

## **Overview**

- Overview, on page 1
- External Features, on page 2
- Component Location, on page 4
- Summary of Node Features, on page 5

### **Overview**

Cisco HyperFlex C245 M6 Server (HX-C245-M6SX) server is orderable in one Small form-factor (SFF) drives version, with 24-drive back-plane front panel configuration:

• Front-loading drive bays 1—24 support 2.5-inch SAS/SATA drives.

Following PCIe Riser combinations are available:

- Riser 1—Supports Riser 1A and 1B. PCIe slots 1, 2, and 3 numbered bottom to top with the following options:
  - Riser 1A (HX-RIS1A-240M6)—Slot 1 PCIe supports full height, full length PCIe Add-in-card; Slot 2 PCIe supports full height, full length PCIe Add-in-card; Slot 3 PCIe supports full height, full length PCIe Add-in-card.
  - Riser 1B (HX-RIS1B-245M6) (Storage Option)—Slot 1 PCIe is disabled; Slot 2 supports 2.5-inch SSD; Slot 3 supports 2.5-inch SSD.
- Riser 2—Supports Riser 2A. PCIe slots 4, 5, and 6 numbered bottom to top with the following options:
  - Riser 2A (HX-RIS2A-240M6)—Slot 4, 5, and 6 PCIe support full height, full length PCIe Add-in-card.
- Riser 3—Supports Riser 3A, 3B and 3C. PCIe slots 7 and 8 numbered bottom to top with the following options:
  - Riser 3A (HX-RIS3A-240M6)—Slot 7 PCIe supports full height, full length PCIe Add-in-card; Slot 8 PCIe supports full height, full length PCIe Add-in-card.
  - Riser 3B (HX-RIS3B-240M6)—Slot 7 supports 2.5-inch SSD; Slot 8 supports 2.5-inch SSD.
  - Riser 3C (HX-RIS3C-240M6)—Slot 7 PCIe supports full height, full length PCIe Add-in-card.

Cisco HX C245 M6 Server (HX-C245-M6SN) server is also available as **GPU Ready Configuration** unit. The server is configured to accept GPU, but GPUs are not installed while placing the order.

**GPU Ready Configuration** units are shipped with low profile heatsink: HX-HSLP-C245M6 and HX-ADGPU-245M6 (GPU air duct).



Note

**GPU Ready Configuration** should follow the same temperature limit as GPU configured unit. You should select the GPU airduct PID to enable GPU Ready Configuration. Follow Cisco Commerce Workspace (CCW) rules for more details.

### **External Features**

This topic shows the external features of the server versions.

#### Cisco HyperFlex C245 M6 Node (SFF Drives, 24-Drive) Front Panel Features

The following figure shows the front panel features of the small form-factor drive versions of the node.

For definitions of LED states, see Front-Panel LEDs.

Figure 1: Cisco HX C245 M6 Node (SFF Drives, 24-Drive) Front Panel



Cisco HX C245 M6 Server features drive bays 1 to 24, which support SAS/SATA drives. Drive bays are numbered 1 through 24 from left to right. Optionally, front-loading drive bays 1 to 4 support 2.5-inch SSDs . Other features are:

| 1 | SAS/SATA drive fault LED      | 2 | SAS/SATA drive activity LED    |
|---|-------------------------------|---|--------------------------------|
| 3 | Power button/power status LED | 4 | Unit identification button/LED |
| 5 | System Status LED             | 6 | Fan status LED                 |

| 7 | Temperature status LED    | 8 | Power supply status LED |
|---|---------------------------|---|-------------------------|
| 9 | Network link activity LED | - | -                       |

#### **Cisco HX C245 M6 Server Rear Panel Features**

For definitions of LED states, see Rear-Panel LEDs.

The following configuration of the server has no additional storage installed, with possible combination explained in table:

#### Figure 2: Cisco HX C245 M6 Server Rear Panel



| 2 | Power supplies (two, redundant as 1+1)                             | 3 | VGA video port (DB-15 connector)      |
|---|--|---|---------------------------------------|
|   | See Power Specifications for specifications and supported options. |   |                                       |
| 4 | Serial port (RJ-45 connector) COM<br>1, BMC or Host Serial access  | 5 | RJ45 BMC Dedicated Management<br>Port |
| 6 | USB 3.0 ports, 2   | 7 | Rear unit identification button/LED   |
| 8 | Modular LAN-on-motherboard<br>(mLOM) card slot (x16)               |   |                                       |

## **Component Location**

This topic shows the locations of the field-replaceable components and service-related items. The view in the following figure shows the server with the top cover removed.

Figure 3: Cisco HyperFlex C245 M6 Server Serviceable Component Locations



| 3  | DIMM sockets on motherboard (16 per CPU)   | 4  | Intrusion switch   |
|----|--|----|--|
|    | <ul> <li>See DIMM Population Rules and Memory<br/>Performance Guidelines for DIMM slot numbering.</li> <li>Note An air baffle rests on top of the DIMM<br/>and CPUs when the server is operating.</li> </ul> |    |  |
|    | The air baffle is not displayed in this illustration.  |    |  |
| 5  | CPU sockets, 2   | 6  | Power Supply Unit (PSU) 1  |
|    | CPU sockets are arranged side by side and labeled<br>CPU1 and CPU2 next to the CPU socket.   |    |  |
| 7  | Riser 3—Supports Riser 3A, 3B and 3C. PCIe slots<br>7 and 8 numbered bottom to top with the following<br>options:  | 8  | Power Supply Unit (PSU) 2  |
|    | • Riser 3A—Slot 7 PCIe supports full height,<br>full length PCIe Add-in-card; Slot 8 PCIe<br>supports full height, full length PCIe<br>Add-in-card.  |    |  |
|    | • Riser 3B—Slot 7 supports 2.5-inch SSD; Slot<br>8 supports 2.5-inch SSD.  |    |  |
|    | • Riser 3C—Slot 7 PCIe supports full height, full length PCIe Add-in-card.   |    |  |
| 9  | Riser 2—Supports Riser 2A. PCIe slots 4, 5, and 6 numbered bottom to top with the following option:  | 10 | Riser 1—Supports Riser 1A and 1B. PCIe slots 1, 2, and 3 numbered bottom to top with the following options:  |
|    | • Riser 2A—Slot 4, 5, and 6 PCIe support full height, full length PCIe Add-in-card.  |    | • Riser 1A—Slot 1 PCIe supports full height, full<br>length PCIe Add-in-card; Slot 2 PCIe supports<br>full height, full length PCIe Add-in-card; Slot<br>3 PCIe supports full height, full length PCIe<br>Add-in-card. |
|    |  |    | • Riser 1B (Storage Option)—Slot 1 PCIe is<br>disabled; Slot 2 supports 2.5-inch SSD; Slot 3<br>supports 2.5-inch SSD.   |
| 11 | RTC Battery  | 12 | Internal USB Port  |

# **Summary of Node Features**

The following table lists a summary of node features.

| Feature                    | Description  |
|----------------------------|--|
| Chassis                    | Two rack-unit (2RU) chassis  |
| Processor                  | AMD SP3 Dual Socket (Rome Zen2 Core and Milan Zen3 Core)   |
| Memory                     | 3200 MT/s DDR4 DIMM sockets on the motherboard (16 DIMMS/8 channels each CPU)  |
| Baseboard management       | BMC, running Cisco Integrated Management Controller (Cisco IMC) firmware.  |
|                            | Gigabit Ethernet switch port 0 as 10/100/1000base-T interface connect to RJ45 connector as CIMC management port.   |
| Network and management I/O | Rear panel:  |
|                            | • 1-Gb Ethernet dedicated management port, 1   |
|                            | • One RS-232 serial port (RJ-45 connector)   |
|                            | One VGA video connector port (DB-15 connector)   |
|                            | • Two USB 3.0 ports  |
|                            | Front panel:   |
|                            | • One front-panel keyboard/video/mouse (KVM) connector that is used with the KVM cable, which provides two USB 2.0, one VGA, and one DB-9 serial connector.                  |
| Modular LOM                | x16 PCI Express Gen 3connection, a SMBus (I2C), a 100M-Base-T ink (MDI) interface<br>and a RMII based NC-SI interface that support one wire Ethernet connection to the host. |
|                            | The panel interfaces support up to four 1G/10G ports with RJ45 connectors or SFP+ interfaces   |
| Power                      | Two power supplies, redundant as 1+1, and cold redundancy:   |
|                            | • 770W AC PSU  |
|                            | • 1050W AC PSU   |
|                            | • 1600W AC PSU   |
|                            | • 2300W AC PSU   |
|                            | • 1050W DC PSU (NEBS)  |
|                            | Do not mix power supply types or wattages in the node.   |
| Cooling                    | Six hot-swappable fan modules for front-to-rear cooling.   |
| PCIe I/O                   | Six horizontal PCIe expansion slots on 3 PCIe riser assemblies.  |
|                            | One Storage PCIe slot for Cisco Storage Card.  |
|                            | One mLOM PCIe slot for Cisco Network Interface Card and OCP adapter  |
|                            | See PCIe Slot Specifications, on page 84 for specifications of the slots.  |

| Feature              | Description   |
|----------------------|---|
| Storage, front-panel | Server is orderable in one Small form-factor (SFF) drives version, with 24-drive back-plane front panel configuration:  |
|                      | • Front-loading drive bays 1—24 support 2.5-inch SAS/SATA drives.   |
|                      | • Optionally, front-loading drive bays 1 to 4 support 2.5-inch SSDs .   |
|                      | SAS/SATA drives are hot-swappable.  |
| Storage, internal    | One internal USB 3.0 slot   |
|                      | Mini-storage module socket:   |
|                      | Dual M.2 2280 SATA drive with hardware RAID   |
|                      |   |
| RAID backup          | The server has a mounting bracket on the removable air baffle for one SuperCap unit that is used with the Cisco modular RAID controller card.   |
| GPU Support          | Riser 1A—Slot 1 PCIe supports full height, full length PCIe Add-in-card; Slot 2 PCIe supports full height, full length PCIe Add-in-card; Slot 3 PCIe supports full height, full length PCIe Add-in-card (For both Riser 1 and 2). |
|                      | Riser 3A (HX-RIS3A-240M6)—Slot 7 PCIe supports full height, full length PCIe Add-in-card; Slot 8 PCIe supports full height, full length PCIe Add-in-card (For Riser 3).   |
| Integrated video     | Integrated VGA video.   |

Summary of Node Features

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