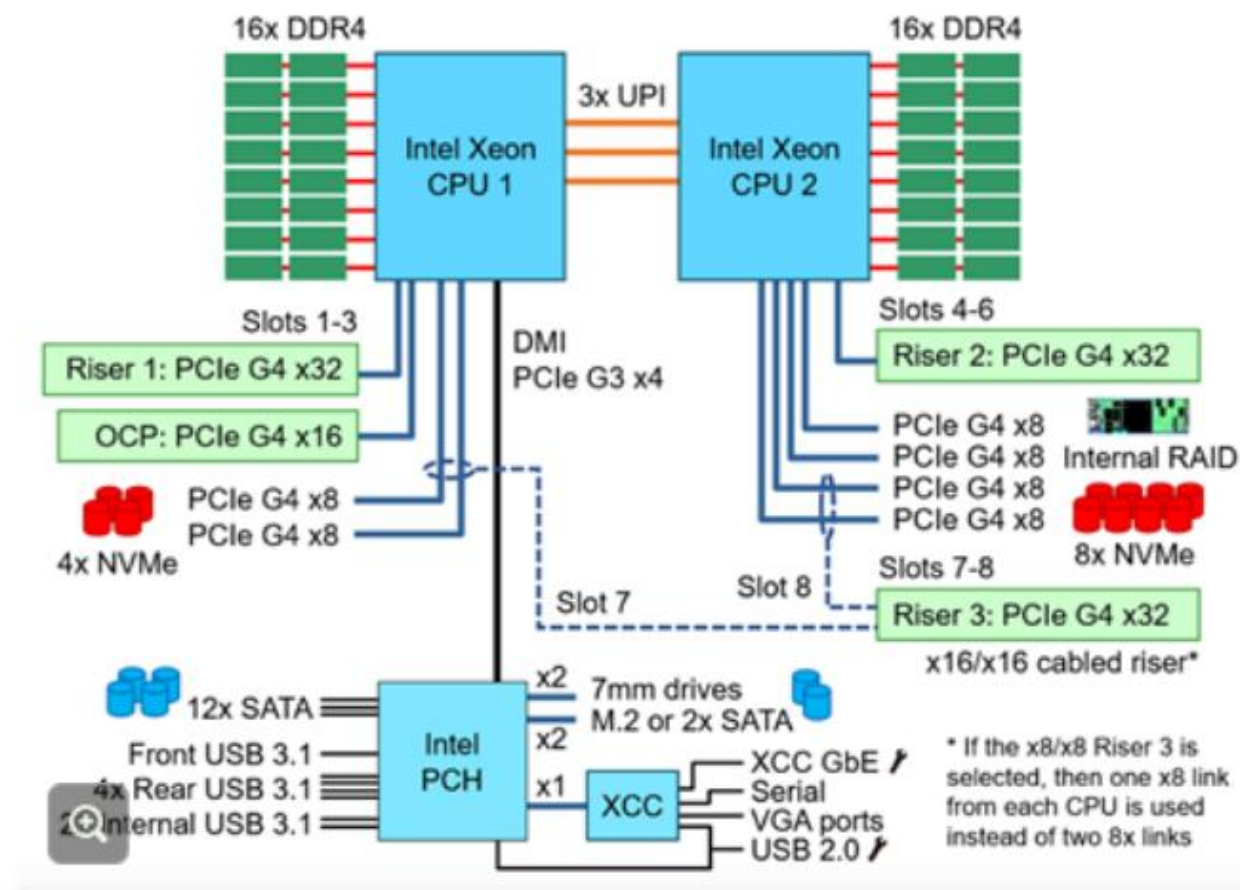


# System configurations and diagrams

The SR650 V2 system block diagram and hardware configurations

## SR650 V2 system block diagram



Click to enlarge the image

## Front 2.5-inch drive bay configurations

The SR650 V2 front drive bay supports the following 2.5-inch drive configurations. Click the buttons to check.

**8 Drives**

**16 Drives**

**24 Drives**



## Front 2.5-inch drive bay configurations

The SR650 V2 front drive bay supports the following 2.5-inch drive configurations. Click the buttons to check.

**8 Drives**

**16 Drives**

**24 Drives**





## Front 2.5-inch drive bay configurations

The SR650 V2 front drive bay supports the following 2.5-inch drive configurations. Click the buttons to check.

**8 Drives**

**16 Drives**

**24 Drives**



## Front 3.5-inch drive bay configurations

The SR650 V2 front drive bay supports the following 3.5-inch drive configurations for eight or 12 drives.





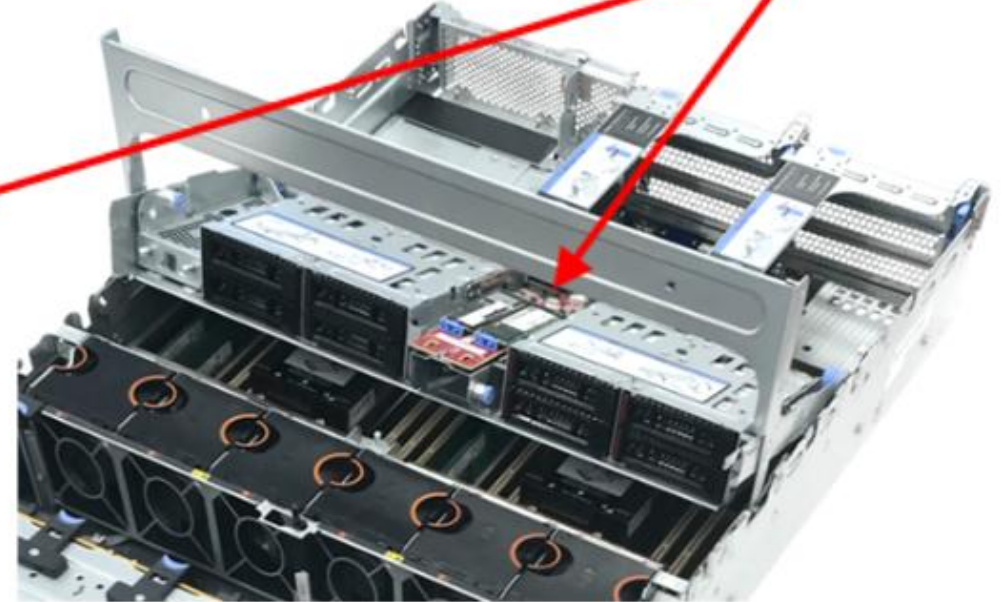
## Mid-chassis drive bay configurations

The SR650 V2 mid-chassis drive bay supports the following configurations:

- Four 3.5-inch hot-swap SAS/SATA drive bays
- Eight 2.5-inch hot-swap SAS/SATA drive bays
- Eight 2.5-inch hot-swap NVMe drive bays



Four 3.5-inch  
mid-chassis hot-swap drive bays



Eight 2.5-inch  
mid-chassis hot-swap drive bays

## Rear SAS/SATA drive bay configurations

The SR650 V2 rear drive bay supports the following configurations:

- 3.5-inch hot-swap drives
  - Two SAS/SATA drive bays
  - Four SAS/SATA drive bays
- 2.5-inch hot-swap drives
  - Four SAS/SATA drive bays
  - Eight SAS/SATA drive bays





## Rear 7 mm SATA or NVMe drive bay configurations

In addition, the SR650 V2 supports two 7 mm drives installed in either slot 3 or slot 6.

- Two 7 mm SATA hot-swap drive bays
- Two 7 mm NVMe hot-swap drive bays

Two 7 mm SATA or NVMe hot-swap  
drive bays (slot 3)

Alternative location  
(slot 6)



## I/O expansion slot configuration

The SR650 V2 supports up to eight PCIe 4.0 slots – all full-height, and a dedicated OCP 3.0 SFF slot for networking. The use of slots 4 to 8 requires that both processors be installed.

The slots are provided by riser cards:

- Riser 1: slots 1, 2, and 3 (CPU 1)
- Riser 2: slots 4, 5, and 6 (CPU 2)
- Riser 3: slot 7 (CPU 1) and slot 8 (CPU 2)



**Note:** The PCIe slots can be combined with 7 mm drives, but the number of available slots will be reduced.

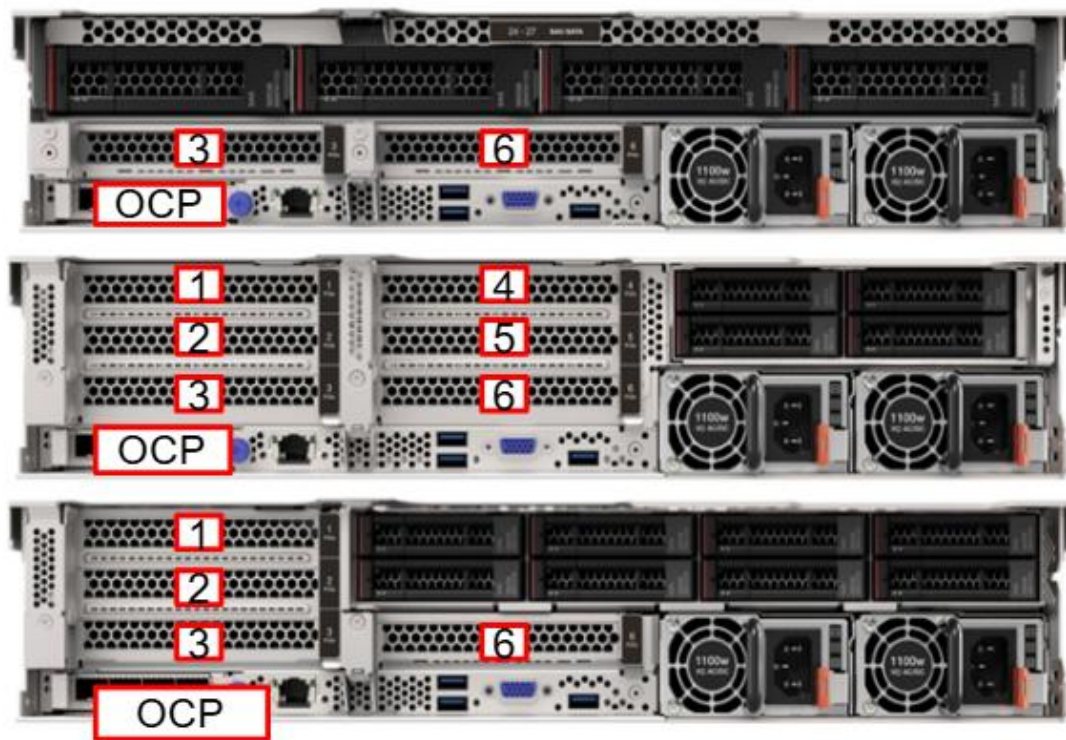
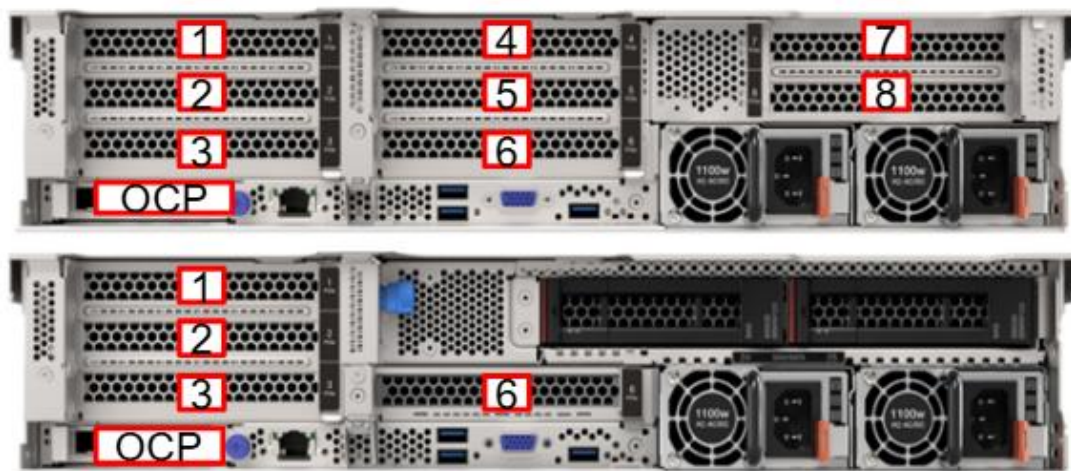


# SR650 V2 PCIe slot numbering

**Riser 1  
(slots 1-3)**

**Riser 2  
(slots 4-6)**

**Riser 3  
(slots 7-8)**



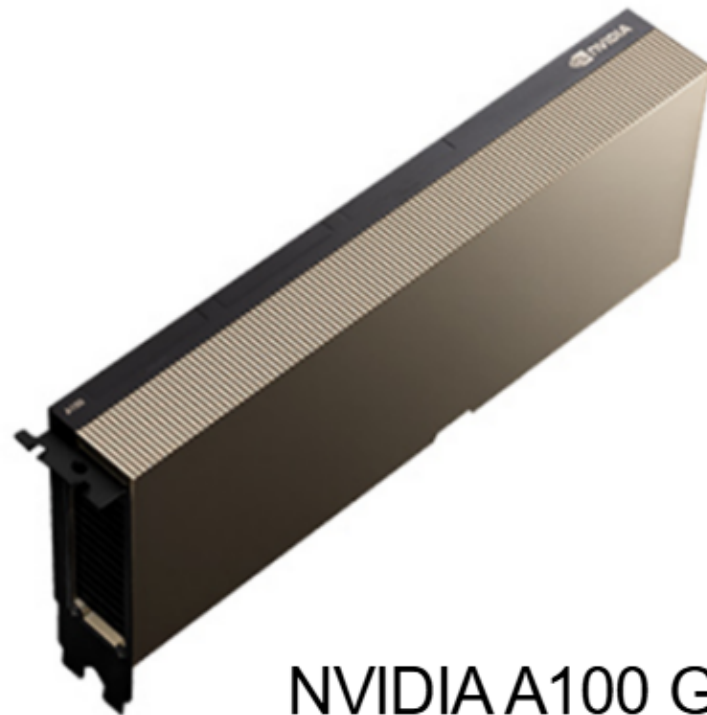
## GPU adapters

The SR650 V2 supports the following GPUs in PCIe slots when both processors are installed:

- Eight single-wide GPUs installed in PCIe slots 1 to 8
- Three double-wide GPUs installed in PCIe slots 2, 5, and 7 – with this configuration, slots 1, 4, and 8 will not be available

### Note:

- For a full list of supported GPUs, refer to the ThinkSystem GPU Summary at <https://lenovopress.com/lp0768-thinksystem-thinkagile-gpu-summary>
- For detailed configuration rules of PCIe slots and PCIe adapters, refer to the Technical rules section in the ThinkSystem SR650 V2 setup guide at [https://thinksystem.lenovofiles.com/help/topic/SR650V2/sr650v2\\_setup\\_guide.pdf](https://thinksystem.lenovofiles.com/help/topic/SR650V2/sr650v2_setup_guide.pdf)



NVIDIA A100 GPU



## Memory options

The SR650 V2 uses Lenovo TruDDR4 memory and supports 16 DIMMs per processor. Each processor has eight memory channels with two DIMMs per channel. With 128 Gb TruDDR4 memory and two processors installed, the server supports a total of 4 TB of system memory.

The SR650 V2 supports two memory modes:

- Independent memory mode
- Memory mirroring mode

The SR650 V2 also supports Intel Optane Persistent Memory (PMem). Two memory modes are supported with Persistent Memory:

- App Direct Mode
- Memory Mode

For more information about Intel Persistent Memory, refer to course [ES51965 – Introducing the Intel Optane DC persistent memory module](#)

**Note:** For detailed memory configuration and installation rules, refer to the Memory module installation rules section of the [SR650 V2 Setup Guide](#).

# Memory order

The following table indicates the organization of channels and DIMM slots around a processor.

