

# Cisco UCS X210c M6 Compute Node

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Un/Box the future with Cisco UCS® X-Series Modular System and Intersight™. Embrace an adaptable, future-ready, and cloud operated system to simplify IT and innovate at the speed of software.

## Product overview

The Cisco UCS X-Series Modular System simplifies your data center, adapting to the unpredictable needs of modern applications while also providing for traditional scale-out and enterprise workloads. It reduces the number of server types to maintain, helping to improve operational efficiency and agility as it helps reduce complexity. Powered by the Cisco Intersight cloud operations platform, it shifts your thinking from administrative details to business outcomes—with hybrid cloud infrastructure that is assembled from the cloud, shaped to your workloads, and continuously optimized.

## Features and benefits

### Main features

- The Cisco UCS X210c M6 Compute Node is the first computing device to integrate into the Cisco UCS X-Series Modular System. Up to eight compute nodes can reside in the 7-Rack-Unit (7RU) Cisco UCS X9508 Chassis, offering one of the highest densities of compute, I/O, and storage per rack unit in the industry.
- The Cisco UCS X210c M6 provides these main features:
  - **CPU:** Up to 2x 3rd Gen Intel® Xeon® Scalable Processors with up to 40 cores per processor and 1.5 MB Level 3 cache per core
  - **Memory:** Up to 32x 256 GB DDR4-3200 DIMMs for up to 8 TB of main memory. Configuring up to 16x 512-GB Intel Optane™ persistent memory DIMMs can yield up to 12 TB of memory.
  - **Storage:** Up to 6 hot-pluggable, Solid-State Drives (SSDs), or Non-volatile Memory Express (NVMe) 2.5-inch drives with a choice of enterprise-class Redundant Array of Independent Disks (RAIDs) or pass-through controllers with four lanes each of PCIe Gen 4 connectivity and up to 2 M.2 SATA drives for flexible boot and local storage capabilities.
  - **Optional front mezzanine GPU module:** The Cisco UCS Front Mezzanine GPU module is a passive PCIe Gen 4 front mezzanine option with support for up to two U.2 NVMe drives and two GPUs.
- **mLOM Virtual Interface Cards (VICs):**
  - Cisco UCS VIC 14425 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 50 Gbps of unified fabric connectivity to each of the chassis Intelligent Fabric Modules (IFMs) for 100 Gbps connectivity per server.
  - Cisco UCS VIC 15231 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 100 Gbps of unified fabric connectivity to each of the chassis Intelligent Fabric Modules (IFMs) for 100 Gbps connectivity per server.
  - Cisco UCS VIC 15420 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 100 Gbps of unified fabric connectivity to each of the chassis Intelligent Fabric Modules (IFMs) for 100 Gbps connectivity per server with secure boot technology.

- Optional mezzanine card:
  - Cisco UCS Virtual Interface Card (VIC) 14825 can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric technology. An included bridge card extends this VIC's 2x 50 Gbps of network connections through IFM connectors, bringing the total bandwidth to 100 Gbps per fabric (for a total of 200 Gbps per server).
  - Cisco UCS Virtual Interface Card (VIC) 15422 can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric technology. An included bridge card extends this VIC's 2x 50 Gbps of network connections through IFM connectors, bringing the total bandwidth to 100 Gbps per fabric (for a total of 200 Gbps per server) with secure boot technology.
  - Cisco UCS PCI Mezz card for X-Fabric can occupy the server's mezzanine slot at the bottom rear of the chassis. This card's I/O connectors link to Cisco UCS X-Fabric modules and enable connectivity to the X440p PCIe Node.
- Security: The server supports an optional Trusted Platform Module (TPM). Additional features include a secure boot FPGA and ACT2 anti-counterfeit provisions.

## Product specifications

**Table 1.** Product specifications

Item	Specifications
<b>Processors</b>	Up to 2 3 <sup>rd</sup> Gen Intel Xeon Scalable processors (1 or 2)
<b>Memory</b>	32 DDR4 DIMM slots (16 DIMMS per CPU): 16, 32, 64, 128, 258 at up to 3200 MHz
<b>Intel Optane DC persistent memory</b>	16 DIMM slots: 128, 256, and 512 GB at up to 3200 MHz
<b>mLOM</b>	mLOM slot for Cisco UCS VIC 14425, Cisco VIC 15231 or Cisco VIC 15230
<b>Mezzanine adapter (rear)</b>	<ul style="list-style-type: none"> <li>• Cisco UCS VIC 14825 mezzanine card with bridge connector compatible with Cisco UCS VIC 14425</li> <li>• Cisco UCS VIC 15825 mezzanine card with bridge connector compatible with Cisco UCS VIC 15425</li> </ul>
<b>Mezzanine Module (front)</b>	Front Mezz Module Options: <ul style="list-style-type: none"> <li>• NVMe Passthrough Controller (For NVMe drives only)</li> <li>• RAID Controller with 4GB Cache (For SSD and mix of SSD and NVMe)</li> <li>• GPU Front Mezz</li> <li>• No Front Mezz</li> </ul>

Item	Specifications
<b>Internal storage and GPU</b>	<p>Front Mezz storage Options:</p> <ul style="list-style-type: none"> <li>• Up to 6 x 2.5-inch SAS and SATA RAID-compatible SSDs</li> <li>• Up to 6 x 2.5-inch NVMe PCIe drives</li> <li>• A mixture of up to six SAS/SATA or NVMe drives</li> </ul> <p><b>Note:</b> Drives require a RAID or pass-through controller in the front mezzanine module slot.</p> <p>Boot Drive options:</p> <ul style="list-style-type: none"> <li>• Mini storage module with 2x M.2 (up to 960GB per drive) with hardware RAID</li> </ul> <p>GPU options:</p> <ul style="list-style-type: none"> <li>• GPU Front Mezz module with 2x 2.5-inch NVMe drives and 2x GPUs</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>• <a href="#">Cisco Intersight software</a> (SaaS, Virtual Appliance and Private Virtual Appliance)</li> <li>• Cisco UCS Manager (UCSM) 4.3(2) or later</li> </ul>
<b>Temperature: operating</b>	50° to 95° F (10° to 35° C)
<b>Temperature: nonoperating</b>	-40° to 149° F (-40° to 65° C)
<b>Humidity: operating</b>	5% to 93% noncondensing
<b>Humidity: nonoperating</b>	5% to 93% noncondensing
<b>Altitude: operating</b>	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1° C per 300m
<b>Altitude: nonoperating</b>	40,000 ft (12,000m)

## System requirements

**Table 2.** System requirements

Item	Requirements
<b>X-Series chassis</b>	Cisco UCS 9508 X-Series Server Chassis
<b>Fabric interconnect</b>	Cisco UCS 6454, 64108, and 6536 fabric interconnects
<b>Cisco Intersight</b>	<ul style="list-style-type: none"> <li>• Intersight Managed Mode (minimum Essential license per server)</li> <li>• UCSM Managed Mode (UMM) with Intersight</li> </ul>

## Ordering information

Table 3 provides ordering information for the Cisco UCS X210c M6.

**Table 3.** Ordering information

Part number	Description
<b>UCSX-210C-M6</b>	Cisco UCS 210c Compute Node w/o CPU, memory, Storage, Mezz
<b>UCSX-210C-M6-U</b>	Cisco UCS 210c M6 Compute Node UPG w/o CPU, Mem, Storage, Mezz
<b>UCSX-210C-M6-CH</b>	DISTI: Cisco UCS 210c Compute Node w/o CPU, Me, Storage, Mezz

For information about installing or upgrading your server, see the [Hardware Installation](#) Guide. For ordering information, see the [X210c spec sheet](#).

## Warranty information

Cisco UCS X210c Compute Node have a three-year Next-Business-Day (NBD) hardware warranty and a 90-day software warranty.

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. Cisco 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 Cisco Smart Net Total Care portal. For more information, please refer to <https://www.cisco.com/c/en/us/support/services/smart-net-total-care/index.html>

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 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. For more information, please refer to <https://www.cisco.com/c/en/us/services/technical/solution-support.html>.

## Product sustainability

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

**Table 4.** Cisco environmental sustainability information

Sustainability topic		Reference
General	Information on product-material-content laws and regulations	<a href="#">Materials</a>
	Information on electronic waste laws and regulations, including our products, batteries, and packaging	<a href="#">WEEE Compliance</a>
	Information on product takeback and reuse program	<a href="#">Cisco Takeback and Reuse Program</a>
	Sustainability Inquiries	Contact: <a href="mailto:csr_inquiries@cisco.com">csr_inquiries@cisco.com</a>
Material	Product packaging weight and materials	Contact: <a href="mailto:environment@cisco.com">environment@cisco.com</a>

## Product environmental information

Product environmental information for users per Commission Regulation (EU) 2019/424  
<https://www.cisco.com/web/dofc/22293074.pdf>.

Product Reuse, Repair and Recycling Information (EU WEEE Directive)  
<https://www.cisco.com/web/dofc/18438064.pdf>.

Product Recyclability Report (EPEAT / NSF 426)  
<https://www.cisco.com/web/dofc/18610171.pdf>.

## Cisco and Partner Services

Cisco and our industry-leading partners deliver services that accelerate your transition to a Cisco UCS X-Series Modular System solution. Cisco Unified Computing 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>.

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## Document history

New or revised topic	Described in	Date
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