-type: none"> <li>4XH7A90554, <a href="#">ThinkSystem V3 1U Front I/O 4x2.5" NVMe Backplane Option Kit</a></li> <li>4X97A90201, <a href="#">ThinkSystem SR630 V3 Front I/O 4x2.5" NVMe Backplane Cable Kit</a></li> </ol>
4x 2.5-inch NVMe Gen5	<ol style="list-style-type: none"> <li>4XH7A90197, <a href="#">ThinkSystem V3 1U Front I/O 4x2.5" AnyBay Gen5 Backplane Option Kit</a></li> <li>4X97A90203, <a href="#">ThinkSystem SR630 V3 Front I/O 4x2.5" AnyBay Gen5 Backplane NVM Cable Kit</a></li> </ol>
4x 2.5-inch AnyBay Gen5	<ol style="list-style-type: none"> <li>4XH7A90197, <a href="#">ThinkSystem V3 1U Front I/O 4x2.5" AnyBay Gen5 Backplane Option Kit</a></li> <li>4X97A90202, <a href="#">ThinkSystem SR630 V3 Front I/O 4x2.5" AnyBay Gen5 Backplane SAS/SATA Cable Kit</a></li> <li>4X97A90203, <a href="#">ThinkSystem SR630 V3 Front I/O 4x2.5" AnyBay Gen5 Backplane NVM Cable Kit</a></li> </ol>
Rear drive bays - 2.5-inch (no additional cable kits required; cables are included in backplane kits)	
2x 2.5-inch SAS/SATA	<ol style="list-style-type: none"> <li>4XH7A83860, <a href="#">ThinkSystem V3 1U 2x2.5" SAS/SATA Backplane Option Kit</a></li> </ol>
2x 2.5-inch NVMe Gen4	<ol style="list-style-type: none"> <li>4XH7A83861, <a href="#">ThinkSystem V3 1U Rear 2x2.5" NVMe Backplane Option Kit</a></li> </ol>

When adding drive bays, you will also need to add the appropriate storage controller(s). Consult the tables in the [Storage configurations](#) section to determine what controller sections are supported and what additional controllers you will need. Controllers are described in the [Controllers for internal storage](#) section.

### Upgrades to Internal (CFF) RAID adapter

If you want to add an internal (CFF) storage adapter (HBA, RAID adapter or SAS expander) to a configuration, you will need to order the cable kit as listed in the following table. Suitable upgrades are either replacing an existing adapter in a rear PCIe slot, or adding the CFF adapter to a server without any storage adapter installed.

Table 32. Cable needed for field upgrades to add CFF adapter

Part number	Description
4X97A87137	<a href="#">ThinkSystem SR630 V3 Internal Raid Adapter Cable Kit</a>

### Upgrades to a Retimer adapter

If you want to add a NVMe Gen4 retimer adapter to the server for a specific configuration, in addition to ordering the retimer adapter, you will also need to order the cable kit as listed in the following table.

Table 33. Retimer adapter cable kit

Part number	Description
4X97A85031	<a href="#">ThinkSystem SR630 V3 PCIe Gen4 x16 Retimer Cable Kit</a>

### 7mm drive bay upgrades

For field upgrades to add 7mm drive bays, order the part number listed in the following table.

Table 34. Field upgrades for 7mm drives

Part number	Description	Purpose
7mm Drive Enablement Kits		
4XH7A93743	<a href="#">ThinkSystem SR630 V3 7mm RAID B540p-2HS SATA/NVMe Enablement Kit</a> <ul style="list-style-type: none"> <li>7mm drive cage</li> <li>7mm drive backplane with cables for onboard connections</li> <li>2x drive bay fillers</li> </ul>	7mm drive bays for SATA or NVMe drive support. RAID support is integrated into the adapter using an onboard Broadcom RAID controller.
RAID adapters for optional 7mm HW RAID support (for use with 4XH7A88520)		
4Y37A78834	ThinkSystem RAID 540-8i PCIe Gen4 12Gb Adapter	RAID adapter needed for NVMe RAID-1 with 2x 7mm NVMe drives  <b>Tip:</b> Once the 540-8i adapter is installed, it will need to be configured to operate in Tri-mode to enable NVMe RAID.

### 2.5-inch drive bay fillers

Backplane option kits include the necessary drive bay fillers, however if needed, additional blanks can be ordered as listed in the following table.

Table 35. Drive bay fillers for 2.5-inch bays

Part number	Description
4XH7A99569	ThinkSystem 2.5" 1x1 HDD Filler by 8 units (contains 8x single drive-bay fillers)

### RAID flash power module (supercap) support

If you plan to add one of the RAID adapters that includes a RAID flash power module (supercap) as a field upgrade, then you will also need to order a Supercap installation kit for the power module. For CTO orders, the components in the installation kit are automatically derived when you select the RAID adapter.

The adapters that this applies to are as follows:

- Any supported RAID 940 adapter

There are up to three possible locations for supercaps, depending on the front drive bays (2.5-inch or 3.5-inch) and the type of the processor heatsinks. Details are summarized in the following table. Location references are shown in the figure below.

Table 36. Supercap support

Front drive configuration	Processor heatsinks	Number of adapters & supercaps	Location of supercaps
2.5-inch	Standard	3	1. Front of server behind operator panel ❶ 2. Mounted on air baffle ❷ 3. Mounted on air baffle ❷
	High Performance	1	1. Front of server behind operator panel ❶
	Closed-loop liquid	1	1. Installed in slot 3 attached to Riser 2 ❸
3.5-inch	Standard	2	1. Mounted on air baffle ❷ 2. Mounted on air baffle ❷
	High Performance	1	1. Installed in slot 3 attached to Riser 2 ❸

The locations where supercaps are installed is shown in the following figure.

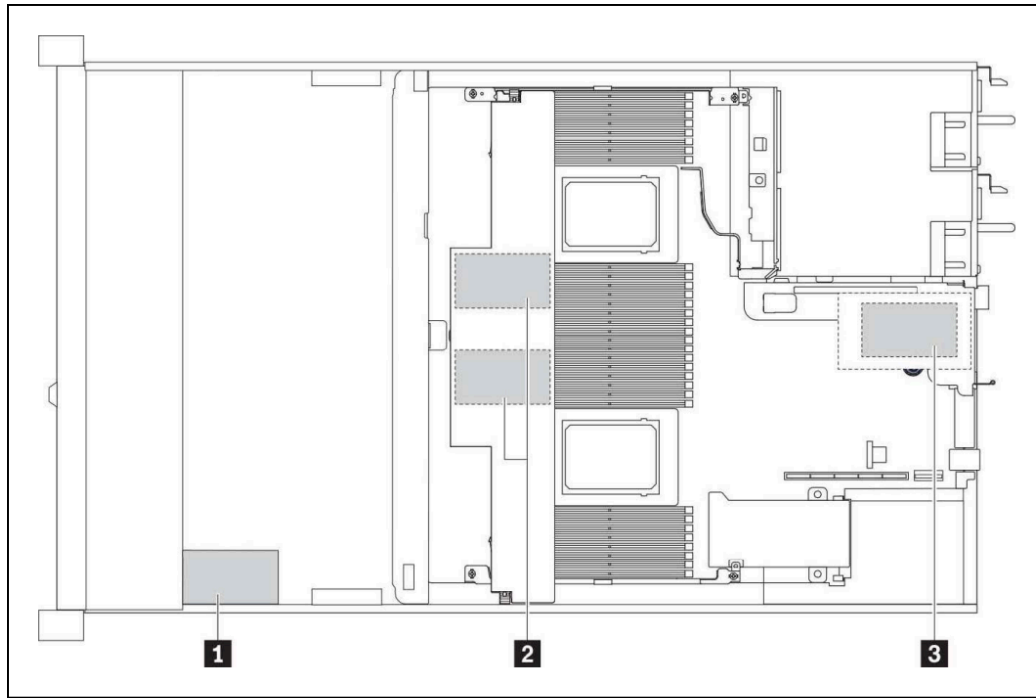


Figure 14. Location of the supercaps in the SR630 V3

When adding a RAID adapter and supercap as a field upgrade, order the supercap installation kit list listed in the following table.

Table 37. RAID Flash Power Module installation kits

Part number	Feature code	Description	Maximum supported
4M17A61304	BK70	ThinkSystem V3 1U Supercap Holder Kit (For use in position ❶ at the front of the server)	1
4XF7A85032	BK5T	ThinkSystem V3 1U Supercap Holder Kit for PCIe Slot (Low profile adapter form factor for use in slot 3, position ❸)	1

## M.2 drives

The SR630 V3 supports one or two M.2 form-factor SATA or NVMe drives for use as an operating system boot solution or as additional storage.

The M.2 drives install into an M.2 module which is mounted horizontally in the server in front of the fans as shown in the [Internal view](#) of the server. In configurations with 2.5-inch front drive bays, the M.2 module is position between the drive bays and the fans. In configurations with 3.5-inch front drive bays, the M.2 module is mounted on top of the front drive bays.

The supported M.2 module is listed in the following table. For field upgrades see the [M.2 field upgrades](#) section below.

Table 38. M.2 modules

Part number	Feature code	Description	Top Choice Express	SATA drives	NVMe drives	RAID	Maximum supported
4Y37A79663	BM8X	ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter	TCE ⓘ	Yes	Yes (x4 lanes)	VROC or adapter	1
4Y37A09750	B8P9	ThinkSystem M.2 NVMe 2-Bay RAID Adapter	TCE ⓘ	No	Yes (x1 lane)	Integrated (Marvell)	1
4Y37A90063	BYFF	ThinkSystem M.2 RAID B540i-2i SATA/NVMe Adapter	TCE ⓘ	Yes	Yes (x1 lane)	Integrated (Broadcom)	1

ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter (4Y37A79663) optionally supports RAID with the addition of either VROC or a separate RAID adapter. For CTO orders, ordering information is listed in the following table.

Table 39. CTO feature codes to select M.2 RAID (ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter only)

Feature code	Description	Top Choice Express	RAID support	Maximum supported
VROC for M.2 drives (optional, for RAID support)				
BS7Q	On Board SATA Software RAID Mode for M.2 (VROC SATA)	TCE ⓘ	SATA	1
BS7M	Intel VROC (VMD NVMe RAID) Standard for M.2 (VROC NVMe)	TCE ⓘ	NVMe	1
BZ4X	Intel VROC RAID1 Only for M.2 (VROC NVMe)	TCE ⓘ	NVMe	1
Controllers for RAID support of M.2 drives (optional; an alternative to VROC)				
BVL3	ThinkSystem RAID 540-8i for M.2 NVMe boot Enablement	Not TCE	NVMe	1

Configuration notes:

- M.2 is not supported with all storage configurations - see [Storage configurations](#) for details.
- M.2 is not supported in configurations with both EDSFF drives bays and the Integrated Diagnostics Panel (feature B8NH). For M.2 support with EDSFF drives, remove the Integrated Diagnostics Panel from the configuration.
- M.2 and 7mm are mutually exclusive: they are not supported together in the same configuration
- For field upgrades, an additional cable is needed as described in the [M.2 field upgrades](#) section below
- For ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter (4Y37A79663):
  - The adapter is not supported with 3.5-inch front drive bays due to physical limitations
  - RAID support is implemented using VROC (no adapter needed) or with the use of an additional RAID adapter installed in a slot
  - If RAID is enabled using VROC, select these feature codes:
    - VROC SATA support: On Board SATA Software RAID Mode for M.2 (feature BS7Q)
    - VROC NVMe support:
      - Intel VROC (VMD NVMe RAID) Standard for M.2 (feature BS7M)
      - Intel VROC RAID1 Only for M.2 (feature BZ4X)
  - If RAID is enabled using a RAID adapter, the adapter is installed in PCIe slot 3:
    - RAID support for M.2 NVMe drives requires a RAID 540-8i adapter operating in Tri-Mode (feature BVL3)
  - The use of VROC SATA RAID is not supported by virtualization hypervisors such as ESXi, KVM, Xen, and Hyper-V. VROC NVMe RAID is supported by hypervisors, however.
- For ThinkSystem M.2 NVMe 2-Bay RAID Adapter (4Y37A09750):
  - RAID is implemented using an onboard Marvell 88NR2241 NVMe RAID controller
- For ThinkSystem M.2 RAID B540i-2i SATA/NVMe Adapter (4Y37A90063):

- RAID is implemented using an onboard Broadcom controller

The ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter (4Y37A79663) has the following features:

- Supports one or two M.2 drives, either SATA or NVMe
- When two drives installed, they must be either both SATA or both NVMe
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110)
- On the SR630 V3, RAID support is implemented using VROC or a separate RAID adapter
- Either 6Gbps SATA or PCIe 4.0 x4 interface to the drives depending on the drives installed
- Supports monitoring and reporting of events and temperature through I2C
- Firmware update via Lenovo firmware update tools
- When connected to a separate PCIe RAID adapter, supports SED drive encryption via the RAID adapter, otherwise no SED support

The ThinkSystem M.2 NVMe 2-Bay RAID Adapter (4Y37A09750) has the following features:

- Supports one or two NVMe M.2 drives
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110)
- RAID support via an onboard Marvell 88NR2241 NVMe RAID Controller
- With 1 drive, supports single-drive RAID-0
- With 2 drives, supports 2-drive RAID-0, 2-drive RAID-1, or two single-drive RAID-0 arrays
- PCIe 3.0 x2 host interface; PCIe 3.0 x1 connection to each drive
- Management and configuration support via UEFI and OS-based tools
- Supports monitoring and reporting of events and temperature through I2C
- Firmware update via Lenovo firmware update tools
- No support for SED drive encryption

The ThinkSystem M.2 RAID B540i-2i SATA/NVMe Adapter (4Y37A90063) has the following features:

- Supports one or two M.2 drives, either SATA or NVMe
- Support 42mm, 60mm, 80mm and 110mm drive form factors (2242, 2260, 2280 and 22110)
- RAID support via an onboard Broadcom SAS3808N RAID Controller
- With 1 drive, supports JBOD
- With 2 drives, supports 2-drive RAID-0, 2-drive RAID-1, or JBOD
- PCIe 4.0 x2 host interface; PCIe 4.0 x1 connection to each drive
- Management and configuration support via UEFI and OS-based tools
- Supports monitoring and reporting of events and temperature
- Firmware update via Lenovo firmware update tools
- Supports SED drive encryption

## M.2 field upgrades

For field upgrades, the SR630 V3 also requires an additional M.2 cable kit. Ordering information is listed in the following table.

Table 40. M.2 Cable Kits for field upgrades

Part number	Description
M.2 Cable Kits	
4X97A87144	ThinkSystem SR630 V3 M.2 SATA/NVMe x4 Non RAID Cable Kit (Cable kit for use with ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter without the use of a separate RAID adapter)
4X97A88522	ThinkSystem SR630 V3 M.2 SATA/x4 NVMe SFF RAID Cable Kit (Cable kit for use with ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter with the use of a separate PCIe RAID adapter)
4X97A93744	ThinkSystem SR630 V3 M.2 SATA/x4 NVMe CFF RAID Cable Kit (Cable kit for use with ThinkSystem M.2 SATA/x4 NVMe 2-Bay Adapter with the use of the 5350-8i Internal Adapter)

Part number	Description
4X97A88521	ThinkSystem SR630 V3 M.2 NVMe 2-Bay RAID Cable Kit (Cable kit for use with ThinkSystem M.2 NVMe 2-Bay RAID Adapter)
4X97A93832	ThinkSystem SR630 V3 M.2 RAID B540i-2i SATA/NVMe Cable Kit (Cable kit for use with ThinkSystem M.2 RAID B540i-2i SATA/NVMe Adapter)
RAID adapters for M.2 RAID support (for 4X97A88522 only)	
4Y37A72482	ThinkSystem RAID 5350-8i PCIe 12Gb Adapter (SATA M.2 support)
4Y37A78834	ThinkSystem RAID 540-8i PCIe Gen4 12Gb Adapter (NVMe M.2 support using Tri-Mode) <b>Tip:</b> Once the 540-8i adapter is installed, it will need to be configured to operate in Tri-mode to enable NVMe RAID.
Internal (CFF) RAID adapters for M.2 RAID support (for 4X97A93744 only)	
4Y37A84028	ThinkSystem RAID 5350-8i PCIe 12Gb Internal Adapter (SATA M.2 support)

### SED encryption key management with SKLM

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.

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

Table 41. IBM Security Key Lifecycle Manager licenses

Part number	Feature	Description
SKLM Basic Edition		
7S0A007FWW	S874	IBM Security Key Lifecycle Manager Basic Edition Install License + SW Subscription & Support 12 Months
7S0A008VWW	SDJR	IBM Security Key Lifecycle Manager Basic Edition Install License + SW Subscription & 3 Years Of Support
7S0A008WWW	SDJS	IBM Security Key Lifecycle Manager Basic Edition Install License + SW Subscription & 4 Years Of Support
7S0A008XWW	SDJT	IBM Security Key Lifecycle Manager Basic Edition Install License + SW Subscription & 5 Years Of Support
SKLM For Raw Decimal Terabyte Storage		
7S0A007HWW	S876	IBM Security Key Lifecycle Manager For Raw Decimal Terabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months
7S0A008YWW	SDJU	IBM Security Key Lifecycle Manager For Raw Decimal Terabyte Storage Resource Value Unit License + SW Subscription & 3 Years Of Support
7S0A008ZWW	SDJV	IBM Security Key Lifecycle Manager For Raw Decimal Terabyte Storage Resource Value Unit License + SW Subscription & 4 Years Of Support
7S0A0090WW	SDJW	IBM Security Key Lifecycle Manager For Raw Decimal Terabyte Storage Resource Value Unit License + SW Subscription & 5 Years Of Support
SKLM For Raw Decimal Petabyte Storage		
7S0A007KWW	S878	IBM Security Key Lifecycle Manager For Raw Decimal Petabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months
7S0A0091WW	SDJX	IBM Security Key Lifecycle Manager For Raw Decimal Petabyte Storage Resource Value Unit License + SW Subscription & 3 Years Of Support
7S0A0092WW	SDJY	IBM Security Key Lifecycle Manager For Raw Decimal Petabyte Storage Resource Value Unit License + SW Subscription & 4 Years Of Support

<b>Part number</b>	<b>Feature</b>	<b>Description</b>
7S0A0093WW	SDJZ	IBM Security Key Lifecycle Manager For Raw Decimal Petabyte Storage Resource Value Unit License + SW Subscription & 5 Years Of Support
SKLM For Usable Decimal Terabyte Storage		
7S0A007MWW	S87A	IBM Security Key Lifecycle Manager For Usable Decimal Terabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months
7S0A0094WW	SDK0	IBM Security Key Lifecycle Manager For Usable Decimal Terabyte Storage Resource Value Unit License + SW Subscription & 3 Years In Support
7S0A0095WW	SDK1	IBM Security Key Lifecycle Manager For Usable Decimal Terabyte Storage Resource Value Unit License + SW Subscription & 4 Years In Support
7S0A0096WW	SDK2	IBM Security Key Lifecycle Manager For Usable Decimal Terabyte Storage Resource Value Unit License + SW Subscription & 5 Years In Support
SKLM For Usable Decimal Petabyte Storage		
7S0A007PWW	S87C	IBM Security Key Lifecycle Manager For Usable Decimal Petabyte Storage Resource Value Unit License + SW Subscription & Support 12 Months
7S0A0097WW	SDK3	IBM Security Key Lifecycle Manager For Usable Decimal Petabyte Storage Resource Value Unit License + SW Subscription & 3 Years Of Support
7S0A0098WW	SDK4	IBM Security Key Lifecycle Manager For Usable Decimal Petabyte Storage Resource Value Unit License + SW Subscription & 4 Years Of Support
7S0A0099WW	SDK5	IBM Security Key Lifecycle Manager For Usable Decimal Petabyte Storage Resource Value Unit License + SW Subscription & 5 Years Of Support

## Controllers for internal storage

The SR630 V3 offers a variety of controller options for internal drives:

- For 2.5-inch, 3.5-inch drives and EDSFF drives:
  - Onboard SATA ports with software RAID support (Intel VROC SATA RAID, formerly known as Intel RSTe)
  - Onboard NVMe ports with software RAID support (Intel VROC NVMe RAID)
  - PCIe Retimer adapter for NVMe drives (PCIe slot-based)
  - RAID adapters and HBAs for SAS/SATA drives (PCIe slot-based)
  - RAID adapters and HBAs for SAS/SATA drives (cabled in a dedicated space)
- For 7mm drive bays in the rear of the server (see the [7mm drives](#) section)
  - SATA controller integrated into the 7mm drive bay enclosure
  - NVMe controller integrated into the 7mm drive bay enclosure (Intel VROC for RAID)
- For M.2 drives internal to the server (see [M.2 drives](#) section)
  - SATA controller integrated on the M.2 adapters
  - NVMe controller integrated on the M.2 adapters (Intel VROC for RAID)

As well as supporting RAID adapters and HBAs that install in a PCIe slot, the SR630 V3 with 2.5-inch front drive bays supports a custom form factor (CFF) adapter that is mounted in the server and cabled to one of the onboard NVMe ports. CFF adapters are not supported with 3.5-inch front drives due to a lack of physical space.

The following table lists the adapters used for the internal storage of the server. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

Table 42. Storage controller support for internal drives

Part number	Feature code	Description	Top Choice Express	RAID levels	Power module (supercap)	Maximum supported	Slots supported
Onboard SATA - 8 drives - Intel VROC SATA RAID (Intel RSTe)							
CTO only	AVV0	On Board SATA Software RAID Mode	TCE ⓘ	0, 1, 10, 5; See <a href="#">VROC</a>	No	1	Not applicable
Onboard NVMe - 16 drives - Intel VROC NVMe RAID - see <a href="#">Intel VROC</a> section							
CTO only	BR9B	Intel VROC (VMD NVMe RAID) Standard (supports RAID 0, 1, 10 for all brands of drives)	TCE ⓘ	0, 1, 10; See <a href="#">VROC</a>	No	1	Not applicable
4L47A39164	B96G	Intel VROC (VMD NVMe RAID) Premium (license upgrade - to enable RAID-5 support)	TCE ⓘ	0, 1, 10, 5; See <a href="#">VROC</a>	No	1	Not applicable
12Gb SAS/6Gb SATA RAID - Broadcom PCIe 4.0 adapters							
4Y37A78834	BMFT	ThinkSystem RAID 540-8i PCIe Gen4 12Gb Adapter	TCE ⓘ	0, 1, 10	No	1	1
4Y37A78835	BNAX	ThinkSystem RAID 540-16i PCIe Gen4 12Gb Adapter	Not TCE	0, 1, 10	No	1	1
4Y37A09728	B8NY	ThinkSystem RAID 940-8i 4GB Flash PCIe Gen4 12Gb Adapter	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1	1
4Y37A09729	B8NW	ThinkSystem RAID 940-8i 8GB Flash PCIe Gen4 12Gb Adapter	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1	1

Part number	Feature code	Description	Top Choice Express	RAID levels	Power module (supercap)	Maximum supported	Slots supported
4Y37A78600	BM35	ThinkSystem RAID 940-16i 4GB Flash PCIe Gen4 12Gb Adapter	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1	1
4Y37A09730	B8NZ	ThinkSystem RAID 940-16i 8GB Flash PCIe Gen4 12Gb Adapter	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1	1
4Y37A09735	B8P0	ThinkSystem RAID 940-16i 8GB Flash PCIe Gen4 12Gb Internal Adapter	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1*	None (cabled)
12Gb SAS/6Gb SATA HBA - Broadcom PCIe 4.0 adapters							
4Y37A78601	BM51	ThinkSystem 440-8i SAS/SATA PCIe Gen4 12Gb HBA	TCE ⓘ	None	No	1	1
4Y37A78602	BM50	ThinkSystem 440-16i SAS/SATA PCIe Gen4 12Gb HBA	TCE ⓘ	None	No	1	1
4Y37A09725	B8P1	ThinkSystem 440-16i SAS/SATA PCIe Gen4 12Gb Internal HBA	Not TCE	None	No	1*	None (cabled)
NVMe using <a href="#">Tri-Mode</a> (NVMe x1) (no support for NVMe U.2 drives)							
4Y37A09728	BGM1	ThinkSystem RAID 940-8i 4GB Flash PCIe Gen4 12Gb Adapter for U.3	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1	1
4Y37A09729	BGM0	ThinkSystem RAID 940-8i 8GB Flash PCIe Gen4 12Gb Adapter for U.3	Not TCE	0, 1, 10, 5, 50, 6, 60	Included	1	1
4Y37A78600	BM36	ThinkSystem RAID 940-16i 4GB Flash PCIe Gen4 12Gb Adapter for U.3	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1	1
4Y37A09730	BDY4	ThinkSystem RAID 940-16i 8GB Flash PCIe Gen4 12Gb Adapter for U.3	TCE ⓘ	0, 1, 10, 5, 50, 6, 60	Included	1	1
NVMe using x4 interface							
4C57A65446	B98C	ThinkSystem 4-Port PCIe Gen4 NVMe Retimer Adapter (4x drives)	TCE ⓘ	None	No	1	1
4TA7A84579	BLKY	ThinkSystem PCIe Gen5 NVMe Retimer Adapter (4x drives)	TCE ⓘ	None	No	1	1

\* Only supported with 2.5-inch front drive bays. Not supported in configurations with 3.5-inch front drive bays.

\*\* This adapter is currently not available for CTO orders; it is only available as an option part number for field upgrades

#### Configuration notes:

- **Internal (CFF) adapter support:** Internal (CFF) RAID adapters and HBAs are only supported with 2.5-inch front drive bays. They are not supported in configurations with 3.5-inch front drive bays due to physical restrictions.
- **Supercap support limits the number of RAID adapters installable:** The table lists whether the adapter includes a power module (supercap) to power the flash memory. The server supports between 1 and 3 supercaps depending on the server configuration as described in the [RAID flash power](#)

[module \(supercap\) support](#) section. The number of supercaps supported also determines the maximum number of RAID adapters with flash that can be installed in the server.

- **Field upgrades:** If you are adding a RAID adapter with supercap to the server as a field upgrade, you may need a supercap holder as described in the [RAID flash power module \(supercap\) support](#) section.
- **7mm drive support:** The storage adapters listed in the table below do *not* provide connectivity to the 7mm drive bays that are optionally available at the rear of the server. See the [7mm drives](#) section for details.
- **Tri-Mode support and U.3 drives:** The use of a RAID adapter with Tri-Mode enabled requires U.3 drives (U.2 drives are not supported). Also, in the DCSC configurator, 7500 PRO and 7500 MAX U.3 drives can only be selected when a Tri-Mode RAID adapter is also selected.

The onboard SATA controller has the following features:

- Controller integrated into the Intel PCH
- 6 Gbps SATA host interface
- Supports up to 12 SATA drives
- Supports RAID-0, 1, 5, 10 up to 8 drives (Intel VROC SATA RAID, previously known as RSTe)
- Supports JBOD
- Supports HDDs and SSDs; can be mixed

**SATA RAID support limited to 8 drives:** The SR630 V3 supports 12 SATA drives connected to the onboard SATA controller, however only the first 8 drives can be configured in VROC SATA RAID arrays. The remaining 4 drives can only be configured as JBOD.

The onboard NVMe support has the following features:

- Controller integrated into the Intel processor
- Supports up to 16 NVMe drives direct connected to onboard ports
- Each drive has PCIe 5.0 x4 host interface
- Supports JBOD only - Intel and non-Intel NVMe SSDs
- Supports RAID-0, 1, 10 on Intel and non-Intel NVMe SSDs - Intel VROC Standard
- VROC Premium adds RAID-5 support on Intel and non-Intel NVMe SSDs

### Tri-Mode support - RAID 940 adapters

The RAID 940 adapters support NVMe through a feature named Tri-Mode support (or Trimode support). This feature enables the use of NVMe U.3 drives at the same time as SAS and SATA drives. Tri-Mode requires an AnyBay backplane. Cabling of the controller to the backplanes is the same as with SAS/SATA drives, and the NVMe drives are connected via a PCIe x1 link to the controller.

NVMe drives connected using Tri-Mode support provide better performance than SAS or SATA drives: A SATA SSD has a data rate of 6Gbps, a SAS SSD has a data rate of 12Gbps, whereas an NVMe U.3 Gen 4 SSD with a PCIe x1 link will have a data rate of 16Gbps. NVMe drives typically also have lower latency and higher IOPS compared to SAS and SATA drives. Tri-Mode is supported with U.3 NVMe drives and requires an AnyBay backplane.

**Tri-Mode requires U.3 drives:** Only NVMe drives with a U.3 interface are supported. U.2 drives are not supported. See the [Internal drive options](#) section for the U.3 drives supported by the server.

### Intel VROC onboard RAID

Intel VROC (Virtual RAID on CPU) is a feature of the Intel processor that enables Integrated RAID support.

There are two separate functions of VROC in the SR630 V3:

- 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. It offers a 6 Gb/s connection to each drive and on the SR630 V3 implements RAID levels 0, 1, 5, and 10. RAID 1 is limited to 2 drives per array, and RAID 10 is limited to 4 drives per array. 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 V3, RAID levels implemented are based on the VROC feature selected as indicated in the following table. RAID 1 is limited to 2 drives per array, and RAID 10 is limited to 4 drives per array. 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.

The SR630 V3 supports the VROC NVMe RAID offerings listed in the following table.

**Tip:** These feature codes and part numbers are only for VROC RAID using NVMe drives, not SATA drives

Table 43. Intel VROC NVMe RAID ordering information and feature support

Part number	Feature code	Description	Top Choice Express	Intel NVMe SSDs	Non-Intel NVMe SSDs	RAID 0	RAID 1	RAID 10	RAID 5
4L47A92670	BZ4W	Intel VROC RAID1 Only	TCE ⓘ	Yes	Yes	No	Yes	No	No
4L47A83669	BR9B	Intel VROC (VMD NVMe RAID) Standard	TCE ⓘ	Yes	Yes	Yes	Yes	Yes	No
4L47A39164	B96G	Intel VROC (VMD NVMe RAID) Premium	TCE ⓘ	Yes	Yes	Yes	Yes	Yes	Yes

Configuration notes:

- If a feature code is ordered in a CTO build, the VROC functionality is enabled in the factory. For field upgrades, order a part number and it will be fulfilled as a Feature on Demand (FoD) license which can then be activated via the XCC management processor user interface.
- SED functionality is not supported with VROC NVMe RAID

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

- **VROC SATA RAID (RSTe):** VROC SATA RAID is supported with Windows, RHEL and SLES, however it 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 ESXi, KVM, Xen, and Hyper-V. ESXi support is limited to RAID 1 only; other RAID levels are 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. On ESXi, VROC is supported with both boot and data drives.

For specifications about the RAID adapters and HBAs supported by the SR630 V3, see the ThinkSystem RAID Adapter and HBA Comparison, available from:

<https://lenovopress.com/lp1288-lenovo-thinksystem-raid-adapter-and-hba-reference#sr630-v3-support=SR630%2520V3>

For details about these adapters, see the relevant product guide:

- SAS HBAs: <https://lenovopress.com/servers/options/hba>

- RAID adapters: <https://lenovopress.com/servers/options/raid>

## Internal drive options

**VMware vSAN and Microsoft S2D configurations:** Vendor Agnostic (VA) drives are based on drives from multiple vendors, and not all vendor variants are VMware vSAN or Microsoft S2D certified. Additionally, ISVs require a single drive vendor per host and cluster to ensure optimal performance; a requirement that VA drives may not consistently meet. To ensure certification compliance, hardware uniformity, and alignment with VMware and Microsoft best practices, use ThinkAgile VX or ThinkAgile FX for all vSAN configurations and ThinkAgile MX for all S2D configurations, instead of general purpose ThinkSystem servers.

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 24 Gb SAS SSDs](#)
- [2.5-inch hot-swap 6 Gb SATA SSDs](#)
- [2.5-inch hot-swap PCIe 5.0 NVMe SSDs](#)
- [2.5-inch hot-swap PCIe 4.0 NVMe SSDs](#)

### 2.5-inch 7mm hot-swap drives:

- [7mm 2.5-inch hot-swap 6 Gb SATA SSDs](#)
- [7mm 2.5-inch hot-swap PCIe 4.0 NVMe SSDs](#)

### EDSFF hot-swap drives:

- [E1.S EDSFF hot-swap PCIe 4.0 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 24 Gb SAS SSDs](#)
- [3.5-inch hot-swap 6 Gb SATA SSDs](#)
- [3.5-inch hot-swap PCIe 5.0 NVMe SSDs](#)
- [3.5-inch hot-swap PCIe 4.0 NVMe SSDs](#)

### M.2 drives:

- [M.2 SATA drives](#)
- [M.2 PCIe 4.0 NVMe drives](#)

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

**SED support:** The tables include a column to indicate which drives support SED encryption. The encryption functionality can be disabled if needed. Note: Not all SED-enabled drives have "SED" in the description.

Table 44. 2.5-inch hot-swap 12 Gb SAS HDDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>2.5-inch hot-swap HDDs - 12 Gb SAS 10K</b>					

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
7XB7A00025	AULZ	ThinkSystem 2.5" 600GB 10K SAS 12Gb Hot Swap 512n HDD	Not TCE	No	12
7XB7A00027	AUM1	ThinkSystem 2.5" 1.2TB 10K SAS 12Gb Hot Swap 512n HDD	TCE ⓘ	No	12
7XB7A00028	AUM2	ThinkSystem 2.5" 1.8TB 10K SAS 12Gb Hot Swap 512e HDD	Not TCE	No	12
4XB7A83970	BRG7	ThinkSystem 2.5" 2.4TB 10K SAS 12Gb Hot Swap 512e HDD v2	TCE ⓘ	No	12
<b>2.5-inch hot-swap SED HDDs - 12 Gb SAS 10K</b>					
7XB7A00031	AUM5	ThinkSystem 2.5" 600GB 10K SAS 12Gb Hot Swap 512n HDD SED	Not TCE	Support	12
7XB7A00033	B0YX	ThinkSystem 2.5" 1.2TB 10K SAS 12Gb Hot Swap 512n HDD SED	Not TCE	Support	12
4XB7A84038	BRG8	ThinkSystem 2.5" 2.4TB 10K SAS 12Gb Hot Swap 512e HDD FIPS v2	Not TCE	Support	12

Table 45. 2.5-inch hot-swap 24 Gb SAS SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>2.5-inch hot-swap SSDs - 24 Gb SAS - Mixed Use/Mainstream (3-5 DWPD)</b>					
4XB7B07612	CABL	ThinkSystem 2.5" VA 800GB Mixed Use SAS 24Gb HS SSD	Not TCE	Support	12
4XB7B07613	CABR	ThinkSystem 2.5" VA 1.6TB Mixed Use SAS 24Gb HS SSD	Not TCE	Support	12
4XB7B07614	CABQ	ThinkSystem 2.5" VA 3.2TB Mixed Use SAS 24Gb HS SSD	TCE ⓘ	Support	12
4XB7B07615	CABK	ThinkSystem 2.5" VA 6.4TB Mixed Use SAS 24Gb HS SSD	TCE ⓘ	Support	12
4XB7A97308	C4KR	ThinkSystem 2.5" PM7 1.6TB Mixed Use SAS 24Gb HS SSD FIPS	Not TCE	Support	12
<b>2.5-inch hot-swap SSDs - 24 Gb SAS - Read Intensive/Entry/Capacity (&lt;3 DWPD)</b>					
4XB7B07600	CABS	ThinkSystem 2.5" VA 960GB Read Intensive SAS 24Gb HS SSD	TCE ⓘ	Support	12
4XB7B07601	CABV	ThinkSystem 2.5" VA 1.92TB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	12
4XB7B07602	CABT	ThinkSystem 2.5" VA 3.84TB Read Intensive SAS 24Gb HS SSD	TCE ⓘ	Support	12
4XB7B07603	CABY	ThinkSystem 2.5" VA 7.68TB Read Intensive SAS 24Gb HS SSD	TCE ⓘ	Support	12
4XB7B07604	CABX	ThinkSystem 2.5" VA 15.36TB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	12
4XB7B07605	CABW	ThinkSystem 2.5" VA 30.72TB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	12

Table 47. 2.5-inch hot-swap 6 Gb SATA SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>2.5-inch hot-swap SSDs - 6 Gb SATA - Mixed Use/Mainstream (3-5 DWPD)</b>					

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
4XB7B09972	CBV9	ThinkSystem 2.5" VA 480GB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7B09973	CBV8	ThinkSystem 2.5" VA 960GB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7B09974	CBV7	ThinkSystem 2.5" VA 1.92TB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7B09975	CBV6	ThinkSystem 2.5" VA 3.84TB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7A90884	BYM2	ThinkSystem 2.5" VA 480GB Mixed Use SATA 6Gb HS SSD v2	TCE ⓘ	No	12
4XB7A90885	BYM4	ThinkSystem 2.5" VA 960GB Mixed Use SATA 6Gb HS SSD v2	TCE ⓘ	No	12
4XB7A90886	BYM5	ThinkSystem 2.5" VA 1.92TB Mixed Use SATA 6Gb HS SSD v2	Not TCE	No	12
4XB7A90887	BYM6	ThinkSystem 2.5" VA 3.84TB Mixed Use SATA 6Gb HS SSD v2	Not TCE	No	12
<b>2.5-inch hot-swap SSDs - 6 Gb SATA - Read Intensive/Entry (&lt;3 DWPD)</b>					
4XB7B09967	CBVE	ThinkSystem 2.5" VA 480GB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7B09968	CBVD	ThinkSystem 2.5" VA 960GB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7B09969	CBVC	ThinkSystem 2.5" VA 1.92TB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7B09970	CBVB	ThinkSystem 2.5" VA 3.84TB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7B09971	CBVA	ThinkSystem 2.5" VA 7.68TB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	12
4XB7A90873	BYLR	ThinkSystem 2.5" VA 480GB Read Intensive SATA 6Gb HS SSD v2	TCE ⓘ	No	12
4XB7A90874	BYLS	ThinkSystem 2.5" VA 960GB Read Intensive SATA 6Gb HS SSD v2	TCE ⓘ	No	12
4XB7A90875	BYLT	ThinkSystem 2.5" VA 1.92TB Read Intensive SATA 6Gb HS SSD v2	TCE ⓘ	No	12
4XB7A90876	BYLU	ThinkSystem 2.5" VA 3.84TB Read Intensive SATA 6Gb HS SSD v2	TCE ⓘ	No	12
4XB7A90877	BYLV	ThinkSystem 2.5" VA 7.68TB Read Intensive SATA 6Gb HS SSD v2	Not TCE	No	12

Table 48. 2.5-inch hot-swap PCIe 5.0 NVMe SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>2.5-inch SSDs - U.2 PCIe 5.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)</b>					
4XB7A93097	C1WM	ThinkSystem 2.5" U.2 PM9D5a 800GB Mixed Use NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7A93127	C0ZR	ThinkSystem 2.5" U.2 VA 1.6TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	TCE ⓘ	Support	12

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
4XB7A93128	C0ZQ	ThinkSystem 2.5" U.2 VA 3.2TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93129	C0ZP	ThinkSystem 2.5" U.2 VA 6.4TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93130	C0ZN	ThinkSystem 2.5" U.2 VA 12.8TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
<b>2.5-inch SSDs - U.3 PCIe 5.0 NVMe - Mixed Use/Mainstream (3-5 DDPD)</b>					
4XB7A94637	C4D4	ThinkSystem 2.5" U.3 PM1745 1.6TB Mixed Use NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
<b>2.5-inch SSDs - U.2 PCIe 5.0 NVMe - Read Intensive/Entry (&lt;3 DDPD)</b>					
4XB7B10396	CFD6	ThinkSystem 2.5" U.2 SN861 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B10397	CFD5	ThinkSystem 2.5" U.2 SN861 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B10398	CFD4	ThinkSystem 2.5" U.2 SN861 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B10399	CFD3	ThinkSystem 2.5" U.2 SN861 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B08330	CBSW	ThinkSystem 2.5" U.2 6550 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B08331	CBSX	ThinkSystem 2.5" U.2 6550 61.44TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B02475	C8DH	ThinkSystem 2.5" U.2 BM1743 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B02406	C8DK	ThinkSystem 2.5" U.2 BM1743 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B02407	C8DJ	ThinkSystem 2.5" U.2 BM1743 61.44TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B09031	CBSY	ThinkSystem 2.5" U.2 BM1743 122.88TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7A93066	C0GK	ThinkSystem 2.5" U.2 PM9D3a 960GB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7B04552	CA3Q	ThinkSystem 2.5" PM9D3a 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7A93122	C0ZV	ThinkSystem 2.5" U.2 VA 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93123	C0ZU	ThinkSystem 2.5" U.2 VA 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93124	C0ZT	ThinkSystem 2.5" U.2 VA 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93125	C0ZS	ThinkSystem 2.5" U.2 VA 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7A93126	C1W7	ThinkSystem 2.5" U.2 VA 30.72TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
<b>2.5-inch SSDs - U.3 PCIe 5.0 NVMe - Read Intensive/Entry (&lt;3 DDPD)</b>					
4XB7A82366	BTPZ	ThinkSystem 2.5" U.3 PM1743 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
4XB7A82367	BTQ0	ThinkSystem 2.5" U.3 PM1743 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A82368	BTQ1	ThinkSystem 2.5" U.3 PM1743 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12
4XB7A82369	BTQ2	ThinkSystem 2.5" U.3 PM1743 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	12

Table 49. 2.5-inch hot-swap PCIe 4.0 NVMe SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>2.5-inch SSDs - U.2 PCIe 4.0 NVMe - Mixed Use/Mainstream (3-5 DDPD)</b>					
4XB7B11682	CCZE	ThinkSystem 2.5" U.2 VA 800GB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A93896	C18J	ThinkSystem 2.5" U.2 VA 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93897	C18H	ThinkSystem 2.5" U.2 VA 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93898	C18G	ThinkSystem 2.5" U.2 VA 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A93899	C18F	ThinkSystem 2.5" U.2 VA 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
<b>2.5-inch SSDs - U.3 PCIe 4.0 NVMe - Mixed Use/Mainstream (3-5 DDPD)</b>					
4XB7A95054	C2BG	ThinkSystem 2.5" U.3 7500 MAX 800GB Mixed Use NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A95055	C2BV	ThinkSystem 2.5" U.3 7500 MAX 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A95056	C2BW	ThinkSystem 2.5" U.3 7500 MAX 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A95057	C2BF	ThinkSystem 2.5" U.3 7500 MAX 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A95058	C2BX	ThinkSystem 2.5" U.3 7500 MAX 12.8TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
<b>2.5-inch SSDs - U.2 PCIe 4.0 NVMe - Read Intensive/Entry (&lt;3 DDPD)</b>					
4XB7A95047	C2BL	ThinkSystem 2.5" U.2 P5336 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A95048	C2BK	ThinkSystem 2.5" U.2 P5336 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7B11683	CCZF	ThinkSystem 2.5" U.2 VA 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A93892	C18N	ThinkSystem 2.5" U.2 VA 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93893	C18M	ThinkSystem 2.5" U.2 VA 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93894	C18L	ThinkSystem 2.5" U.2 VA 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A93895	C18K	ThinkSystem 2.5" U.2 VA 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>2.5-inch SSDs - U.3 PCIe 4.0 NVMe - Read Intensive/Entry (&lt;3 DDPD)</b>					
4XB7A95049	C2BY	ThinkSystem 2.5" U.3 7500 PRO 960GB Read Intensive NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A95050	C2BR	ThinkSystem 2.5" U.3 7500 PRO 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A95051	C2BS	ThinkSystem 2.5" U.3 7500 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	TCE ⓘ	Support	12
4XB7A95052	C2BT	ThinkSystem 2.5" U.3 7500 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A95053	C2BU	ThinkSystem 2.5" U.3 7500 PRO 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A91176	BZC1	ThinkSystem 2.5" U.3 6500 ION 30.72TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A81952	BPKY	ThinkSystem 2.5" U.3 PM1733a 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12
4XB7A81954	BPL0	ThinkSystem 2.5" U.3 PM1733a 15.36TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	12

**U.3 drives:** In the DCSC configurator, 7500 PRO and 7500 MAX U.3 drives can only be selected when a Tri-Mode controller is also selected. See the [Controllers for internal storage](#) section.

Table 50. 7mm 2.5-inch hot-swap 6 Gb SATA SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>7mm 2.5-inch hot-swap SSDs - 6 Gb SATA - Read Intensive/Entry (&lt;3 DDPD)</b>					
4XB7A82265	BQ1V	ThinkSystem 7mm 5400 PRO 480GB Read Intensive SATA 6Gb HS SSD	Not TCE	Support	2
4XB7A82266	BQ1W	ThinkSystem 7mm 5400 PRO 960GB Read Intensive SATA 6Gb HS SSD	Not TCE	Support	2
4XB7A82267	BR13	ThinkSystem 7mm 5400 PRO 1.92TB Read Intensive SATA 6Gb HS SSD	Not TCE	Support	2
4XB7A82268	BR12	ThinkSystem 7mm 5400 PRO 3.84TB Read Intensive SATA 6Gb HS SSD	Not TCE	Support	2
4XB7A82269	BR11	ThinkSystem 7mm 5400 PRO 7.68TB Read Intensive SATA 6Gb HS SSD	Not TCE	Support	2
4XB7A17107	BK7A	ThinkSystem 7mm S4520 480GB Read Intensive SATA 6Gb HS SSD	Not TCE	No	2
4XB7A17108	BK7B	ThinkSystem 7mm S4520 960GB Read Intensive SATA 6Gb HS SSD	Not TCE	No	2

Table 51. 7mm 2.5-inch hot-swap PCIe 4.0 NVMe SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>7mm 2.5-inch hot-swap SSDs - PCIe 4.0 NVMe - Read Intensive/Entry (&lt;3 DDPD)</b>					

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
4XB7A90097	BXMM	ThinkSystem 7mm U.2 PM9A3 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	2
4XB7A90098	BXML	ThinkSystem 7mm U.2 PM9A3 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	2

Table 52. E1.S EDSFF hot-swap PCIe 4.0 NVMe SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>E1.S hot-swap SSDs - PCIe 4.0 NVMe - Read Intensive/Entry (&lt;3 DWPD)</b>					
4XB7A13998	BP3L	ThinkSystem E1.S 5.9mm 7450 PRO 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	16
4XB7A80499	BPKW	ThinkSystem E1.S 5.9mm 7450 PRO 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	16

Table 53. 3.5-inch hot-swap 12 Gb SAS HDDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>3.5-inch hot-swap HDDs - 12 Gb NL SAS</b>					
4XB7B01233	C5WY	ThinkSystem 3.5" 2TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00042	AUU5	ThinkSystem 3.5" 2TB 7.2K SAS 12Gb Hot Swap 512n HDD	Not TCE	No	4
4XB7B01235	C5X9	ThinkSystem 3.5" 4TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00043	AUU6	ThinkSystem 3.5" 4TB 7.2K SAS 12Gb Hot Swap 512n HDD	Not TCE	No	4
4XB7B01237	C5XB	ThinkSystem 3.5" 6TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
4XB7B01239	C5XD	ThinkSystem 3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00045	B0YR	ThinkSystem 3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD	TCE ⓘ	No	4
4XB7B01241	C5XF	ThinkSystem 3.5" 10TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00046	AUUG	ThinkSystem 3.5" 10TB 7.2K SAS 12Gb Hot Swap 512e HDD	Not TCE	No	4
7XB7A00067	B117	ThinkSystem 3.5" 12TB 7.2K SAS 12Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A93788	C4DA	ThinkSystem 3.5" 12TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
4XB7A13911	B7EZ	ThinkSystem 3.5" 16TB 7.2K SAS 12Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A93786	C4D8	ThinkSystem 3.5" 16TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
4XB7A38266	BCFP	ThinkSystem 3.5" 18TB 7.2K SAS 12Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A80353	BPKU	ThinkSystem 3.5" 20TB 7.2K SAS 12Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A93784	C4D6	ThinkSystem 3.5" 20TB 7.2K SAS 12Gb Hot Swap 512e HDD v2	Not TCE	Support	4
4XB7A83766	BTR7	ThinkSystem 3.5" 22TB 7.2K SAS 12Gb Hot Swap 512e HDD	Not TCE	Support	4

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
4XB7A93007	C2BH	ThinkSystem 3.5" 24TB 7.2K SAS 12Gb Hot Swap 512e HDD	Not TCE	Support	4
<b>3.5-inch hot-swap SED HDDs - 12 Gb NL SAS</b>					
7XB7A00066	B0YQ	ThinkSystem 3.5" 8TB 7.2K SAS 12Gb Hot Swap 512e HDD FIPS	Not TCE	Support	4

Table 54. 3.5-inch hot-swap 6 Gb SATA HDDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>3.5-inch hot-swap HDDs - 6 Gb NL SATA</b>					
4XB7A97045	C5X6	ThinkSystem 3.5" 1TB 7.2K SATA 6Gb Hot Swap 512n HDD v2	Not TCE	Support	4
4XB7B01234	C5X8	ThinkSystem 3.5" 2TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	TCE ⓘ	Support	4
7XB7A00050	AUUD	ThinkSystem 3.5" 2TB 7.2K SATA 6Gb Hot Swap 512n HDD	Not TCE	No	4
4XB7B01236	C5XA	ThinkSystem 3.5" 4TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00051	AUU8	ThinkSystem 3.5" 4TB 7.2K SATA 6Gb Hot Swap 512n HDD	TCE ⓘ	No	4
4XB7B01238	C5XC	ThinkSystem 3.5" 6TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00052	AUUA	ThinkSystem 3.5" 6TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7B01240	C5XE	ThinkSystem 3.5" 8TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00053	AUU9	ThinkSystem 3.5" 8TB 7.2K SATA 6Gb Hot Swap 512e HDD	TCE ⓘ	No	4
4XB7B01242	C5X7	ThinkSystem 3.5" 10TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	Not TCE	Support	4
7XB7A00054	AUUB	ThinkSystem 3.5" 10TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	No	4
7XB7A00068	B118	ThinkSystem 3.5" 12TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A93787	C4D9	ThinkSystem 3.5" 12TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	Not TCE	Support	4
4XB7A13907	B497	ThinkSystem 3.5" 14TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A13914	B7F0	ThinkSystem 3.5" 16TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A93785	C4D7	ThinkSystem 3.5" 16TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	Not TCE	Support	4
4XB7A38130	BCFH	ThinkSystem 3.5" 18TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A80354	BPKV	ThinkSystem 3.5" 20TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	No	4
4XB7A93783	C4D5	ThinkSystem 3.5" 20TB 7.2K SATA 6Gb Hot Swap 512e HDD v2	Not TCE	Support	4
4XB7A83765	BTR8	ThinkSystem 3.5" 22TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	Support	4
4XB7A93008	C2BJ	ThinkSystem 3.5" 24TB 7.2K SATA 6Gb Hot Swap 512e HDD	Not TCE	Support	4

Table 55. 3.5-inch hot-swap 24 Gb SAS SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>3.5-inch hot-swap SSDs - 24 Gb SAS - Mixed Use/Mainstream (3-5 DWPD)</b>					
4XB7B07616	CABM	ThinkSystem 3.5" VA 800GB Mixed Use SAS 24Gb HS SSD	Not TCE	Support	4
4XB7B07617	CABP	ThinkSystem 3.5" VA 1.6TB Mixed Use SAS 24Gb HS SSD	Not TCE	Support	4
4XB7B07618	CABN	ThinkSystem 3.5" VA 3.2TB Mixed Use SAS 24Gb HS SSD	TCE ⓘ	Support	4
4XB7B07619	CAC8	ThinkSystem 3.5" VA 6.4TB Mixed Use SAS 24Gb HS SSD	Not TCE	Support	4
<b>3.5-inch hot-swap SSDs - 24 Gb SAS - Read Intensive/Entry/Capacity (&lt;3 DWPD)</b>					
4XB7B07606	CAFQ	ThinkSystem 3.5" VA 960GB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	4
4XB7B07607	CAFN	ThinkSystem 3.5" VA 1.92TB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	4
4XB7B07608	CAFP	ThinkSystem 3.5" VA 3.84TB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	4
4XB7B07609	CAFM	ThinkSystem 3.5" VA 7.68TB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	4
4XB7B07610	CAFR	ThinkSystem 3.5" VA 15.36TB Read Intensive SAS 24Gb HS SSD	Not TCE	Support	4

Table 57. 3.5-inch hot-swap 6 Gb SATA SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>3.5-inch hot-swap SSDs - 6 Gb SATA - Mixed Use/Mainstream (3-5 DWPD)</b>					
4XB7B11652	CCZK	ThinkSystem 3.5" VA 480GB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	4
4XB7B11653	CCZJ	ThinkSystem 3.5" VA 960GB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	4
4XB7B11654	CCZH	ThinkSystem 3.5" VA 1.92TB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	4
4XB7B11655	CCZG	ThinkSystem 3.5" VA 3.84TB Mixed Use SATA 6Gb HS SSD SED	Not TCE	Support	4
4XB7A90888	BYM3	ThinkSystem 3.5" VA 480GB Mixed Use SATA 6Gb HS SSD v2	TCE ⓘ	No	4
4XB7A90889	BYM7	ThinkSystem 3.5" VA 960GB Mixed Use SATA 6Gb HS SSD v2	Not TCE	No	4
4XB7A90890	BYM8	ThinkSystem 3.5" VA 1.92TB Mixed Use SATA 6Gb HS SSD v2	Not TCE	No	4
4XB7A90891	BYLX	ThinkSystem 3.5" VA 3.84TB Mixed Use SATA 6Gb HS SSD v2	Not TCE	No	4
<b>3.5-inch hot-swap SSDs - 6 Gb SATA - Read Intensive/Entry (&lt;3 DWPD)</b>					
4XB7B11648	CCZP	ThinkSystem 3.5" VA 480GB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	4
4XB7B11649	CCZN	ThinkSystem 3.5" VA 960GB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	4

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
4XB7B11650	CCZM	ThinkSystem 3.5" VA 1.92TB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	4
4XB7B11651	CCZL	ThinkSystem 3.5" VA 3.84TB Read Intensive SATA 6Gb HS SSD SED	Not TCE	Support	4
4XB7A90879	BYLJ	ThinkSystem 3.5" VA 480GB Read Intensive SATA 6Gb HS SSD v2	TCE ⓘ	No	4
4XB7A90880	BYLY	ThinkSystem 3.5" VA 960GB Read Intensive SATA 6Gb HS SSD v2	TCE ⓘ	No	4
4XB7A90881	BYLZ	ThinkSystem 3.5" VA 1.92TB Read Intensive SATA 6Gb HS SSD v2	Not TCE	No	4
4XB7A90882	BYM0	ThinkSystem 3.5" VA 3.84TB Read Intensive SATA 6Gb HS SSD v2	Not TCE	No	4
4XB7A90883	BYM1	ThinkSystem 3.5" VA 7.68TB Read Intensive SATA 6Gb HS SSD v2	Not TCE	No	4

Table 58. 3.5-inch hot-swap PCIe 5.0 NVMe SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>3.5-inch SSDs - U.2 PCIe 5.0 NVMe - Read Intensive/Entry (&lt;3 DWPD)</b>					
4XB7B13984	CFA6	ThinkSystem 3.5" U.2 VA 1.92TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	4
4XB7B13985	CFA5	ThinkSystem 3.5" U.2 VA 3.84TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	4
4XB7B13986	CFA4	ThinkSystem 3.5" U.2 VA 7.68TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	4
4XB7B13987	CFA3	ThinkSystem 3.5" U.2 VA 15.36TB Read Intensive NVMe PCIe 5.0 x4 HS SSD	Not TCE	Support	4

Table 59. 3.5-inch hot-swap PCIe 4.0 NVMe SSDs

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>3.5-inch SSDs - U.2 PCIe 4.0 NVMe - Mixed Use/Mainstream (3-5 DWPD)</b>					
4XB7B01883	C6M6	ThinkSystem 3.5" U.2 Solidigm P5620 1.6TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	4
4XB7B01884	C6M7	ThinkSystem 3.5" U.2 Solidigm P5620 3.2TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	4
4XB7B01885	C6M8	ThinkSystem 3.5" U.2 Solidigm P5620 6.4TB Mixed Use NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	4
<b>3.5-inch SSDs - U.2 PCIe 4.0 NVMe - Read Intensive/Entry (&lt;3 DWPD)</b>					
4XB7B01871	C6MD	ThinkSystem 3.5" U.2 Solidigm P5520 1.92TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	4
4XB7B01872	C6ME	ThinkSystem 3.5" U.2 Solidigm P5520 3.84TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	4
4XB7B01873	C6MF	ThinkSystem 3.5" U.2 Solidigm P5520 7.68TB Read Intensive NVMe PCIe 4.0 x4 HS SSD	Not TCE	Support	4

**U.3 drives:** In the DCSC configurator, 7500 PRO and 7500 MAX U.3 drives can only be selected when a Tri-Mode controller is also selected. See the [Controllers for internal storage](#) section.

Table 60. M.2 SATA drives

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>M.2 SSDs - 6 Gb SATA - Read Intensive/Entry (&lt;3 DWPD)</b>					
4XB7B07588	CABU	ThinkSystem M.2 VA 480GB Read Intensive SATA 6Gb NHS SSD	Not TCE	Support	2
4XB7B07589	CACA	ThinkSystem M.2 VA 960GB Read Intensive SATA 6Gb NHS SSD	TCE ⓘ	Support	2

Table 61. M.2 PCIe 4.0 NVMe drives

Part number	Feature code	Description	Top Choice Express	SED support	Max Qty
<b>M.2 SSDs - PCIe 4.0 NVMe - Read Intensive/Entry (&lt;3 DWPD)</b>					
4XB7B09650	CBSZ	ThinkSystem M.2 VA 480GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	Not TCE	Support	2
4XB7B09651	CBT0	ThinkSystem M.2 VA 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	TCE ⓘ	Support	2
4XB7A90102	BXMH	ThinkSystem M.2 PM9A3 960GB Read Intensive NVMe PCIe 4.0 x4 NHS SSD	Not TCE	Support	2

### USB flash drive

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

Table 62. USB memory key

Part number	Feature	Description	Top Choice Express
4X77A77065	BNWN	ThinkSystem USB 32GB USB 3.0 Flash Drive	Not TCE

### Internal backup units

The server does not supports any internal backup units, such as tape drives or RDX drives. External backup units are available as described in the [External backup units](#) section.

## Optical drives

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

Table 63. External optical drive

Part number	Feature code	Description	Top Choice Express
7XA7A05926	AVV8	ThinkSystem External USB DVD RW Optical Disk Drive	TCE ⓘ

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 V3 supports a total of up to 5x PCIe slots, 3x at the rear and 2x at the front, plus 1x OCP 3.0 SFF slot for networking. The OCP slot can be either at the front or at the rear (but not both). Slot availability is based on riser selection and drive bays configured. The use of slot 3 and the front slots require that both processors be installed.

**Internal (CFF) RAID adapter/HBA:** For configurations with 2.5-inch front drive bays, an internal RAID adapter or HBA (CFF, custom form factor) can be installed in a dedicated space and cabled to a PCIe 4.0 x8 connector, thereby freeing up a slot for other purposes.

Topics in this section:

- [Rear slots](#)
- [Front slots](#)
- [Serial port](#)
- [Slot field upgrades](#)
- [OCP slot filler](#)

### Rear slots

The following figure shows the locations of the rear-accessible slots for each configuration selection. The OCP slot is located below the PCIe slots.

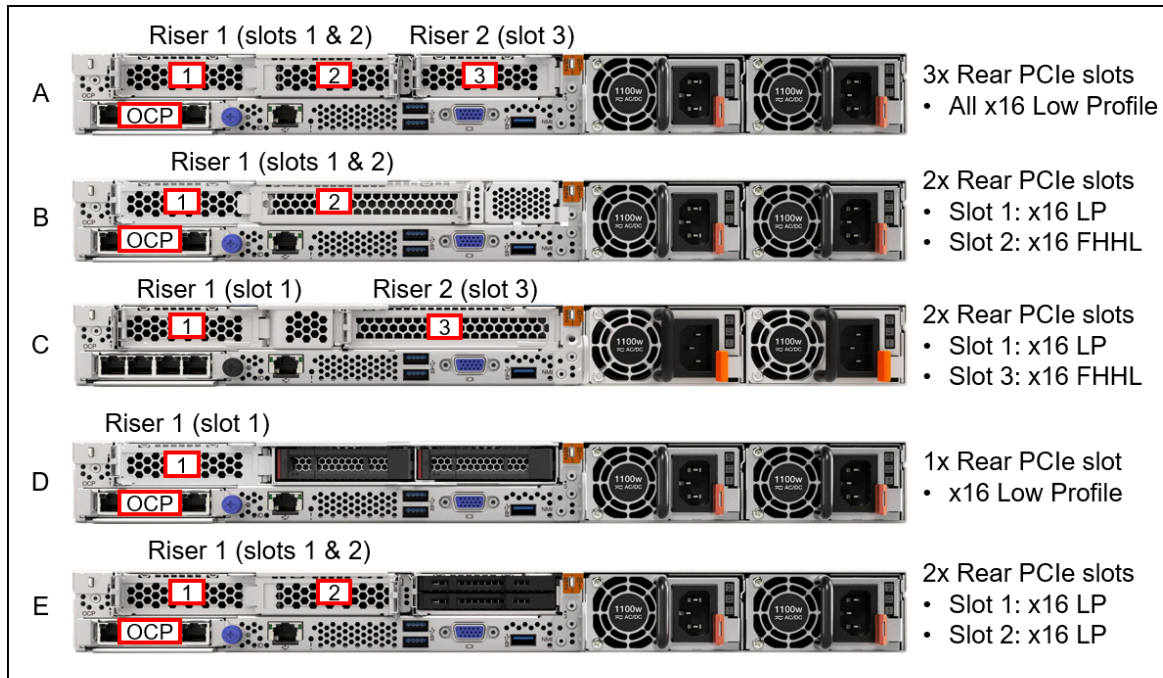


Figure 15. SR630 V3 rear slot configurations

The rear-accessible slots and riser cards are as follows:

- Riser 1: Slots 1 & 2 (connect to CPU 1)
  - Slot 1: Low Profile, PCIe x16
  - Slot 2: Low Profile or FHHL, PCIe x16 (only in configuration A, B, and E in the above figure)
- Riser 2: Slot 3 (connects to CPU 2)
  - Slot 3: Low Profile or FHHL, PCIe x16 (only in configuration A and C)

The PCIe slots can be configured as PCIe 5.0 (Gen 5) or PCIe 4.0 (Gen 4) depending on your workload requirements. The rear OCP slot (slot 6) has a PCIe x16 host interface, and operates at up to PCIe 5.0 speed when it is located at the rear of the server.

The following table lists the available riser cards for the rear slots. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

Table 64. Rear slots

Feature code	Description	Top Choice Express
Rear slots - Riser 1 - Gen 5		
BLKB	ThinkSystem V3 1U x16/x16 BF PCIe Gen5 Riser1	TCE ⓘ
BLK9	ThinkSystem V3 1U MS LP+LP BF Riser Cage	TCE ⓘ
BP39	ThinkSystem SR630 V3/SR645 V3 x16/E PCIe Gen5 Riser1 BF	TCE ⓘ
Rear slots - Riser 2 - Gen 5		
BLKA	ThinkSystem V3 1U x16 PCIe Gen5 Riser2	Not TCE
BVHN	ThinkSystem V3 1U x16 PCIe Gen5 Riser2 v2	Not TCE
Rear slots - Riser 1 - Gen 4		
BLKF	ThinkSystem V3 1U x16/x16 BF PCIe Gen4 Riser1	TCE ⓘ

Feature code	Description	Top Choice Express
BLKE	ThinkSystem V3 1U x16 Riser1 PCIe Gen4 with Rear drive	Not TCE
Rear slots - Riser 2 - Gen 4		
BLKG	ThinkSystem V3 1U x16 PCIe Gen4 Riser2	TCE ⓘ

The following table lists the ordering information for the PCIe slots in the SR630 V3. The Cfg column matches the slot configurations shown in the preceding figure. The table is divided up into configurations with Gen5 slots with Gen4, and configurations with only Gen4 slots. Ordering information is as follows:

- For CTO orders, order the feature codes listed for the configuration, both riser and cage feature codes (2, 3, or 4 feature codes, depending on the configuration)
- For field upgrades, order the part numbers listed for the configuration (1 or 2 part numbers, depending on the configuration). The part numbers include both the risers and cages needed for that configuration.

**No slots:** It is also possible to build a configuration without any slots, in which case slot fillers will be derived in the configurator. Slots can be added later as field upgrades using option part numbers as listed in the [Field upgrades table](#).

Table 65. Riser slot configurations

Cfg	Part number	Features		Description (part number)	Slot configuration* (Green = Gen5, Blue = Gen4)			Purpose
		Riser	Cage		Slot 1	Slot 2	Slot 3	
Rear slots - Gen 5					Slot 1	Slot 2	Slot 3	
A	4XH7A83845	BLKB	BLK9	ThinkSystem V3 1U x16/x16 PCIe Gen5 Riser 1 LP+LP	Gen5 x16 LP	Gen5 x16 LP		3x Low Profile slots (3x Gen5)
	4XH7A88518 or 4XH7A83843	BVHN or BLKA	BLK6	ThinkSystem V3 1U x16 PCIe G5 Riser 2 v2			Gen5 x16 LP	
B	4XH7A83844	BLKB	BLK8	ThinkSystem V3 1U x16/x16 PCIe Gen5 Riser 1 LP+FH	Gen5 x16 LP	Gen5 x16 LP	No slot	2x slots, 1xLP+1xFH, both to CPU 1 (2x Gen5)
C	4XH7A85014	BP39	BP3A	ThinkSystem V3 1U x16 PCIe Gen5 Riser 1 with Full Height Slot 3	Gen5 x16 LP	No slot		2x slots: 1LP + 1FH, one to each CPU (2x Gen5)
	4XH7A88518 or 4XH7A83843	BVHN or BLKA	BLK6	ThinkSystem V3 1U x16 PCIe G5 Riser 2 v2			Gen5 x16 FH	
D	4XH7A85013	BP39	BLK6	ThinkSystem V3 1U x16 PCIe Gen5 Riser 1 with Rear Drive	Gen5 x16 LP	Drive	Drive	Supports 2x 2.5-inch drives (1x Gen5 slots)
E	4XH7A83845	BLKB	BLK9	ThinkSystem V3 1U x16/x16 PCIe Gen5 Riser 1 LP+LP	Gen5 x16 LP	Gen5 x16 LP	Drives	Supports 2x 7mm drives (2x Gen5 slots)
Rear slots - Gen 4					Slot 1	Slot 3	Slot 3	
A	4XH7A83847	BLKF	BLK9	ThinkSystem V3 1U x16/x16 PCIe Gen4 Riser 1 LP+LP	Gen4 x16 LP	Gen4 x16 LP		3x Low Profile slots (2x Gen4)
	4XH7A83849	BLKG	BLK6	ThinkSystem V3 1U x16 PCIe Gen4 Riser 2 Option Kit			Gen4 x16 LP	
B	4XH7A83846	BLKF	BLK8	ThinkSystem V3 1U x16/x16 PCIe Gen4 Riser 1 LP+FH	Gen4 x16 LP	Gen4 x16 FH	No slot	2x slots, 1xLP+1xFH, both to CPU 1 (2x Gen4)
D	4XH7A83848	BLKE	BLK6	ThinkSystem V3 1U x16 PCIe Gen4 Riser 1 with Rear Drive	Gen4 x16 LP	Drive	Drive	Supports 2x 2.5-inch drives (1x Gen4 slot)
E	4XH7A83847	BLKF	BLK9	ThinkSystem V3 1U x16/x16 PCIe Gen4 Riser 1 LP+LP	Gen4 x16 LP	Gen4 x16 LP	Drives	Supports 2x 7mm drives (2x Gen4 slots)

Configuration rules:

- For best performance, install PCIe 5.0 adapters in PCIe 5.0 (Gen5) slots

## Front slots

As an addition or alternative to the rear slots, the SR630 V3 supports slots at the front of the server.

The following figure shows the locations of the front-accessible slots.

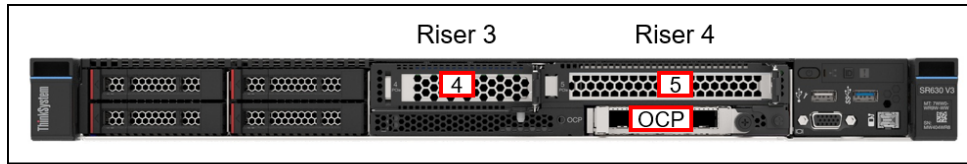


Figure 16. SR630 V3 front slots

The front-accessible slots and riser cards are as follows:

- Slot 4: Low Profile, PCIe 4.0 x16 or PCIe 4.0 x8 (see the configuration notes below)
- Slot 5: FHHL, PCIe 4.0 x16
- OCP 3.0 slot (Slot 7) (PCIe 4.0 x16)

**OCP slot:** When front slots are configured, the rear OCP slot is disconnected and cannot be used.

Ordering information is listed in the following table.

Table 66. Front slots

Part number	Feature code	Description	Top Choice Express
Slot 4 (Riser 3)			
CTO only	BQ2H	ThinkSystem SR630 V3/SR635 V3 Front x16 LP PCIe G4 Riser3	Not TCE
Slot 5 (Riser 4)			
CTO only	BQ2G	ThinkSystem V3 1U Front x16 FHFL PCIe Gen4 Riser4	Not TCE

Configuration notes:

- The use of front slots requires base feature code BQ7M as described in the [Base feature codes](#) section
- Slot 4 is a PCIe 4.0 x16 slot in the following configurations
  - Front drive bays are 4x 2.5-inch NVMe; or
  - Front drive bays are 4x 2.5-inch AnyBay and the drive bays are connected using a RAID adapter in Tri-Mode
- Slot 4 is a PCIe 4.0 x8 slot (physically x16) in the following configuration:
  - Front drive bays are 4x 2.5-inch AnyBay connected using onboard NVMe ports
- Front slots can be used in conjunction with rear drive bays. See the table of configurations in the [Overview - 2.5-inch front bays with front slots](#) section for specifics.
- The front OCP slot is automatically derived by the configurator with riser 4 (slot 5)
- The front and rear OCP slots are mutually exclusive; when the front OCP slot is configured, the rear OCP slot is disconnected
- The use of the Lenovo Neptune Liquid to Air (L2A) Module (feature BRU2) is not supported
- The use of the security bezel is not supported

## Serial port

The SR630 V3 optionally supports a RS-232 serial port by adding a COM port bracket to either slot 2 or slot 3. Ordering information is shown in the following table.

**No front slot support:** The serial port is not supported in the front PCIe slots

Table 67. Serial port

Part number	Feature code	Description	Top Choice Express
4X97A82921	BMNJ	ThinkSystem V2/V3 1U COM Port Upgrade Kit	TCE ⓘ

The bracket is shown in the following figure. The option part number includes both Low Profile and Full Height brackets.

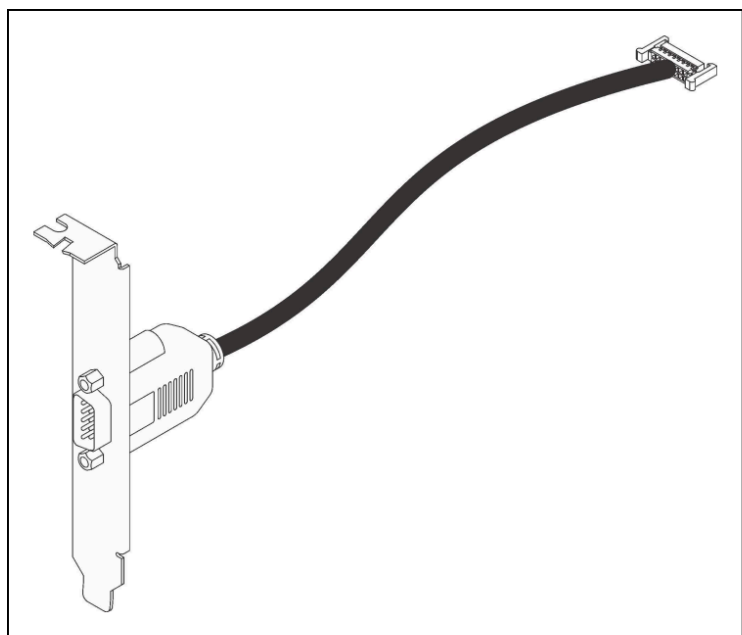


Figure 17. ThinkSystem V2/V3 1U COM Port Upgrade Kit

## Slot field upgrades

Slot configurations can also be ordered as field upgrades using option part numbers, as listed in the following table.

Table 68. Slot field upgrades

Part number	Description
Riser 1 field upgrades - PCIe Gen5	
4XH7A83844	ThinkSystem V3 1U x16/x16 PCIe Gen5 Riser 1 LP+FH
4XH7A83845	ThinkSystem V3 1U x16/x16 PCIe Gen5 Riser 1 LP+LP
4XH7A85013	ThinkSystem V3 1U x16 PCIe Gen5 Riser 1 with Rear Drive
4XH7A85014	ThinkSystem V3 1U x16 PCIe Gen5 Riser 1 with Full Height Slot 3
Riser 1 field upgrades - PCIe Gen4	
4XH7A83846	ThinkSystem V3 1U x16/x16 PCIe Gen4 Riser 1 LP+FH

Part number	Description
4XH7A83847	ThinkSystem V3 1U x16/x16 PCIe Gen4 Riser 1 LP+LP
4XH7A83848	ThinkSystem V3 1U x16 PCIe Gen4 Riser 1 with Rear Drive
Riser 2 field upgrades	
4XH7A83843	ThinkSystem V3 1U x16 PCIe Gen5 Riser 2
4XH7A83849	ThinkSystem V3 1U x16 PCIe Gen4 Riser 2 Option Kit

### OCP slot filler

If customers or partners remove an OCP adapter from the server, we recommend that a slot cover (slot filler) be installed in its place to ensure proper airflow in the server. Ordering information is listed in the following table.

**Tip:** For CTO orders and preconfigured models, slot fillers are automatically installed in slots where an OCP adapter is not installed.

Table 69. OCP slot filler

Part number	Description
4XF7B06188	ThinkSystem OCP3 FILLER

## Network adapters

The server has a dedicated OCP 3.0 SFF slot with a PCIe x16 host interface. See [Figure 3](#) for the location of the OCP slot. When located at the rear of the server, the OCP slot operates at PCIe 5.0 speed (once PCIe 5.0 OCP adapters are supported); when located at the front of the server, the OCP slot operates at PCIe 4.0 speed.

The following table lists the supported OCP adapters. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

One port can optionally be shared with the XCC management processor for Wake-on-LAN and NC-SI support. Only 1 OCP card can be installed in the server.

Table 70. Supported OCP adapters

Part number	Feature code	Description	Top Choice Express	Maximum supported
<b>Gigabit Ethernet</b>				
4XC7A08235	B5T1	ThinkSystem Broadcom 5719 1GbE RJ45 4-port OCP Ethernet Adapter	TCE ⓘ	1
4XC7A88428	BW97	ThinkSystem Intel I350 1GbE RJ45 4-Port OCP Ethernet Adapter V2	TCE ⓘ	1
4XC7A08277	B93E	ThinkSystem Intel I350 1GbE RJ45 4-port OCP Ethernet Adapter	Not TCE	1
<b>10 Gb Ethernet - 10GBASE-T</b>				
4XC7A95696	C4GB	ThinkSystem Broadcom 57412 10GBase-T 4-Port OCP Ethernet Adapter	TCE ⓘ	1
4XC7A08236	B5ST	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter	TCE ⓘ	1
4XC7A08278	BCD5	ThinkSystem Intel X710-T2L 10GBASE-T 2-port OCP Ethernet Adapter	Not TCE	1
4XC7A80268	BPPY	ThinkSystem Intel X710-T4L 10GBase-T 4-Port OCP Ethernet Adapter	TCE ⓘ	1
<b>25 Gb Ethernet</b>				
4XC7A08237	BN2T	ThinkSystem Broadcom 57414 10/25GbE SFP28 2-Port OCP Ethernet Adapter	TCE ⓘ	1
4XC7A80567	BPPW	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	TCE ⓘ	1
4XC7A08294	BCD4	ThinkSystem Intel E810-DA2 10/25GbE SFP28 2-Port OCP Ethernet Adapter	TCE ⓘ	1
4XC7A80269	BP8L	ThinkSystem Intel E810-DA4 10/25GbE SFP28 4-Port OCP Ethernet Adapter	TCE ⓘ	1
4XC7A62582	BE4T	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port OCP Ethernet Adapter	Not TCE	1
<b>100 Gb Ethernet</b>				
4XC7A08243	BPPX	ThinkSystem Broadcom 57508 100GbE QSFP56 2-Port OCP Ethernet Adapter	Not TCE	1

The following table lists additional supported network adapters that can be installed in the regular PCIe slots. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

Table 71. Supported PCIe Network Adapters

Part number	Feature code	Description	Top Choice Express	Max qty	Slots	PCIe width
<b>Gigabit Ethernet</b>						
7ZT7A00484	AUZV	ThinkSystem Broadcom 5719 1GbE RJ45 4-Port PCIe Ethernet Adapter	TCE ⓘ	5	1-5	PCIe x4
7ZT7A00535	AUZW	ThinkSystem I350-T4 PCIe 1Gb 4-Port RJ45 Ethernet Adapter	TCE ⓘ	5	1-5	PCIe x4
<b>10 Gb Ethernet - 10GBASE-T</b>						
4XC7A95697	C4GC	ThinkSystem Broadcom 57412 10GBase-T 4-Port PCIe Ethernet Adapter	TCE ⓘ	5	1-5‡	PCIe x8
7ZT7A00496	AUKP	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	TCE ⓘ	5	1-5	PCIe x8
4XC7A80266	BNWL	ThinkSystem Intel X710-T2L 10GBase-T 2-Port PCIe Ethernet Adapter	Not TCE	5	1-5	PCIe x8
4XC7A79699	BMXB	ThinkSystem Intel X710-T4L 10GBase-T 4-Port PCIe Ethernet Adapter	TCE ⓘ	5	1-5	PCIe x8
<b>25 Gb Ethernet</b>						
4XC7A84827	BUQK	ThinkSystem AMD X3522 10/25GbE DSFP28 2-Port PCIe Ethernet Adapter (Low Latency)	Not TCE	3	1,2,3	PCIe x8
4XC7A08238	BK1H	ThinkSystem Broadcom 57414 10/25GbE SFP28 2-port PCIe Ethernet Adapter	TCE ⓘ	5	1-5	PCIe x8
4XC7A80566	BNWM	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port PCIe Ethernet Adapter	TCE ⓘ	2	2,3,5	PCIe x16†
4XC7A08295	BCD6	ThinkSystem Intel E810-DA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	TCE ⓘ	5	1-5	PCIe x8
4XC7A80267	BP8M	ThinkSystem Intel E810-DA4 10/25GbE SFP28 4-Port PCIe Ethernet Adapter	TCE ⓘ	2	2,3,5	PCIe x16†
4XC7A62580	BE4U	ThinkSystem Mellanox ConnectX-6 Lx 10/25GbE SFP28 2-port PCIe Ethernet Adapter	Not TCE	5	1-5	PCIe x8
4XC7A62581	BHE2	ThinkSystem Solarflare X2522-Plus 10/25GbE SFP28 2-Port PCIe Ethernet Adapter	Not TCE	5	1-5	PCIe x8
<b>100 Gb Ethernet / InfiniBand HDR100</b>						
4XC7A08297	BK1J	ThinkSystem Broadcom 57508 100GbE QSFP56 2-Port PCIe 4 Ethernet Adapter	Not TCE	4	1,2,3,5	PCIe x8
4XC7A08248	B8PP	ThinkSystem Mellanox ConnectX-6 Dx 100GbE QSFP56 2-port PCIe Ethernet Adapter	Not TCE	4	1,2,3,5	PCIe x16
4C57A14177	B4R9	ThinkSystem Mellanox ConnectX-6 HDR100/100GbE QSFP56 1-port PCIe VPI Adapter	Not TCE	4	1,2,3,5	PCIe x16
<b>200 Gb Ethernet / InfiniBand HDR/NDR200</b>						
4C57A15326	B4RC	ThinkSystem Mellanox ConnectX-6 HDR/200GbE QSFP56 1-port PCIe 4 VPI Adapter	Not TCE	4	1,2,3,5	PCIe x16
4XC7A81883	BQBN	ThinkSystem NVIDIA ConnectX-7 NDR200/200GbE QSFP112 2-port PCIe Gen5 x16 InfiniBand Adapter	Not TCE	4	1,2,3,5	PCIe x16
4C57A14179	B4RB	ThinkSystem Mellanox HDR/200GbE 2x PCIe Aux Kit	Not TCE	1	1,3	PCIe x16
<b>400 Gb Ethernet / InfiniBand NDR</b>						
4XC7A95508	C51C	ThinkSystem NVIDIA ConnectX-7 NDR400 OSFP 1-port PCIe Gen5 VPI Adapter	Not TCE	4	1,2,3,5	PCIe x16

Part number	Feature code	Description	Top Choice Express	Max qty	Slots	PCIe width
4XC7A80289	BQ1N	ThinkSystem NVIDIA ConnectX-7 NDR OSFP400 1-Port PCIe Gen5 x16 InfiniBand Adapter (InfiniBand only)	Not TCE	4	1,2,3,5	PCIe x16

\* Performance fans required. See the [Cooling](#) section

† In the SR630 V3, 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.

‡ Requires a PCIe Gen4 riser; Not supported in a PCIe Gen5 riser

For more information, including the transceivers and cables that each adapter supports, see the list of Lenovo Press Product Guides in the Networking adapters category:

<https://lenovopress.com/servers/options/ethernet>

## Fibre Channel host bus adapters

The following table lists the Fibre Channel HBAs supported by the SR630 V3. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

Table 72. Fibre Channel HBAs

Part number	Feature code	Description	Top Choice Express	Maximum supported	Slots supported
<b>16 Gb Fibre Channel HBAs</b>					
01CV840	ATZV	Emulex 16Gb Gen6 FC Dual-port HBA	TCE ⓘ	5	1-5
01CV830	ATZU	Emulex 16Gb Gen6 FC Single-port HBA	TCE ⓘ	5	1-5
01CV760	ATZC	QLogic 16Gb Enhanced Gen5 FC Dual-port HBA	TCE ⓘ	5	1-5
01CV750	ATZB	QLogic 16Gb Enhanced Gen5 FC Single-port HBA	TCE ⓘ	5	1-5
<b>32Gb Fibre Channel</b>					
4XC7A76498	BJ3G	ThinkSystem Emulex LPe35000 32Gb 1-port PCIe Fibre Channel Adapter v2	TCE ⓘ	5	1-5
4XC7A76525	BJ3H	ThinkSystem Emulex LPe35002 32Gb 2-port PCIe Fibre Channel Adapter V2	TCE ⓘ	5	1-5
4XC7A08279	BA1G	ThinkSystem QLogic QLE2770 32Gb 1-Port PCIe Fibre Channel Adapter	Not TCE	5	1-5
4XC7A08276	BA1F	ThinkSystem QLogic QLE2772 32Gb 2-Port PCIe Fibre Channel Adapter	TCE ⓘ	5	1-5
<b>64Gb Fibre Channel</b>					
4XC7A77485	BLC1	ThinkSystem Emulex LPe36002 64Gb 2-port PCIe Fibre Channel Adapter	TCE ⓘ	5	1-5

For more information, see the list of Lenovo Press Product Guides in the Host bus adapters category:

<https://lenovopress.com/servers/options/hba>

## SAS adapters for external storage

The following table lists SAS HBAs and RAID adapters supported by SR630 V3 server for use with external storage. The table includes a Top Choice Express column; for CTO orders, select a TCE component for faster delivery. See the [Top Choice](#) section for more information.

Table 73. Adapters for external storage

Part number	Feature code	Description	Top Choice Express	Maximum supported	Slots supported
SAS HBAs - PCIe 4.0					
4Y37A09724	B8P7	ThinkSystem 440-16e SAS/SATA PCIe Gen4 12Gb HBA	TCE ③	5	1-5
4Y37A78837	BNWK	ThinkSystem 440-8e SAS/SATA PCIe Gen4 12Gb HBA	Not TCE	5	1-5
RAID Adapter - PCIe 4.0					
4Y37A78836	BNWJ	ThinkSystem RAID 940-8e 4GB Flash PCIe Gen4 12Gb Adapter	TCE ③	3	1,2,3

\* See configuration rules below regarding supercap requirements

### Configuration rules

The RAID adapters use a flash power module (supercap), which can be installed in one of the locations as shown in the following figure.

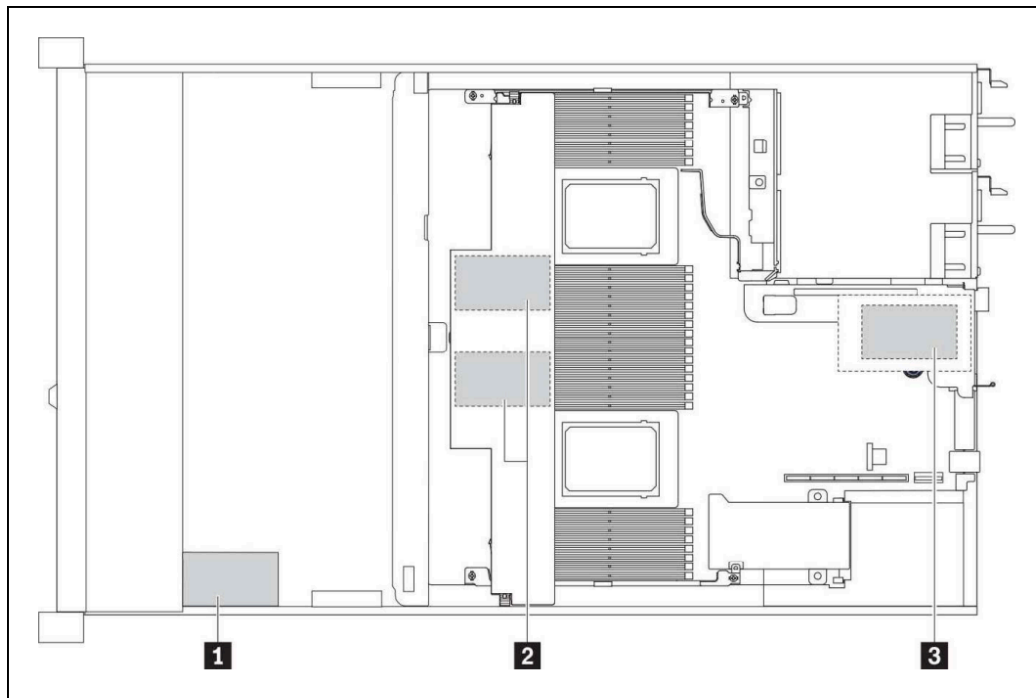


Figure 18. Potential locations of all supercaps in the SR630 V3 (2.5-inch drive configuration and standard heatsinks)

The number of RAID adapters supported is based on how many supercaps can be installed in the server. The number and location of the supercaps is determined based on the front drive configuration used and which processor heatsinks are installed, as listed in the following table.

**Note:** If an internal 9XXX RAID adapter with flash power modules is installed, the maximum number of

external RAID adapters supported is reduced by 1.

Table 74. RAID adapters and supercap locations

Front drive configuration	Processor heatsinks	Number of adapters & supercaps	Location of supercaps
2.5-inch	Standard	3	Front of server behind operator panel (1 supercap) Mounted on Air baffle (2 supercaps)
	High Performance	1	Front of server behind operator panel
3.5-inch	Standard	2	Mounted on Air baffle (2 supercaps)
	High Performance	1	Installed in slot 3 attached to Riser 2 (this prevents slot 3 being used for an adapter)

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

<https://lenovopress.lenovo.com/lp1288#sr630-v3-support=SR630%2520V3&internal-or-external-ports=External>

For more information, see the list of Lenovo Press Product Guides in the Host bus adapters and RAID adapters categories:

<https://lenovopress.com/servers/options/hba>

<https://lenovopress.com/servers/options/raid>

## GPU adapters

The SR630 V3 supports the following graphics processing units (GPUs).

Table 75. Supported GPUs

Part number	Feature code	Description	Top Choice Express	Controlled GPU	Maximum supported	Slots supported
4X67A84824	BS2C	ThinkSystem NVIDIA L4 24GB PCIe Gen4 Passive GPU	Not TCE	Controlled	3	1,2,3,5

For information about these GPUs, see the ThinkSystem GPU Summary, available at: <https://lenovopress.com/lp0768-thinksystem-thinkagile-gpu-summary>

### Configuration rules

The following configuration requirements must be met when installing GPUs:

- The table includes a Controlled GPU column. If a GPU is listed as Controlled, that means the GPU is not offered in certain markets, as determined by the US Government. If a GPU is listed as No, that means the GPU is not controlled and is available in all markets.
- GPUs can be configured in CTO orders as follows:
  - A Controlled GPU can only be configured using one of the Base CTO models designated with "for AI", such as 7D73CTOBWW, as listed in the [Models](#) section.
  - A GPU that is not controlled can only be configured using one of the Base CTO models that is *not* named "for AI", such as 7D73CTO1WW, as listed in the [Models](#) section.
- All GPUs installed must be identical
- Processors with TDP greater than 220W TDP (see [Thermal restrictions by processor](#) section):
  - Only 4x 2.5-inch SAS/SATA front drive configuration supported
- For NVIDIA A2 or any other passively cooled GPU (GPU without integrated fan), performance fans are required (see the [Cooling](#) section)
- Some NVIDIA A Series GPUs are available as two feature codes, one with a CEC chip and one without a CEC chip (ones without the CEC chip have "w/o CEC" in the name). The CEC is a secondary Hardware Root of Trust (RoT) module that provides an additional layer of security, which can be used by customers who have high regulatory requirements or high security standards. NVIDIA uses a multi-layered security model and hence the protection offered by the primary Root of Trust embedded in the GPU is expected to be sufficient for most customers. The CEC defeatured products still offer Secure Boot, Secure Firmware Update, Firmware Rollback Protection, and In-Band Firmware Update Disable. Specifically, without the CEC chip, the GPU does not support Key Revocation or Firmware Attestation. CEC and non-CEC GPUs of the same type of GPU can be mixed in field upgrades.

## Cooling

The SR630 V3 server has up to eight 40 mm dual-rotor hot-swap variable-speed fans. Six fans are needed when one processor is installed and eight fans are required when two processors are installed. The server offers N+1 rotor redundancy. The server also has one additional fan integrated in each of the two power supplies.

Depending on the configuration, the server will need either Standard fans (21K RPM) or Performance fans (28K RPM)

Under the following conditions, Standard fans can be used:

- Two processors
- Processor TDP < 165W
- No GPUs
- None of the following network adapters:
  - Any 100Gb, 200Gb or 400Gb adapter
  - ThinkSystem Broadcom 57454 10GBASE-T 4-port OCP Ethernet Adapter
- No rear drives (2.5-inch or 7mm)
- None of the following front drive bay configurations:
  - EDSFF drive bays
  - 10x 2.5-inch NVMe or AnyBay
  - 8x 2.5-inch NVMe or AnyBay

If any conditions are not met, Performance fans are required. Configurations with one processor require Performance fans.

Ordering information for the fans is listed in the following table.

Table 76. Fan ordering information

Part number	Feature code	Description	Top Choice Express	Number required
4F17A14488	BH9N	ThinkSystem V3 1U Standard Fan Option Kit v2	TCE ⓘ	1x CPU: 6 2x CPUs: 8
4F17A14487	BH9M	ThinkSystem V3 1U Performance Fan Option Kit v2	TCE ⓘ	1x CPU: 6 2x CPUs: 8

## Power supplies

The SR630 V3 supports up to two redundant hot-swap power supplies.

- [Power supply ordering information](#)
- [Power supply LEDs](#)
- [Power cords \(C13 connectors\)](#)
- [-48V DC power cord](#)

### Power supply ordering information

The power supply choices are listed in the following table. Both power supplies used in server must be identical.

**Tip:** When configuring a server in the DCSC configurator, power consumption is calculated precisely by interfacing with Lenovo Capacity Planner. You can therefore select the appropriate power supply for your configuration. However, do consider future upgrades that may require additional power needs.

Table 77. Power supply options

Part number	Feature code	Description	Top Choice Express	Maximum quantity	110V AC	220V AC	240V DC China only	-48V DC
<b>AC input power - 80 PLUS Titanium efficiency</b>								
4P57A82019	BR1X	ThinkSystem 750W 230V Titanium Hot-Swap Gen2 Power Supply v3	TCE ⓘ	2	No	Yes	Yes	No
CTO only	C07V	ThinkSystem 750W 230V Titanium Hot-Swap Gen2 Power Supply v4	TCE ⓘ	2	No	Yes	Yes	No
4P57A72666	BLKH	ThinkSystem 1100W 230V Titanium Hot-Swap Gen2 Power Supply	TCE ⓘ	2	No	Yes	Yes	No
4P57A78359	BPK9	ThinkSystem 1800W 230V Titanium Hot-Swap Gen2 Power Supply	TCE ⓘ	2	No	Yes	Yes	No
CTO only	C8L4	ThinkSystem 1800W 230V Titanium Hot-Swap Gen2 Power Supply v5	TCE ⓘ	2	No	Yes	Yes	No
<b>AC input power - 80 PLUS Platinum efficiency</b>								
4P57A72670	BNFG	ThinkSystem 750W 230V/115V Platinum Hot-Swap Gen2 Power Supply v3	TCE ⓘ	2	Yes	Yes	Yes	No
4P57A72671	BNFH	ThinkSystem 1100W 230V/115V Platinum Hot-Swap Gen2 Power Supply v3	TCE ⓘ	2	Yes	Yes	Yes	No
4P57A78362	BMUF	ThinkSystem 1800W 230V Platinum Hot-Swap Gen2 Power Supply v2	TCE ⓘ	2	No	Yes	Yes	No
<b>-48V DC input power</b>								
4P57A89415	CCTL	ThinkSystem 1100W -48V DC Hot-Swap Gen2 Power Supply v2	Not TCE	2	No	No	No	Yes

Supported power supplies are auto-sensing dual-voltage units, supporting both 110V AC (100-127V 50/60

Hz) and 220V AC (200-240V 50/60 Hz) power. For China customers, all power supplies support 240V DC. All supported AC power supplies have a C14 connector.

The ThinkSystem 1100W -48V DC Hot-Swap Gen2 Power Supply v2 (4P57A89415) has a Weidmuller TOP 4GS/3 7.6 terminal as shown in the following figure.

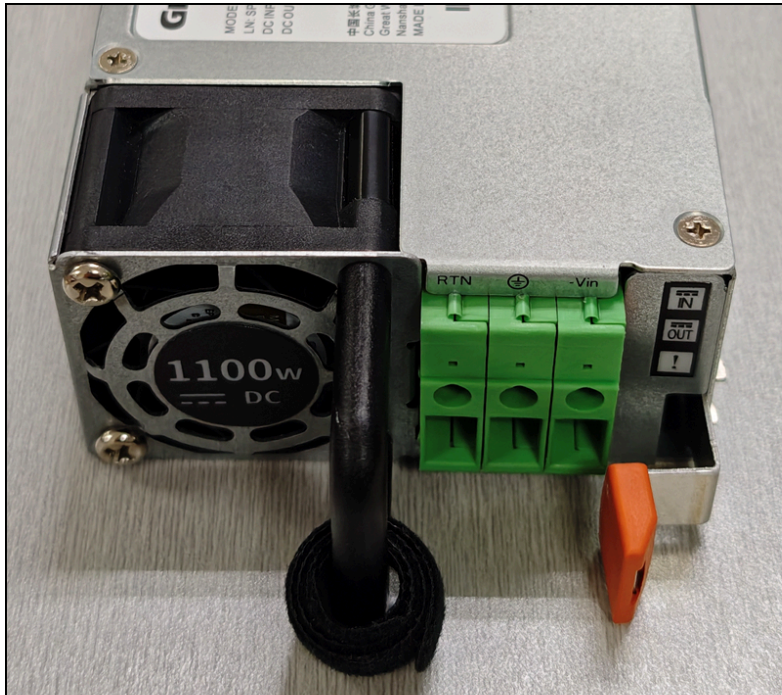


Figure 19. Connector on the ThinkSystem 1100W -48V DC Hot-Swap Gen2 Power Supply v2 (4P57A89415)

Power supply options do not include a line cord. For server configurations, the inclusion of a power cord is model dependent. Configure-to-order models can be configured without power cords if desired.

### Power supply LEDs

The supported hot-swap power supplies have the following LEDs:

- Power input LED:
  - Green: The power supply is connected to the AC power source
  - Off: The power supply is disconnected from the AC power source or a power problem has occurred
- Power output LED:
  - Green: The server is on and the power supply is working normally
  - Blinking green: The power supply is in Zero-output/Standby mode (see below)
  - Off: The server is powered off, or the power supply is not working properly
- Power supply error LED:
  - Off: The power supply is working normally
  - Yellow: The power supply has failed

### Power cords (C13 connectors)

Line cords and rack power cables with C13 connectors can be ordered as listed in the following table.

**115V customers:** If you plan to use the 1100W power supply with a low-range (100-127V) power source, select a power cable that is rated above 10A. Power cables that are rated at 10A or below are not supported with low-range power.

Table 78. Power cords

Part number	Feature code	Description	Top Choice Express
<b>Rack cables - C13 to C14</b>			
CTO only	BPHZ	0.5m, 10A/100-250V, C13 to C14 Jumper Cord	Not TCE
00Y3043	A4VP	1.0m, 10A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
4L67A08367	B0N5	1.0m, 13A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
39Y7937	6201	1.5m, 10A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
4L67A08368	B0N6	1.5m, 13A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
4L67A08365	B0N4	2.0m, 10A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
4L67A08369	6570	2.0m, 13A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
4L67A08366	6311	2.8m, 10A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
4L67A08370	6400	2.8m, 13A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
39Y7932	6263	4.3m, 10A/100-250V, C13 to C14 Jumper Cord	TCE ⓘ
4L67A08371	6583	4.3m, 13A/100-250V, C13 to C14 Rack Power Cable	TCE ⓘ
<b>Rack cables for India - C13 to C14</b>			
4L67B10326	CC6R	2.0m, 10A/100-250V, C13 to C14 Jumper Cord (India)	Not TCE
4L67B10327	CC6S	2.8m, 10A/100-250V, C13 to C14 Jumper Cord (India)	Not TCE
4L67B10328	CC6T	4.3m, 10A/100-250V, C13 to C14 Jumper Cord (India)	Not TCE
<b>Rack cables - C13 to C14 (Y-cable)</b>			
00Y3046	A4VQ	1.345m, 2X C13 to C14 Jumper Cord, Rack Power Cable	Not TCE
00Y3047	A4VR	2.054m, 2X C13 to C14 Jumper Cord, Rack Power Cable	Not TCE
<b>Rack cables - C13 to C20</b>			
39Y7938	6204	2.8m, 10A/100-250V, C13 to IEC 320-C20 Rack Power Cable	TCE ⓘ
<b>Rack cables - C13 to C20 (Y-cable)</b>			
47C2491	A3SW	1.2m, 16A/100-250V, 2 Short C13s to Short C20 Rack Power Cable	Not TCE
47C2492	A3SX	2.5m, 16A/100-250V, 2 Long C13s to Short C20 Rack Power Cable	Not TCE
47C2493	A3SY	2.8m, 16A/100-250V, 2 Short C13s to Long C20 Rack Power Cable	Not TCE
47C2494	A3SZ	4.1m, 16A/100-250V, 2 Long C13s to Long C20 Rack Power Cable	Not TCE
<b>Line cords</b>			
39Y7930	6222	2.8m, 10A/250V, C13 to IRAM 2073 (Argentina) Line Cord	TCE ⓘ
81Y2384	6492	4.3m 10A/220V, C13 to IRAM 2073 (Argentina) Line Cord	TCE ⓘ
39Y7924	6211	2.8m, 10A/250V, C13 to AS/NZ 3112 (Australia/NZ) Line Cord	TCE ⓘ
81Y2383	6574	4.3m, 10A/230V, C13 to AS/NZS 3112 (Aus/NZ) Line Cord	TCE ⓘ
69Y1988	6532	2.8m, 10A/250V, C13 to NBR 14136 (Brazil) Line Cord	TCE ⓘ
81Y2387	6404	4.3m, 10A/250V, C13 - 2P+Gnd (Brazil) Line Cord	TCE ⓘ
39Y7928	6210	2.8m, 10A/220V, C13 to GB 2099.1 (China) Line Cord	Not TCE
81Y2378	6580	4.3m, 10A/220V, C13 to GB 2099.1 (China) Line Cord	Not TCE

Part number	Feature code	Description	Top Choice Express
39Y7918	6213	2.8m, 10A/250V, C13 to DK2-5a (Denmark) Line Cord	Not TCE
81Y2382	6575	4.3m, 10A/230V, C13 to DK2-5a (Denmark) Line Cord	Not TCE
39Y7917	6212	2.8m, 10A/230V, C13 to CEE7-VII (Europe) Line Cord	TCE ⓘ
81Y2376	6572	4.3m, 10A/230V, C13 to CEE7-VII (Europe) Line Cord	Not TCE
39Y7927	6269	2.8m, 10A/250V, C13(2P+Gnd) (India) Line Cord	TCE ⓘ
81Y2386	6567	4.3m, 10A/240V, C13 to IS 6538 (India) Line Cord	TCE ⓘ
39Y7920	6218	2.8m, 10A/250V, C13 to SI 32 (Israel) Line Cord	TCE ⓘ
81Y2381	6579	4.3m, 10A/230V, C13 to SI 32 (Israel) Line Cord	Not TCE
39Y7921	6217	2.8m, 220-240V, C13 to CEI 23-16 (Italy/Chile) Line Cord	TCE ⓘ
81Y2380	6493	4.3m, 10A/230V, C13 to CEI 23-16 (Italy/Chile) Line Cord	TCE ⓘ
46M2593	A1RE	2.8m, 12A/125V, C13 to JIS C-8303 (Japan) Line Cord	TCE ⓘ
4L67A08362	6495	4.3m, 12A/200V, C13 to JIS C-8303 (Japan) Line Cord	Not TCE
39Y7926	6335	4.3m, 12A/100V, C13 to JIS C-8303 (Japan) Line Cord	TCE ⓘ
39Y7922	6214	2.8m, 10A/250V, C13 to SABS 164 (S Africa) Line Cord	TCE ⓘ
81Y2379	6576	4.3m, 10A/230V, C13 to SABS 164 (South Africa) Line Cord	TCE ⓘ
39Y7925	6219	2.8m, 220-240V, C13 to KETI (S Korea) Line Cord	TCE ⓘ
81Y2385	6494	4.3m, 12A/220V, C13 to KSC 8305 (S. Korea) Line Cord	TCE ⓘ
39Y7919	6216	2.8m, 10A/250V, C13 to SEV 1011-S24507 (Swiss) Line Cord	TCE ⓘ
81Y2390	6578	4.3m, 10A/230V, C13 to SEV 1011-S24507 (Sws) Line Cord	Not TCE
23R7158	6386	2.8m, 10A/125V, C13 to CNS 10917-3 (Taiwan) Line Cord	TCE ⓘ
81Y2375	6317	2.8m, 10A/240V, C13 to CNS 10917-3 (Taiwan) Line Cord	TCE ⓘ
81Y2374	6402	2.8m, 13A/125V, C13 to CNS 60799 (Taiwan) Line Cord	TCE ⓘ
4L67A08363	AX8B	4.3m, 10A 125V, C13 to CNS 10917 (Taiwan) Line Cord	TCE ⓘ
81Y2389	6531	4.3m, 10A/250V, C13 to 76 CNS 10917-3 (Taiwan) Line Cord	TCE ⓘ
81Y2388	6530	4.3m, 13A/125V, C13 to CNS 10917 (Taiwan) Line Cord	TCE ⓘ
39Y7923	6215	2.8m, 10A/250V, C13 to BS 1363/A (UK) Line Cord	TCE ⓘ
81Y2377	6577	4.3m, 10A/230V, C13 to BS 1363/A (UK) Line Cord	TCE ⓘ
90Y3016	6313	2.8m, 10A/120V, C13 to NEMA 5-15P (US) Line Cord	TCE ⓘ
46M2592	A1RF	2.8m, 10A/250V, C13 to NEMA 6-15P Line Cord	TCE ⓘ
00WH545	6401	2.8m, 13A/120V, C13 to NEMA 5-15P (US) Line Cord	TCE ⓘ
4L67A08359	6370	4.3m, 10A/125V, C13 to NEMA 5-15P (US) Line Cord	TCE ⓘ
4L67A08361	6373	4.3m, 10A/250V, C13 to NEMA 6-15P (US) Line Cord	TCE ⓘ
4L67A08360	AX8A	4.3m, 13A/120V, C13 to NEMA 5-15P (US) Line Cord	TCE ⓘ

### -48V DC power cord

For the -48V DC Power Supply, the following power cable is supported.

Table 79. -48V DC power cable

<b>Part number</b>	<b>Feature code</b>	<b>Description</b>	<b>Top Choice Express</b>
4X97A59831	BE4V	2.5m, -48VDC Interconnecting Cable	Not TCE

## Systems management

The SR630 V3 contains an integrated service processor, XClarity Controller 2 (XCC), which provides advanced control, monitoring, and alerting functions. The XCC2 is based on the AST2600 baseboard management controller (BMC) using a dual-core ARM Cortex A7 32-bit RISC service processor running at 1.2 GHz.

Topics in this section:

- [System I/O Board](#)
- [Local management](#)
- [System status with XClarity Mobile](#)
- [Remote management](#)
- [XCC2 Platinum](#)
- [Lenovo XClarity Provisioning Manager](#)
- [Lenovo XClarity One](#)
- [Lenovo XClarity Administrator](#)
- [Lenovo XClarity Integrators](#)
- [Lenovo XClarity Essentials](#)
- [Lenovo XClarity Energy Manager](#)
- [Lenovo Capacity Planner](#)

## System I/O Board

The SR630 V3 implements a separate System I/O Board that connects to the Processor Board. The location of the System I/O Board is shown in the [Components and connectors](#) section. The System I/O Board contains all the connectors visible at the rear of the server as shown in the following figure.

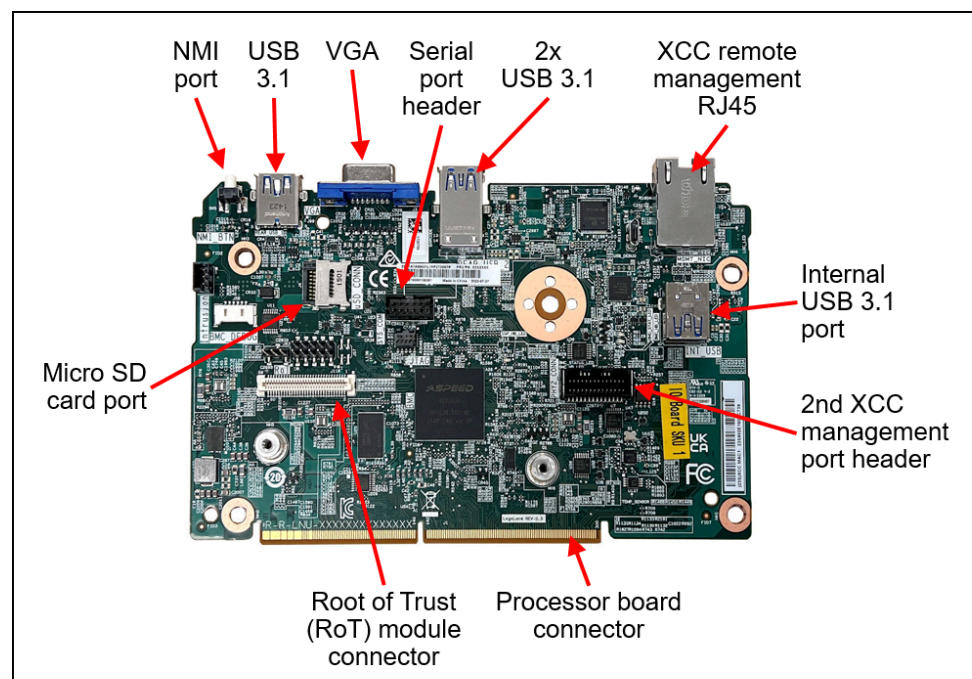


Figure 20. System I/O Board

The board also has the following components:

- XClarity Controller 2, implemented using the ASPEED AST2600 baseboard management controller (BMC).

- Root of Trust (RoT) module - a daughter card that implements Platform Firmware Resiliency (PFR) hardware Root of Trust (RoT) which enables the server to be NIST SP800-193 compliant. For more details about PFR, see the [Security](#) section.
- Connector to enable an additional redundant Ethernet connection to the XCC2 controller. The connector is used in conjunction with the ThinkSystem V3 Management NIC Adapter Kit (4XC7A85319). For details, see the [Remote management](#) section.
- Internal USB port - to allow the booting of an operating system from a USB key. The VMware ESXi preloads use this port for example. Preloads are described in the [Operating system support](#) section.
- MicroSD card port to enable the use of a MicroSD card for additional storage for use with the XCC2 controller. XCC2 can use the storage as a Remote Disc on Card (RDOC) device (up to 4GB of storage). It can also be used to store firmware updates (including N-1 firmware history) for ease of deployment.

**Tip:** Without a MicroSD card installed, the XCC2 controller will have 100MB of available RDOC storage.

Ordering information for the supported USB drive and Micro SD card are listed in the following table.

Table 80. Media for use with the System I/O Board

Part number	Feature code	Description	Top Choice Express
4X77A77065	BNWN	ThinkSystem USB 32GB USB 3.0 Flash Drive	Not TCE
4X77A77064	BNWP	ThinkSystem MicroSD 32GB Class 10 Flash Memory Card	TCE ⓘ
4X77A92672	C0BC	ThinkSystem MicroSD 64GB Class 10 Flash Memory Card	Not TCE

## Local management

The SR630 V3 offers a front operator panel with key LED status indicators, as shown in the following figure.

**Tip:** The Network LED only shows network activity of the installed OCP network adapter.

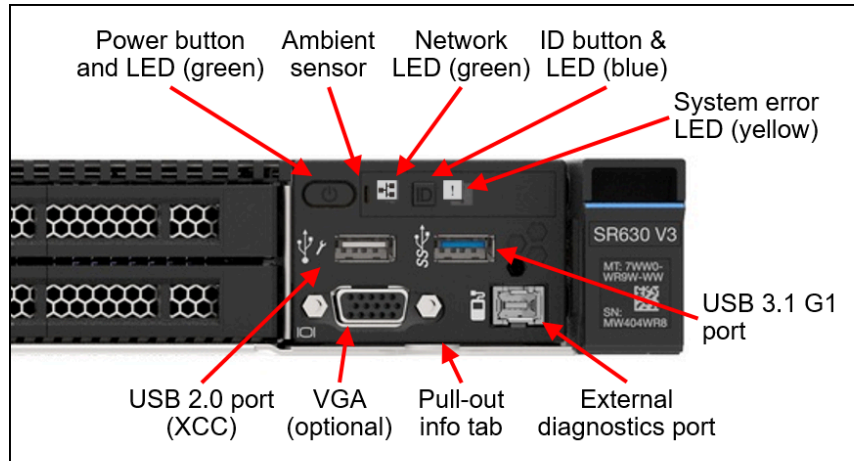


Figure 21. SR630 V3 Front operator panel

## Light path diagnostics

The server offers light path diagnostics. If an environmental condition exceeds a threshold or if a system component fails, the XCC lights LEDs inside the server to help you diagnose the problem and find the failing part. The server has fault LEDs next to the following components:

- Each memory DIMM
- Each drive bay
- Each power supply

## Integrated Diagnostics Panel for 8x 2.5-inch and EDSFF configurations

For configurations with 8x 2.5-inch drive bays or 16x EDSFF drive bays at the front, the server can optionally be configured to have a pull-out Integrated Diagnostics Panel. The following figure shows the configurations with the standard (fixed) operator panel and the optional Integrated Diagnostics Panel.

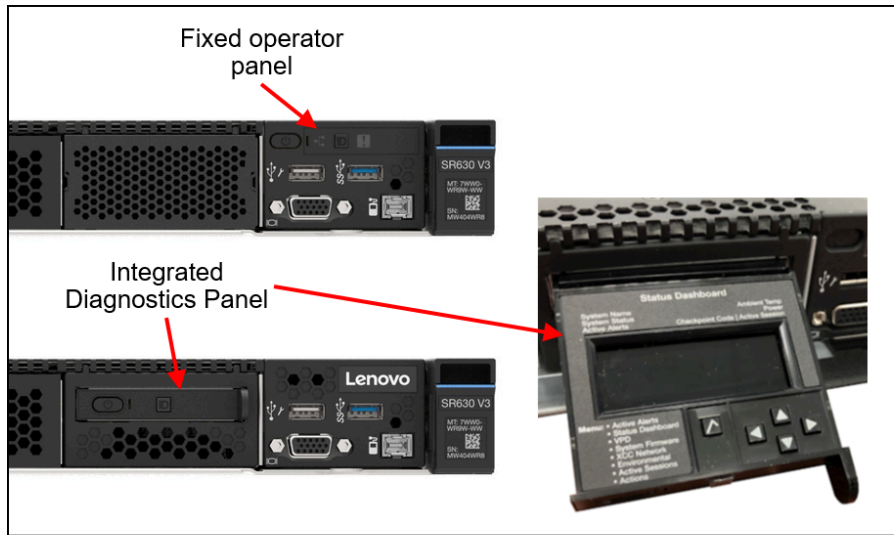


Figure 22. Operator panel choices for the 8x 2.5-inch drive bay configuration

The Integrated Diagnostics Panel allows quick access to system status, firmware, network, and health information. The LCD display on the panel and the function buttons give you access to the following information:

- Active alerts
- Status Dashboard
- System VPD: machine type & mode, serial number, UUID string
- System firmware levels: UEFI and XCC firmware
- XCC network information: hostname, MAC address, IP address, DNS addresses
- Environmental data: Ambient temperature, CPU temperature, AC input voltage, estimated power consumption
- Active XCC sessions
- System reset action

The Integrated Diagnostics Panel can be configured as listed in the following table. It is only available configure-to-order (CTO); not available as a field upgrade.

Table 81. Ordering information for the Integrated Diagnostics Panel

Part number	Feature code	Description	Top Choice Express
CTO only	B8NH	ThinkSystem 1U Integrated Diagnostics Panel	Not TCE

Configuration rules for the Pull-out operator panel:

- Only supported with configurations with 8x 2.5-inch drive bays
- Not available as a field upgrade. The component is CTO or on pre-configured models only

### Front VGA and External Diagnostics ports

The VGA port at the rear of the server is included in all models, however the VGA port at the front of the server is optional. The ThinkSystem V2/V3 1U Front VGA Cable Option Kit allows you to upgrade your server by adding a VGA video port to the front of the server (if the server does not already come with a front VGA port). When the front VGA is in use, the rear VGA port is automatically disabled.

The SR630 V3 optionally includes a port to connect an External Diagnostics Handset. To include in a server, ensure the appropriate feature code is included, based on the front drive configuration. Field upgrades to add the External Diagnostics port are not available.

Table 82. Front VGA and External Diagnostics ports

Part number	Feature code	Description	Top Choice Express
Optional VGA port (adds the VGA port to the front of the server)			
4X97A12644	BA2Y	ThinkSystem V2/V3 1U Front VGA Cable Option Kit	TCE ⓘ
Optional port for the External Diagnostic Handset (adds the port to the front of the server)			
CTO only	BLKD	ThinkSystem 1U V3 10x2.5" Media Bay w/ Ext. Diagnostics Port	TCE ⓘ
CTO only	B8NN	ThinkSystem 1U V3 8x2.5" Media Bay w/ External Diagnostics Port	Not TCE
CTO only	BR03	ThinkSystem 1U 4x3.5" Media Bay w/ External Diagnostics Port	TCE ⓘ

### External Diagnostics Handset

The SR630 V3 optionally includes a port to connect an External Diagnostics Handset as described in the previous section. The External Diagnostics Handset has the same functions as the Integrated Diagnostics Panel but has the advantages of not consuming space on the front of the server plus it can be shared among many servers in your data center. The handset has a magnet on the back of it to allow you to easily mount it on a convenient place on any rack cabinet.

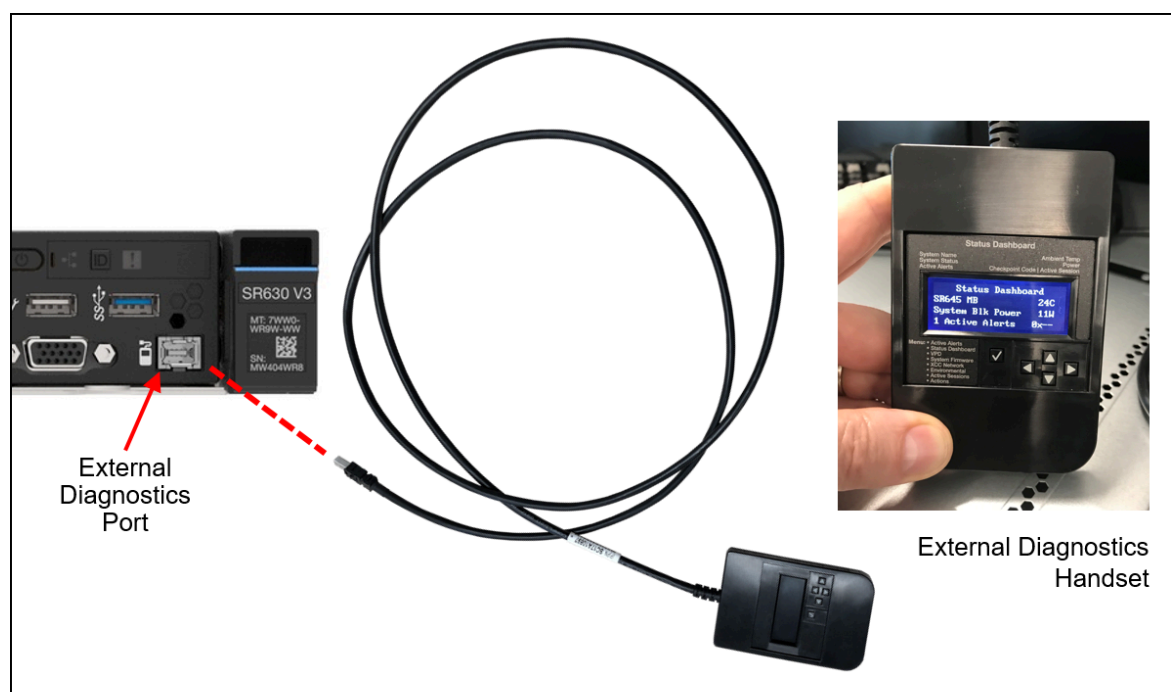


Figure 23. SR630 V3 External Diagnostics Handset

Ordering information for the External Diagnostics Handset with is listed in the following table.

Table 83. External Diagnostics Handset ordering information

Part number	Feature code	Description	Top Choice Express
4TA7A64874	BEUX	ThinkSystem External Diagnostics Handset	Not TCE


### Information pull-out tab

The front of the server also houses an information pull-out tab (also known as the network access tag). See [Figure 2](#) for the location. A label on the tab shows the network information (MAC address and other data) to remotely access the service processor.

### System status with XClarity Mobile

The XClarity Mobile app includes a tethering function where you can connect your Android or iOS device to the server via USB to see the status of the server.

The steps to connect the mobile device are as follows:

1. Enable USB Management on the server, by holding down the ID button for 3 seconds (or pressing the dedicated USB management button if one is present)
2. Connect the mobile device via a USB cable to the server's USB port with the management symbol 
3. In iOS or Android settings, enable Personal Hotspot or USB Tethering
4. Launch the Lenovo XClarity Mobile app

Once connected you can see the following information:

- Server status including error logs (read only, no login required)
- Server management functions (XClarity login credentials required)

### Remote management

The server offers a dedicated RJ45 Ethernet port at the rear of the server for remote management via the XClarity Controller 2 management processor. The port supports 10/100/1000 Mbps speeds.

Remote server management is provided through industry-standard interfaces:

- Intelligent Platform Management Interface (IPMI) Version 2.0
- Simple Network Management Protocol (SNMP) Version 3 (no SET commands; no SNMP v1)
- Common Information Model (CIM-XML)
- Representational State Transfer (REST) support
- Redfish support (DMTF compliant)
- Web browser - HTML 5-based browser interface (Java and ActiveX not required) using a responsive design (content optimized for device being used - laptop, tablet, phone) with NLS support

The SR630 V3 also supports the use of an OCP adapter that provides an additional redundant Ethernet connection to the XCC2 controller. Ordering information is listed in the following table.

Table 84. Redundant System Management Port Adapter

Part number	Feature code	Description	Top Choice Express	Maximum quantity
4XC7A85319	BTMQ	ThinkSystem V3 Management NIC Adapter Kit	Not TCE	1

The use of this adapter allows concurrent remote access using both the connection on the adapter and the onboard RJ45 remote management port provided by the server. The adapter and onboard port have separate IP addresses.

Configuration rules:

- The Redundant System Management Port Adapter is installed in the OCP adapter slot at the rear of the server and is mutually exclusive with any OCP network adapter.

- It is not supported installed in the front OCP slot (if the front OCP slot is configured)
- If the Redundant System Management Port Adapter is installed in the rear slot, then the front OCP slot (if configured) cannot be used.

The following figure shows the server with the Redundant System Management Port Adapter installed in the OCP slot.

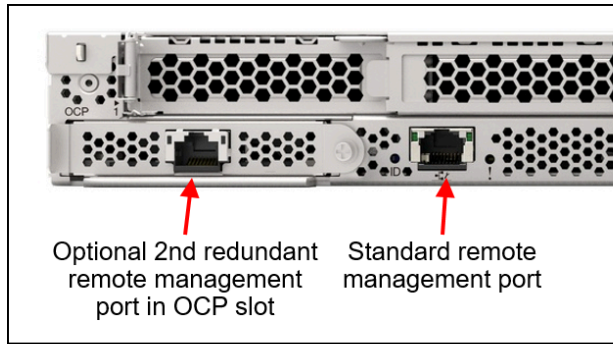


Figure 24. SR630 V3 with the Redundant System Management Port Adapter installed

IPMI via the Ethernet port (IPMI over LAN) is supported, however it is disabled by default. For CTO orders you can specify whether you want to the feature enabled or disabled in the factory, using the feature codes listed in the following table.

Table 85. IPMI-over-LAN settings

Feature code	Description	Top Choice Express
B7XZ	Disable IPMI-over-LAN (default)	TCE ⓘ
B7Y0	Enable IPMI-over-LAN	TCE ⓘ

## XCC2 Platinum

The XCC2 service processor in the SR630 V3 supports an upgrade to the Platinum level of features. Compared to the XCC functions of ThinkSystem V2 and earlier systems, Platinum adds the same features as Enterprise and Advanced levels in ThinkSystem V2, plus additional features.

XCC2 Platinum adds the following Enterprise and Advanced functions:

- Remotely viewing video with graphics resolutions up to 1600x1200 at 75 Hz with up to 23 bits per pixel, regardless of the system state
- Remotely accessing the server using the keyboard and mouse from a remote client
- International keyboard mapping support
- Syslog alerting
- Redirecting serial console via SSH
- Component replacement log (Maintenance History log)
- Access restriction (IP address blocking)
- Lenovo SED security key management
- Displaying graphics for real-time and historical power usage data and temperature
- Boot video capture and crash video capture
- Virtual console collaboration - Ability for up to 6 remote users to be log into the remote session simultaneously
- Remote console Java client
- Mapping the ISO and image files located on the local client as virtual drives for use by the server
- Mounting the remote ISO and image files via HTTPS, SFTP, CIFS, and NFS
- Power capping

- System utilization data and graphic view
- Single sign on with Lenovo XClarity Administrator
- Update firmware from a repository
- License for XClarity Energy Manager

XCC2 Platinum also adds the following features that are new to XCC2:

- System Guard - Monitor hardware inventory for unexpected component changes, and simply log the event or prevent booting
- Enterprise Strict Security mode - Enforces CNSA 1.0 level security
- Neighbor Group - Enables administrators to manage and synchronize configurations and firmware level across multiple servers

Ordering information is listed in the following table. XCC2 Platinum is a software license upgrade - no additional hardware is required.

Table 86. XCC2 Platinum license upgrade

Part number	Feature code	Description
7S0X000KWW	SBCV	Lenovo XClarity Controller 2 (XCC2) Platinum Upgrade

With XCC2 Platinum, for CTO orders, you can request that System Guard be enabled in the factory and the first configuration snapshot be recorded. To add this to an order, select feature code listed in the following table. The selection is made in the Security tab of the DCSC configurator.

Table 87. Enable System Guard in the factory (CTO orders)

Feature code	Description	Top Choice Express
BUT2	Install System Guard	TCE ⓘ

For more information about System Guard, see [https://pubs.lenovo.com/xcc2/NN1ia\\_c\\_systemguard](https://pubs.lenovo.com/xcc2/NN1ia_c_systemguard)

## Lenovo XClarity Provisioning Manager

Lenovo XClarity Provisioning Manager (LXPM) is a UEFI-based application embedded in ThinkSystem servers and accessible via the F1 key during system boot.

LXPM provides the following functions:

- Graphical UEFI Setup
- System inventory information and VPD update
- System firmware updates (UEFI and XCC)
- RAID setup wizard
- OS installation wizard (including unattended OS installation)
- Diagnostics functions

## Lenovo XClarity One

Lenovo XClarity One is a hybrid cloud-based unified Management-as-a-Service (MaaS) platform, built for growing enterprises. XClarity One is powered by Lenovo Smarter Support, a powerful AI-driven platform that leverages predictive analytics to enhance the performance, reliability, and overall efficiency of Lenovo servers.

XClarity One is the next milestone in Lenovo's portfolio of systems management products. Now you can leverage the benefits of a true next-generation, hybrid cloud-based solution for the deployment, management, and maintenance of your infrastructure through a single, centralized platform that delivers a

consistent user experience across all Lenovo products.

Key features include:

- **AI-powered Automation**

Harnesses the power of AI and predictive analytics to enhance the performance and reliability of your infrastructure with proactive protection.

- **AI-Powered Predictive Failure Analytics** - predict maintenance needs before the failure occurs, with the ability to visualize aggregated actions in customer dashboard.
- **AI-Powered Call-Home** - A Call-Home serviceable event opens a support ticket automatically, leveraging AI technology for problem determination and fast resolution.
- **AI-Powered Premier Support with Auto CRU** - uses AI to automatically dispatch parts and services, reducing service costs and minimizing downtime.

- **Secure Management Hub**

Lenovo's proprietary Management Hub is an on-premises virtual appliance that acts as the bridge between your infrastructure and the cloud.

- **On-Premises Security with Cloud Flexibility** - your infrastructure has no direct connection to the cloud, greatly reducing your attack surface from external threats while still having the deployment benefits, flexibility, and scalability of a cloud solution.
- **Authentication and Authorization** - built on a Zero Trust Architecture and requiring OTP Application authentication for all users to handle the support of all customers' servers and client devices. Role-based access controls help define and restrict permissions based on user roles.

- **AI-Powered Management**

Go beyond standard system management leveraging AI algorithms to continuously learn from data patterns to optimize performance and predict potential issues before they impact operations.

- **AI Customizable Insights and Reporting** - Customize AI-generated insights and reports to align with specific business objectives, enabling data-driven decision-making and strategic planning.
- **AI-driven scalability and flexibility** - Guided with AI-driven predictions, the platform supports dynamic scaling of resources based on workload demands.
- **Monitor and Change** - AI Advanced analytics capabilities providing deep insights into server performance, resource utilization, and security threats, to detect anomalies and suggest optimizations in real-time. NLP capabilities enabling administrators to interact with the platform using voice commands or text queries.
- **Upward Integration** - Integrated with Lenovo Open Cloud Automation (LOC-A), Lenovo Intelligent Computer Orchestration (LiCO) and AIOps engines providing an end-to-end management architecture across Lenovo infrastructure and devices solutions.
- **Cross-Platform Compatibility** - Compatibility across different server types and cloud environments

Lenovo XClarity One is an optional management component. License information for XClarity One is listed in the following table.

Table 88. XClarity One license information

Part number	Feature code	Description
Subscription license		
7S0X000LWW	SCJC	XClarity One - Managed Device, Per Endpoint w/1 Yr SW S&S
7S0X000MWW	SCJD	XClarity One - Managed Device, Per Endpoint w/3 Yr SW S&S
7S0X000NWW	SCJE	XClarity One - Managed Device, Per Endpoint w/5 Yr SW S&S

For more information, see these resources:

- Lenovo XClarity One datasheet:  
<https://lenovopress.lenovo.com/ds0188-lenovo-xclarity-one>
- Lenovo XClarity One product guide:  
<https://lenovopress.lenovo.com/lp1992-lenovo-xclarity-one>

## Lenovo XClarity Administrator

Lenovo XClarity Administrator is a centralized resource management solution designed to reduce complexity, speed response, and enhance the availability of Lenovo systems and solutions. It provides agent-free hardware management for ThinkSystem servers. The administration dashboard is based on HTML 5 and allows fast location of resources so tasks can be run quickly.

Because Lenovo XClarity Administrator does not require any agent software to be installed on the managed endpoints, there are no CPU cycles spent on agent execution, and no memory is used, which means that up to 1GB of RAM and 1 - 2% CPU usage is saved, compared to a typical managed system where an agent is required.

Lenovo XClarity Administrator is an optional software component for the SR630 V3. The software can be downloaded and used at no charge to discover and monitor the SR630 V3 and to manage firmware upgrades.

If software support is required for Lenovo XClarity Administrator, or premium features such as configuration management and operating system deployment are required, Lenovo XClarity Pro software subscription should be ordered. Lenovo XClarity Pro is licensed on a per managed system basis, that is, each managed Lenovo system requires a license.

The following table lists the Lenovo XClarity software license options.

Table 89. Lenovo XClarity Pro ordering information

Part number	Feature code	Description
00MT201	1339	Lenovo XClarity Pro, per Managed Endpoint w/1 Yr SW S&S
00MT202	1340	Lenovo XClarity Pro, per Managed Endpoint w/3 Yr SW S&S
00MT203	1341	Lenovo XClarity Pro, per Managed Endpoint w/5 Yr SW S&S
7S0X000HWW	SAYV	Lenovo XClarity Pro, per Managed Endpoint w/6 Yr SW S&S
7S0X000JWW	SAYW	Lenovo XClarity Pro, per Managed Endpoint w/7 Yr SW S&S

Lenovo XClarity Administrator offers the following standard features that are available at no charge:

- Auto-discovery and monitoring of Lenovo systems
- Firmware updates and compliance enforcement
- External alerts and notifications via SNMP traps, syslog remote logging, and e-mail
- Secure connections to managed endpoints
- NIST 800-131A or FIPS 140-3 compliant cryptographic standards between the management solution and managed endpoints
- Integration into existing higher-level management systems such as cloud automation and orchestration tools through REST APIs, providing extensive external visibility and control over hardware resources
- An intuitive, easy-to-use GUI
- Scripting with Windows PowerShell, providing command-line visibility and control over hardware resources

Lenovo XClarity Administrator offers the following premium features that require an optional Pro license:

- Pattern-based configuration management that allows to define configurations once and apply repeatedly without errors when deploying new servers or redeploying existing servers without disrupting the fabric
- Bare-metal deployment of operating systems and hypervisors to streamline infrastructure provisioning

For more information, refer to the Lenovo XClarity Administrator Product Guide:

<http://lenovopress.com/tips1200>

### **Lenovo XClarity Integrators**

Lenovo also offers software plug-in modules, Lenovo XClarity Integrators, to manage physical infrastructure from leading external virtualization management software tools including those from Microsoft and VMware.

These integrators are offered at no charge, however if software support is required, a Lenovo XClarity Pro software subscription license should be ordered.

Lenovo XClarity Integrators offer the following additional features:

- Ability to discover, manage, and monitor Lenovo server hardware from VMware vCenter or Microsoft System Center
- Deployment of firmware updates and configuration patterns to Lenovo x86 [rack servers](#) and Flex System from the virtualization management tool
- Non-disruptive server maintenance in clustered environments that reduces workload downtime by dynamically migrating workloads from affected hosts during rolling server updates or reboots
- Greater service level uptime and assurance in clustered environments during unplanned hardware events by dynamically triggering workload migration from impacted hosts when impending hardware failures are predicted

For more information about all the available Lenovo XClarity Integrators, see the Lenovo XClarity Administrator Product Guide: <https://lenovopress.com/tips1200-lenovo-xclarity-administrator>

## Lenovo XClarity Essentials

Lenovo offers the following XClarity Essentials software tools that can help you set up, use, and maintain the server at no additional cost:

- Lenovo Essentials OneCLI

OneCLI is a collection of server management tools that uses a command line interface program to manage firmware, hardware, and operating systems. It provides functions to collect full system health information (including health status), configure system settings, and update system firmware and drivers.

- Lenovo Essentials UpdateXpress

The UpdateXpress tool is a standalone GUI application for firmware and device driver updates that enables you to maintain your server firmware and device drivers up-to-date and help you avoid unnecessary server outages. The tool acquires and deploys individual updates and UpdateXpress System Packs (UXSPs) which are integration-tested bundles.

- Lenovo Essentials Bootable Media Creator

The Bootable Media Creator (BOMC) tool is used to create bootable media for offline firmware update.

For more information and downloads, visit the Lenovo XClarity Essentials web page:

<http://support.lenovo.com/us/en/documents/LNVO-center>

## Lenovo XClarity Energy Manager

Lenovo XClarity Energy Manager (LXEM) is a power and temperature management solution for data centers. It is an agent-free, web-based console that enables you to monitor and manage power consumption and temperature in your data center through the management console. It enables server density and data center capacity to be increased through the use of power capping.

LXEM is a licensed product. A single-node LXEM license is included with the XClarity Controller Platinum upgrade as described in the [XCC2 Platinum](#) section. If your server does not have the XCC Platinum upgrade, Energy Manager licenses can be ordered as shown in the following table.

Table 90. Lenovo XClarity Energy Manager

Part number	Description
4L40E51621	Lenovo XClarity Energy Manager Node License (1 license needed per server)

For more information about XClarity Energy Manager, see the following resources:

- Lenovo Support page:  
<https://datacentersupport.lenovo.com/us/en/solutions/Invo-lxem>
- User Guide for XClarity Energy Manager:  
<https://pubs.lenovo.com/lxem/>

## Lenovo Capacity Planner

Lenovo Capacity Planner is a power consumption evaluation tool that enhances data center planning by enabling IT administrators and pre-sales professionals to understand various power characteristics of racks, servers, and other devices. Capacity Planner can dynamically calculate the power consumption, current, British Thermal Unit (BTU), and volt-ampere (VA) rating at the rack level, improving the planning efficiency for large scale deployments.

For more information, refer to the Capacity Planner web page:

<http://datacentersupport.lenovo.com/us/en/solutions/Invo-lcp>

## Security

Topics in this section:

- [Security features](#)
- [Platform Firmware Resiliency - Lenovo ThinkShield](#)
- [Security standards](#)

### Security features

The SR630 V3 server offers the following electronic security features:

- Secure Boot function of the Intel Xeon processor
- Support for Platform Firmware Resiliency (PFR) hardware Root of Trust (RoT) - see the [Platform Firmware Resiliency](#) section
- Firmware signature processes compliant with FIPS and NIST requirements
- System Guard (part of [XCC Platinum](#)) - Proactive monitoring of hardware inventory for unexpected component changes
- Administrator and power-on password
- Integrated Trusted Platform Module (TPM) supporting TPM 2.0
- Self-encrypting drives (SEDs) with support for enterprise key managers - see the [SED encryption key management](#) section

The server is NIST SP 800-147B compliant.

The SR630 V3 server also offers the following optional physical security features:

- Optional chassis intrusion switch
- Optional lockable front security bezel

The optional lockable front security bezel is shown in the following figure and includes a key that enables you to secure the bezel over the drives and system controls thereby reducing the chance of unauthorized or accidental access to the server.

**Front PCIe slots:** The use of the security bezel is not supported when the server has front PCIe slots.



Figure 25. Lockable front security bezel

The dimensions of the security bezel are:

- Width: 437 mm (17.2 in.)
- Height: 43 mm (1.3 in.)
- Width: 23 mm (0.9 in.)

The following table lists the physical security options for the SR630 V3.

Table 91. Physical security features

Part number	Feature code	Description	Top Choice Express
4X97A59835	BA2X	ThinkSystem 1U Intrusion Cable	TCE ⓘ
4XH7A09890	B8NL	ThinkSystem V2 1U Security Bezel	TCE ⓘ

Part number	Feature code	Description	Top Choice Express
4XH7A90346	BXBP	ThinkSystem V3 1U Security Bezel Option Kit	TCE ⓘ

**Tip:** The only difference between security bezels 4XH7A09890 and 4XH7A90346 is the Lenovo logo: On 4XH7A09890, the logo is made from plastic; on 4XH7A90346, the logo is made from aluminum alloy.

## Platform Firmware Resiliency - Lenovo ThinkShield

Lenovo's ThinkShield Security is a transparent and comprehensive approach to security that extends to all dimensions of our data center products: from development, to supply chain, and through the entire product lifecycle.

The ThinkSystem SR630 V3 includes Platform Firmware Resiliency (PFR) hardware Root of Trust (RoT) which enables the system to be NIST SP800-193 compliant. This offering further enhances key platform subsystem protections against unauthorized firmware updates and corruption, to restore firmware to an integral state, and to closely monitor firmware for possible compromise from cyber-attacks.

PFR operates upon the following server components:

- UEFI image – the low-level server firmware that connects the operating system to the server hardware
- XCC image – the management “engine” software that controls and reports on the server status separate from the server operating system
- FPGA image – the code that runs the server’s lowest level hardware controller on the motherboard

The Lenovo Platform Root of Trust Hardware performs the following three main functions:

- Detection – Measures the firmware and updates for authenticity
- Recovery – Recovers a corrupted image to a known-safe image
- Protection – Monitors the system to ensure the known-good firmware is not maliciously written

These enhanced protection capabilities are implemented using a dedicated, discrete security processor whose implementation has been rigorously validated by leading third-party security firms. Security evaluation results and design details are available for customer review – providing unprecedented transparency and assurance.

The SR630 V3 includes support for Secure Boot, a UEFI firmware security feature developed by the UEFI Consortium that ensures only immutable and signed software are loaded during the boot time. The use of Secure Boot helps prevent malicious code from being loaded and helps prevent attacks, such as the installation of rootkits. Lenovo offers the capability to enable secure boot in the factory, to ensure end-to-end protection. Alternatively, Secure Boot can be left disabled in the factory, allowing the customer to enable it themselves at a later point, if desired.

The following table lists the relevant feature code(s).

Table 92. Secure Boot options

Part number	Feature code	Description	Top Choice Express	Purpose
CTO only	BPKQ	TPM 2.0 with Secure Boot	TCE ⓘ	Configure the system in the factory with Secure Boot enabled.
CTO only	BPKR	TPM 2.0	TCE ⓘ	Configure the system without Secure Boot enabled. Customers can enable Secure Boot later if desired.

**Tip:** If Secure Boot is not enabled in the factory, it can be enabled later by the customer. However once Secure Boot is enabled, it cannot be disabled.

## Security standards

The SR630 V3 supports the following security standards and capabilities:

- **Industry Standard Security Capabilities**

- Intel CPU Enablement
  - AES-NI (Advanced Encryption Standard New Instructions)
  - CBnT (Converged Boot Guard and Trusted Execution Technology)
  - CET (Control flow Enforcement Technology)
  - Hardware-based side channel attack resilience enhancements
  - MKTME/TME (Multi-Key Total Memory Encryption)
  - SGX (Software Guard eXtensions)
  - SGX-TEM (Trusted Environment Mode)
  - TDX (Trust Domain Extensions)
  - TXT (Trusted eXecution Technology)
  - VT (Virtualization Technology)
  - XD (eXecute Disable)
- Microsoft Windows Security Enablement
  - Credential Guard
  - Device Guard
  - Host Guardian Service
- TPM 2.0 (Trusted Platform Module 2.0)
- UEFI (Unified Extensible Firmware Interface) Forum Secure Boot

- **Hardware Root of Trust and Security**

- Independent security subsystem providing platform-wide NIST SP800-193 compliant Platform Firmware Resilience (PFR)
- Management domain RoT provided by the Secure Boot feature of the AST2600 Baseboard Management Controller (BMC)

- **Platform Security**

- Boot and run-time firmware integrity monitoring with rollback to known-good firmware (e.g., “self-healing”)
- Non-volatile storage bus security monitoring and filtering
- Resilient firmware implementation, such as to detect and defeat unauthorized flash writes or SMM (System Management Mode) memory incursions
- Patented IPMI KCS channel privileged access authorization (USPTO Patent# 11,256,810)
- Host and management domain authorization, including integration with CyberArk for enterprise password management
- KMIP (Key Management Interoperability Protocol) compliant, including support for IBM SKLM and Thales KeySecure
- Reduced “out of box” attack surface
- Configurable network services
- FIPS 140-3 (in progress) validated cryptography for XCC
- CNSA Suite 1.0 Quantum-resistant cryptography for XCC
- Lenovo System Guard

For more information on platform security, see the paper “How to Harden the Security of your

ThinkSystem Server and Management Applications” available from <https://lenovopress.com/lp1260-how-to-harden-the-security-of-your-thinksystem-server>.

- **Standards Compliance and/or Support**

- NIST SP800-131A rev 2 “Transitioning the Use of Cryptographic Algorithms and Key Lengths”
- NIST SP800-147B “BIOS Protection Guidelines for Servers”
- NIST SP800-193 “Platform Firmware Resiliency Guidelines”
- ISO/IEC 11889 “Trusted Platform Module Library”
- Common Criteria TCG Protection Profile for “PC Client Specific TPM 2.0”
- European Union Commission Regulation 2019/424 (“ErP Lot 9”) “Ecodesign Requirements for Servers and Data Storage Products” Secure Data Deletion
- Optional FIPS 140-2 validated Self-Encrypting Disks (SEDs) with external KMIP-based key management

- **Product and Supply Chain Security**

- Suppliers validated through Lenovo’s Trusted Supplier Program
- Developed in accordance with Lenovo’s Secure Development Lifecycle (LSDL)
- Continuous firmware security validation through automated testing, including static code analysis, dynamic network and web vulnerability testing, software composition analysis, and subsystem-specific testing, such as UEFI security configuration validation
- Ongoing security reviews by US-based security experts, with attestation letters available from our third-party security partners
- Digitally signed firmware, stored and built on US-based infrastructure and signed on US-based Hardware Security Modules (HSMs)
- TAA (Trade Agreements Act) compliant manufacturing, by default in Mexico for North American markets with additional US and EU manufacturing options
- US 2019 NDAA (National Defense Authorization Act) Section 889 compliant

## Rack installation

The following table lists the rack installation options that are available for the SR630 V3.

Table 93. Rack installation options

Part number	Feature Code	Description	Top Choice Express
<b>Rail slides</b>			
4XF7A99129	C4TL	ThinkSystem Toolless Stab-in Slide Rail Kit V3	TCE ⓘ
4XF7A99130	C4TM	ThinkSystem Toolless Stab-in Slide Rail Kit V3 with 1U CMA	TCE ⓘ
4M17A13564	BK7W	ThinkSystem SR250/SR150 Toolless Friction Rail	TCE ⓘ
4M17A11754	B8LA	ThinkSystem Toolless Slide Rail Kit v2	TCE ⓘ
4M17A11758	B8LC	ThinkSystem Toolless Slide Rail Kit v2 with 1U CMA	TCE ⓘ
<b>Enhanced Rail slides</b>			
4M17A11755	B8LB	ThinkSystem Toolless Slide Rail Kit v2 Enhanced	Not TCE
4XF7A89443	B8LD	ThinkSystem Toolless Slide Rail Kit v2 Enhanced with 1U CMA	Not TCE
<b>Cable Management Arm</b>			
7M27A05699	Upgrade only	ThinkSystem 1U CMA Upgrade Kit for Toolless Slide Rail	-

For the specification of the rail kits, see the ThinkSystem and ThinkEdge Rail Kit Reference:  
<https://lenovopress.lenovo.com/lp1838-thinksystem-and-thinkedge-rail-kit-reference#sr630-v3-support=SR630%2520V3>

## Operating system support

The SR630 V3 with 5th Gen Intel Xeon Scalable processors supports the following operating systems:

- Microsoft Windows 10 (x64)
- Microsoft Windows 11
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft Windows Server 2025
- Red Hat Enterprise Linux 8.8
- Red Hat Enterprise Linux 8.9
- Red Hat Enterprise Linux 8.10
- Red Hat Enterprise Linux 9.2
- Red Hat Enterprise Linux 9.3
- Red Hat Enterprise Linux 9.4
- Red Hat Enterprise Linux 9.5
- Red Hat Enterprise Linux 9.6
- Red Hat Enterprise Linux 9.7
- Red Hat Enterprise Linux 10.0
- Red Hat Enterprise Linux 10.1
- SUSE Linux Enterprise Server 15 SP5
- SUSE Linux Enterprise Server 15 SP6
- SUSE Linux Enterprise Server 15 SP7
- SUSE Linux Enterprise Server 15 Xen SP5
- SUSE Linux Enterprise Server 16
- Ubuntu 20.04 LTS 64-bit
- Ubuntu 22.04 LTS 64-bit
- Ubuntu 24.04 LTS 64-bit
- VMware ESXi 7.0 U3
- VMware ESXi 8.0 U2
- VMware ESXi 8.0 U3
- VMware ESXi 9.0

The SR630 V3 with 4th Gen Intel Xeon Scalable processors supports the following operating systems:

- Microsoft Windows 10 (x64)
- Microsoft Windows 11
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft Windows Server 2025
- Red Hat Enterprise Linux 8.6
- Red Hat Enterprise Linux 8.7
- Red Hat Enterprise Linux 8.8
- Red Hat Enterprise Linux 8.9
- Red Hat Enterprise Linux 8.10
- Red Hat Enterprise Linux 9.0
- Red Hat Enterprise Linux 9.1
- Red Hat Enterprise Linux 9.2
- Red Hat Enterprise Linux 9.3
- Red Hat Enterprise Linux 9.4
- Red Hat Enterprise Linux 9.5
- Red Hat Enterprise Linux 9.6
- Red Hat Enterprise Linux 9.7
- Red Hat Enterprise Linux 10.0
- Red Hat Enterprise Linux 10.1
- SUSE Linux Enterprise Server 15 SP4
- SUSE Linux Enterprise Server 15 SP5

- SUSE Linux Enterprise Server 15 SP6
- SUSE Linux Enterprise Server 15 SP7
- SUSE Linux Enterprise Server 15 Xen SP4
- SUSE Linux Enterprise Server 15 Xen SP5
- SUSE Linux Enterprise Server 16
- Ubuntu 20.04 LTS 64-bit
- Ubuntu 22.04 LTS 64-bit
- Ubuntu 24.04 LTS 64-bit
- VMware ESXi 7.0 U3
- VMware ESXi 8.0
- VMware ESXi 8.0 U1
- VMware ESXi 8.0 U2
- VMware ESXi 8.0 U3
- VMware ESXi 9.0

For a complete list of supported, certified and tested operating systems, plus additional details and links to relevant web sites, see the Operating System Interoperability Guide:

<https://lenovopress.lenovo.com/osig#servers=sr630-v3-7d72-7d73-7d74>

For configure-to-order configurations, the SR630 V3 can be preloaded with VMware ESXi. Ordering information is listed in the following table.

Table 94. VMware ESXi preload

Part number	Feature code	Description	Top Choice Express
CTO only	BMEY	VMware ESXi 7.0 U3 (Factory Installed)	TCE ⓘ
CTO only	BYC7	VMware ESXi 8.0 U2 (Factory Installed)	TCE ⓘ
CTO only	BZ97	VMware ESXi 8.0 U3 (Factory Installed)	TCE ⓘ
CTO only	C91V	VMware ESXi 9.0 (Factory Installed)	TCE ⓘ

Configuration rule:

- An ESXi preload cannot be selected if the configuration includes an NVIDIA GPU (ESXi preload cannot include the NVIDIA driver)

You can download supported VMware vSphere hypervisor images from the following web page and install it using the instructions provided:

[https://vmware.lenovo.com/content/custom\\_iso/](https://vmware.lenovo.com/content/custom_iso/)

## Physical and electrical specifications

The SR630 V3 has the following overall physical dimensions, excluding components that extend outside the standard chassis, such as EIA flanges, front security bezel (if any), and power supply handles:

- Width: 440 mm (17.3 inches)
- Height: 43 mm (1.7 inches)
- Depth: 773 mm (30.4 inches)

The following table lists the detailed dimensions. See the figure below for the definition of each dimension.

Table 95. Detailed dimensions

Dimension	Description
482 mm	$X_a$ = Width, to the outsides of the front EIA flanges
435 mm	$X_b$ = Width, to the rack rail mating surfaces
440 mm	$X_c$ = Width, to the outer most chassis body feature
43 mm	$Y_a$ = Height, from the bottom of chassis to the top of the chassis
724 mm	$Z_a$ = Depth, from the rack flange mating surface to the rearmost I/O port surface
738 mm	$Z_b$ = Depth, from the rack flange mating surface to the rearmost feature of the chassis body
754 mm ( $\leq 1100W$ PSU) 782 mm (1800W PSU)	$Z_c$ = Depth, from the rack flange mating surface to the rearmost feature such as power supply handle
36 mm	$Z_d$ = Depth, from the forwardmost feature on front of EIA flange to the rack flange mating surface
47 mm	$Z_e$ = Depth, from the front of security bezel (if applicable) or forwardmost feature to the rack flange mating surface

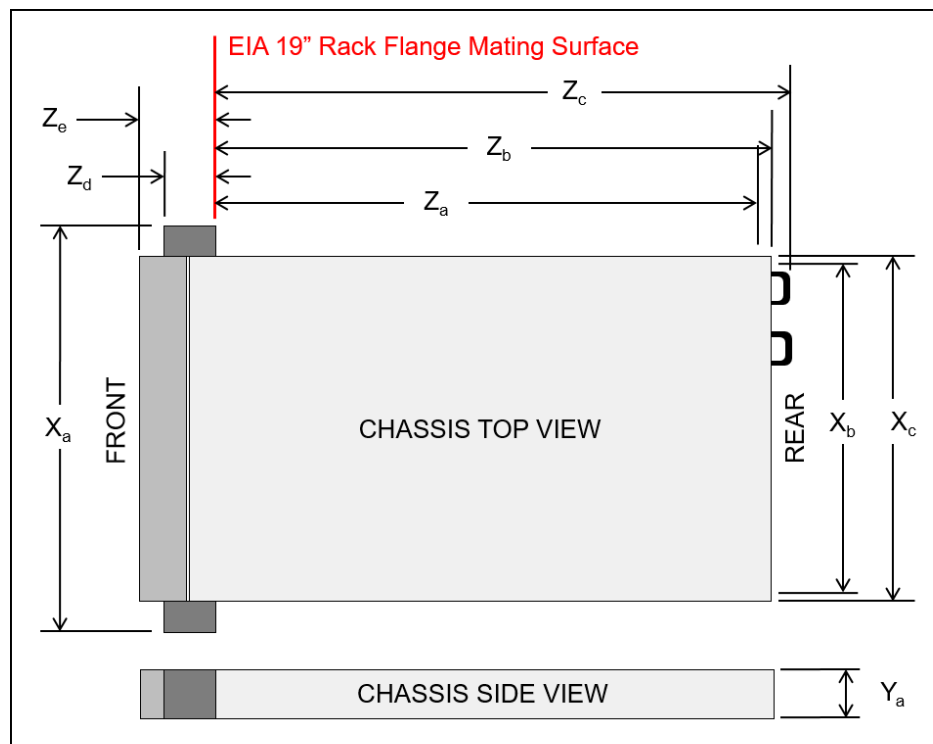


Figure 26. Server dimensions

The shipping (cardboard packaging) dimensions of the SR630 V3 are as follows:

- Width: 587 mm (23.1 inches)
- Height: 225 mm (8.9 inches)
- Depth: 998 mm (39.3 inches)

The server has the following weight:

- Maximum: 20.8 kg (45.9 lb)
- Maximum with packaging, rail kit, CMA: 27.8 kg (61.3 lb)

The server has the following electrical specifications for AC input power supplies:

- Input voltage:
  - 100 to 127 (nominal) Vac, 50 Hz or 60 Hz
  - 200 to 240 (nominal) Vac, 50 Hz or 60 Hz
  - 180 to 300 Vdc (China only)
- Inlet current: see the following table.

Table 96. Maximum inlet current

Part number	Description	100V AC	200V AC	220V AC	240V DC
<b>AC input power - 80 PLUS Titanium efficiency</b>					
4P57A82019	ThinkSystem 750W 230V Titanium Hot-Swap Gen2 Power Supply v3	No support	4A	3.6A	3.3A
4P57A72666	ThinkSystem 1100W 230V Titanium Hot-Swap Gen2 Power Supply	No support	5.9A	5.3A	5A
4P57A78359	ThinkSystem 1800W 230V Titanium Hot-Swap Gen2 Power Supply	No support	9.7A	8.7A	8.3A
<b>AC input power - 80 PLUS Platinum efficiency</b>					
4P57A72670	ThinkSystem 750W 230V/115V Platinum Hot-Swap Gen2 Power Supply v3	8.4A	4.1A	3.69A	3.5A
4P57A72671	ThinkSystem 1100W 230V/115V Platinum Hot-Swap Gen2 Power Supply v3	12A	6A	5.4A	5.1A
4P57A78362	ThinkSystem 1800W 230V Platinum Hot-Swap Gen2 Power Supply v2	No support	10A	9.1A	9A

Electrical specifications for DC input power supply:

- Input voltage: -48 to -60 Vdc
- Inlet current (1100W power supply): 26 A

## Operating environment

The SR630 V3 server complies with ASHRAE Class A2 specifications with most configurations, and depending on the hardware configuration, also complies with ASHRAE Class A3 and Class A4 specifications. System performance may be impacted when operating temperature is outside ASHRAE A2 specification.

Depending on the hardware configuration, the SR630 V3 server also complies with ASHRAE Class H1 specification. System performance may be impacted when operating temperature is outside ASHRAE H1 specification.

Topics in this section:

- [Ambient temperature requirements](#)
- [Temperature and humidity](#)
- [Acoustical noise emissions](#)
- [Shock and vibration](#)
- [Particulate contamination](#)

### Ambient temperature requirements

The restrictions to ASHRAE support are as follows (cooling by air or Liquid to Air Module (L2AM)) :

- The ambient temperature must be no more than 25°C if your server meets the following conditions when installing:
  - $300\text{ W} \leq \text{TDP} \leq 350\text{ W}$
  - L2AM
  - ThinkSystem 128GB TruDDR5 4800MHz (4Rx4) 3DS RDIMM v1, ThinkSystem 128GB TruDDR5 4800MHz (4Rx4) 3DS RDIMM v2, ThinkSystem 128GB TruDDR5 5600MHz (4Rx4) 3DS RDIMM or ThinkSystem 128GB TruDDR5 5600MHz (2Rx4) RDIMM with L2AM
  - ThinkSystem 256GB TruDDR5 4800MHz (8Rx4) 3DS RDIMM v1 and standard or performance heat sinks, and 4 x 2.5" backplane or no backplane
- The ambient temperature must be no more than 30°C if your server meets any of the following conditions when installing:
  - $205\text{ W} < \text{TDP} \leq 350\text{ W}$
  - Any rear 2.5-inch NVMe drive
  - A2/L4 GPU on the rear
  - Any ConnectX-6/ConnectX-7 adapters with the AOC transceiver
  - Parts with AOC transceivers and the rate is greater than 25 Gb
  - $205\text{ W} < \text{TDP} < 300\text{ W}$  with the L2AM
  - ThinkSystem 128GB TruDDR5 4800MHz (4Rx4) 3DS RDIMM v1, ThinkSystem 256GB TruDDR5 4800MHz (8Rx4) 3DS RDIMM v2, ThinkSystem 128GB TruDDR5 5600MHz (2Rx4) RDIMM or ThinkSystem 256GB TruDDR5 5600MHz (8Rx4) 3DS RDIMM with standard or performance heat sinks
- The ambient temperature must be no more than 35°C if your server meets any of the following conditions when installing:
  - $165\text{ W} < \text{TDP} \leq 205\text{ W}$
  - ThinkSystem 128GB TruDDR5 4800MHz (4Rx4) 3DS RDIMM v2, ThinkSystem 128GB TruDDR5 5600MHz (4Rx4) 3DS RDIMM, or ThinkSystem 96GB TruDDR5 5600MHz (2Rx4) 10x4 RDIMM
  - Any front NVMe drive or rear NVMe AIC SSD
  - Any 7mm boot drive
  - Any M.2 NVMe drive
  - Any rear 2.5-inch SAS/SATA drive
  - ThinkSystem Broadcom 57454 10GBASE-T 4-port OCP/ Broadcom 57416 10GBASE-T 2-port OCP
  - PCIe network interface cards (NICs) and OCP modules at a rate greater than or equal to 100 GB

- Parts with AOC transceivers and at the rate of 25 Gb
  - TDP ≤ 205 W with the L2AM
  - A2/L4 GPU on the front
- The ambient temperature must be no more than 45°C if the processor TDP is equal to or smaller than 185 W.

The restrictions to ASHRAE support are as follows (cooling by Direct Water Cooling Module (DWCM)) :

- The ambient temperature must be no more than 25°C if your server meets the following conditions when installing:
  - TDP ≤ 350
  - DWCM
  - ThinkSystem 256GB TruDDR5 4800MHz (8Rx4) 3DS RDIMM v1 but except for 4 x 2.5" backplane or no backplane
- The ambient temperature must be no more than 30°C if your server meets the following conditions when installing:
  - TDP ≤ 350
  - DWCM
  - Standard fans
  - Any ConnectX-6/ConnectX-7 adapters with the AOC transceiver
- The ambient temperature must be no more than 35°C if your server meets the following conditions when installing:
  - TDP ≤ 350
  - DWCM
  - A2/L4 GPU and performance fans
  - Any ConnectX-6/ConnectX-7 adapters with the AOC transceiver
  - ThinkSystem 128GB TruDDR5 4800MHz (4Rx4) 3DS RDIMM v1
  - ThinkSystem 128GB TruDDR5 5600MHz (2Rx4) RDIMM
  - ThinkSystem 128GB TruDDR5 4800MHz (4Rx4) 3DS RDIMM v2
  - ThinkSystem 128GB TruDDR5 5600MHz (4Rx4) 3DS RDIMM
  - ThinkSystem 256GB TruDDR5 5600MHz (8Rx4) 3DS RDIMM
  - ThinkSystem 256GB TruDDR5 4800MHz (8Rx4) 3DS RDIMM v2
  - ThinkSystem 256GB TruDDR5 4800MHz (8Rx4) 3DS RDIMM v1 with 4 x 2.5" backplane or no backplane

For additional information, see the Environmental specifications and Thermal rules sections in the product documentation:

[https://pubs.lenovo.com/sr630-v3/server\\_specifications\\_environmental](https://pubs.lenovo.com/sr630-v3/server_specifications_environmental)

[https://pubs.lenovo.com/sr630-v3/thermal\\_rules](https://pubs.lenovo.com/sr630-v3/thermal_rules)

## Temperature and humidity

The server is supported in the following environment:

- Air temperature:
  - Operating:
    - ASHRAE Class A2: 10°C to 35°C (50°F to 95°F); the maximum ambient temperature decreases by 1°C for every 300 m (984 ft) increase in altitude above 900 m (2,953 ft).
    - ASHRAE Class A3: 5°C to 40°C (41°F to 104°F); the maximum ambient temperature decreases by 1°C for every 175 m (574 ft) increase in altitude above 900 m (2,953 ft).
    - ASHRAE Class A4: 5°C to 45°C (41°F to 113°F); the maximum ambient temperature decreases by 1°C for every 125 m (410 ft) increase in altitude above 900 m (2,953 ft).
    - ASHRAE Class H1: 5 °C to 25 °C (41 °F to 77 °F); Decrease the maximum ambient temperature by 1°C for every 500 m (1640 ft) increase in altitude above 900 m (2,953 ft).
  - Server off: 5°C to 45°C (41°F to 113°F)
  - Shipment/storage: -40°C to 60°C (-40°F to 140°F)

- Maximum altitude: 3,050 m (10,000 ft)
- Relative Humidity (non-condensing):
  - Operating
    - ASHRAE Class A2: 8% to 80%; maximum dew point: 21°C (70°F)
    - ASHRAE Class A3: 8% to 85%; maximum dew point: 24°C (75°F)
    - ASHRAE Class A4: 8% to 90%; maximum dew point: 24°C (75°F)
    - ASHRAE Class H1: 8% to 80%; Maximum dew point: 17°C (63°F)
  - Shipment/storage: 8% to 90%

### Acoustical noise emissions

The server has the following acoustic noise emissions declaration:

- Sound power level ( $L_{WA_d}$ ):
  - Idling: 5.6 Bel (Min), 6.7 Bel (Typical), 6.7 Bel (GPU rich), 7.5 Bel (Storage rich)
  - Operating: 7.6 Bel (Min), 8.7 Bel (Typical), 8.3 Bel (GPU rich), 7.7 Bel (Storage rich)
- Sound pressure level ( $L_{pAm}$ ):
  - Idling: 41.3 dBA (Min), 52.5 dBA (Typical), 52.5 dBA (GPU rich), 60.1 dBA (Storage rich)
  - Operating: 61.5 dBA (Min), 72.5 dBA (Typical), 67.8 dBA (GPU rich), 62.8 dBA (Storage rich)

Notes:

- These sound levels were measured in controlled acoustical environments according to procedures specified by ISO7779 and are reported in accordance with ISO 9296.
- The declared acoustic sound levels are based on the following configurations, which may change depending on configuration/conditions :
  - Min: 2x 240W CPU, 24x 64GB RDIMMs, 8x SAS HDD, RAID 440-16i, Broadcom 5719 1GbE RJ45 4-port OCP Ethernet Adapter, 2x 1100W PSU
  - Typical: 2x 300W CPU, 24x 64GB RDIMMs, 10x SAS HDD, RAID 940-16i, Broadcom 5719 1GbE RJ45 4-port OCP Ethernet Adapter, 2x 1100W PSU
  - GPU rich: 2x 300W CPU, 24x 64GB RDIMMs, 10x SAS HDD, RAID 940-16i, Broadcom 5719 1GbE RJ45 4-port OCP Ethernet Adapter, 1x A2 GPU, 2x 1100W PSU
  - Storage rich: 2x 240W CPU, 12x 64GB RDIMMs, 12x SAS HDD, RAID 940-16i, Broadcom 5719 1GbE RJ45 4-port OCP Ethernet Adapter, 2x 750W PSU
- Government regulations (such as those prescribed by OSHA or European Community Directives) may govern noise level exposure in the workplace and may apply to you and your server installation. The actual sound pressure levels in your installation depend upon a variety of factors, including the number of racks in the installation; the size, materials, and configuration of the room; the noise levels from other equipment; the room ambient temperature, and employee's location in relation to the equipment. Further, compliance with such government regulations depends on a variety of additional factors, including the duration of employees' exposure and whether employees wear hearing protection. Lenovo recommends that you consult with qualified experts in this field to determine whether you are in compliance with the applicable regulations.

### Shock and vibration

The server has the following vibration and shock limits:

- Vibration:
  - Operating: 0.21 G rms at 5 Hz to 500 Hz for 15 minutes across 3 axes
  - Non-operating: 1.04 G rms at 2 Hz to 200 Hz for 15 minutes across 6 surfaces
- Shock:
  - Operating: 15 G for 3 milliseconds in each direction (positive and negative X, Y, and Z axes)
  - Non-operating:
    - 12 kg - 22 kg: 50 G for 152 in./sec velocity change across 6 surfaces

## Particulate contamination

Airborne particulates (including metal flakes or particles) and reactive gases acting alone or in combination with other environmental factors such as humidity or temperature might damage the system that might cause the system to malfunction or stop working altogether.

The following specifications indicate the limits of particulates that the system can tolerate:

- Reactive gases:
  - The copper reactivity level shall be less than 200 Angstroms per month ( $\text{\AA}/\text{month}$ )
  - The silver reactivity level shall be less than 200  $\text{\AA}/\text{month}$
- Airborne particulates:
  - The room air should be continuously filtered with MERV 8 filters.
  - Air entering a data center should be filtered with MERV 11 or preferably MERV 13 filters.
  - The deliquescent relative humidity of the particulate contamination should be more than 60% RH
  - Environment must be free of zinc whiskers

For additional information, see the Specifications section of the documentation for the server, available from the Lenovo Documents site, <https://pubs.lenovo.com/>

## Water infrastructure for the Lenovo Neptune Processor DWC Module

The Lenovo Processor Neptune Core Module is the liquid-based processor cooling offering for the SR630 V3, as described in the [Lenovo Processor Neptune Core Module](#) section.

The open-loop cooling module requires the following water infrastructure components in the rack cabinet and data center:

- Supported 42U or 48U rack cabinet  
The 42U or 48U Heavy Duty Rack Cabinet (machine types 7D6D or 7D6E) are supported. Two 0U mounting points are required for the water manifolds, at the rear of the rack cabinet, one either side.  
  
For information about the 42U and 48U Heavy Duty Rack Cabinets, see the product guide: <https://lenovopress.lenovo.com/lp1498-lenovo-heavy-duty-rack-cabinets>
- 38-port water manifold (machine type 7DE6), installed in the rear of the rack cabinet  
The manifold provides quick-disconnect couplings that each server in the rack are connected to. Ordering information is in the table below.
- Coolant distribution unit (CDU), either in-rack or in-row  
In-rack CDUs are installed at the bottom of the rack cabinet.  
  
In-row CDUs are separate cabinets that are typically installed at the end of a row of rack cabinets. Examples of suitable in-row CDUs include (but not limited to):
  - Vertiv XDU450 CDU
  - Vertiv XDU600 CDU
  - Vertiv XDU100 CDU
- Hose kit to connect to the CDU to the manifold  
Ordering information is in the table below.

The following figure shows the major components of the solution.

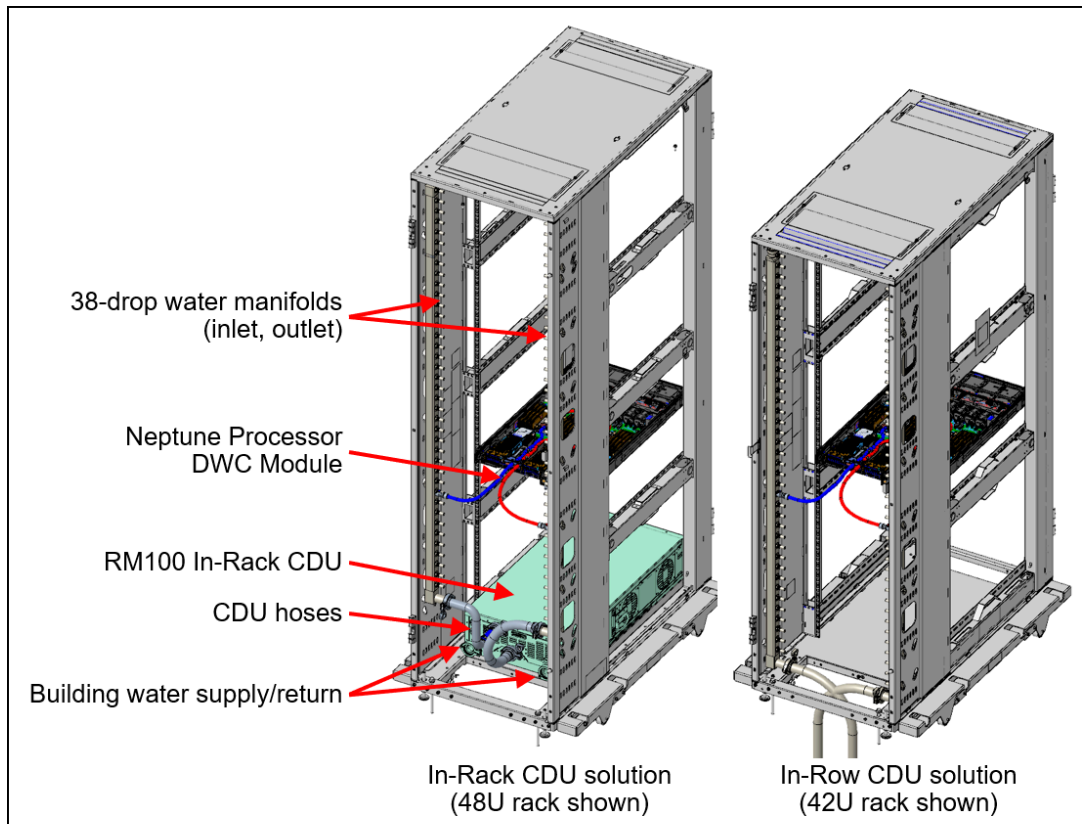


Figure 27. Water manifold connections

Configuration requirements:

- Maximum number of SR630 V3 servers supported in a rack:
  - 48U rack: 38 servers
  - 42U rack with in-rack CDU: 35 servers
  - 42U rack without in-rack CDU: 38 servers
- Inlet water flow rate:
  - 0.5 LPM: Maximum 40°C inlet water temperature
  - 1.0 LPM: Maximum 45°C inlet water temperature
  - 1.5 LPM: Maximum 50°C inlet water temperature
- Water pressure requirement:
  - Maximum operating node inlet pressure = 43.5 psi (3 bars)

**Note:** Water quality must be maintained over the lifetime of the system to receive warranty and support on affecting components. For water quality requirement, see [Lenovo Neptune Direct Water-Cooling Standards](#)

The 38-drop water manifold and hoses can be ordered as listed in the following table.

Table 97. Water infrastructure ordering information

Part number	Feature code	Description
Manifold for 42U and 48U rack cabinet		
4XF7A90061	C5YW	ThinkSystem Neptune 38-Port Rack Manifold
Hoses to connect the manifold to an in-rack CDU		

Part number	Feature code	Description
4XF7A90232	C5YX	Connection Set, 38/45 Ports Manifold with in-rack CDU
4XF7A90233	C5YY	Connection Set, 38-Port Manifold with in-rack CDU for 48U Rack
Hoses to connect the manifold to an in-row CDU		
4XF7A90234	C5YZ	Hose Set, 1 inch EPDM, 1.3m, for Rack Manifold with in-row CDU
4XF7A90235	C5Z0	Hose Set, 1 inch EPDM, 2.3m, for Rack Manifold with in-row CDU

Configuration notes:

- This water connection solution described here cannot be used with the DW612S and N1380 enclosures as the water requirements are different.
- The hoses for in-row CDUs that are listed in the table above have Eaton FD83 quick-disconnect couplings

### Warranty upgrades and post-warranty support

The SR630 V3 has a 1-year or 3-year warranty based on the machine type of the system:

- 7D72 - 1 year warranty
- 7D73 - 3 year warranty

Our global network of regional support centers offers consistent, local-language support enabling you to vary response times and level of service\* to match the criticality of your support needs:

- **Standard Next Business Day** – Best choice for non-essential systems requiring simple maintenance.
- **Premier Next Business Day** – Best choice for essential systems requiring technical expertise from senior-level Lenovo engineers.
- **Premier 24x7 4-Hour Response** – Best choice for systems where maximum uptime is critical.
- **Premier Enhanced Storage Support 24x7 4-Hour Response** – Best choice for storage systems where maximum uptime is critical.

For more information, consult the brochure [Lenovo Operational Support Services for Data Centers Services](#).

\* Some service levels may not be available in all markets. Contact your sales representative for more information.

## Services

Lenovo Data Center Services empower you at every stage of your IT lifecycle. From expert advisory and strategic planning to seamless deployment and ongoing support, we ensure your infrastructure is built for success. Our comprehensive services accelerate time to value, minimize downtime, and free your IT staff to focus on driving innovation and business growth.

**Note:** Some service options may not be available in all markets or regions. For more information, go to <https://lenovocator.com/>. For information about Lenovo service upgrade offerings that are available in your region, contact your local Lenovo sales representative or business partner.

In this section:

- [Lenovo Advisory Services](#)
- [Lenovo Plan & Design Services](#)
- [Lenovo Deployment, Migration, and Configuration Services](#)
- [Lenovo Support Services](#)
- [Lenovo Managed Services](#)
- [Lenovo Sustainability Services](#)

### Lenovo Advisory Services

Lenovo Advisory Services simplify the planning process, enabling customers to build future-proofed strategies in as little as six weeks. Consultants provide guidance on projects including VM migration, storage, backup and recovery, and cost management to accelerate time to value, improve cost efficiency, and build a flexibly scalable foundation.

- **Assessment Services**

An Assessment helps solve your IT challenges through an onsite, multi-day session with a Lenovo technology expert. We perform a tools-based assessment which provides a comprehensive and thorough review of a company's environment and technology systems. In addition to the technology based functional requirements, the consultant also discusses and records the non-functional business requirements, challenges, and constraints. Assessments help organizations like yours, no matter how large or small, get a better return on your IT investment and overcome challenges in the ever-changing technology landscape.

- **Design Services**

Professional Services consultants perform infrastructure design and implementation planning to support your strategy. The high-level architectures provided by the assessment service are turned into low level designs and wiring diagrams, which are reviewed and approved prior to implementation. The implementation plan will demonstrate an outcome-based proposal to provide business capabilities through infrastructure with a risk-mitigated project plan.

### Lenovo Plan & Design Services

Unlock faster time to market with our tailored, strategic design workshops to align solution approaches with your business goals and technical requirements. Leverage our deep solution expertise and end-to-end delivery partnership to meet your goals efficiently and effectively.

### Lenovo Deployment, Migration, and Configuration Services

Optimize your IT operations by shifting labor-intensive functions to Lenovo's skilled technicians for seamless on-site or remote deployment, configuration, and migration. Enjoy peace of mind, faster time to value, and

comprehensive knowledge sharing with your IT staff, backed by our best-practice methodology.

- **Deployment Services for Storage and ThinkAgile**

A comprehensive range of remote and onsite options tailored specifically for your business needs to ensure your storage and ThinkAgile hardware are fully operational from the start.

- **Hardware Installation Services**

A full-range, comprehensive setup for your hardware, including unpacking, inspecting, and positioning components to ensure your equipment is operational and error-free for the most seamless and efficient installation experience, so you can quickly benefit from your investments.

- **DM/DG File Migration Services**

Take the burden of file migration from your IT's shoulders. Our experts will align your requirements and business objectives to the migration plans while coordinating with your team to plan and safely execute the data migration to your storage platforms.

- **DM/DG/DE Health Check Services**

Our experts perform proactive checks of your Firmware and system health to ensure your machines are operating at peak and optimal efficiency to maximize up-time, avoid system failures, ensure the security of IT solutions and simplify maintenance.

- **Factory Integrated Services**

A suite of value-added offerings provided during the manufacturing phase of a server or storage system that reduces time to value. These services aim at improving your hardware deployment experience and enhance the quality of a standard configuration before it arrives at your facility.

## **Lenovo Support Services**

In addition to response time options for hardware parts, repairs, and labor, Lenovo offers a wide array of additional support services to ensure your business is positioned for success and longevity. Our goal is to reduce your capital outlays, mitigate your IT risks, and accelerate your time to productivity.

- **Premier Support for Data Centers**

Your direct line to the solution that promises the best, most comprehensive level of support to help you fully unlock the potential of your data center.

- **Premier Enhanced Storage Support (PESS)**

Gain all the benefits of Premier Support for Data Centers, adding dedicated storage specialists and resources to elevate your storage support experience to the next level.

- **Committed Service Repair (CSR)**

Our commitment to ensuring the fastest, most seamless resolution times for mission-critical systems that require immediate attention to ensure minimal downtime and risk for your business. This service is only available for machines under the Premier 4-Hour Response SLA.

- **Multivendor Support Services (MVS)**

Your single point of accountability for resolution support across vast range of leading Server, Storage, and Networking OEMs, allowing you to manage all your supported infrastructure devices seamlessly from a single source.

- **Keep Your Drive (KYD)**

Protect sensitive data and maintain compliance with corporate retention and disposal policies to ensure your data is always under your control, regardless of the number of drives that are installed in your Lenovo server.

- **Technical Account Manager (TAM)**

Your single point of contact to expedite service requests, provide status updates, and furnish reports to track incidents over time, ensuring smooth operations and optimized performance as your business grows.

- **Enterprise Software Support (ESS)**

Gain comprehensive, single-source, and global support for a wide range of server operating systems and Microsoft server applications.

For more information, consult the brochure [Lenovo Operational Support Services for Data Centers](#).

## **Lenovo Managed Services**

Achieve peak efficiency, high security, and minimal disruption with Lenovo's always-on Managed Services. Our real-time monitoring, 24x7 incident response, and problem resolution ensure your infrastructure operates seamlessly. With quarterly health checks for ongoing optimization and innovation, Lenovo's remote active monitoring boosts end-user experience and productivity by keeping your data center's hardware performing at its best.

Lenovo Managed Services provides continuous 24x7 remote monitoring (plus 24x7 call center availability) and proactive management of your data center using state-of-the-art tools, systems, and practices by a team of highly skilled and experienced Lenovo services professionals.

Quarterly reviews check error logs, verify firmware & OS device driver levels, and software as needed. We'll also maintain records of latest patches, critical updates, and firmware levels, to ensure you systems are providing business value through optimized performance.

## **Lenovo Sustainability Services**

- **Asset Recovery Services**

Lenovo Asset Recovery Services (ARS) provides a secure, seamless solution for managing end-of-life IT assets, ensuring data is safely sanitized while contributing to a more circular IT lifecycle. By maximizing the reuse or responsible recycling of devices, ARS helps businesses meet sustainability goals while recovering potential value from their retired equipment. For more information, see the [Asset Recovery Services offering page](#).

- **CO2 Offset Services**

Lenovo's CO2 Offset Services offer a simple and transparent way for businesses to take tangible action on their IT footprint. By integrating CO2 offsets directly into device purchases, customers can easily support verified climate projects and track their contributions, making meaningful progress toward their sustainability goals without added complexity.

- **Lenovo Certified Refurbished**

Lenovo Certified Refurbished offers a cost-effective way to support IT circularity without compromising on quality and performance. Each device undergoes rigorous testing and certification, ensuring reliable performance and extending its lifecycle. With Lenovo's trusted certification, you gain peace of mind while making a more sustainable IT choice.

## Lenovo TruScale

Lenovo TruScale XaaS is your set of flexible IT services that makes everything easier. Streamline IT procurement, simplify infrastructure and device management, and pay only for what you use – so your business is free to grow and go anywhere.

Lenovo TruScale is the unified solution that gives you simplified access to:

- The industry's broadest portfolio – from pocket to cloud – all delivered as a service
- A single-contract framework for full visibility and accountability
- The global scale to rapidly and securely build teams from anywhere
- Flexible fixed and metered pay-as-you-go models with minimal upfront cost
- The growth-driving combination of hardware, software, infrastructure, and solutions – all from one single provider with one point of accountability.

For information about Lenovo TruScale offerings that are available in your region, contact your local Lenovo sales representative or business partner.

## Regulatory compliance

The SR630 V3 conforms to the following standards:

- ANSI/UL 62368-1
- IEC 62368-1 (CB Certificate and CB Test Report)
- CSA C22.2 No. 62368-1
- Mexico NOM-019
- India BIS 13252 (Part 1)
- Germany GS
- TUV-GS (EN62368-1, and EK1-ITB2000)
- Brazil INMETRO
- South Africa NRCS LOA
- Ukraine UkrCEPRO
- Morocco CMIM Certification (CM)
- Russia, Belorussia and Kazakhstan, TP EAC 037/2016 (for RoHS)
- Russia, Belorussia and Kazakhstan, EAC: TP TC 004/2011 (for Safety); TP TC 020/2011 (for EMC)
- CE, UKCA Mark (EN55032 Class A, EN62368-1, EN55024, EN55035, EN61000-3-2, EN61000-3-3, (EU) 2019/424, and EN IEC 63000 (RoHS))
- CE, UKCA Mark (EN55032 Class A, EN62368-1, EN55035, EN61000-3-11, EN61000-3-12, (EU) 2019/424, and EN IEC 63000 (RoHS))
- FCC - Verified to comply with Part 15 of the FCC Rules, Class A
- Canada ICES-003, issue 7, Class A
- CISPR 32, Class A, CISPR 35
- Korea KN32, Class A, KN35
- Japan VCCI, Class A
- Taiwan BSMI CNS15936, Class A; CNS15598-1; Section 5 of CNS15663
- Australia/New Zealand AS/NZS CISPR 32, Class A; AS/NZS 62368.1
- UL Green Guard, UL2819
- [Energy Star 4.0](#)
- EPEAT (NSF/ ANSI 426) Bronze
- Japanese Energy-Saving Act
- EU2019/424 Energy Related Product (ErP Lot9)
- China CCC certificate, GB17625.1; GB4943.1; GB/T9254
- China CECP certificate, CQC3135
- China CELP certificate, HJ 2507-2011

## External drive enclosures

The server supports attachment to external drive enclosures using a RAID controller with external ports or a SAS host bus adapter. Adapters supported by the server are listed in the [SAS adapters for external storage](#) section.

**Note:** Information provided in this section is for ordering reference purposes only. For the operating system and adapter support details, refer to the interoperability matrix for a particular storage enclosure that can be found on the Lenovo Data Center Support web site:

<http://datacentersupport.lenovo.com>

Table 98. External drive enclosures

Model	Description
4587HC1	Lenovo Storage D1212 Disk Expansion Enclosure (2U enclosure with 12x LFF drive bays)
4587HC2	Lenovo Storage D1224 Disk Expansion Enclosure (2U enclosure with 24x SFF drive bays)
7DAHCTO1WW	Lenovo ThinkSystem D4390 Direct Attached Storage (4U enclosure with 90x LFF drive bays)

For details about supported drives, adapters, and cables, see the following Lenovo Press Product Guides:

- Lenovo Storage D1212 and D1224  
<http://lenovopress.lenovo.com/lp0512>
- Lenovo ThinkSystem D4390  
<https://lenovopress.lenovo.com/lp1681>

## External storage systems

Lenovo offers the ThinkSystem DE Series, ThinkSystem DG Series, ThinkSystem DM Series and ThinkSystem DS Series external storage systems for high-performance storage. See the DE Series, DG Series and DM Series product guides for specific controller models, expansion enclosures and configuration options:

- ThinkSystem DE Series Storage  
<https://lenovopress.com/storage/thinksystem/de-series#rt=product-guide>
- ThinkSystem DS Series Storage  
<https://lenovopress.lenovo.com/storage/thinksystem/ds-series>
- ThinkSystem DM Series Storage  
<https://lenovopress.com/storage/thinksystem/dm-series#rt=product-guide>
- ThinkSystem DG Series Storage  
<https://lenovopress.com/storage/thinksystem/dg-series#rt=product-guide>

## External backup units

The following table lists the external backup options that are offered by Lenovo.

Table 99. External backup options

Part number	Description
External RDX USB drives	
4T27A10725	ThinkSystem RDX External USB 3.0 Dock
External SAS tape backup drives	
6160S8E	IBM TS2280 Tape Drive Model H8S

Part number	Description
6160S9E	IBM TS2290 Tape Drive Model H9S
External SAS tape backup autoloaders	
6171S8R	IBM TS2900 Tape Autoloader w/LTO8 HH SAS
6171S9R	IBM TS2900 Tape Autoloader w/LTO9 HH SAS
External tape backup libraries	
6741B1F	IBM TS4300 3U Tape Library Base Unit - Max 48U
6741B3F	IBM TS4300 3U Tape Library Expansion Unit - Max 48U
SAS backup drives for TS4300 Tape Library	
01KP937	LTO 7 HH SAS Drive
01KP953	LTO 8 HH SAS Drive
02JH836	LTO 9 HH SAS Drive
Full High 8 Gb Fibre Channel for TS4300	
01KP938	LTO 7 FH Fibre Channel Drive
01KP954	LTO 8 FH Fibre Channel Drive
02JH837	LTO 9 FH Fibre Channel Drive
Half High 8 Gb Fibre Channel for TS4300	
01KP936	LTO 7 HH Fibre Channel Drive
01KP952	LTO 8 HH Fibre Channel Drive
02JH835	LTO 9 HH Fibre Channel Drive
Half High 6 Gb SAS for TS4300	
01KP937	LTO 7 HH SAS Drive
01KP953	LTO 8 HH SAS Drive
02JH836	LTO 9 HH SAS Drive

For more information, see the list of Product Guides in the Backup units category:

<https://lenovopress.com/servers/options/backup>

## Fibre Channel SAN switches

Lenovo offers the ThinkSystem DB Series of Fibre Channel SAN switches for high-performance storage expansion. See the DB Series product guides for models and configuration options:

- ThinkSystem DB Series SAN Switches:  
<https://lenovopress.com/storage/switches/rack#rt=product-guide>

## Uninterruptible power supply units

The following table lists the uninterruptible power supply (UPS) units that are offered by Lenovo.

Table 100. Uninterruptible power supply units

Part number	Description
Rack-mounted or tower UPS units - 200-240VAC	
7DD5A002WW	RT1.5kVA 2U Rack or Tower UPS-G2 (200-240VAC)
7DD5A005WW	RT3kVA 2U Rack or Tower UPS-G2 (200-240VAC)

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

<https://lenovopress.com/servers/options/ups>

## Power distribution units

The following table lists the power distribution units (PDUs) that are offered by Lenovo.

Table 101. Power distribution units

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
<b>0U Basic PDUs</b>															
4PU7A93176	C0QH	0U 36 C13 and 6 C19 Basic 32A 1 Phase PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93177	C0QJ	0U 24 C13/C15 and 24 C13/C15/C19 Basic 32A 3 Phase WYE PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>0U Switched and Monitored PDUs</b>															
4PU7B08148	CD15	0U 3 C13 and 18 C19 Monitored 48A 3 Phase WYE PDU	N	N	N	N	N	N	N	N	N	N	N	Y	N
4PU7B08149	CD16	0U 3 C13 and 18 C19 Monitored 63A 3 Phase WYE PDU	N	N	N	Y	N	N	Y	N	N	N	N	N	N
4PU7A93181	C0QN	0U 21 C13/C15 and 21 C13/C15/C19 Switched and Monitored 48A 3 Phase Delta PDU v2 (60A derated)	N	Y	N	N	N	N	N	Y	N	Y	N	Y	N
4PU7A93178	C0QK	0U 20 C13 and 4 C19 Switched and Monitored 32A 1 Phase PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93182	C0QP	0U 18 C13/C15 and 18 C13/C15/C19 Switched and Monitored 63A 3 Phase WYE PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A93175	C0CS	0U 18 C13/C15 and 18 C13/C15/C19 Switched and Monitored 63A 3 Phase WYE PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
4PU7A93180	C0QM	0U 18 C13/C15 and 18 C13/C15/C19 Switched and Monitored 32A 3 Phase WYE PDU v2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A93179	C0QL	0U 16 C13/C15 and 16 C13/C15/C19 Switched and Monitored 24A 1 Phase PDU v2 (30A derated)	N	Y	N	N	N	N	N	Y	N	Y	Y	Y	N
<b>1U Basic PDUs</b>															
4PU7B12339	CE6L	1U Basic 16A 1 Phase PDU	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
<b>1U Switched and Monitored PDUs</b>															
4PU7A90808	C0D4	1U 18 C19/C13 Switched and monitored 48A 3P WYE PDU V2 ETL	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N
4PU7A90809	C0DE	1U 18 C19/C13 Switched and monitored 48A 3P WYE PDU V2 CE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
4PU7A90810	C0DD	1U 18 C19/C13 Switched and monitored 80A 3P Delta PDU V2	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N
4PU7A90811	C0DC	1U 12 C19/C13 Switched and monitored 32A 3P WYE PDU V2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4PU7A90812	C0DB	1U 12 C19/C13 Switched and monitored 60A 3P Delta PDU V2	N	N	N	N	N	N	N	Y	N	Y	Y	Y	N
<b>Line cords for 1U PDUs that ship without a line cord</b>															
40K9611	6504	4.3m, 32A/380-415V, EPDU/IEC 309 3P+N+G 3ph wye (non-US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9612	6502	4.3m, 32A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Part number	Feature code	Description	ANZ	ASEAN	Brazil	EET	MEA	RUCIS	WE	HTK	INDIA	JAPAN	LA	NA	PRC
40K9613	6503	4.3m, 63A/230V, EPDU to IEC 309 P+N+G (non-US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9614	6500	4.3m, 30A/208V, EPDU to NEMA L6-30P (US) Line Cord	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
40K9615	6501	4.3m, 60A/208V, EPDU to IEC 309 2P+G (US) Line Cord	N	N	Y	N	N	N	Y	N	N	Y	Y	Y	N

For more information, see the Lenovo Press documents in the PDU category:  
<https://lenovopress.com/servers/options/pdu>

## Rack cabinets

The following table lists the supported rack cabinets.

Table 102. Rack cabinets

Model	Description
7D6DA007WW	ThinkSystem 42U Onyx Primary Heavy Duty Rack Cabinet (1200mm)
7D6DA008WW	ThinkSystem 42U Pearl Primary Heavy Duty Rack Cabinet (1200mm)
7D6EA009WW	ThinkSystem 48U Onyx Primary Heavy Duty Rack Cabinet (1200mm)
7D6EA00AWW	ThinkSystem 48U Pearl Primary Heavy Duty Rack Cabinet (1200mm)
1410O42	Lenovo EveryScale 42U Onyx Heavy Duty Rack Cabinet
1410P42	Lenovo EveryScale 42U Pearl Heavy Duty Rack Cabinet
1410O48	Lenovo EveryScale 48U Onyx Heavy Duty Rack Cabinet
1410P48	Lenovo EveryScale 48U Pearl Heavy Duty Rack Cabinet
93072RX	25U Standard Rack (1000mm)
93072PX	25U Static S2 Standard Rack (1000mm)
93074RX	42U Standard Rack (1000mm)
93604PX	42U 1200mm Deep Dynamic Rack
93614PX	42U 1200mm Deep Static Rack
93634PX	42U 1100mm Dynamic Rack
93634EX	42U 1100mm Dynamic Expansion Rack

For specifications about these racks, see the Lenovo Rack Cabinet Reference, available from:  
<https://lenovopress.com/lp1287-lenovo-rack-cabinet-reference>

For more information, see the list of Product Guides in the Rack cabinets category:  
<https://lenovopress.com/servers/options/racks>

## KVM console options

The following table lists the supported KVM consoles.

Table 103. KVM console

Part number	Description
4XF7A84188	ThinkSystem 18.5" LCD console (with US English keyboard)

The following table lists the available KVM switches and the options that are supported with them.

Table 105. KVM switches and options

Part number	Description
KVM Console switches	
1754A1X	Local 1x8 Console Manager (LCM8)
Cables for GCM and LCM Console switches	
46M5383	Virtual Media Conversion Option Gen2 (VCO2)
46M5382	Serial Conversion Option (SCO)

For more information, see the list of Product Guides in the KVM Switches and Consoles category:  
<http://lenovopress.com/servers/options/kvm>

## Lenovo Financial Services

Why wait to obtain the technology you need now? No payments for 90 days and predictable, low monthly payments make it easy to budget for your Lenovo solution.

- **Flexible**

Our in-depth knowledge of the products, services and various market segments allows us to offer greater flexibility in structures, documentation and end of lease options.

- **100% Solution Financing**

Financing your entire solution including hardware, software, and services, ensures more predictability in your project planning with fixed, manageable payments and low monthly payments.

- **Device as a Service (DaaS)**

Leverage latest technology to advance your business. Customized solutions aligned to your needs. Flexibility to add equipment to support growth. Protect your technology with Lenovo's Premier Support service.

- **24/7 Asset management**

Manage your financed solutions with electronic access to your lease documents, payment histories, invoices and asset information.

- **Fair Market Value (FMV) and \$1 Purchase Option Leases**

Maximize your purchasing power with our lowest cost option. An FMV lease offers lower monthly payments than loans or lease-to-own financing. Think of an FMV lease as a rental. You have the flexibility at the end of the lease term to return the equipment, continue leasing it, or purchase it for the fair market value. In a \$1 Out Purchase Option lease, you own the equipment. It is a good option when you are confident you will use the equipment for an extended period beyond the finance term. Both lease types have merits depending on your needs. We can help you determine which option will best meet your technological and budgetary goals.

Ask your Lenovo Financial Services representative about this promotion and how to submit a credit application. For the majority of credit applicants, we have enough information to deliver an instant decision and send a notification within minutes.

## Seller training courses

The following sales training courses are offered for employees and partners (login required). Courses are listed in date order.

### 1. ISG Smarter Tools, Faster Deals and Better Outcomes

2026-02-27 | 40 minutes | Employees and Partners

In this 40-minute video, we review several tools and programs from Lenovo ISG to help our Partners' Data Center selling efforts: Smarter Tools / Faster Deals / Better Outcomes. We cover Top Choice Express, our premier program for supply optimized solutions. We next demonstrated DCSC, the Data Center Solution Configurator, Compete Tool for comparisons with our competition, and XClarity One, the next evolution of our XClarity Systems Management tool.

Tags: DataCenter Products

Published: 2026-02-27

Length: 40 minutes

#### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: FEB2426

### 2. ThinkSystem Rackmount and Tower Servers powered by AMD

2026-02-23 | 25 minutes | Employees and Partners

This course presents the key products and features of the ThinkSystem Rackmount and Tower server family powered by AMD processors. It describes customer benefits and will help you recognize when a specific product should be selected.

By the end of this course, you should be able to:

- Identify products and features within the family
- Describe customer benefits offered by this family
- Recognize when a specific product should be selected

Last updated: 2/24/2026

Tags: Server, ThinkSystem

Published: 2026-02-23

Length: 25 minutes

#### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SXXW1216r11

### 3. OneIQ Overview and Demo

2026-02-10 | 35 minutes | Employees and Partners

In this 35-minute video, Peter Grant, Head of Customer Experience for OneIQ, presents an overview and demo of OneIQ for Lenovo Partners.

Tags: Sales Tools

Published: 2026-02-10

Length: 35 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: ONEIQ101

### 4. Family Portfolio: ThinkSystem Rack and Tower Servers Powered by Intel

2026-02-04 | 25 minutes | Employees and Partners

This course is designed to give Lenovo sales and partner representatives a foundation of the ThinkSystem Intel Rackmount and Tower server family.

After completing this course, you will be able to:

- Identify products within this ThinkSystem server family
- Describe features of this family
- Recognize when a specific product should be selected

Tags: Server, ThinkSystem

Published: 2026-02-04

Length: 25 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SXXW1204r15

## 5. ThinkSystem Rack & Tower Server Primer - Module 2

2025-12-17 | 45 minutes | Employees Only

This course builds on the foundational concepts from the prework modules, helping Client Managers deepen their understanding of ThinkSystem Rack and Tower Servers and apply that knowledge to confidently initiate value-driven customer conversations. Please Note: The videos in this course are taken from the Module 2 live session led by Tikiri Wandregala.

By the end of this course, you will be able to:

- Demonstrate the ability to initiate a data center discussion with a customer.
- Analyze and evaluate potential data center opportunities.
- Apply criteria to effectively qualify an opportunity.
- Locate and differentiate key resources and contacts.

Tags: DataCenter Products, ThinkSystem

Published: 2025-12-17

Length: 45 minutes

### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Course code: DSRTB101

## 6. Partner Technical Webinar - Mainstream CPUs

2025-09-29 | 40 minutes | Employees and Partners

In this 40-minute replay, Brad Violand, Lenovo ISG Category team, reviewed the strategy to optimize the CPU portfolio and ensuing changes to DCSC planned for October 1, 2025.

Tags: Server

Published: 2025-09-29

Length: 40 minutes

### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SEP2625

## 7. Partner Technical Webinar - ISG Portfolio - Wayne's World

2025-09-25 | 60 minutes | Employees and Partners

In this 60-minute replay, Wayne Pecht, Lenovo Channel SA, shared his extensive experience and unique approach to the ISG Portfolio "Wayne's World for Lenovo ISG"!

Tags: Channel, Technical Sales

Published: 2025-09-25

Length: 60 minutes

### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SEP1925

## 8. FY26Q2 Easy SMB Quick Hit

2025-09-22 | 8 minutes | Employees and Partners

This Quick Hit introduces Lenovo Easy SMB, smarter business made simple. It allows businesses to move quickly, deploy modern AI-ready IT infrastructure with ease, and scale confidently, inside data centers or at the edge.

Tags: Artificial Intelligence (AI), Infrastructure as a Service (IaaS), Microsoft, ThinkEdge, ThinkSystem, XClarity

Published: 2025-09-22

Length: 8 minutes

### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SXXW2548a

## 9. Partner Technical Webinar - OneIQ Demo

2025-09-08 | 60 minutes | Employees and Partners

In this 60-minute replay, Joe Allen, Lenovo Senior Solution Architect for LETS, demonstrated the OneIQ tool. He showed how the collector is dispatched, how the data can be viewed, and how you build solutions based on the collected data.

Tags: Server, ThinkSystem

Published: 2025-09-08

Length: 60 minutes

### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SEP0525

10. **Think AI Weekly: ISG & SSG Better Together: Uniting AI Solutions & Services for Smarter Outcomes**

2025-08-01 | 55 minutes | Employees Only

View this session to hear from our speakers Allen Holmes, AI Technologist, ISG and Balaji Subramaniam, AI Regional Leader-Americas, SSG.

Topics include:

- An overview of ISG & SSG AI CoE Offerings with Customer Case Studies
- The Enterprise AI Deal Engagement Flow with ISG and SSG
- How sellers can leverage this partnership to differentiate with Enterprise clients.
- NEW COURSE: From Inception to Execution: Evolution of an AI Deal

Tags: Artificial Intelligence (AI), Sales, Services, Technology Solutions, TruScale Infrastructure as a Service

Published: 2025-08-01

Length: 55 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Course code: DTAIW145

11. **VTT-HPC: Explaining HPC Benchmarking: Processes, Standards and Best Practices**

2025-07-30 | 87 minutes | Employees Only

Please join us as Eric Michel, HPC & AI Performance Team Coordinator and Kevin Dean, Sr Manager, HPC Performance, Projection & Operations speak with us about HPC Benchmarking.

Topics will include:

- Why sellers need to request benchmarks
- How to request benchmarks
- How the team performs a benchmark
- The performance database
- Demonstration of the tool

Tags: Advanced Data Center, High Performance Computing (HPC), Technical Sales

Published: 2025-07-30

Length: 87 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Course code: DVHPC224

## 12. Family Portfolio: Server Component Options

2025-07-21 | 20 minutes | Employees and Partners

This course covers opportunities that are available to upsell server components. By upselling the correct components, you can increase the size and revenue of the original sale.

After completing this course, you should be able to:

- Identify the opportunities for an upsell
- Recognize when specific products should be discussed
- Emphasize how a product benefits the customer
- Identify keywords that indicate upsell opportunities

Tags: Server, Storage

Published: 2025-07-21

Length: 20 minutes

### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SXXW1109r2

## 13. ThinkSystem Rack and Tower Introduction for ISO Client Managers

2025-06-16 | 20 minutes | Employees Only

In this course, you will learn about Lenovo's Data Center Portfolio, its ThinkSystem Family and the key features of the Rack and Tower servers. It will equip you with foundational knowledge which you can then expand upon by participating in the facilitated session of the curriculum.

Tags: Server, ThinkSystem

Published: 2025-06-16

Length: 20 minutes

### Start the training:

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Course code: DSRTO101r2\_JP

#### 14. **Lenovo Data Center Product Portfolio**

2025-06-11 | 20 minutes | Employees and Partners

This course introduces the Lenovo data center portfolio, and covers servers, storage, storage networking, and software-defined infrastructure products. After completing this course about Lenovo data center products, you will be able to identify product types within each data center family, describe Lenovo innovations that this product family or category uses, and recognize when a specific product should be selected.

Course objectives:

1. Identify product types within each data center family
2. Describe the features of the product family or category
3. Recognize when a specific product should be selected

Tags: Advanced DataCenter, DataCenter Products, Server, ThinkAgile, ThinkEdge, ThinkSystem

Published: 2025-06-11

Length: 20 minutes

**Start the training:**

Employee link: [Grow@Lenovo](#)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SXXW1110r8

#### 15. **VTT HPC: AI and the Impact on the Environment**

2025-06-11 | 58 minutes | Employees Only

Please join us as Matthew Ziegler, Director of Lenovo Neptune and Sustainability speaks with us about AI and the Impact on the Environment.

Topics will include:

- Why is ESG essential for your customer?
- How to find and read an eco declaration
- What is a product carbon footprint?
- Demo of the Lenovo Capacity Planner

Tags: Advanced DataCenter, Artificial Intelligence (AI), Environmental Social Governance (ESG), High-Performance Computing (HPC), Server

Published: 2025-06-11

Length: 58 minutes

**Start the training:**

Employee link: [Grow@Lenovo](#)

Course code: DVHPC223

16. **Partner Technical Webinar - RTX Pro 6000**

2025-05-22 | 60 minutes | Employees and Partners

In this 60-minute replay, Allen Bourgoyne, Product Marketing for NVIDIA, presented the newly announced RTX Pro 6000 Blackwell Server Edition GPU.

Tags: Artificial Intelligence (AI)

Published: 2025-05-22

Length: 60 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: MAY1525

17. **Partner Technical Webinar - DCSC Improvements - MAY0225**

2025-05-05 | 60 minutes | Employees and Partners

In this 60-minute replay, new improvements to DCSC were reviewed. Joe Allen, Lenovo NA LETS, presented the new PCI wizard and discussed RAID adapters. Ryan Tuttle, Lenovo NA LETS presented Spreadsheet import, Autocorrect and Expanded selections on by default. Joe Murphy, Lenovo NA LETS closed out with review of Error Message improvements and location of ThinkAgile MX and VX in the DCSC menus.

Tags: Technical Sales

Published: 2025-05-05

Length: 60 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: MAY0225

18. **Family Portfolio: Storage Controller Options**

2025-03-03 | 25 minutes | Employees and Partners

This course covers the storage controller options available for use in Lenovo servers. The classes of storage controller are discussed, along with a discussion of where they are used, and which to choose.

After completing this course, you will be able to:

- Describe the classes of storage controllers
- Discuss where each controller class is used
- Describe the available options in each controller class

Tags: Sales, Storage

Published: 2025-03-03

Length: 25 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SXXW1111r2

### 19. **ThinkSystem Rack and Tower Introduction for ISO Client Managers**

2024-12-10 | 20 minutes | Employees Only

In this course, you will learn about Lenovo's Data Center Portfolio, its ThinkSystem Family and the key features of the Rack and Tower servers. It will equip you with foundational knowledge which you can then expand upon by participating in the facilitated session of the curriculum.

Course Objectives:

- By the end of this course, you should be able to:
- Identify Lenovo's main data center brands.
- Describe the key components of the ThinkSystem Family servers.
- Differentiate between the Rack and Tower servers of the ThinkSystem Family.
- Understand the value Rack and Tower servers can provide to customers.

Tags: Server, ThinkSystem

Published: 2024-12-10

Length: 20 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Course code: DSRT0101r2

### 20. **Virtual Facilitated Session - ThinkSystem Rack and Tower Primer for ISO Client Managers - HISTORICAL**

2024-10-31 | 90 minutes | Employees Only

In this Virtual Instructor-Led Training Session, ISO Client Managers will be able to build on the knowledge gained in Module 1 (eLearning) of the ThinkSystem Rack and Tower Server Primer for ISO Client Managers curriculum.

**IMPORTANT!** Module 1 (eLearning) must be completed to be eligible to participate in this session. Please note that places are subject to availability. If you are selected, you will receive the invite to this session via email.

Tags: Sales, Server, ThinkSystem

Published: 2024-10-31

Length: 90 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Course code: DSRT0102

21. **SAP Webinar for Lenovo Sellers: Lenovo Portfolio Update for SAP Landscapes**

2024-06-04 | 60 minutes | Employees Only

Join Mark Kelly, Advisory IT Architect with the Lenovo Global SAP Center of Competence as he discusses:

- Challenges in the SAP environment
- Lenovo On-premise Solutions for SAP
- Lenovo support resources for SAP solutions

Tags: SAP, ThinkAgile, ThinkEdge, ThinkSystem

Published: 2024-06-04

Length: 60 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Course code: DSAPF101

22. **Introduction to DDR5 Memory**

2022-08-23 | 10 minutes | Employees and Partners

This course introduces DDR5 memory, describes new features of this memory generation, and discusses the advantages to customers of this new memory generation.

Tags: Server, Technology solutions

Published: 2022-08-23

Length: 10 minutes

**Start the training:**

Employee link: [Grow@Lenovo](mailto:Grow@Lenovo)

Partner link: [Lenovo 360 Learning Center](#)

Course code: SXXW2502

## Related publications and links

For more information, see these resources:

- Lenovo ThinkSystem SR630 V3 product page:  
<https://www.lenovo.com/us/en/p/racks/len21ts0012>
- ThinkSystem SR630 V3 datasheet  
<https://lenovopress.com/ds0142>
- Interactive 3D Tour of the ThinkSystem SR630 V3:  
<https://lenovopress.com/lp1620>
- ThinkSystem SR630 V3 drivers and support  
<http://datacentersupport.lenovo.com/products/servers/thinksystem/sr630v3/7d73/downloads>
- Lenovo Hardware Installation & Removal Videos on the SR630 V3:  
<https://www.youtube.com/playlist?list=PLYV5R7hVcs-CfNsWy-689CRZHExrZEi9I>
- Lenovo ThinkSystem SR630 V3 product publications:  
<https://pubs.lenovo.com/sr630-v3/>
  - User Guide, which includes:
    - System Configuration Guide
    - Hardware Maintenance Guide
  - Rack Installation Guides
  - Messages and Codes Reference
  - UEFI Manual for ThinkSystem Servers
- User Guides for options:  
<https://serveroption.lenovo.com>
- ServerProven hardware compatibility:  
<http://serverproven.lenovo.com>

## Related product families

Product families related to this document are the following:

- [2-Socket Rack Servers](#)
- [ThinkSystem SR630 V3 Server](#)

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