



Overview

This chapter provides an overview of the Cisco UCS C240 M4 server features:

- [External Features Overview, page 1-1](#)
- [Replaceable Component Locations, page 1-7](#)
- [Summary of Server Features, page 1-8](#)

External Features Overview

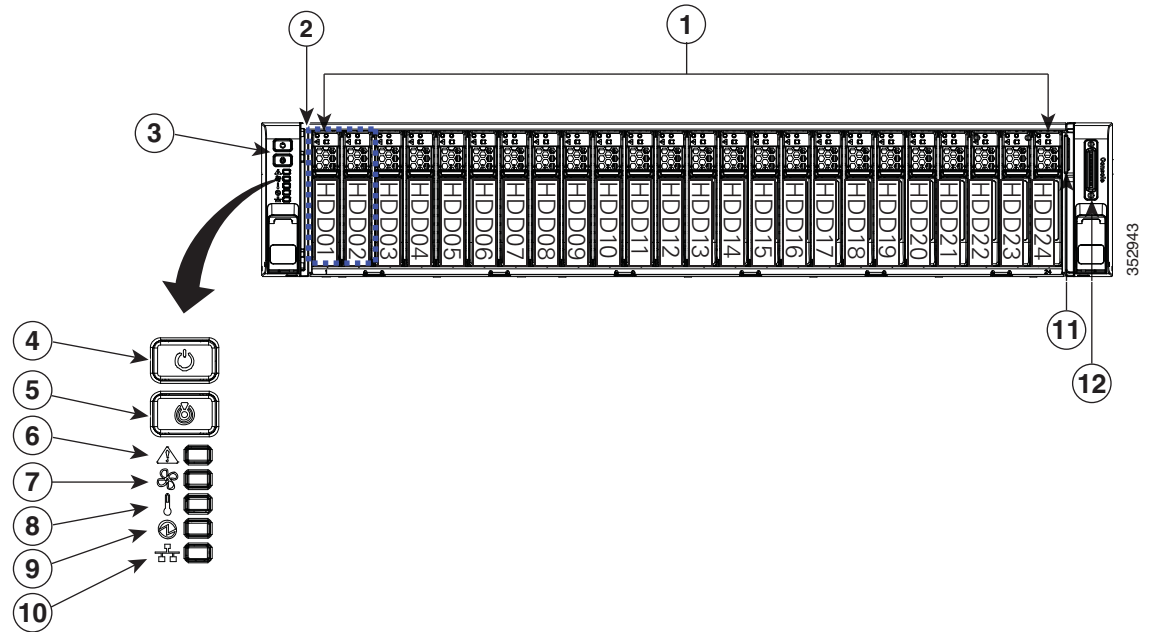
The figures in this chapter show an overview of external server features.

The server is orderable in four different versions, each with one of four different front panel/drive backplane configurations:

- Cisco UCS C240 M4—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). This version also supports up to 2 NVMe PCIe SSDs. See [Figure 1-1](#).
- Cisco UCS C240 M4—SFF drives, with 16-drive backplane and integrated expander. This version holds up to 16 2.5-inch SAS/SATA hard drives or solid state drives. This version also supports up to 2 NVMe PCIe SSDs. See [Figure 1-2](#).
- Cisco UCS C240 M4—SFF drives, with 8-drive direct-connect backplane and no expander. This version holds up to 8 2.5-inch SAS/SATA hard drives or solid state drives. This version also supports up to 2 NVMe PCIe SSDs. See [Figure 1-3](#).
- Cisco UCS C240 M4—Large form-factor (LFF) drives, with 12-drive backplane and integrated expander. This version holds up to 12 3.5-inch SAS/SATA hard drives. See [Figure 1-4](#).
- The rear panel features are the same for all four versions of the server. See [Figure 1-5](#).

Figure 1-1 shows the front panel features of the SFF drives, 24-drive version of the server. This version of the server has a 24-drive backplane and an integrated expander.

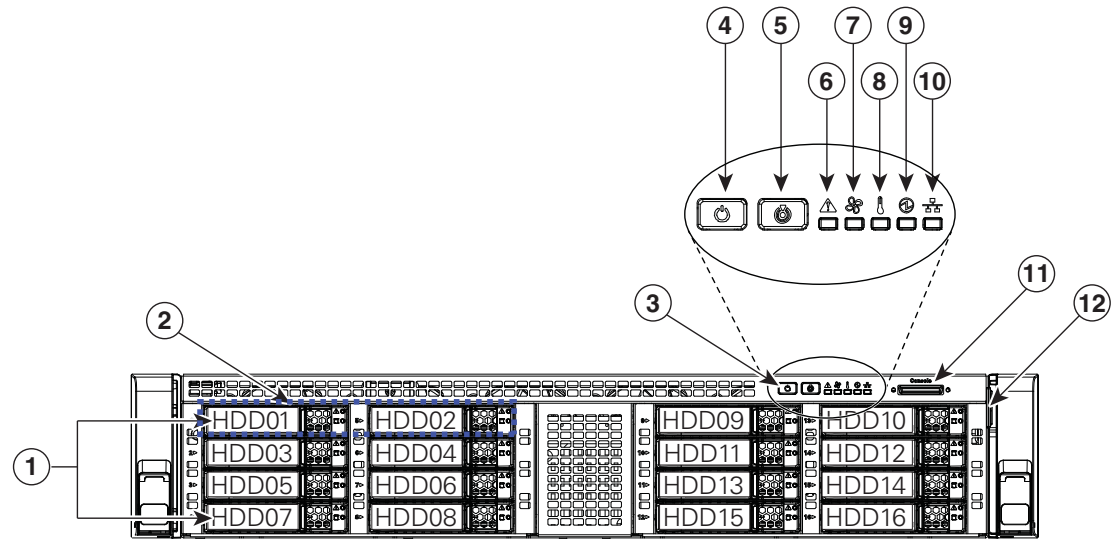
Figure 1-1 Cisco UCS C240 M4 Server (SFF Drives, 24-Drive) Front Panel Features



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 1-2 shows the front-panel features of the SFF drives, 16-drive version of the server. This version of the server has a 16-drive backplane and an integrated expander.

Figure 1-2 Cisco UCS C240 M4 Server (SFF Drives, 16-Drive) Front Panel Features

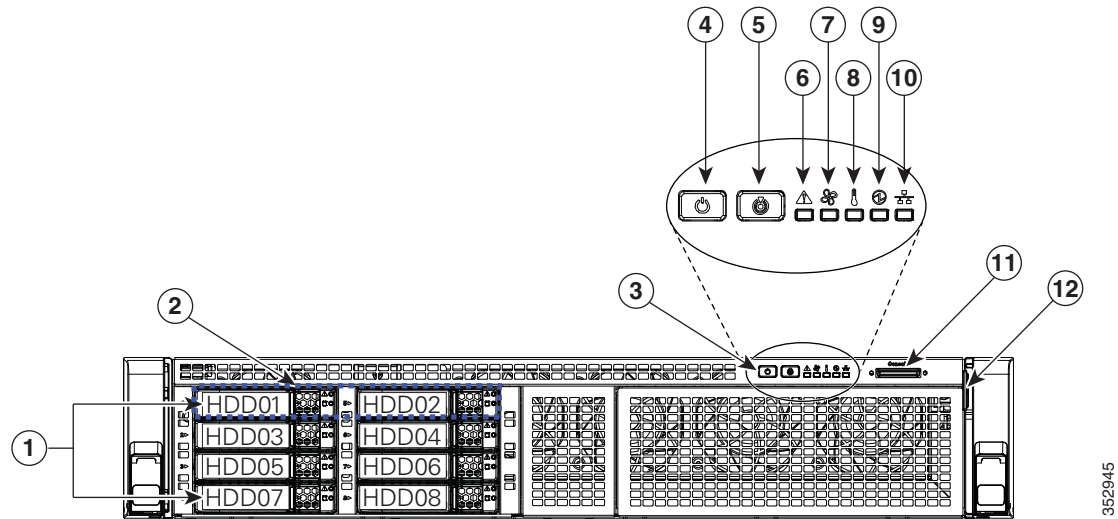


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1	Drive bays 1–16 support SAS/SATA drives.	7	Fan status LED
2	Drive bays 1 and 2 support NVMe PCIe SSDs and SAS/SATA drives.	8	Temperature status LED
3	Operations panel buttons and LEDs	9	Power supply status LED
4	Power button/LED	10	Network link activity LED
5	Unit Identification button/LED	11	KVM connector (used with KVM cable that provides two USB 2.0, one VGA, and one serial connector)
6	System status LED	12	Pull-out asset tag

Figure 1-3 shows the front-panel features of the SFF drives, 8-drive version of the server. This version of the server has a direct-connect, 8-drive backplane (no expander).

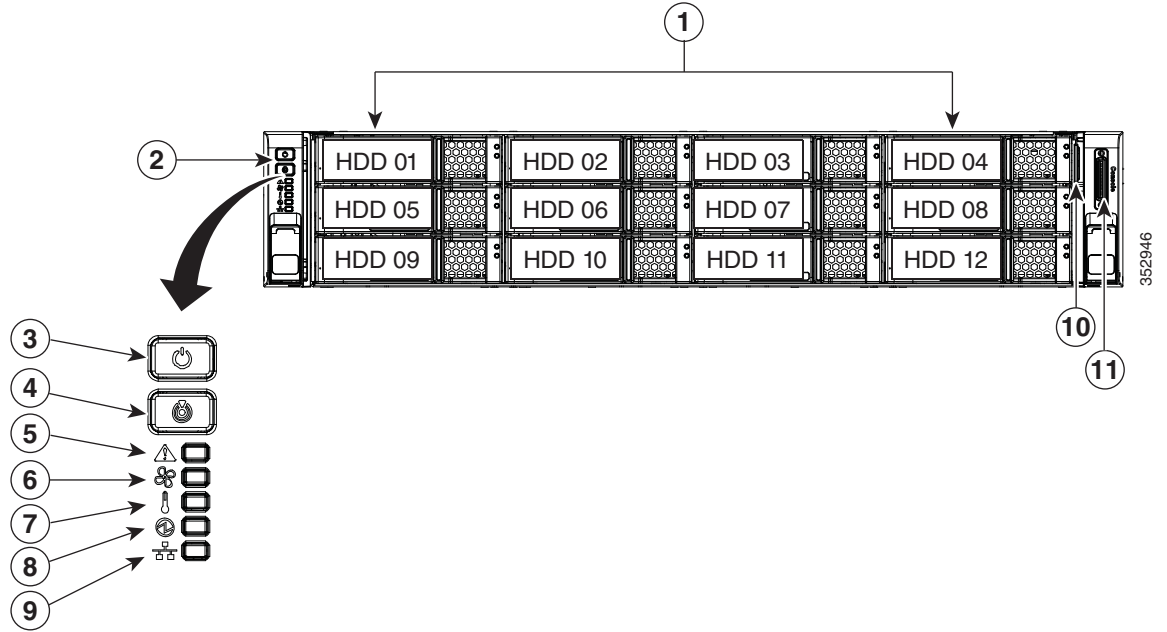
Figure 1-3 Cisco UCS C240 M4 Server (SFF Drives, 8-Drive) Front Panel Features



1	Drive bays 1–8 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	KVM connector (used with KVM cable that provides two USB 2.0, one VGA, and one serial connector)
6	System status LED	12	Pull-out asset tag

Figure 1-4 shows the front panel features of the LFF drives, 12-drive version of the server. This version of the server has a 12-drive backplane with an integrated expander.

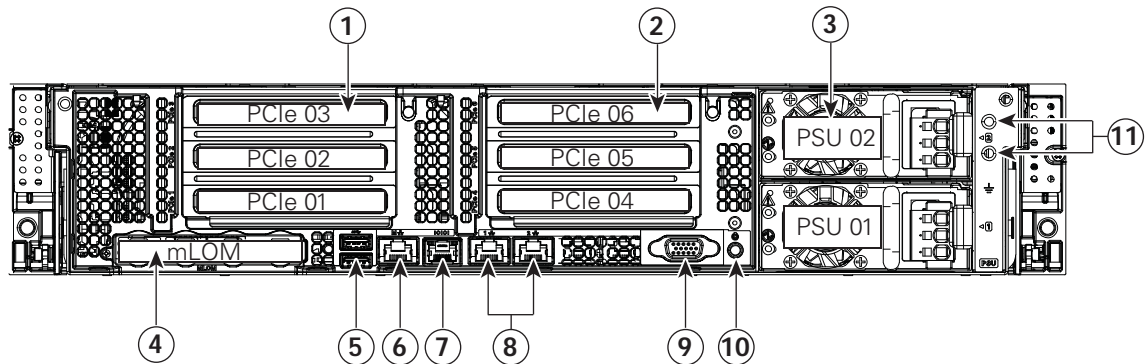
Figure 1-4 Cisco UCS C240 M4 Server (LFF Drives, 12-Drive) Front Panel Features



1	Drive bays 1–16 (up to 16 2.5-inch drives)	7	Temperature status LED
2	Operations panel buttons and LEDs	8	Power supply status LED
3	Power button/LED	9	Network link activity LED
4	Unit Identification button/LED	10	Pull-out asset tag
5	System status LED	11	KVM connector (used with KVM cable that provides two USB 2.0, one VGA, and one serial connector)
6	Fan status LED		

Figure 1-5 shows the rear panel features of the server (identical for all versions of the server).

Figure 1-5 Cisco UCS C240 M4 Server Rear Panel Features



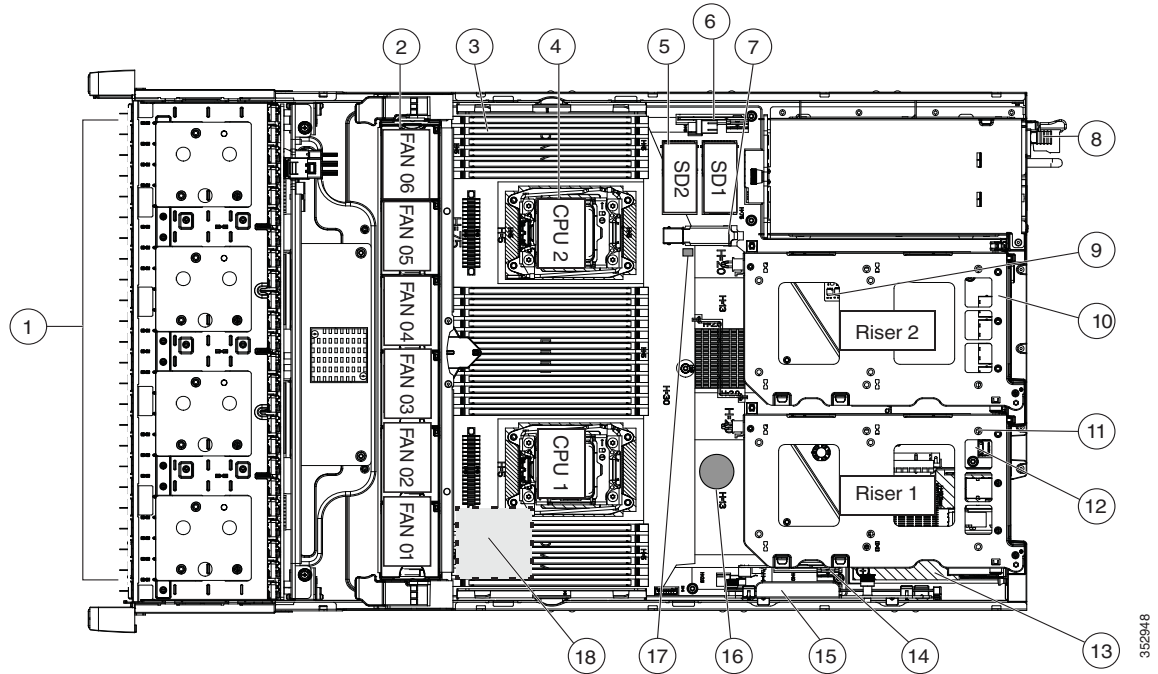
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1	PCIe riser 1 (slots 1, 2, 3*) *Slot 3 not present in all versions. See Replacing a PCIe Card, page 3-53 for riser options and slot specifications.	7	Serial port (RJ-45 connector)
2	PCIe riser 2 (slots 4, 5, 6)	8	Dual 1-Gb Ethernet ports (LAN1, LAN2)
3	Power supplies (DC power supplies shown) See Power Specifications, page A-2 for specifications and options.	9	VGA video port (DB-15 connector)
4	Modular LAN-on-motherboard (mLOM) card slot	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 1-6 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 1-6 Replaceable Component Locations



1	Drives bays. All drive bays support SAS/SATA drives. SFF, 8-, 16-, and 24-drive versions only: Drive bays 1 and 2 support SAS/SATA drives and NVMe PCIe SSDs. NVMe drives require a PCIe interposer board for PCIe bus connection (see item 6).	10	PCIe riser 2 (PCIe slots 4, 5, 6)
2	Fan modules (six, hot-swappable)	11	PCIe riser 1 (PCIe slots 1, 2, 3*) *Slot 3 not present in all versions. See Replacing a PCIe Card, page 3-53 for riser options and slot specifications.
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 Server Features

Table 1-1 lists a summary of server features.

Table 1-1 Cisco UCS C240 M4 Server Features

Chassis	Two rack-unit (2RU) chassis.
Processors	Up to two Intel Xeon E5-2600 v3 Series processors.
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	The server provides these connectors: <ul style="list-style-type: none"> • 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 VGA² connector • Two USB³ 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: <ul style="list-style-type: none"> • AC power supplies optionally 650 W AC, 1200 W AC, or 1400 W AC each. • DC power supplies 930 W DC each. Do not mix power supply types or wattages in the server. Redundant as 1+1. See also Power Specifications, page A-2 .
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. Riser 1 can be ordered as one of three different versions: <ul style="list-style-type: none"> • With slots 1, 2, and 3. • With slots 1 and 2, and a blank slot to accommodate GPU card width. • With slots 1 and 2, plus two connectors for SATA boot drives. Riser 2 contains slots 4, 5, and 6. See Replacing a PCIe Card, page 3-53 for specifications of the slots.
InfiniBand	The InfiniBand architecture is supported by the bus slots.

Table 1-1 Cisco UCS C240 M4 Server Features (continued)

Storage	<p>Drives are installed into front-panel drive bays that provide hot-swappable access for SAS/SATA drives. The server is orderable in four different versions, each with one of four different front panel/backplane configurations:</p> <ul style="list-style-type: none"> • Cisco UCS C240 M4—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). This version also supports up to 2 NVMe PCIe SSDs. • Cisco UCS C240 M4—SFF drives with 16-drive backplane and integrated expander. This version holds up to 16 2.5-inch SAS/SATA hard drives or solid state drives. This version also supports up to 2 NVMe PCIe SSDs. • Cisco UCS C240 M4—SFF drives with 8-drive direct-connect backplane and no expander. This version holds up to 8 2.5-inch SAS/SATA hard drives or solid state drives. This version also supports up to 2 NVMe PCIe SSDs. • Cisco UCS C240 M4—Large form-factor (LFF) drives with 12-drive backplane and integrated expander. This version holds up to 12 3.5-inch SAS/SATA hard drives. <p> Note You cannot change the backplane type after-factory. To change a front panel/backplane configuration, a chassis replacement is required.</p>
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	<p>Two internal bays on the motherboard for up to two SD cards.</p> <p>The two flash drives can be configured in a RAID 1 configuration.</p>
Disk Management (RAID)	<p>Dedicated internal socket for a PCIe-style RAID controller card.</p> <p>The server can optionally use its own embedded SATA RAID controller with the installation of a SATA interposer board. You can optionally add a RAID 5 key to upgrade this SATA RAID.</p> <p>For a list of supported RAID controller options, see RAID Controller Considerations, page C-1.</p>
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

