CHAPTER 1

Overview

This chapter provides an overview of the Cisco UCS C22 server features.

This server is a part of the Cisco UCS C-Series rack-mount server family. It is a high-performance, 1RU (rack-unit) server. It is designed to operate in both standalone environments and as part of the Cisco Unified Computing System (UCS).

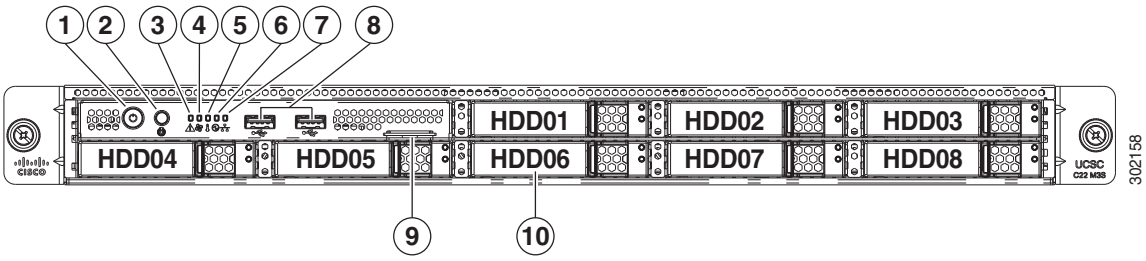
The illustrations in this chapter show an overview of external server features. Internal server features are illustrated in Figure 3-4 on page 3-9.

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

- Cisco UCS C22 M3, small form-factor (SFF) drives, with 8-drive backplane.
  Holds up to eight 2.5-inch hard drives or solid state drives.
- Cisco UCS C22 M3, large form factor (LFF) drives, with 4-drive backplane).
  Holds up to four 3.5-inch hard drives.

Figure 1-1 shows the front panel features of small form-factor drives version of the server.

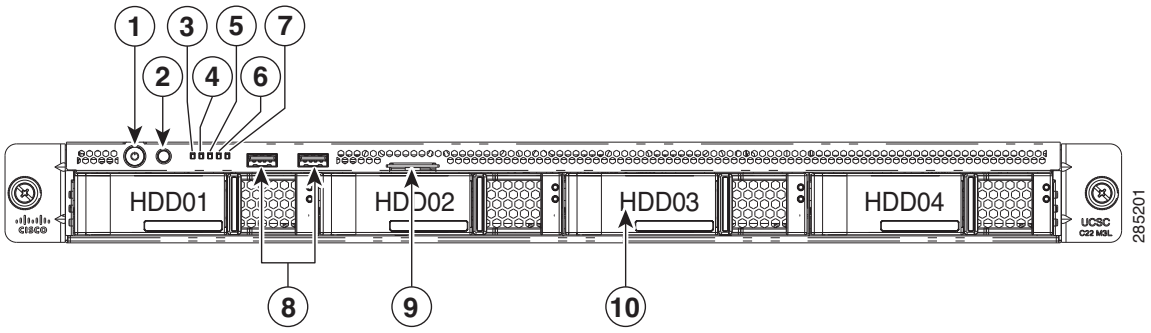
Figure 1-1 Cisco UCS C22 Server (Small Form Factor Drives) Front Panel Features



1	**Power button/Power status LED**	**6**	Power supply status LED
2	Identification button/LED	**7**	Network link activity LED
3	System status LED	**8**	USB 2.0 ports (two)
4	Fan status LED	**9**	Pull-out asset tag
5	Temperature status LED	**10**	Drives, hot-swappable (up to eight 2.5-inch drives)

Figure 1-2 shows the front panel features of the large form-factor drives version of the server.

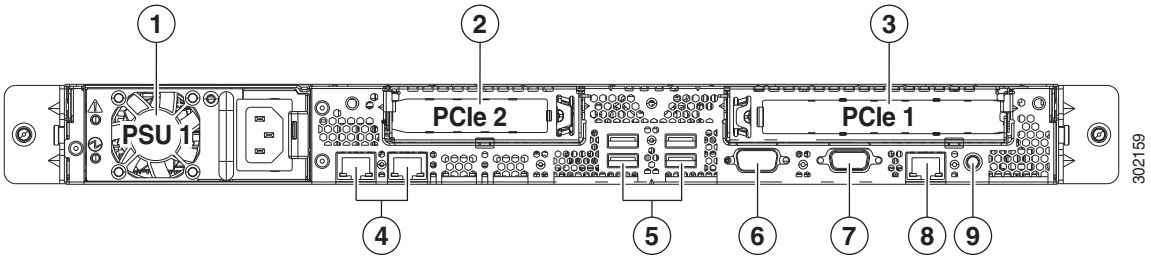
Figure 1-2 Cisco UCS C22 Server (Large Form Factor Drives) Front Panel Features



1	**Power button/Power status LED**	**6**	Power supply status LED
2	Identification button/LED	**7**	Network link activity LED
3	System status LED	**8**	USB 2.0 ports (two)
4	Fan status LED	**9**	Pull-out asset tag (serial number)
5	Temperature status LED	**10**	Drives, hot-swappable (up to four 3.5-inch drives)

Figure 1-3 shows the rear panel features of the server (identical for both versions of the server).

Figure 1-3 Rear Panel Features



1	Power supply	**6**	Serial port (DB-9 connector)
2	PCIe slot 2 on riser 2 (half-height, half-length, x8 lane)	**7**	VGA video port (DB-15 connector)
3	PCIe slot 1 on riser 1 (full-height, half-length, x16 lane, supports NCSI)	**8**	10/100/1000 Base-T Ethernet dedicated management port
4	Dual 1-Gb Base-T Ethernet ports (two)	**9**	Rear Identification button/LED
5	USB 2.0 ports (four)		–

Table 1-1 lists the features of the server.

Table 1-1 Cisco UCS C22 Server Features

Chassis	One rack-unit (1RU) chassis.
Processors	One or two Intel Xeon E5-2400 Series processors.
Memory	The server provides 12 DIMM[1] sockets on the motherboard. **Note** In a single-CPU configuration, only 6 DIMM slots are active.
Multi-bit error protection	This server supports multi-bit error protection.
Baseboard management	Pilot III BMC, running Cisco Integrated Management Controller (CIMC) firmware. Depending on your CIMC settings, the CIMC can be accessed through the 1-Gb Ethernet dedicated management port, the dual 1-Gb Ethernet LOM ports, or a Cisco P81E virtual interface card.
Network and management I/O	The server provides these rear-panel connectors: • One 10/100/1000 Base-T Ethernet dedicated management port • Two 1-Gb Base-T Ethernet ports • One RS-232 serial port • One VGA[2] video connector • Four USB[3] 2.0 connectors There are also two USB 2.0 ports on the front panel.
WoL	The 1-Gb Base-T Ethernet LAN ports support the wake-on-LAN (WoL) standard.

Table 1-1 Cisco UCS C22 Server Features (continued)

Power	One 450 W power supply or one 650W power supply. See also Power Specifications, page A-2.
ACPI	This server supports the advanced configuration and power interface (ACPI) 4.0 standard.
Cooling	Five fan modules for front-to-rear cooling.
PCIe I/O	Two horizontal PCIe[4] expansion slots on risers. See Replacing a PCIe Card, page 3-34 for slot specifications. **Note** In a single-CPU configuration, only PCIe slot 1 is active.
InfiniBand	The bus slots in this server support the InfiniBand architecture.
Storage	Drives are installed into front-panel drive bays that provide hot-pluggable access. There are two versions of the server front panel and backplane: • Small Form Factor drives—The server can hold up to eight 2.5 in. (63.5 mm) SAS[5] or SATA[6] hard drives or solid state drives. • Large Form Factor—The server can hold up to four 3.5 in. (82.5 mm) SAS or SATA hard drives.
Internal USB support	The server has one internal USB 2.0 socket on the motherboard that you can use with a USB thumb drive for additional storage. The server can be ordered with an optional blank 8-GB Cisco USB Flash Drive pre-installed in the internal USB port.
Cisco USB Flash Drive with pre-loaded utilities	This optional drive is pre-loaded with Cisco C-series Server utilities. This drive contains four virtual drives. The four virtual drives contain, respectively: • Cisco Server Configuration Utility • Cisco Host Upgrade Utility • Cisco C-Series server drivers set • A blank virtual drive on which you can install an OS or a hypervisor See Overview of the Pre-Loaded 16-GB Cisco USB Flash Drive, page 3-39 for more information about enabling and booting the virtual drives.
Disk Management (RAID)	For a list of RAID[7] controller options and required cables, see RAID Controller Considerations, page C-1.
RAID Backup	There is one mounting point inside the chassis that can be used for the SuperCap power module that can be used with an LSI MegaRAID-CV card.
Video	Matrox G200e video controller. Resolution up to 1920 x1200, 16bpp at 60 Hz. 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
5. SAS = serial attached SCSI
6. SATA = serial advanced technology attachment
7. RAID = redundant array of independent disks