GENERAL

cisco ucs c 240 m 4 sff rack server spec sheet

Published: September 3, 2026 | Index ID: #-

Introduction

The modern data center demands servers that deliver exceptional performance, flexibility, and reliability. Among the leaders in this space, Cisco's Unified Computing System (UCS) line has consistently set the benchmark for integration, scalability, and manageability. If you're evaluating a rack mounted platform to power virtualized workloads, storage intensive applications, or high performance computing, the **cisco ucs c 240 m 4 sff rack server spec sheet** offers a compelling blend of cutting edge hardware and robust management features. This comprehensive guide dives deep into the specifications, highlights the key strengths, and explains why the UCS C240 M4 is a top choice for enterprises looking to future proof their infrastructure.

Overview of the Cisco UCS C240 M4

The UCS C240 M4 is a 1U, small form factor (SFF) rack server designed for high density, low power consumption, and streamlined management. Built on Cisco's proven UCS architecture, the C240 M4 brings enterprise grade features to a compact chassis that can be deployed in a wide range of environments—from hyperscale data centers to edge sites.

Key selling points include:

- Dense compute power with support for dual Intel Xeon Scalable processors.
- Extensive memory capacity up to 2TB DDR4 ECC.
- Multiple storage options ranging from SATA to NVMe SSDs.
- Integrated UCS Manager for unified infrastructure control.
- High availability features such as redundant power supplies and hot swap fans.

Below, we unpack each component in detail, presenting the exact figures found in the official spec sheet.

Key Features

Processor Flexibility

The C240 M4 supports up to two Intel Xeon Scalable processors from the 2nd generation (codenamed Skylake) and 3rd generation (codenamed Cascade Lake). Each processor can host up to 28 cores, allowing for massive parallelism. The server's BIOS and firmware are fully compatible with the latest Intel Optane DC persistent memory, enabling hybrid memory architectures for low latency workloads.

Memory Scalability

With 32 DDR4 DIMM slots, the C240 M4 can accommodate up to 2TB of memory. Each slot supports 64GB modules, and the memory controller is fully ECC enabled to ensure data integrity across all workloads.

Storage Versatility

The server offers six 3.5 inch hot swap drive bays and two 2.5 inch hot swap bays. Supported media include:

- 7200 /RPM SATA HDDs.
- 10K/15K RPM SAS HDDs.

- NVMe SSDs (PCIe 3.0/4.0).
- Hybrid configurations with SSD caching.

Network Integration

Each C240 M4 comes with dual 10GbE or 25GbE NICs, with optional uplink to UCS Fabric Interconnects for 40/100GbE connectivity. The server also supports PCIe Gen3/Gen4 expansion for high speed NICs or GPU acceleration.

Power and Cooling Efficiency

Redundant 800W power supplies, hot swap fans, and an integrated thermal management system keep the server running smoothly even under heavy load. The Power Efficiency Rating (PER) of the chassis is 80 /% at 70 /% load.

Unified Management

Through UCS Manager, administrators can perform firmware updates, configuration, and monitoring across the entire UCS fabric from a single pane of glass. The C240 M4 also supports Cisco's UCS Director for automated policy based provisioning.

Detailed Spec Sheet

The following table captures the essential specifications for the Cisco UCS C240 M4, as outlined in the official spec sheet.

Component	Specification
Form Factor	1U Small Form Factor (SFF) Rack Server
Processor	Dual Intel Xeon Scalable (Skylake or Cascade Lake), up to 28 cores per socket
Memory	32 DDR4 DIMM slots, up to 2TB (64GB per slot), ECC enabled
Storage	6 x 3.5” hot swap bays, 2 x 2.5” hot swap bays, SATA/SAS/SSD support
Networking	Dual 10GbE or 25GbE NICs, optional 40/100GbE uplink via UCS Fabric Interconnect
PCIe Slots	2 x PCIe Gen3 x16, 2 x PCIe Gen3 x8
Power Supply	Redundant 800W hot swap supplies (dual)
Fans	12 hot swap fans (3.5”)
Management	UCS Manager, UCS Director, iDRAC
Operating System	Linux, Windows Server, VMware ESXi, Red Hat Enterprise
Warranty	3 year on site coverage

Processor Options

Below is a snapshot of the processor configurations available for the C240 M4:

- Xeon Gold 5118R (2× 18 core, 2.30 /GHz)
- Xeon Gold 6248R (2× 24 core, 2.60 /GHz)
- Xeon Platinum 8358 (2× 28 core, 2.30 /GHz)

Each option offers a blend of performance and power efficiency, with the option to enable Intel Turbo Boost for burst workloads.

Memory Configuration

The server’s memory subsystem is engineered for maximum bandwidth. Each DIMM slot is a 16 bit channel, and the controller supports 8 channel memory architecture. The following table summarizes memory bandwidth for common configurations:

DIMM Count	Memory Size	Bandwidth (GB/s)
8	512 /GB	20.3
16	1TB	40.6
32	2TB	81.2

Storage Options

Storage flexibility is a cornerstone of the UCS C240 M4. Administrators can mix and match drive types to meet performance, capacity, and cost targets. Typical configurations include:

1. 4 /× /1.92 /TB 7200 /RPM SATA HDDs for bulk storage.
2. 2 /× /240 /GB NVMe SSDs for caching or I/O intensive workloads.
3. Hybrid: 2 /× /960 /GB 15K /RPM SAS HDDs + 1 /× /1.92 /TB NVMe SSD.

Networking and Connectivity

The C240 M4's dual 10GbE NICs are Intel X520 or X710 models, depending on the firmware version. For higher throughput, users can install 25GbE or 40GbE NICs via the PCIe slots. The server also supports Cisco's Uplink Fabric for seamless integration with UCS Fabric Interconnects.

Power and Cooling

Power consumption is tightly controlled. Under full load, a single 800W supply can handle up to 1.6kW of server power. The hot swap fan design ensures that the server remains operable even if one fan fails. Thermal sensors feed back to UCS Manager, enabling proactive fan speed adjustments.

Management and Security

Management is centralized via UCS Manager, which offers role based access control, automated firmware updates, and policy based provisioning. The server also supports secure boot, TPM 2.0, and BIOS-level encryption to protect data at rest.

Performance Benchmarks

To illustrate the real world capabilities of the C240 M4, let's examine a series of benchmark results from independent testing labs.

CPU Performance

In the SPECint2006 benchmark, a dual Xeon Gold 6248R configuration achieved a score of 1.9 MIPS per socket, translating to a total of 3.8 MIPS. In the SPECfp2006 benchmark, the same configuration scored 3.4 MIPS per socket.

Memory Bandwidth

Using the AIX Memory Bandwidth Test, a 2TB memory configuration delivered 80 GB/s sustained bandwidth, which is on par with high end workstation servers.

Storage I/O

IOZone tests on a hybrid NVMe/SATA configuration revealed the following:

- Read latency: 0.25 /ms (NVMe) vs 5 /ms (SATA).

- Write throughput: 2.5 /GB/s (NVMe) vs 200 /MB/s (SATA).

Network Throughput

Using iPerf, a dual 10GbE NIC setup achieved 19.6 Gbps of sustained throughput, while a 25GbE NIC configuration reached 24.3 /Gbps.

Use Cases & Deployment Scenarios

Virtual Desktop Infrastructure (VDI)

The C240 M4's high core count and memory capacity make it ideal for VDI farms. With up to 2,000 concurrent virtual desktops, administrators can deliver a responsive experience while maintaining tight control over resource allocation.

Hyper Scale Cloud Platforms

Cloud providers benefit from the server's density and power efficiency. The 1U form factor allows for more compute nodes per rack, reducing data center footprint and operational costs.

Edge Computing

Because of its compact size and hot swap components, the C240 M4 is well suited for edge sites where maintenance windows are limited. The UCS Manager's remote management capabilities enable zero touch updates.

High Performance Computing (HPC)

With dual Xeon Scalable processors and PCIe Gen4 expansion slots, the server can host GPU accelerators for machine learning or scientific simulations. The high memory bandwidth ensures that data pipelines remain efficient.

Comparison with Competitors

When positioned against similar 1U rack servers, the C240 M4 holds its own in several key metrics.

Memory Density

Competitor A: 1TB max memory.
Competitor B: 1.5TB max memory.
C240 M4: 2TB max memory.

Baca Juga (Artikel Terkait)

- **advanced engineering electromagnetics solution manual edition hardcover by balanis constantine a published by wiley**
  URL: http://blueesystems.com/advanced-engineering-electromagnetics-solution-manual-edition-hardcover-by-balanis-constantine-a-published-by-wiley.pdf
- **advanced engineering electromagnetics solutions manual**
  URL: http://blueesystems.com/advanced-engineering-electromagnetics-solutions-manual.pdf
- **advanced engineering electromagnetics wiley 1989 grading**
  URL: http://blueesystems.com/advanced-engineering-electromagnetics-wiley-1989-grading.pdf
- **advanced engineering fluid mechanics by biswas**
  URL: http://blueesystems.com/advanced-engineering-fluid-mechanics-by-biswas.pdf

Tags: #cisco #rack #server #spec #sheet