

# Cisco UCS B480 M5 Blade Server

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The Cisco UCS® B480 M5 Blade Server delivers market-leading performance, versatility, and density without compromise.



## Product overview

The enterprise-class Cisco UCS® B480 M5 Blade Server delivers market-leading performance, versatility, and density without compromise for memory-intensive mission-critical enterprise applications and virtualized workloads, among others.

With the B480 M5, you can quickly deploy stateless physical and virtual workloads with the programmability that Cisco UCS Manager and Cisco® SingleConnect technology enable. Customers gain support for Intel® Xeon® scalable processors, higher density 256G DDR4 DIMMs, new second-generation Intel® Xeon® Scalable processors, and the new Intel® Optane DC Persistent Memory. Additionally, these B480 M5 servers offer up to 12 Terabytes (TB) of DDR4 memory or 18 TB using 24x256G DDR4 DIMMs and 24x512G Intel® Optane DC Persistent Memory; four SAS, SATA, and NVMe drives; M.2 storage; up to four GPUs and 160 Gigabit Ethernet connectivity for I/O throughput, all leading to exceptional performance, flexibility, and I/O throughput to run your most demanding applications.

The B480 M5 is a full-width blade server supported by the Cisco UCS 5108 Blade Server Chassis. The 5108 chassis and the Cisco B-Series Blade Servers provide inherent architectural advantages:

- Through Cisco UCS, gives you the architectural advantage of not having to power, cool, manage, and purchase excess switches (management, storage, and networking), Host Bus Adapters (HBAs), and Network Interface Cards (NICs) in each blade chassis
- Reduces the Total Cost of Ownership (TCO) by removing management modules from the chassis, making the chassis stateless
- Provides a single, highly available Cisco Unified Computing System™ (Cisco UCS) management domain for all system chassis and rack servers, reducing administrative tasks

## Exceptional expandability

The Cisco UCS B480 M5 Blade Server delivers flexibility, density, and expandability in a 4-socket, full-width form factor for enterprise and mission-critical applications. It offers:

- Four new second-generation Intel® Xeon® scalable CPUs (up to 28 cores per socket)
- Four existing Intel® Xeon® Scalable CPUs (up to 28 cores per socket)
- Support for higher density DDR4 memory, from 6 TB (128G DDR4 DIMMs) to 12 TB (256G DDR4 DIMMs)
- Memory speeds increase from 2666 MHz to 2933 MHz
- Intel Optane DC Persistent Memory Modules (DCPMM) – 128G, 256G, and 512G<sup>1</sup>
- Up to 18 TB using 24x256G DDR4 DIMMs and 24x512G Intel® Optane DC Persistent Memory Modules
- Cisco FlexStorage storage subsystem
- Five mezzanine adapters and support for up to four NVIDIA GPUs
- Cisco UCS Virtual Interface Card (VIC) 1340 modular LAN on motherboard (mLOM) and upcoming fourth-generation VIC mLOM
- Internal Secure Digital (SD) and M.2 boot options

## Product specifications

Table 1 lists the specifications for the Cisco UCS B480 M5 Blade Server.

**Table 1.** Specifications

Item	Specifications
<b>Form factor</b>	<ul style="list-style-type: none"><li>• Full-width blade server mounts in a Cisco UCS 5100 Series Blade Server Chassis</li><li>• Up to 4 Cisco UCS B480 M5 Blade Servers can be installed per blade server chassis</li></ul>
<b>Processors</b>	Four Intel® Xeon® Scalable processors and second generation Intel® Xeon® Scalable processors
<b>Memory</b>	48 DDR4 DIMM slots: 16, 32, 64, 128, and 256 GB up to 2933 DDR4 DIMMs
<b>Mezzanine slots</b>	5 PCIe 3.0 mezzanine slots: <ul style="list-style-type: none"><li>• 1 slot supports the Cisco UCS VIC 1340 adapter only</li><li>• 2 mezzanine-card slots support Cisco adapters, Cisco UCS storage accelerators, and GPUs</li><li>• 2 front mezzanine slots support NVIDIA GPUs</li></ul>

<sup>1</sup> Requires a DDR4 DIMM for deployment (e.g. 12 Intel Optane DC Persistent Memory Modules require 12 DDR4 DIMMs). The sizes of DCPMM must be the same and the DDR4 DIMMS must the same. But between the DCPMM and DIMMs, the sizes may vary, as shown in the 18-TB configuration described earlier in this data sheet.

Item	Specifications
<b>Storage controller</b>	<ul style="list-style-type: none"> <li>• Diskless system (no drive bays or RAID controller), or</li> <li>• Cisco FlexStorage™ 12-Gbps SAS RAID controller with Hard-Disk-Drive (HDD) cage, providing up to 12-Gbps SAS connectivity</li> <li>• Cisco FlexStorage 12-Gbps SAS RAID controller with 2-GB cache, Flash-Backed Write Cache (FBWC), and HDD cage, providing up to 12-Gbps SAS connectivity</li> <li>• Cisco FlexStorage PCI Express (PCIe) Solid-State Disk (SSD) and pass through module with HDD cage</li> </ul>
<b>Storage devices</b>	Up to 4 optional, front-accessible, hot-swappable 2.5-inch Small Form Factor (SFF) SAS or SATA HDDs, SSDs, and PCIe NVMe drives
<b>Other storage</b>	<ul style="list-style-type: none"> <li>• Dual internal Cisco FlexFlash SD cards (32, 64, and 128 GB) for installing an operating system or hypervisor; the second SD card can be used to mirror the first</li> <li>• Dual M.2 SATA SSD (240, 480, and 960 GB)</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>• <a href="#">Cisco® Intersight™</a></li> <li>• <a href="#">Cisco UCS Manager</a></li> <li>• <a href="#">Cisco UCS Central Software</a></li> <li>• <a href="#">Cisco UCS Director</a></li> <li>• <a href="#">Cisco UCS Performance Manager</a></li> </ul>
<b>Hardware and software interoperability</b>	See the <a href="#">Cisco Hardware and Software Interoperability List</a> for a complete listing of supported operating systems and peripheral options

## System requirements

<b>UCS Manager</b>	3.2(1) or above
<b>Cisco IMC</b>	3.1(2) or above

## Ordering information

For ordering information, see the Cisco UCS B480 M5 Blade Server specification sheet.

For information about installing or upgrading your server, see the [Cisco UCS B480 M5 hardware installation guide](#).

## Warranty information

Cisco UCS B480 Blade Servers have a 3-year Next-Business-Day (NBD) hardware warranty and 90-day software warranty.

Augmenting the 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>.

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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. 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 you've deployed in your ecosystem. Whether there is an issue with a Cisco or 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 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/18799434.pdf>.

Product Recyclability Report (EPEAT / NSF 426) <https://www.cisco.com/web/dofc/19614513.pdf>.

## Cisco Customer Recycling Solutions

<https://www.cisco.com/c/en/us/about/product-innovation-stewardship/product-recycling/takeback-recycle-program.html>.

## Cisco and Partner Services

Cisco and our industry-leading partners deliver services that accelerate your transition to a Cisco UCS B-Series Blade Servers 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>.

## 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.](#)

## For more information

For more information about Cisco UCS servers, refer to <https://www.cisco.com/go/ucs>.

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## Document history

New or revised topic	Described in	Date

**Americas Headquarters**  
Cisco Systems, Inc.  
San Jose, CA

**Asia Pacific Headquarters**  
Cisco Systems (USA) Pte. Ltd.  
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