

Cisco UCS C245 M6 SFF Rack Server

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Product overview



The Cisco UCS C245 M6 SFF Rack Server extends the capabilities of Cisco's Unified Computing System portfolio in a 2-Rack-Unit (RU) form factor with the addition of the AMD CPUs as well as 16 DIMM slots per CPU for 3200-MHz DDR4 DIMMs with individual DIMM capacity points up to 256 GB. The maximum memory capacity for 2 CPUs is 8 TB (for 32 x 256 GB DDR4 DIMMs¹).

Features and benefits

The C245 M6 SFF server has:

- Up to 24 front SFF SAS/SATA HDDs or SSDs (optionally up to four of the drives can be NVMe)
- An I/O-centric option that provides up to eight PCIe slots using three rear risers, or
- A storage-centric option that provides three rear risers with a total of up to four NVMe SFF drives and three PCIe slots

The server provides internal slots for:

- One Cisco 12G SAS RAID controller with a 4-GB cache backup to control SAS/SATA drives, or
- Up to two Cisco 12G SAS HBAs to control SAS/SATA drives

Note: NVMe drives are controlled directly from the CPUs.

The C245 M6 server has a single 1-GE management port. A modular, LAN-on-Motherboard slot can be extended to an OCP 3.0 slot and provides up to two 100-GE ports. A connector on the front of the chassis provides KVM functionality.

The Cisco UCS C245 M6 Rack Server can be used standalone, or as part of the Cisco Unified Computing System, which unifies computing, networking, management, virtualization, and storage access into a single integrated architecture, enabling end-to-end server visibility, management, and control in both bare-metal and virtualized environments.

Product specifications

Table 1. C245 M6 SFF specifications

| Capability / feature | Description |
|-----------------------------------|--|
| Chassis | Two-Rack-Unit (2RU) chassis |
| CPU | One or two AMD Milan or Rome processors |
| Memory | 32 slots for registered DIMMs (RDIMMs) or load-reduced DIMMs (LRDIMMs) |
| Multi-bit error protection | This server supports multi-bit error protection. |
| Video | <p>The Cisco Integrated Management Controller (CIMC) provides video using the Matrox G200e video/graphics controller:</p> <ul style="list-style-type: none"> • Integrated 2D graphics core with hardware acceleration • Embedded DDR memory interface supports up to 512 MB of addressable memory (8 MB is allocated by default to video memory) • Supports display resolutions up to 1920 x 1200 16 bpp @ 60 Hz • High-speed, integrated 24-bit RAMDAC • Single-lane PCI-Express host interface running at Gen 1 speed |
| Power subsystem | <p>Up to two of the following hot-swappable power supplies:</p> <ul style="list-style-type: none"> • 1050 W (AC) • 1050 W (DC) • 1600 W (AC) • 2300 W (AC) <p>One power supply is mandatory; one more can be added for 1 + 1 redundancy.</p> |
| Front panel | A front-panel controller provides status indications and control buttons. |
| ACPI | This server supports the Advanced Configuration and Power Interface (ACPI) 4.0 standard. |
| Fans | Six hot-swappable fans for front-to-rear cooling |
| InfiniBand | The InfiniBand architecture is supported by the PCIe slots. |
| Expansion slots | <ul style="list-style-type: none"> • Riser 1A (3 PCIe slots) • Riser 1B (2 drive bays) • Riser 2A (3 PCIe slots) • Riser 3A (2 PCIe slots) • Riser 3B (2 drive bays) • Riser 3C (1 PCIe slot) • Dedicated slots for a Cisco 12G SAS RAID controller or Cisco 12G SAS HBA |

| Capability / feature | Description |
|---|---|
| Interfaces | <p>Rear panel:</p> <ul style="list-style-type: none"> • One 1Gbase-T RJ-45 management port • One RS-232 serial port (RJ45 connector) • One DB15 VGA connector • Two USB 3.0 port connectors • One flexible modular LAN on motherboard (mLOM)/OCP 3.0 slot that can accommodate various interface cards <p>Front panel:</p> <ul style="list-style-type: none"> • One KVM console connector (supplies two USB 2.0 connectors, one VGA DB15 video connector, and one serial port (RS232) RJ45 connector) • Up to 24 front SFF SAS/SATA Hard Drives (HDDs) or SAS/SATA Solid State Drives (SSDs) • Optionally, up to four front SFF NVMe PCIe SSDs These drives must be placed in front drive bays 1, 2, 3, and 4 only and are connected to CPU 2. The rest of the bays (5 - 24) can be populated with SAS/SATA SSDs or HDDs. • Optionally, up to four SFF rear-facing NVMe drives |
| Internal storage devices | <p>Other storage:</p> <ul style="list-style-type: none"> • A mini-storage module connector on the motherboard supports a boot-optimized RAID controller carrier that holds two SATA M.2 SSDs. Mixing different capacity SATA M.2 SSDs is not supported. |
| Integrated management processor | <p>A Baseboard Management Controller (BMC) runs Cisco Integrated Management Controller (CIMC) firmware.</p> <p>Depending on your CIMC settings, the CIMC can be accessed through the 1-GE dedicated management port or a Cisco Virtual Interface Card (VIC).</p> <p>CIMC manages certain components within the server, such as the Cisco 12G SAS HBA.</p> |
| Storage controllers | <p>One Cisco M6 12G SAS RAID controller or up to two Cisco 12G SAS HBAs plug into a dedicated slot.</p> <p>Cisco M6 12G SAS RAID Controller with 4GB FBWC:</p> <ul style="list-style-type: none"> • RAID support (RAID 0, 1, 5, 6, 10, 50, 60, SRAID0, and JBOD mode) • Supports up to 24 internal SAS/SATA drives • Plugs into a dedicated slot <p>Cisco 12G SAS HBA:</p> <ul style="list-style-type: none"> • No RAID support • JBOD/Pass-through Mode support • Supports up to 16 SAS/SATA internal drives • Plugs into a dedicated slot |
| Modular LAN on Motherboard (mLOM)/ Open Compute Project (OCP) 3.0 slot | <p>The dedicated mLOM/OCP 3.0 slot on the motherboard can flexibly accommodate the following cards:</p> <ul style="list-style-type: none"> • Cisco Virtual Interface Cards (VIC) • OCP 3.0 network interface card (UCSC-O-ID10GC) |
| Intersight | Intersight provides server management capabilities |
| Cisco Integrated Management Controller (CIMC) | Requires CIMC Release 4.2(1) or later |

| Capability / feature | Description |
|--|--|
| Operating temperature | <p>Minimum 10° C to 35° C (50° F to 95° F) with no direct sunlight (if any A10, A100, or rear HDDs are installed, the 35° C (50° F) restriction changes to 30° C (86F))</p> <p>Maximum allowable operating temperature derated 1C/300 m (1F/547 ft) above 950 m (3117 ft)</p> |
| Extended operating temperature | <p>5° C to 40° C (41° F to 104° F) with no direct sunlight</p> <p>Maximum allowable operating temperature de-rated 1C/175 m (1F/319 ft) above 950 m (3117 ft)</p> <p>5° C to 4° 5C (41° F to 113° F) with no direct sunlight</p> <p>Maximum allowable operating temperature de-rated 1C/125 m (1F/228 ft) above 950 m (3117 ft)</p> <p>System performance may be impacted when operating in the extended operating temperature range.</p> <p>Operation above 40° C is limited to less than 1% of annual operating hours.</p> <p>Hardware configuration limits apply to extended operating temperature range.</p> |
| Non-operating temperature | <p>Below -40° C or above 65° C (below -40° F or above 149° F)</p> <p>Maximum rate of change (operating and non-operating) 20° C/hr (36° F/hr)</p> |
| Operating relative humidity | 8% to 90% and 24° C (75° F) maximum dew-point temperature, non-condensing environment |
| Non-operating relative humidity | 5% to 95% and 33° C (91° F) maximum dew-point temperature, non-condensing environment |
| Operating altitude | 0 m to 3050 m {10,000 ft) |
| Non-operating altitude | Below 0 m or above 12,000 m (39,370 ft) |

Ordering information

For information about installing or upgrading your server, see the hardware installation guide. For ordering information, see the [Cisco UCS C245 M6 specifications sheet](#).

Table 2. Ordering information

| Product ID (PID) | Description |
|------------------------|--|
| UCS-M6-MLB | <p>UCS M6 rack, blade, chassis Major Line Bundle (MLB)</p> <p>This MLB consists of the server node (UCSC-C245-M6SX6) with software PIDs. Use this PID to begin a new configuration.</p> |
| UCSC-C245-M6SX1 | <p>Small Form-Factor (SFF) drives, with 24-drive backplane</p> <ul style="list-style-type: none"> • Front-loading drive bays 1–24 support 2.5-inch SAS/SATA drives • Optionally, front-loading drive bays 1, 2, 3, and 4 support 2.5-inch NVMe SSDs • Optionally, up to 4 rear-facing NVMe drives • No CPU, memory, drives, PCIe cards, or power supply included |

Warranty information

The Cisco UCS C245 M6 server has a three-year, Next-Business-Day (NBD) hardware warranty and a 90-day software warranty.

Cisco support

Augmenting the Cisco Unified Computing System (Cisco UCS) warranty, Cisco Smart Net Total Care and Cisco Solution Support services are part of Cisco's technical services portfolio. Smart Net Total Care combines Cisco's industry-leading and award-winning foundational technical services with an extra level of actionable business intelligence that is delivered to you through the smart capabilities in the Smart Net Total Care portal. Learn more about [Smart Net Total Care](#).

Cisco Solution Support includes both Cisco product support and solution-level support, resolving complex issues in multivendor environments on average 43 percent more quickly than with product support alone. Cisco Solution Support is a critical element in data center administration, helping to rapidly resolve any issue encountered while maintaining performance, reliability, and return on investment.

This service centralizes support across your multivendor Cisco environment for both our products and solution partner products that you have deployed in your ecosystem. Whether there is an issue with a Cisco product or with a solution partner product, just call us. Our experts are the primary point of contact and own the case from first call to resolution. Learn more about [Solution Support](#).

Product sustainability

Information about Cisco's Environmental, Social, and Governance (ESG) initiatives and performance is provided in Cisco's Corporate Social Responsibility (CSR) and sustainability [reporting](#).

Table 3. Cisco environmental sustainability information

| Sustainability topic | | Reference |
|----------------------|--|---|
| General | Information on product-material-content laws and regulations | Materials |
| | Information on electronic waste laws and regulations, including our products, batteries, and packaging | WEEE compliance |
| | Information on our product takeback and reuse program | Cisco Takeback and Reuse Program |
| | Sustainability inquiries | Contact: csr_inquiries@cisco.com |
| | Operating and nonoperating conditions | Product specifications |
| Material | Product packaging weight and materials | Contact: environment@cisco.com |

Product environmental information

Product environmental information for users per Commission Regulation (EU) 2019/424 <https://www.cisco.com/web/dofc/22568110.pdf>

Cisco and partner services

Cisco and our industry-leading partners deliver services that can accelerate your transition to a Cisco UCS X-Series Modular System solution. Cisco Unified Computing Systems Services can help you create an agile infrastructure, accelerate time to value, reduce costs and risks, and maintain availability during deployment and migration. After deployment, our services can help you improve performance, availability, and resiliency as your business needs evolve and help you further mitigate risk. For more information, visit <https://www.cisco.com/go/unifiedcomputingservices>.

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more](#).

Document history

| New or Revised Topic | Described In | Date |
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