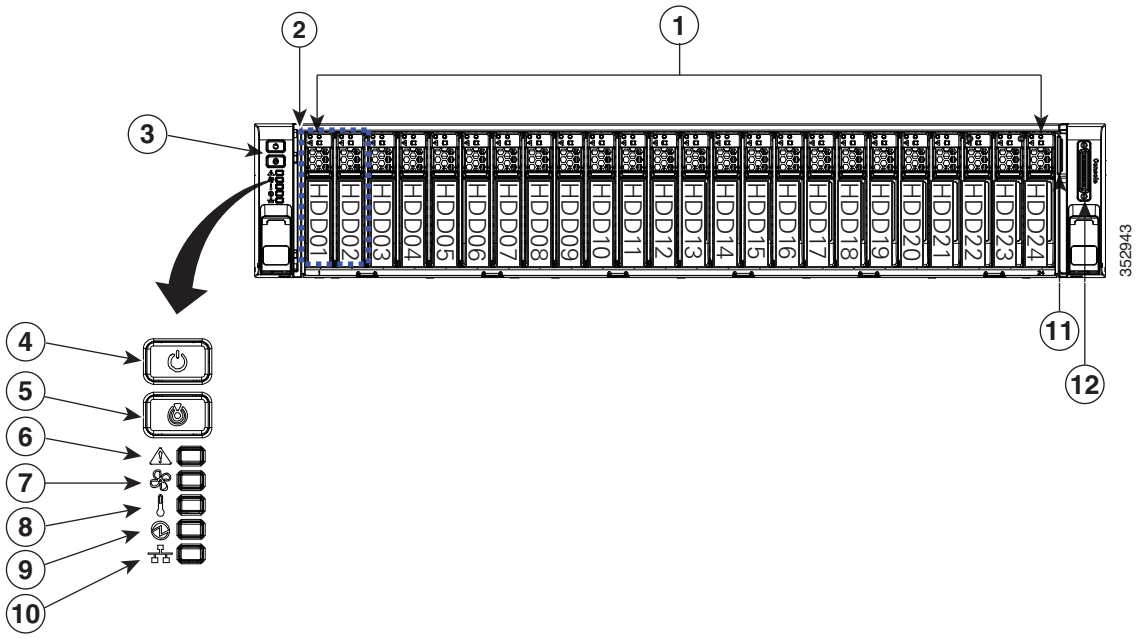
Overview of Cisco CSP 2100 X2

This chapter provides an overview of Cisco CSP 2100 X2 (Cisco CSP-2100-X2) features:

External Features Overview

Figure 6-1 shows the front panel features of the SFF drives, 24-drive version of Cisco CSP 2100 X2. Cisco CSP 2100 X2 has small form-factor (SFF) drives with 24-drive backplane and expander. Cisco CSP 2100 X2 holds up to 24 2.5-inch SAS/SATA hard drives or solid state drives (SSDs) and it has a 24-drive backplane and an integrated expander. The rear panel features are shown in Figure 6-2.

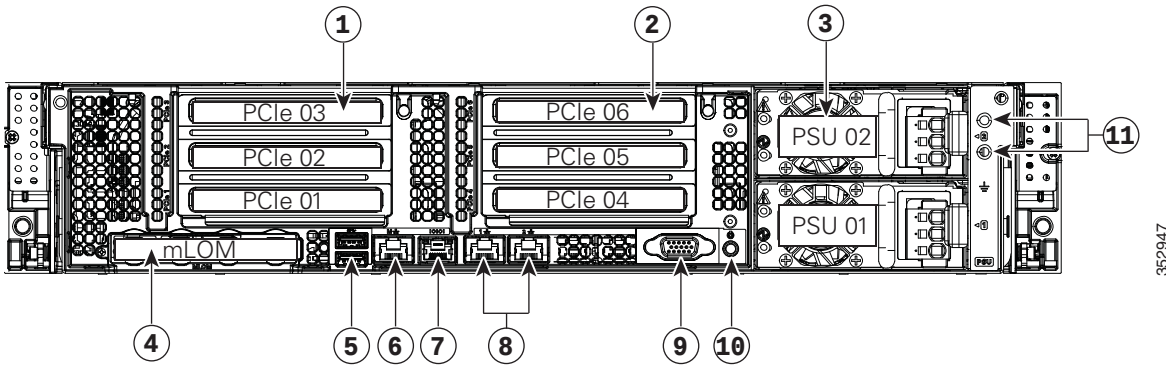
Figure 6-1 Cisco Cisco CSP 2100 X2 (SFF Drives, 24-Drive) Front Panel Features



1	Drive bays 1–24 support SAS/SATA drives.	**7**	Fan status LED
2	Drive bays 1 and 2 support NVMe PCIe SSDs and SAS/SATA drives.	**8**	Temperature status LED
3	Operations panel buttons and LEDs	**9**	Power supply status LED
4	Power button/LED	**10**	Network link activity LED
5	Unit Identification button/LED	**11**	Pull-out asset tag
6	System status LED	**12**	KVM connector (used with KVM cable that provides two USB 2.0, one VGA, and one serial connector)

Figure 6-2 shows the rear panel features of Cisco CSP 2100 X2.

Figure 6-2 Cisco CSP 2100 X2 Rear Panel Features

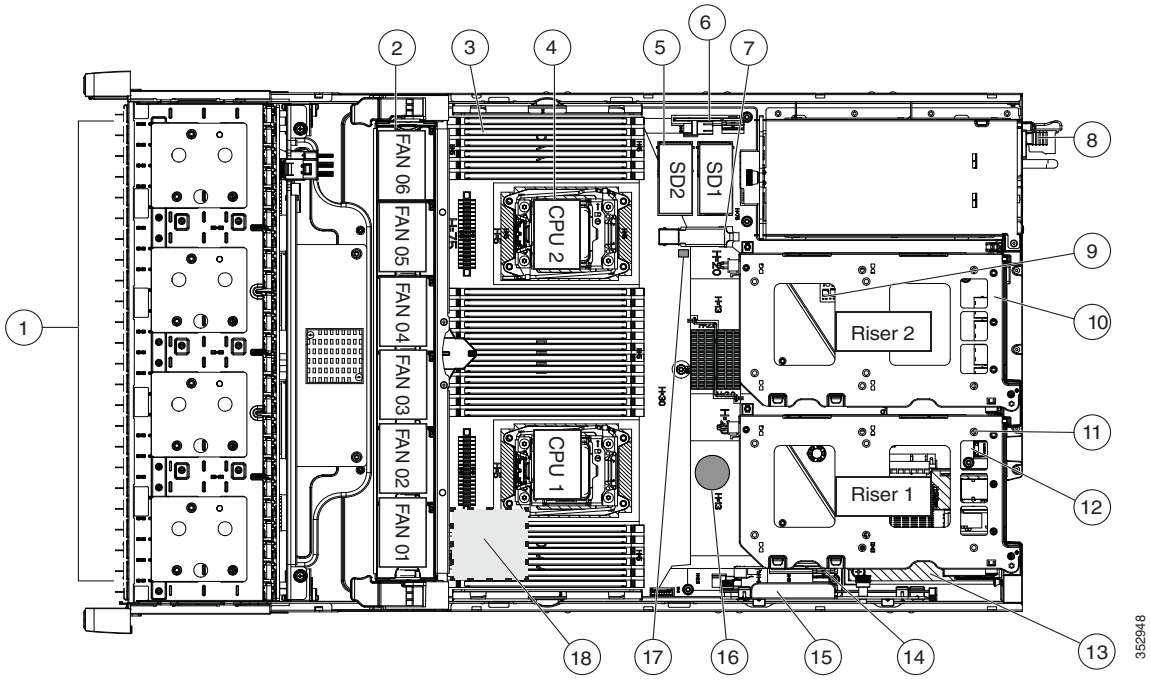


1	PCIe riser 1 (slots 1, 2, 3*)	**7**	Serial port (RJ-45 connector)
2	PCIe riser 2 (slots 4, 5, 6)	**8**	Dual 1-Gb Ethernet ports (LAN1, LAN2)
3	Power supplies (DC power supplies shown)	**9**	VGA video port (DB-15 connector)
4	Modular LAN-on-motherboard (mLOM) card slot; Intel i350 4 x 1G NIC	**10**	Rear Unit Identification button/LED
5	USB 3.0 ports (two)	**11**	Grounding-lug holes (for DC power supplies)
6	1-Gb dedicated management port		

Replaceable Component Locations

Figure 6-3 shows the locations of the field-replaceable components. The view shown is from the top down with the top covers and air baffle removed.

Figure 6-3 Replaceable Component Locations



1	Drives bays. All drive bays support SAS/SATA drives.	**10**	PCIe riser 2 (PCIe slots 4, 5, 6)
2	Fan modules (six, hot-swappable)	**11**	PCIe riser 1 (PCIe slots 1, 2, 3*)
3	DIMM sockets on motherboard (up to 24 DIMMs)	**12**	SATA boot drives (two sockets available only on PCIe riser 1 option 1C)
4	CPUs and heatsinks (two)	**13**	mLOM card socket on motherboard under PCIe riser 1
5	Cisco SD card slots on motherboard (two)	**14**	Socket for embedded RAID interposer board
6	PCIe interposer board socket	**15**	Cisco modular RAID controller PCIe slot (dedicated slot and bracket)
7	USB 3.0 slot on motherboard	**16**	RTC battery on motherboard
8	Power supplies (hot-swappable, accessed through rear panel)	**17**	Embedded RAID header for RAID 5 key
9	Trusted platform module (TPM) socket on motherboard, under PCIe riser 2	**18**	Supercap power module (RAID backup) mounting location on air baffle (not shown)

Summary of Cisco CSP 2100 X2 Features

Table 6-1 lists a summary of Cisco CSP 2100 X2 features.

Table 6-1 Cisco CSP 2100 X2 Features

Chassis	Two rack-unit (2RU) chassis.
Processors	Up to two Intel Xeon E5-2600 v4 Series processors (Broadwell).
Memory	24 DDR4 DIMM[1] sockets on the motherboard (12 each CPU).
Multi-bit error protection	Multi-bit error protection is supported.
Baseboard management	BMC, running Cisco Integrated Management Controller (Cisco IMC) firmware. Depending on your Cisco IMC settings, Cisco IMC can be accessed through the 1-Gb dedicated management port, the 1-Gb Ethernet LOM ports, or a Cisco virtual interface card.
Network and management I/O	Cisco CSP 2100 X2 provides these connectors: • One 1-Gb Ethernet dedicated management port • Two 1-Gb BASE-T Ethernet LAN ports • One RS-232 serial port (RJ-45 connector) • One 15-pin VGA[2] connector • Two USB[3] 3.0 connectors • One front-panel KVM connector that is used with the KVM cable, which provides two USB 2.0, one VGA, and one serial (DB-9) connector.
Modular I/O	A dedicated socket can be used to add an mLOM card for additional rear-panel connectivity (up to four 1-Gb or 10-Gb Ethernet ports).
WoL	1-Gb BASE-T Ethernet LAN ports support the wake-on-LAN (WoL) standard.
Power	Two power supplies: • AC power supplies 1200 W AC each. • DC power supplies 930 W DC each. Do not mix power supply types or wattages in Cisco CSP 2100 X2.
ACPI	The advanced configuration and power interface (ACPI) 4.0 standard is supported.
Cooling	Six hot-swappable fan modules for front-to-rear cooling.
PCIe I/O	Up to six horizontal PCIe[4] expansion slots on two risers.
InfiniBand	The InfiniBand architecture is supported by the bus slots.
Storage	Drives are installed into front-panel drive bays that provide hot-swappable access for SAS/SATA drives. Small form-factor (SFF) drives with 24-drive backplane and expander. This version holds up to 24 2.5-inch SAS/SATA hard drives or solid state drives (SSDs).
Internal USB	One internal USB 3.0 port on the motherboard that you can use with a USB thumb drive for additional storage.
SD cards	Two internal bays on the motherboard for up to two SD cards. The two flash drives can be configured in a RAID 1 configuration.

Table 6-1 Cisco CSP 2100 X2 Features (continued)

Disk Management (RAID)	Dedicated internal socket for a PCIe-style RAID controller card. Cisco 12G SAS Modular Raid Controller Cisco 12Gbps SAS 4GB FBWC Cache module RAID 10
RAID Backup	Mounting point on the air baffle for the supercap power module that is used with the Cisco modular RAID controller card.
Video	VGA video resolution up to 1920 x 1200, 16 bpp at 60 Hz, and up to 256 MB of video memory.

1. DIMM = dual inline memory module
2. VGA = video graphics array
3. USB = universal serial bus
4. PCIe = peripheral component interconnect express