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Cisco UCS C240 M6 Rack Server

Contents

The Cisco UCS C240 M6 Rack Server delivers industry-leading performance and expandability.

Product overview

The Cisco UCS C240 M6 Rack Server is a 2-socket, 2-Rack-Unit (2RU) rack server offering industry-leading performance and expandability. It supports a wide range of storage and I/O-intensive infrastructure workloads, from big data and analytics to collaboration. Cisco UCS C-Series M6 Rack Servers can be deployed as standalone servers or as part of a Cisco Unified Computing System (Cisco UCS) managed environment, and now with Cisco Intersight is able to take advantage of Cisco's standards-based unified computing innovations that help reduce customers' Total Cost of Ownership (TCO) and increase their business agility.

In response to ever-increasing computing and data-intensive real-time workloads, the enterprise-class Cisco UCS C240 M6 server extends the capabilities of the Cisco UCS portfolio in a 2RU form factor. It incorporates 3rd Generation Intel Xeon Scalable processors, supporting up to 40 cores per socket and 33 percent more memory versus the previous generation.

The C240 M6 rack server brings many new innovations to the UCS rack server portfolio. With the introduction of PCIe Gen 4.0 expansion slots for high-speed I/O, DDR4 memory bus, and expanded storage capabilities, the server delivers significant performance and efficiency gains that will improve your application performance. Its features including the following:

- Supports the third-generation Intel Xeon Scalable CPU, with up to 40 cores per socket
- Up to 32 DDR4 DIMMs for improved performance, including higher density DDR4 DIMMs (16 DIMMs per socket)
- 16x DDR4 DIMMs + 16x Intel Optane persistent memory modules for up to 12 TB of memory
- Up to 8 PCIe Gen 4.0 expansion slots plus a modular LAN-on-motherboard (mLOM) slot
- Support for Cisco UCS VIC 1400 Series adapters as well as third-party options
- Up to 28 hot-swappable Small-Form-Factor (SFF) SAS/SATA or NVMe:
  - 28 SFF SAS/SATA (with up to 8x NVMe)
  - 26 NVMe in all NVMe SKU (SN) at PCIe Gen 4 x4 (2:1 oversubscribed)
  - 14 NVMe in all NVMe SKU (N)
  - 16 LFF drives with options 4 rear SFF (SAS/SATA/NVMe) disk drives
- Support for a 12-Gbps SAS modular RAID controller in a dedicated slot, leaving the remaining PCIe Gen 4.0 expansion slots available for other expansion cards

- M.2 boot options

  - Up to 960 GB with optional hardware RAID

- Up to five GPUs supported

- Modular LAN-on-motherboard (mLOM) slot that can be used to install a Cisco UCS Virtual Interface Card (VIC) without consuming a PCIe slot, supporting quad port 10/40 Gbps or dual port 40/100 Gbps network connectivity

- Dual embedded Intel x550 10GBASE-T LAN-on-motherboard (LOM) ports

- Modular M.2 SATA SSDs for boot

High performance for data-intensive applications

The Cisco UCS C240 M6 Rack Server is well-suited for a wide range of enterprise workloads, including:

- Big data and analytics

- Collaboration

- Small and medium-sized business databases

- Virtualization and consolidation

- Storage servers

- High-performance appliances

C240 M6 servers can be deployed as standalone servers, part of a Cisco UCS-managed environment, or through Cisco Intersight. When used in combination with Cisco Intersight, the C240 M6 brings the power and automation of unified computing to enterprise applications, including Cisco SingleConnect technology, drastically reducing switching and cabling requirements.

Cisco Intersight leverages the familiar capabilities of UCS Manager with service profiles, templates, and policy-based management to enable rapid deployment and help ensure deployment consistency. It also enables end-to-end server visibility, management, and control in both virtualized and bare-metal environments.

The Cisco Integrated Management Controller (IMC) delivers comprehensive out-of-band server management with support for many industry standards, including:

- Redfish Version 1.11.1 (2021.1 schema0)

- Intelligent Platform Management Interface (IPMI) v2.0

- Simple Network Management Protocol (SNMP) v2 and v3

- Syslog

- Simple Mail Transfer Protocol (SMTP)

- Key Management Interoperability Protocol (KMIP)

- cKVM (all-new Cisco KVM)

- Command-Line Interface (CLI)

- XML API

Management Software Development Kits (SDKs) and DevOps integrations exist for Python, Microsoft PowerShell, Ansible, Puppet, Chef, and more. For more information about integrations, see Cisco DevNet (https://developer.cisco.com/site/ucs-dev-center/)

Product specifications

Table 1 lists the specifications for the Cisco UCS C240 M6 Rack Server.

Table 1.   Specifications

Item	Specifications
Form factor	2RU rack server
Processors	3rd Generation Intel Xeon Scalable processors (1 or 2)
Memory	32 DDR4 DIMM slots: 16, 32, 64, 128 and 256 GB up to 3200 MHz Support for the Intel Optane DC persistent memory (128G, 256G, 512G)
PCIe expansion	8 PCIe 4.0 slots plus 1 dedicated 12-Gbps RAID controller slot and 1 dedicated mLOM slot
RAID controllers	• Internal controllers: Cisco 12-Gbps Modular RAID Controller (PCIe 4.0) with 2G Raid controller with 4GB cache for up to 28 SAS/SATA drives. Also a 12G SAS HBA for up to 16 drives (up to 2 HBAs in SX SKU), 4-GB Flash-Backed Write Cache (FBWC), providing enterprise-class data protection for up to 10 SAS and SATA Hard Disk Drives (HDDs), SSDs, or NVMe PCIe SSDs; or Cisco 12-Gbps Modular SAS Host Bus Adapter (HBA) • External controller: Cisco 12-Gbps 9500-8e SAS HBA
Internal storage	Backplane options: • Up to 28 x 2.5-inch SAS and SATA HDDs and SSDs (up to 4 NVMe PCIe drives) • Up to 26 x 2.5-inch NVMe PCIe SSDs (All direct attach Gen4 x4) • Up to 16 x 3.5-inch SAS and SATA HDDs and SSDs and optional 2 rear 2.5-inch HDDs and SSDs (up to 4 NVMe PCIe drives)
Embedded Network Interface Cards (NICs)	Dual 10GBASE-T Intel x550 Ethernet ports
mLOM	Dedicated mLOM slot that can flexibly accommodate 10/25/40, and 100-Gbps adapters
Power supplies	Hot-pluggable, redundant 1050W AC, 1050W DC, 1600W AC, and 2300W AC
Other storage	• Dedicated Baseboard Management Controller (BMC) FlexMMC for utilities (on board) • Dual M.2 SATA SSDs with HW Raid support
Management	• Cisco Intersight • Cisco Integrated Management Controller (IMC) • Cisco UCS Manager
Rack options	Cisco ball-bearing rail kit with optional reversible cable management arm
Hardware and software interoperability	See the Cisco Hardware and Software Interoperability List for a complete listing of supported operating systems and peripheral options.

System requirements

Table 2 lists system requirements for the server.

Table 2.   System requirements

Item	Requirements
Cisco UCS Manager (optional)	Release 4.2(1) or later
Cisco IMC	Release 4.2(1) or later

Ordering information

Table 3.   Ordering Information

Part #	Product description
UCSC-C240-M6SX	C240 M6 2RU standard server with up to 28x SFF drive bays
UCSC-C240-M6SN	C240 M6 2RU NVMe optimized server with up to 28x NVMe drive capability
UCSC-C240-M6S	C240 M6 2 RU with up to 12x SFF drives and optional media drive
UCSC-C240-M6N	C240 M6 2 RU with up to 12x NVMe drives and optional media drive
UCSC-C240-M6L	C240 M6 2RU standard server with up to 16x LFF drive bays

For information about installing or upgrading your server, see the Cisco UCS C240 M6 Server Installation and Service Guide.

For ordering information, see

- Cisco UCS C240 M6 SFF rack server specifications sheet
- Cisco UCS C240 M6 LFF rack server specifications sheet

Warranty information

The Cisco UCS C240 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 Cisco 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 4.   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 non-operating 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/22549341.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.

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