Cisco UCS X410c M7 Compute Node

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https://www.cisco.com/c/en/us/products/servers-unified-computing/ucs-x-series-modular-system/datasheet-listing.html

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.

The Cisco UCS X410c M7 Compute Node is the computing device to integrate into the Cisco UCS X-Series Modular System. Up to four compute nodes or two compute nodes and two GPU nodes can reside in the 7-rack-unit (7RU) Cisco UCS X9508 Server Chassis, offering high performance and efficiency gains for a wide range of mission-critical enterprise applications, memory-intensive applications and bare-metal and virtualized workloads.

The Cisco UCS X410c M7 Compute Node harnesses the power of the latest 4th Gen Intel® Xeon® Scalable Processors (codenamed Sapphire Rapids), offering robust processing capabilities, extensive memory, flexible storage, and advanced networking options to meet the demands of diverse and evolving IT requirements.

NOTE: All options listed in the Spec Sheet are compatible with Intersight Managed Mode and UCSM Managed Mode configurations. To see the most recent list of components that are supported in Intersight Managed Mode, see Supported Systems.

shows a front view of the Cisco UCS X410c M7 Compute Node.

Figure 1 Cisco UCS X410c M7 Compute Node

Front View with Drives

DETAILED VIEWS

Cisco UCS X410c M7 Compute Node Front View

Figure 2 shows a front view of the Cisco UCS X410c M7 Compute Node.

Figure 2 Cisco UCS X410c M7 Compute Node Front View (Drives option)

Storage Drives Option
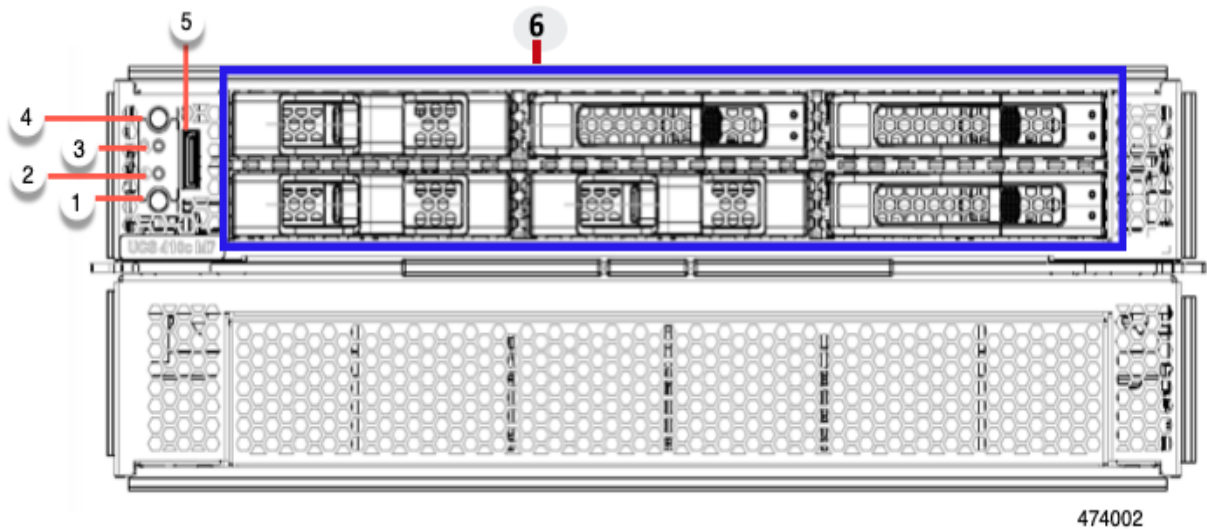

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1	Power button/LED	4	Locater LED/Switch
2	System Activity LED	5	External Optical Connector (Oculink) that supports local console functionality.
3	System Health LED	6	Drive Bay slots 1-6

COMPUTE NODE STANDARD CAPABILITIES and FEATURES

Table 1 lists the capabilities and features of the base Cisco UCS X410c M7 Compute Node. Details about how to configure the compute node for a listed feature or capability (for example, number of processors, disk drives, or amount of memory) are provided in CONFIGURING the Cisco UCS X410c M7 Compute Node on page 8

Table 1   Capabilities and Features

Capability/Feature	Description
Chassis	The Cisco UCS X410c M7 Compute Node mounts in a Cisco UCS X9508 chassis.
CPU	■ Four 4th Gen Intel® Xeon® Scalable Processors (codenamed Sapphire Rapids) with up to 60 cores per processor. ■ Each CPU has 8 channels with up to 2 DIMMs per channel, for up to 16 DIMMs per CPU. ■ UPI Links: Up to Four at 16GT/s
Chipset	Intel® C741 series chipset
Memory	■ 64 total DDR5 DIMM Slots, at up to 4800 MT/s ■ 50% peak bandwidth increase over DDR4-3200, all densities are Registered DIMMs (RDIMMs) ■ Up to 16TB with 64 x 256GB DDR5 Memory DIMMs, up to 4800 MT/s, in a 4-sockets configuration.
Mezzanine Adapter (Rear) Optional Mezzanine card	■ Cisco UCS Virtual Interface Card (VIC) 15422 can occupy the server's mezzanine slot at the bottom rear of the chassis. An included bridge card extends this VIC's 100Gbps (4 x 25Gbps) of network connections through IFM connectors, bringing the total bandwidth to 100Gbps per VIC 15420 and 15422 (for a total of 200Gbps per server). In addition to IFM connectivity, the VIC 15422 I/O connectors link to Cisco UCS X-Fabric 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.
mLOM virtual interface cards	The modular LAN on motherboard (mLOM) cards (the Cisco UCS VIC 15230 and 15420) is located at the rear of the compute node. ■ Cisco UCS Virtual Interface Card (VIC) 15420 occupies the server's Modular LAN on Motherboard (mLOM) slot, enabling up to 50Gbps (2 x25Gbps) of unified fabric connectivity to each of the chassis Intelligent Fabric Modules (IFMs) for 100Gbps connectivity per server. ■ Cisco UCS Virtual Interface Card (VIC) 15230 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 200 Gbps connectivity per server with secure boot capability.

Table 1   Capabilities and Features *(continued)*

Capability/Feature	Description
Mezzanine Adapters (Front)	One front mezzanine connector that supports: ■ Up to 6 x 2.5-inch SAS and SATA RAID-compatible SSDs ■ Up to 6 x 2.5-inch NVMe PCIe drives ■ A mixture of up to six SAS/SATA or NVMe drives Note: Drives require a RAID or pass-through controller in the front mezzanine module slot
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 (RAID) or pass-through controllers with four lanes each of PCIe Gen 4 connectivity and
Additional Storage	Up to 2 M.2 SATA or NVMe drives for flexible boot and local storage capabilities as fallows: ■ Dual 80 mm SATA 3.0 M.2 cards on a boot-optimized hardware RAID controller ■ Dual 80 mm NVMe cards on a passthrough controller
Security	■ Includes secure boot silicon root of trust FPGA, ACT2 anti-counterfeit provisions, and optional Trusted Platform Model (TPM)
Video	The Cisco Integrated Management Controller (CIMC) provides video using the Aspeed AST2600 video/graphics controller.
Front Panel Interfaces	OCuLink console port. Note that an adapter cable is required to connect the OCuLink port to the transition serial USB and video (SUV) octopus cable.
Power subsystem	Power is supplied from the Cisco UCS X9508 chassis power supplies. The Cisco UCS X410c M7 Compute Node consumes a maximum of 2500W.
Fans	Integrated in the Cisco UCS X9508 chassis.
Integrated management processor	The built-in Cisco Integrated Management Controller enables monitoring of Cisco UCS X410c M7 Compute Node inventory, health, and system event logs.
Baseboard Management Controller (BMC)	ASPEED Pilot IV
ACPI	Advanced Configuration and Power Interface (ACPI) 6.5 Standard Supported. ACPI states S0 and S5 are supported. There is no support for states S1 through S4.
Front Indicators	■ Power button and indicator ■ System activity indicator ■ Location button and indicator
Management	Cisco Intersight software (SaaS, Virtual Appliance and Private Virtual Appliance)

Table 1   Capabilities and Features *(continued)*

Capability/Feature	Description
Fabric Interconnect	Compatible with the Cisco UCS 6454, 64108, 6536, 6664 and UCSX-S9108-100G fabric interconnects.
Chassis	Compatible with the Cisco UCS 9508 X-Series Server Chassis

CONFIGURING the Cisco UCS X410c M7 Compute Node

Follow these steps to configure the Cisco UCS X410c M7 Compute Node:

STEP 1   CHOOSE BASE Cisco UCS X410c M7 Compute Node SKU

Top Level ordering product ID (PID) of the Cisco UCS X410c M7 Compute Node as shown in *Table 2*

Table 2   Top level ordering PID

Product ID (PID)	Description
UCSX-M7-MLB	UCSX M7 Modular Server and Chassis MLB

Verify the product ID (PID) of the Cisco UCS X410c M7 Compute Node as shown in *Table 3*.

Table 3   PID of the Base Cisco UCS X410c M7 Compute Node

Product ID (PID)	Description
UCSX-410C-M7	Cisco UCS X410c M7 Compute Node 4S Intel 4th Gen CPU without CPU, memory, drive bays, drives, VIC adapter, or mezzanine adapters (ordered as a UCS X9508 chassis option)
UCSX-410C-M7-U	Cisco UCS X410c M7 Compute Node 4S Intel 4th Gen CPU without CPU, memory, drive bays, drives, VIC adapter, or mezzanine adapters (ordered standalone)

A base Cisco UCS X410c M7 Compute Node ordered in *Table 3* does not include any components or options. They must be selected during product ordering.

Please follow the steps on the following pages to order components such as the following, which Please follow the steps on the following pages to order components such as the following, which are required in a functional compute node:

■ CPUs

■ Memory

■ Cisco storage RAID or passthrough controller with drives (or blank, for no local drive support)

■ SAS, SATA, M.2 or NVMe drives

■ Cisco adapters (such as the 15000 series VIC or Bridge)

STEP 2   CHOOSE CPU(S)

The standard CPU features are:

■ The 4th Gen Intel® Xeon® Scalable Processors (codenamed Sapphire Rapids) are paired with Intel® C741 series chipset

■ Up to 60 cores

■ Cache size of up to 112.50 MB

■ Power: Up to 350Watts

■ UPI Links: Up to Four at 16GT/s

With 4th Gen Intel® Xeon® processors, improve performance efficiency for critical workloads with the most built-in accelerators. See 4th gen intel xeon benefit pillars in *LEADERSHIP PERFORMANCE WITH 4TH GEN INTEL® XEON® PROCESSORS*.

Select CPUs

The available CPUs are listed in *Table 4*.

Table 4   Available CPUs

Product ID (PID)	Cores (C)	Clock Freq (GHz)	Power (W)	Cache Size (MB)	Highest DDR5 DIMM Clock Support (MT/s)
8000 Series Processors					
UCSX-CPU-I8490H	60	1.90	350	112.50	4800
UCSX-CPU-I8468H	48	2.10	330	105.00	4800
UCSX-CPU-I8460H	40	2.20	330	105.00	4800
UCSX-CPU-I8454H	32	2.10	270	82.50	4800
UCSX-CPU-I8450H	28	2.00	250	75.00	4800
UCSX-CPU-I8444H	16	2.90	270	45.00	4800
6000 Series Processors					
UCSX-CPU-I6448H	32	2.40	250	60.00	4800
UCSX-CPU-I6434H	8	3.70	195	22.50	4800
UCSX-CPU-I6418H	24	2.10	185	60.00	4800
UCSX-CPU-I6416H	18	2.20	165	45.00	4800

Supported Configurations

(1) DRAM configuration:

- Select four identical CPUs listed in *Table 4 on page 10*

(2) Configurations with NVMe PCIe drives:

- Select four identical CPUs listed in *Table 4 on page 10*

(3) Four-CPU Configuration

- Choose four identical CPUs from any one of the rows of Table 4 Available CPUs, page 10

STEP 3   CHOOSE MEMORY

The *Table 5* below describes the main memory DIMM features supported on Cisco UCS X410c M7 Compute Node.

Table 5   X410c M7 Main Memory Features

Memory DIMM server technologies	Description
Maximum DDR5 memory clock speed	Up to 4800 MT/s 1DPC; Up to 4400 MT/S 2DPC
Operational voltage	1.1 Volts
DRAM Fab. density	16Gb
DRAM DIMM type	RDIMM (Registered DDR5 DIMM)
Memory DIMM organization	Eight memory DIMM channels per CPU; up to 2 DIMMs per channel
Maximum number of DRAM DIMM per server	64 (4-Socket)
DRAM DIMM densities and ranks	16GB 1Rx8, 32GB 1Rx4, 64GB 2Rx4, 96GB 2Rx4, 128GB 4Rx4, 256GB 8Rx4
Maximum system capacity (DRAM DIMMs only)	16TB (64x256GB)

Figure 3 Cisco UCS X410c M7 Compute Node Memory Organization
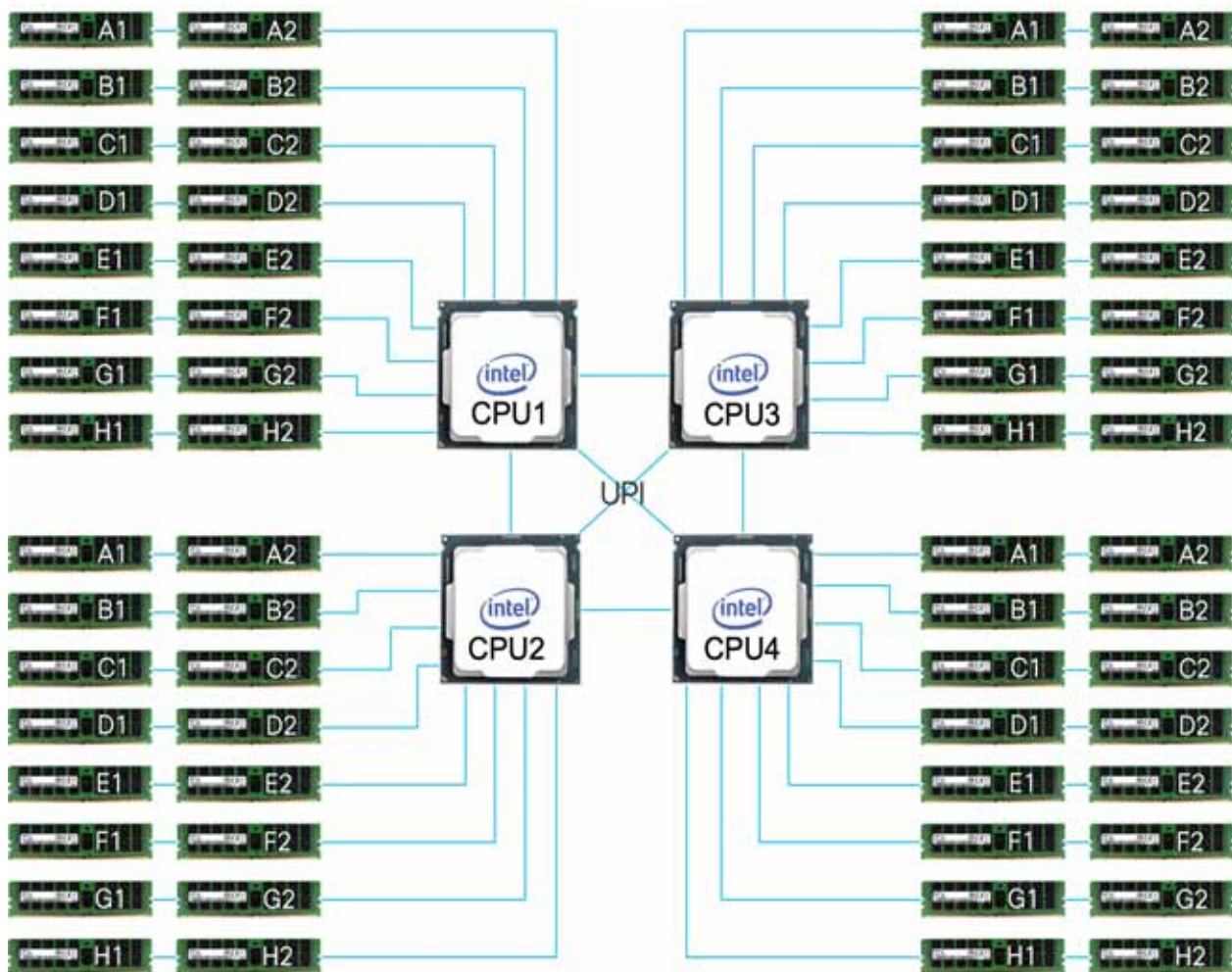
Select DIMMs and Memory Mirroring

Select the memory configuration and whether or not you want the memory mirroring option. The available memory DIMMs and mirroring option are listed in *Table 6*.

> NOTE: When memory mirroring is enabled, the memory subsystem simultaneously writes identical data to two channels. If a memory read from one of the channels returns incorrect data due to an uncorrectable memory error, the system automatically retrieves the data from the other channel. A transient or soft error in one channel does not affect the mirrored data, and operation continues unless there is a simultaneous error in exactly the same location on a DIMM and its mirrored DIMM. Memory mirroring reduces the amount of memory available to the operating system by 50% because only one of the two populated channels provides data.

Table 6   Memory Options for M7 servers with Intel® Xeon® 4th Gen. CPUs

Product ID (PID)	PID Description	Ranks/DIMM
DDR5-4800MT/s PID list		
UCSX-MRX16G1RE1[1]	16GB DDR5-4800 RDIMM 1Rx8 (16Gb)	1
UCSX-MRX32G1RE1[1]	32GB DDR5-4800 RDIMM 1Rx4 (16Gb)	1
UCSX-MRX64G2RE1[1]	64GB DDR5-4800 RDIMM 2Rx4 (16Gb)	2
UCSX-MR128G4RE1[1]	128GB DDR5-4800 RDIMM 4Rx4 (16Gb)	4
UCSX-MR256G8RE1[1]	256GB DDR5-4800 RDIMM 8Rx4 (16Gb)	8
UCSX-MRX16G1RE3[2]	16GB DDR5-5600 RDIMM 1Rx8 (16Gb)	1
UCSX-MRX32G1RE3[2]	32GB DDR5-5600 RDIMM 1Rx4 (16Gb)	1
UCSX-MRX96G2RF3[2]	96GB DDR5-5600 RDIMM 2Rx4 (24Gb)	2
Memory Mirroring Option		
N01-MMIRRORD	Memory mirroring option	
Accessories/spare included with Memory configuration:		
■ UCS-DDR5-BLK[3] is auto included for the unselected DIMMs slots		

Notes:

1. On September 30th, Cisco announced the End-Of-Life (EOL) and End-Of-Sale (EOS) for our DDR5-4800 memory DIMMs, which are currently supported on Cisco UCSX M7 servers featuring Intel Xeon 4th Gen CPUs. To address the discontinuation of DDR5-4800MT/s DIMMs by our suppliers, the Cisco Engineering team has thoroughly qualified existing DDR5-5600 memory DIMMs for use in M7 servers with Intel 4th Generation Xeon Scalable processors.
- Mixing DDR5-4800 and DDR5-5600 memory DIMMs within a single server powered by Intel Xeon 4th Gen CPUs is not supported
- When configuring an M7 server with Intel Xeon 4th Gen CPUs, ensure all installed memory DIMMs are of the same speed grade, DDR5-4800 or DDR5-5600.
- When expanding the memory capacity of servers currently equipped with DDR5-4800 DIMMs, use only DDR5-4800 spare DIMMs for upgrades.
2. Memory will operate at the maximum speed of the Intel 4th Gen. CPU memory controller, ranging from 4000 MT/s to 4800 MT/s.

3. Any empty DIMM slot must be populated with a DIMM blank to maintain proper cooling airflow.

Memory configurations and mixing rules

GOLDEN RULE: Memory on every CPU socket shall be configured identically. Therefore, the memory configuration of CPU-4 for a 4-socket system. Unbalanced populations are unsupported.

■ System speed is dependent on the CPU DIMM speed support. Refer to Available CPUs on page 10 for DIMM speeds.

■ For full details on supported memory configurations see the M7 Memory Guide

STEP 4   CHOOSE REAR mLOM ADAPTER

The Cisco UCS X410c M7 Compute Node must be ordered with a Cisco VIC mLOM Adapter. The adapter is located at the back and can operate in a single-CPU or dual-CPU configuration. *Table 7* shows the mLOM adapter choices.

Table 7   mLOM Adapters

| Product ID (PID)	Description	Connection type
UCSX-MLV5D200GV2D	Cisco UCS VIC 15230 modular LOM w/Secure Boot X Compute Node	mLOM
UCSX-ML-V5Q50G-D	UCS VIC 15420 4x25G secure boot mLOM for X Compute Node	mLOM

NOTE:

■ VIC 15420, or 15230 are supported with both X9108-IFM-25G and X9108-IFM-100G. VIC 15420 will operate at 4x 25G with both X9108-IFM-25G and X9108-IFM-100G. While, VIC 15230 will operate at 4x 25G with X9108-IFM-25G and at 2x 100G with X9108-IFM-100G.

■ The mLOM adapter is mandatory for the Ethernet connectivity to the network by means of the IFMs and has x16 PCIe Gen4 connectivity with Cisco UCS VIC 15420 or x16 Gen4 connectivity with Cisco UCS VIC 15230 towards the CPU1.

■ There is no backplane in the Cisco UCS X9508 chassis; thus, the compute nodes directly connect to the IFMs using Orthogonal Direct connectors.

■ *Figure 5* shows the location of the mLOM and rear mezzanine adapters on the Cisco UCS X410c M7 Compute Node. The bridge adapter connects the mLOM adapter to the rear mezzanine adapter.

Figure 4 Location of mLOM and Rear Mezzanine Adapters

mLOM Adapter

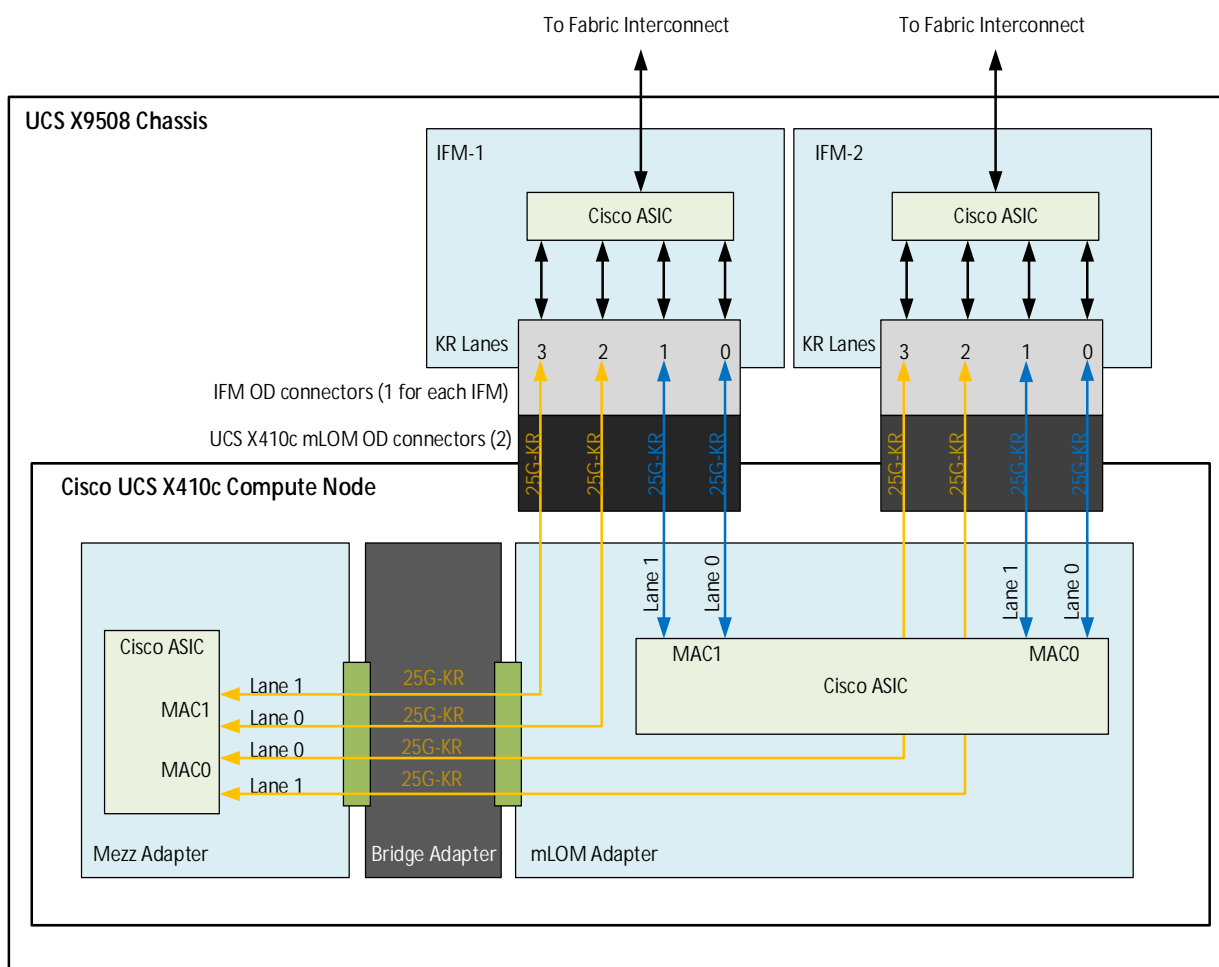Bridge Adapter
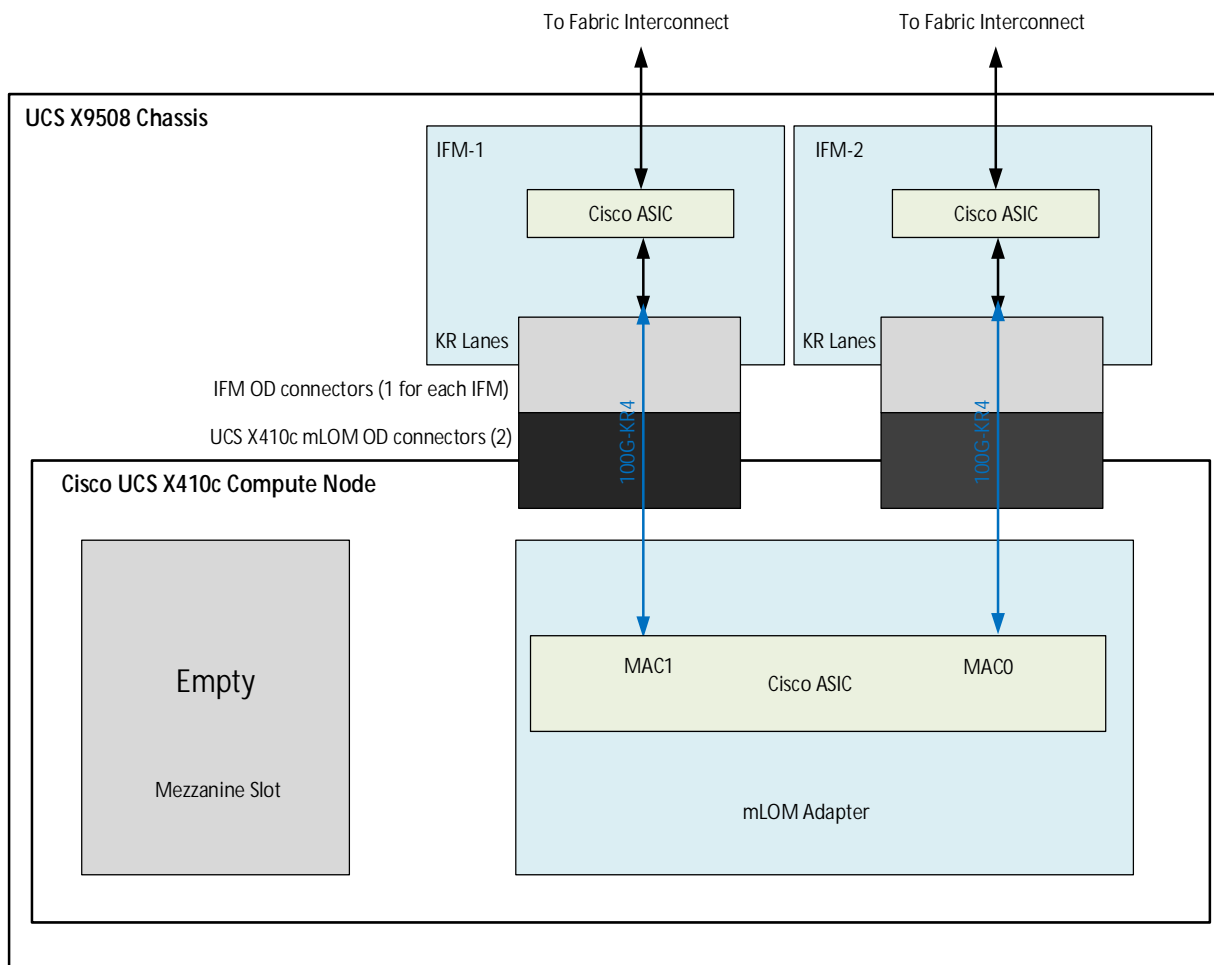
Rear Mezzanine Adapter
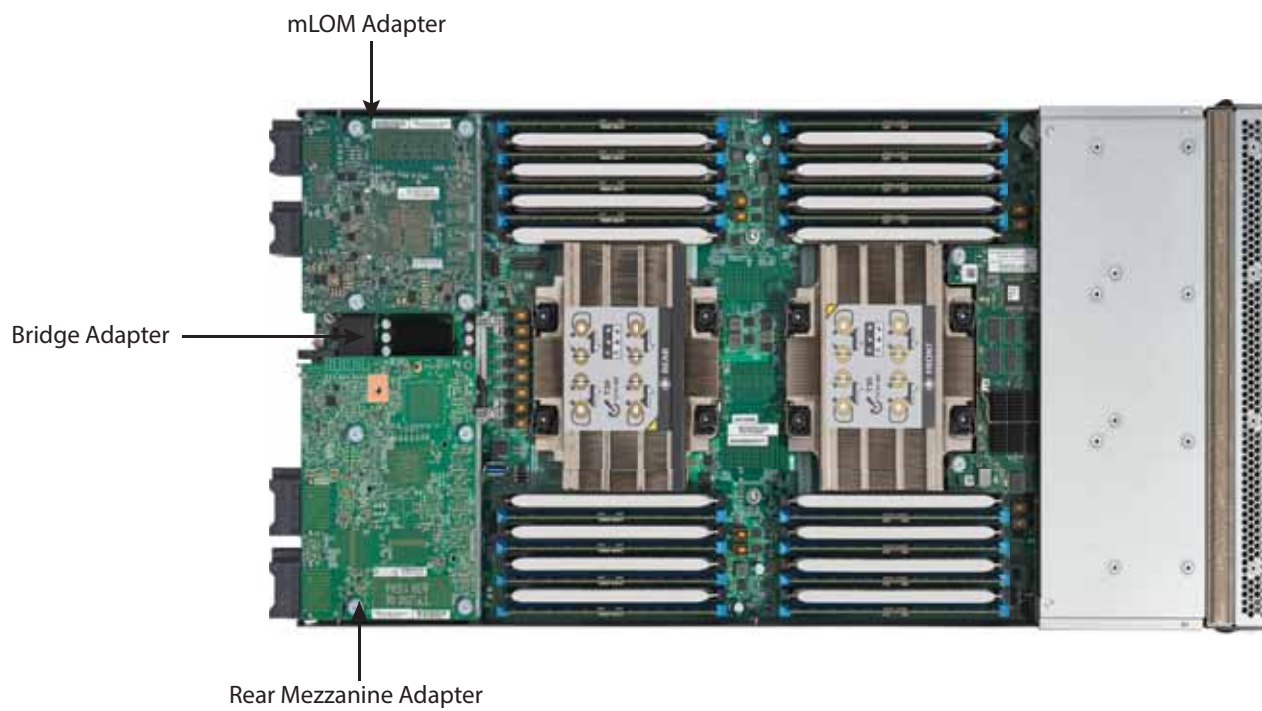
Figure 5 shows the network connectivity from the mLOM out to the 25G IFMs.

Figure 5 Network Connectivity 25G IFMs

Figure 6 shows the network connectivity from the mLOM out to the 100G IFMs.

Figure 6 Network Connectivity 100G IFMs

STEP 5 CHOOSE OPTIONAL REAR MEZZANINE VIC/BRIDGE ADAPTERS

The Cisco UCS X410c M7 Compute Node has one rear mezzanine adapter connector which can have a UCS VIC 15422 Mezz card that can be used as a second VIC card on the compute node for network connectivity or as a connector to the X440p PCIe node via X-Fabric modules. The same mezzanine slot on the compute node can also accommodate a pass-through mezzanine adapter for X-Fabric which enables compute node connectivity to the X440p PCIE node. Refer to *Table 8* for supported adapters.

Table 8   Available Rear Mezzanine Adapters

Product ID(PID)	PID Description	Connector Type
Cisco VIC Card		
UCSX-V4-PCIME-D[1]	UCS PCI Mezz Card for X-Fabric	Rear Mezzanine connector on motherboard
UCSX-ME-V5Q50G-D	UCS VIC 15422 4x25G secure boot mezz for X Compute Node	Rear Mezzanine connector on motherboard
Cisco VIC Bridge Card[2]		
UCSX-V5-BRIDGE-D	UCS VIC 15000 bridge to connect mLOM and mezz X Compute Node (This bridge to connect the Cisco VIC 15420 mLOM and Cisco VIC 15422 Mezz for the X410c M7 Compute Node)	One connector on Mezz card and one connector on mLOM card

Notes:
  1. If this adapter is selected, then two CPUs are required.
  2. Included with the Cisco VIC 15422 mezzanine adapter.

> NOTE: The UCSX-V4-PCIME-D rear mezzanine card for X-Fabric has PCIe Gen4 x16 connectivity towards each CPU1 and CPU2. Additionally, the UCSX-V4-PCIME-D also provides two PCIe Gen4 x16 to each X-fabric. This rear mezzanine card enables connectivity from the X410c M7 Compute Node to the X440p PCIe node.

Table 9   Throughput Per UCS X410c M7 Server

X410c M7 Compute Node	FI-6536 + X9108-IFM-100G	FI-6536/6400 + X9108-IFM-25G	FI-6536 + X9108-IFM-25G/100G or FI-6400 + X9108-IFM-25G	FI-6536 + X9108-IFM-25G/100G or FI-6400 + X9108-IFM-25G	
X410c configuration	VIC 15231/15230	VIC 15231/15230	VIC 15420	VIC 15420 + VIC 15422	
Throughput per node	200G (100G per IFM)	100G (50G per IFM)	100G (50G per IFM)	200G (100G per IFM)	
vNICs needed for max BW	2	2	2	4	
KR connectivity from VIC to each IFM	1x 100GKR	2x 25GKR	2x 25GKR	4x 25GKR	
Single vNIC throughput on VIC	100G (1x100GKR)	50G (2x25G KR)	50G (2x25G KR)	50G (2x25G KR)	50G (2x25G KR)
Max Single flow BW per vNIC	100G	25G	25G	25G	25G
Single vHBA throughput on VIC	100G	50G	50G	50G	50G

Supported Configurations

- One of mLOM VIC from *Table 7* is always required.

- If a UCSX-ME-V5Q50G-D rear mezzanine VIC card is installed, a UCSX-V5-BRIDGE-D VIC bridge card is included and connects the mLOM to the mezzanine adapter.

- The UCSX-ME-V5Q50G-D rear mezzanine card has Ethernet connectivity to the IFM using the UCSX-V5-BRIDGE-D and has a PCIE Gen4 x16 connectivity towards CPU2. Additionally, the UCSX-ME-V5Q50G-D also provides two PCIe Gen4 x16 to each X-fabric.

- All the connections to Cisco UCS X-Fabric 1 and Cisco UCS X-Fabric 2 are through the Molex Orthogonal Direct (OD) connector on the mezzanine card.

- The rear mezzanine card has 32 x16PCIe lanes to each Cisco UCS X-Fabric for I/O expansion to enable resource consumption from the PCIe resource nodes.

STEP 6   CHOOSE OPTIONAL FRONT MEZZANINE ADAPTER

The Cisco UCS X410c M7 Compute Node has one front mezzanine connector that can accommodate one of the following mezzanine cards:

■ Pass-through controller for up to 6 U.2/U.3 NVMe drives.

■ RAID controller (RAID levels 0, 1, 5, 6, 10, and 50) for 6 SAS/SATA/NVMe drives.

NOTE:

■ The Cisco UCS X410c M7 Compute Node can be ordered with or without the front mezzanine adapter. Refer to Table 10 Available Front Mezzanine Adapters

■ Only one Front Mezzanine connector per Server

■ RAID with NVMe drives is only supported with the NVMe U.3 drives as they connect to the RAID controller and RAID is not supported with the U.2 NVME drives as they directly interface with the server via the PCIe bus.

Table 10 Available Front Mezzanine Adapters

Product ID(PID)	PID Description	Connector Type
UCSX-X10C-PT4F-D	UCS X10c Compute Pass Through Controller (Front)	Front Mezzanine
UCSX-X10C-RAIDF-D	UCS X10c Compute RAID Controller with LSI 3900 (Front) (SAS/SATA and NVMe drives can be mixed)	Front Mezzanine

STEP 7 CHOOSE OPTIONAL GPU PCIe NODE

Refer to *Table 11* for GPU PCIe Node

Table 11 GPU PCIe Node

Product ID(PID)	PID Description
UCSX-440P-D	UCS X-Series Gen4 PCIe node

NOTE: If UCSX-440P-D is selected, then rear mezzanine is required.

STEP 8   CHOOSE OPTIONAL GPUs

Select GPU Options

> **NOTE:**
> - Windows Server 2019 is not supported with the Intel FLex 140 & 170 GPUs
> - If UCSX-440P and UCSX-X10C-GPUFM-D are selected, only GPU PID combinations UCSX-GPU-FLEX140 + UCSX-GPU-FLX140MZ or UCSX-GPU-L4 + UCSX-GPU-L4-MEZZ are allowed.
> - No mixing of GPU types is allowed; UCSX-X10C-GPUFM-D and UCSX-440P-D must use the same GPUs.

The available Compute node GPU options are listed in *Table 12*

Table 12 Available PCIe GPU Card supported on the Compute Node Front Mezz

GPU Product ID (PID)	PID Description
UCSX-GPU-T4MEZZ-D	NVIDIA T4 GPU PCIE 75W 16GB, MEZZ form factor
UCSX-GPU-L4-MEZZ	NVIDIA GPU L4, Gen4x16, 1 Slot, HHHL, 70W 24GB, PCIe
UCSX-GPU-FLX140MZ	Intel GPU Flex 140, Gen4x8, HHHL, 75W PCIe

The available PCIe node GPU options are listed in *Table 13*.

Table 13 Available PCIe GPU Cards supported on the PCIe Node

GPU Product ID (PID)	PID Description	Maximum number of GPUs per node
UCSX-GPU-A16-D	NVIDIA A16 PCIE 250W 4X16GB	2
UCSX-GPU-A40-D	TESLA A40 RTX, PASSIVE, 300W, 48GB	2
UCSX-GPU-A100-80-D	TESLA A100, PASSIVE, 300W, 80GB	2
UCSX-GPU-H100-80	TESLA H100, PASSIVE, 350W, 80GB	2
UCSX-GPU-L40	NVIDIA L40 300W, 48GB wPWR CBL	2
UCSX-GPU-L40S	NVIDIA L40S: 350W, 48GB, 2-slot FHFL GPU	2
UCSX-GPU-H100-NVL	NVIDIA H100 NVL, 400W, 94GB, 2-slot FHFL GPU	2

Notes:

1. Required power cables are included with the riser cards in the X440p PCIe node.

STEP 9 CHOOSE OPTIONAL DRIVES

The Cisco UCS X410c M7 Compute Node can be ordered with or without drives. The drive options are:

■ One to six 2.5-inch small form factor SAS/SATA SSDs or PCIe U.2/U.3 NVMe drives

— Hot-pluggable

— Sled-mounted

Select one or two drives from the list of supported drives available in *Table 14*.

Table 14 Available Drive Options

Product ID (PID)	Description	Drive Type	Speed	Size
SAS/SATA SSDs[1,2,3]				
Self-Encrypted Drives (SED)				
UCSX-SD19TEM2NK9D	1.9TB 2.5in Enter Value 6G SATA Micron G2 SSD (SED)	SATA	6G	1.9TB
UCSX-SD38TEM2NK9D	3.8TB 2.5in Enter Value 6G SATA Micron G2 SSD (SED)	SATA	6G	3.8TB
UCSX-SD76TEM2NK9D	7.6TB 2.5in Enter Value 6G SATA Micron G2 SSD (SED)	SATA	6G	7.6TB
UCSX-SD960GM2NK9D	960GB 2.5in Enter Value 6G SATA Micron G2 SSD (SED)	SATA	6G	960GB
UCSX-SD38TBKANK9D	3.8TB 2.5in Enter Value 12G SAS Kioxia G2 SSD (SED-FIPS)	SAS	12G	3.8TB
UCSX-SD76TBKANK9D	7.6TB 2.5in Enter Value 12G SAS Kioxia G2 SSD (SED-FIPS)	SAS	12G	7.6TB
UCSXSD960GBKNK9-D	960GB 2.5in Enter Value 12G SAS Kioxia G1 SSD(SED-FIPS)	SAS	12G	960GB
UCSX-SD16TBKANK9D	1.6TB 2.5in Enter Perf 12G SAS Kioxia G2 SSD (3X SED-FIPS)	SAS	12G	1.6TB
Enterprise Value SSDs (Low endurance, supports up to 1X DWPD (drive writes per day))				
UCSXS480G6I1XEV-D	480 GB 2.5 inch Enterprise Value 6G SATA Intel SSD	SATA	6G	480GB
UCSXS960G6I1XEV-D	960GB 2.5 inch Enterprise Value 6G SATA Intel SSD	SATA	6G	960GB
UCSX-SDB960SA1VD	960GB 2.5in 6G SATA Enter Value 1X Samsung G1PM893A SSD	SATA	6G	960GB
UCSX-SDB1T9SA1VD	1.9TB 2.5in 6G SATA Enter Value 1X Samsung G1PM893A SSD	SATA	6G	1.9TB
UCSX-SDB3T8SA1VD	3.8TB 2.5in 6G SATA Enter Value 1X Samsung G1PM893A SSD	SATA	6G	3.8TB
UCSX-SDB7T6SA1VD	7.6TB 2.5in 6G SATA Enter Value 1X Samsung G1PM893A SSD	SATA	6G	7.6TB
UCSX-SD38TS1XEV-D	3.8TB 2.5in Enter Value 12G SAS Seagate SSD	SAS	12G	3.8TB
UCSXSD960GS1XEV-D	960GB 2.5in Enter Value 12G SAS Seagate SSD	SAS	12G	960GB
Enterprise Performance SSDs (high endurance, supports up to 3X DWPD (drive writes per day))				
UCSXSD480G63XEP-D	480GB 2.5in Enterprise Performance 6GSATA SSD(3X endurance)	SATA	6G	480GB
UCSX-SD19T63XEP-D	1.9TB 2.5in Enterprise performance 6GSATA SSD(3X endurance)	SATA	6G	1.9TB
UCSX-SDB3T8OA1V	3.8TB 2.5in 15mm Solidigm S4520 Enter Perf 6G SATA 1X SSD	SATA	6G	3.8TB
UCSX-SDB960OA1P	960GB 2.5in 15mm Solidigm S4620 Enter Perf 6G SATA 3X SSD	SATA	6G	960GB
UCSX-SDB3T8OA1P	3.8TB 2.5in 15mm Solidigm S4620 Enter Perf 6G SATA 3X SSD	SATA	6G	3.8TB
UCSX-SDB480OA1P	480GB 2.5in 15mm Solidigm S4620 Enter Perf 6G SATA 3X SSD	SATA	6G	480GB
UCSX-SDB1T9OA1P	1.9TB 2.5in 15mm Solidigm S4620 Enter Perf 6G SATA 3X SSD	SATA	6G	1.9TB
UCSX-SDB480OA1V	480GB 2.5in 15mm Solidigm S4520 Enter Perf 6G SATA 1X SSD	SATA	6G	480GB
UCSX-SDB960OA1V	960GB 2.5in 15mm Solidigm S4520 Enter Perf 6G SATA 1X SSD	SATA	6G	960GB

Table 14 Available Drive Options *(continued)*

Product ID (PID)	Description	Drive Type	Speed	Size
NVMe[4,5]				
UCSX-NVMEXPI400-D	400GB 2.5in U.2 Intel P5800X Optane NVMe Extreme Perform SSD	NVMe	U.2	400GB
UCSX-NVMEXPI800-D	800GB 2.5in U.2Intel P5800X Optane NVMe Extreme Perform SSD	NVMe	U.2	800GB
UCSX-NVMEG4M1536D	15.3TB 2.5in U.3 Micron 7450 NVMe High Perf Medium Endurance	NVMe	U.3	15.3TB
UCSX-NVMEG4M1600D	1.6TB 2.5in U.3 Micron 7450 NVMe High Perf High Endurance	NVMe	U.3	1.6TB
UCSX-NVMEG4M1920D	1.9TB 2.5in U.3 Micron 7450 NVMe High Perf Medium Endurance	NVMe	U.3	1.9TB
UCSX-NVMEG4M3200D	3.2TB 2.5in U.3 Micron 7450 NVMe High Perf High Endurance	NVMe	U.3	3.2TB
UCSX-NVMEG4M3840D	3.8TB 2.5in U.3 Micron 7450 NVMe High Perf Medium Endurance	NVMe	U.3	3.8TB
UCSX-NVMEG4M6400D	6.4TB 2.5in U.3 Micron 7450 NVMe High Perf High Endurance	NVMe	U.3	6.4TB
UCSX-NVMEG4M7680D	7.6TB 2.5in U.3 Micron 7450 NVMe High Perf Medium Endurance	NVMe	U.3	7.6TB
UCSX-NVMEG4-M960D	960GB 2.5in U.3 Micron 7450 NVMe High Perf Medium Endurance	NVMe	U.3	960GB
NOTE: Cisco uses solid state drives from several vendors. All solid state drives are subject to physical write limits and have varying maximum usage limitation specifications set by the manufacturer. Cisco will not replace any solid state drives that have exceeded any maximum usage specifications set by Cisco or the manufacturer, as determined solely by Cisco.				

Notes:
1. SSD drives require the UCSX-X10C-RAIDF-D front mezzanine adapter
2. For SSD drives to be in a RAID group, two identical SSDs must be used in the group.
3. If SSDs are in JBOD Mode, the drives do not need to be identical.
4. NVMe drives require a front mezzanine the UCSX-X10C-PT4F-D pass through controller or UCSX-X10C-RAIDF-D RAID controller.
5. A maximum of 4 U.2 NVMe drives or 6 U.3 NVMe drives can be ordered with RAID controller.

STEP 10 ORDER M.2 SATA SSDs AND RAID CONTROLLER

■ Cisco 6GB/s SATA Boot-Optimized M.2 RAID Controller (included): Boot-Optimized RAID controller (UCSX-M2-HWRD-FPS) for hardware RAID across two SATA M.2 storage modules. The Boot-Optimized RAID controller plugs into the motherboard and the M.2 SATA drives plug into the Boot-Optimized RAID controller.

> NOTE:
>
> ■ The UCSX-M2-HWRD-FPS is auto included with the server configuration
>
> ■ The UCSX-M2-HWRD-FPS controller supports RAID 1 and JBOD mode and is available only with 240GB and 960GB M.2 SATA SSDs.
>
> ■ Cisco IMM is supported for configuring of volumes and monitoring of the controller and installed SATA M.2 drives
>
> ■ Hot-plug replacement is not supported. The compute node must be powered off to replace.

Table 15 Boot-Optimized RAID controller (auto included)

Product ID (PID)	PID Description
UCSX-M2-HWRD-FPS	UCSX Front panel with M.2 RAID controller for SATA drives

■ Select Cisco M.2 SATA SSDs: Order one or two matching M.2 SATA SSDs. This connector accepts the boot-optimized RAID controller (see *Table 15*). Each boot-optimized RAID controller can accommodate up to two SATA M.2 SSDs shown in *Table 16*.

> NOTE:
>
> ■ Each boot-optimized RAID controller can accommodate up to two SATA M.2 SSDs shown in *Table 16*. The boot-optimized RAID controller plugs into the motherboard.
>
> ■ It is recommended that M.2 SATA SSDs be used as boot-only devices.
>
> ■ The SATA M.2 drives can boot in UEFI mode only. Legacy boot mode is not supported.

Table 16 M.2 SATA SSDs

Product ID (PID)	PID Description
UCSX-M2-240G-D	240GB 2.5in M.2 SATA Micron G2 SSD
UCSX-M2-480G-D	480GB 2.5in M.2 SATA Micron G2 SSD
UCSX-M2-960G-D	960GB 2.5in M.2 SATA Micron G2 SSD
UCSX-M2-I240GB-D	240GB SATA M.2 SSD
UCSX-M2480OA1V	480GB M.2 Boot Solidigm S4520 SATA 1X SSD

STEP 11 ORDER NVMe BOOT (OPTIONAL)

Table 17 NVMe BOOT

Product ID (PID)	PID Description
UCSX-M2-PT-FPN	UCSX Front Panel w/M.2 Pass Through Controller for NVME Drv

Table 18 M.2 NVMe

Product ID (PID)	PID Description
UCSX-NVM2-400GB	400GB M.2 Boot NVMe
UCSX-NVM2-960GB	960GB M.2 Boot NVMe

STEP 12   CHOOSE OPTIONAL TRUSTED PLATFORM MODULE

Trusted Platform Module (TPM) is a computer chip or microcontroller that can securely store artifacts used to authenticate the platform or Cisco UCS X410c M7 Compute Node. These artifacts can include passwords, certificates, or encryption keys. A TPM can also be used to store platform measurements that help ensure that the platform remains trustworthy. Authentication (ensuring that the platform can prove that it is what it claims to be) and attestation (a process helping to prove that a platform is trustworthy and has not been breached) are necessary steps to ensure safer computing in all environments.

Table 19 Available TPM Option

Product ID (PID)	Description
UCSX-TPM-002C-D	TPM 2.0, TCG, FIPS140-2, CC EAL4+ Certified, for servers
UCSX-TPM-OPT-OUT[1]	OPT OUT, TPM 2.0, TCG, FIPS140-2, CC EAL4+ Certified

Notes:

1. Please note Microsoft certification requires a TPM 2.0 for bare-metal or guest VM deployments. Opt-out of the TPM 2.0 voids the Microsoft certification.

NOTE:

- The TPM module used in this system conforms to TPM v2.0 as defined by the Trusted Computing Group (TCG).

- TPM installation is supported after-factory. However, a TPM installs with a one-way screw and cannot be replaced, upgraded, or moved to another compute node. If a Cisco UCS X410c M7 Compute Node with a TPM is returned, the replacement Cisco UCS X410c M7 Compute Node must be ordered with a new TPM. If there is no existing TPM in the Cisco UCS X410c M7 Compute Node, you can install a TPM 2.0. Refer to the following document for Installation location and instructions:

  https://www.cisco.com/content/en/us/td/docs/unified_computing/ucs/x/hw/x410c-m7/install/b-cisco-ucs-x410c-m7-install-guide.html

STEP 13 CHOOSE OPERATING SYSTEM AND VALUE-ADDED SOFTWARE

■ Operating System (*Table 20*)

> NOTE:
>
> ■ See this link for operating system guidance:
>   https://ucshcltool.cloudapps.cisco.com/public/

Table 20 Operating System

Product ID (PID)	PID Description
Microsoft Windows Server	
MSWS-22-ST16CD	Windows Server 2022 Standard (16 Cores/2 VMs)
MSWS-22-ST16CD-NS	Windows Server 2022 Standard (16 Cores/2 VMs) - No Cisco SVC
MSWS-22-DC16CD	Windows Server 2022 Data Center (16 Cores/Unlimited VMs)
MSWS-22-DC16CD-NS	Windows Server 2022 DC (16 Cores/Unlim VMs) - No Cisco SVC
MSWS-19-ST16CD	Windows Server 2019 Standard (16 Cores/2 VMs)
MSWS-19-ST16CD-NS	Windows Server 2019 Standard (16 Cores/2 VMs) - No Cisco SVC
MSWS-19-DC16CD	Windows Server 2019 Data Center (16 Cores/Unlimited VMs)
MSWS-19-DC16CD-NS	Windows Server 2019 DC (16 Cores/Unlim VMs) - No Cisco SVC
Red Hat	
RHEL-2S2V-D1A	Red Hat Enterprise Linux (1-2 CPU,1-2 VN); 1-Yr Support Req
RHEL-2S2V-D3A	Red Hat Enterprise Linux (1-2 CPU,1-2 VN); 3-Yr Support Req
RHEL-2S2V-D5A	Red Hat Enterprise Linux (1-2 CPU,1-2 VN); 5-Yr Support Req
RHEL-VDC-2SUV-D1A	RHEL for Virt Datacenters (1-2 CPU, Unlim VN) 1 Yr Supp Req
RHEL-VDC-2SUV-D3A	RHEL for Virt Datacenters (1-2 CPU, Unlim VN) 3 Yr Supp Req
RHEL-VDC-2SUV-D5A	RHEL for Virt Datacenters (1-2 CPU, Unlim VN) 5 Yr Supp Req
Red Hat Ent Linux/ High Avail/ Res Strg/ Scal	
RHEL-2S2V-D1S	Red Hat Enterprise Linux (1-2 CPU,1-2 VN); Prem 1Yr SnS Reqd
RHEL-2S2V-D3S	Red Hat Enterprise Linux (1-2 CPU,1-2 VN); Prem 3Yr SnS Reqd
RHEL-2S-HA-D1S	RHEL High Availability (1-2 CPU); Premium 1-yr SnS Reqd
RHEL-2S-HA-D3S	RHEL High Availability (1-2 CPU); Premium 3-yr SnS Reqd
RHEL-2S-RS-D1S	RHEL Resilent Storage (1-2 CPU); Premium 1-yr SnS Reqd
RHEL-2S-RS-D3S	RHEL Resilent Storage (1-2 CPU); Premium 3-yr SnS Reqd

Table 20 Operating System *(continued)*

Product ID (PID)	PID Description
RHEL-VDC-2SUV-D1S	RHEL for Virt Datacenters (1-2 CPU, Unlim VN) 1 Yr SnS Reqd
RHEL-VDC-2SUV-D3S	RHEL for Virt Datacenters (1-2 CPU, Unlim VN) 3 Yr SnS Reqd
Red Hat SAP	
RHEL-SAP-2S2V-D1S	RHEL for SAP Apps (1-2 CPU, 1-2 VN); Prem 1-Yr SnS Reqd
RHEL-SAP-2S2V-D3S	RHEL for SAP Apps (1-2 CPU, 1-2 VN); Prem 3-Yr SnS Reqd
RHEL-SAPSP-D3S	RHEL SAP Solutions Premium - 3 Years
RHEL-SAPSS-D3S	RHEL SAP Solutions Standard - 3 Years
SUSE	
SLES-2S2V-D1A	SUSE Linux Enterprise Svr (1-2 CPU,1-2 VM); 1-Yr Support Req
SLES-2S2V-D3A	SUSE Linux Enterprise Svr (1-2 CPU,1-2 VM); 3-Yr Support Req
SLES-2S2V-D5A	SUSE Linux Enterprise Svr (1-2 CPU,1-2 VM); 5-Yr Support Req
SLES-2SUVM-D1A	SUSE Linux Enterprise Svr (1-2 CPU,Unl VM) LP; 1Y Supp Req
SLES-2SUVM-D3A	SUSE Linux Enterprise Svr (1-2 CPU,Unl VM) LP; 3Y Supp Req
SLES-2SUVM-D5A	SUSE Linux Enterprise Svr (1-2 CPU,Unl VM) LP; 5Y Supp Req
SLES-2S-LP-D1A	SUSE Linux Live Patching Add-on (1-2 CPU); 1yr Support Req
SLES-2S-LP-D3A	SUSE Linux Live Patching Add-on (1-2 CPU); 3yr Support Req
SLES-2S2V-D1S	SUSE Linux Enterprise Svr (1-2 CPU,1-2 VM); Prio 1-Yr SnS
SLES-2S2V-D3S	SUSE Linux Enterprise Svr (1-2 CPU,1-2 VM); Prio 3-Yr SnS
SLES-2S2V-D5S	SUSE Linux Enterprise Svr (1-2 CPU,1-2 VM); Prio 5-Yr SnS
SLES-2SUVM-D1S	SUSE Linux Enterprise Svr (1-2 CPU,Unl VM) LP; Prio 1Y SnS
SLES-2SUVM-D3S	SUSE Linux Enterprise Svr (1-2 CPU,Unl VM) LP; Prio 3Y SnS
SLES-2SUVM-D5S	SUSE Linux Enterprise Svr (1-2 CPU,Unl VM) LP; Prio 5Y SnS
SLES-2S-HA-D1S	SUSE Linux High Availability Ext (1-2 CPU); 1yr SnS
SLES-2S-HA-D3S	SUSE Linux High Availability Ext (1-2 CPU); 3yr SnS
SLES-2S-HA-D5S	SUSE Linux High Availability Ext (1-2 CPU); 5yr SnS
SLES-2S-GC-D1S	SUSE Linux GEO Clustering for HA (1-2 CPU); 1yr Sns
SLES-2S-GC-D3S	SUSE Linux GEO Clustering for HA (1-2 CPU); 3yr SnS
SLES-2S-GC-D5S	SUSE Linux GEO Clustering for HA (1-2 CPU); 5yr SnS
SLES-2S-LP-D1S	SUSE Linux Live Patching Add-on (1-2 CPU); 1yr SnS Required

Table 20 Operating System *(continued)*

Product ID (PID)	PID Description
SLES-2S-LP-D3S	SUSE Linux Live Patching Add-on (1-2 CPU); 3yr SnS Required
SLES and SAP	
SLES-SAP-2S2V-D1S	SLES for SAP Apps (1-2 CPU, 1-2 VM); Priority 1-Yr SnS
SLES-SAP-2S2V-D3S	SLES for SAP Apps (1-2 CPU, 1-2 VM); Priority 3-Yr SnS
SLES-SAP-2S2V-D5S	SLES for SAP Apps (1-2 CPU, 1-2 VM); Priority 5-Yr SnS
SLES-SAP-2S2V-D1A	SLES for SAP Apps w/ HA (1-2 CPU, 1-2 VM); 1-Yr Support Reqd
SLES-SAP-2S2V-D3A	SLES for SAP Apps w/ HA (1-2 CPU, 1-2 VM); 3-Yr Support Reqd
SLES-SAP-2S2V-D5A	SLES for SAP Apps w/ HA (1-2 CPU, 1-2 VM); 5-Yr Support Reqd

STEP 14 CHOOSE OPTIONAL OPERATING SYSTEM MEDIA KIT

Select the optional operating system media listed in *Table 21*.

Table 21 OS Media

Product ID (PID)	PID Description
MSWS-19-ST16CD-RM	Windows Server 2019 Stan (16 Cores/2 VMs) Rec Media DVD Only
MSWS-19-DC16CD-RM	Windows Server 2019 DC (16Cores/Unlim VM) Rec Media DVD Only
MSWS-22-ST16CD-RM	Windows Server 2022 Stan (16 Cores/2 VMs) Rec Media DVD Only
MSWS-22-DC16CD-RM	Windows Server 2022 DC (16Cores/Unlim VM) Rec Media DVD Only

SUPPLEMENTAL MATERIAL

Simplified Block Diagram

A simplified block diagram of the Cisco UCS X410c M7 Compute Node system board is shown in *Figure 7*.

Figure 7 Cisco UCS X410c M7 Compute Node Simplified Block Diagram (IFMs 25G with Drives)

Figure 8 Cisco UCS X410c M7 Compute Node Simplified Block Diagram (IFMs 100G with Drives)
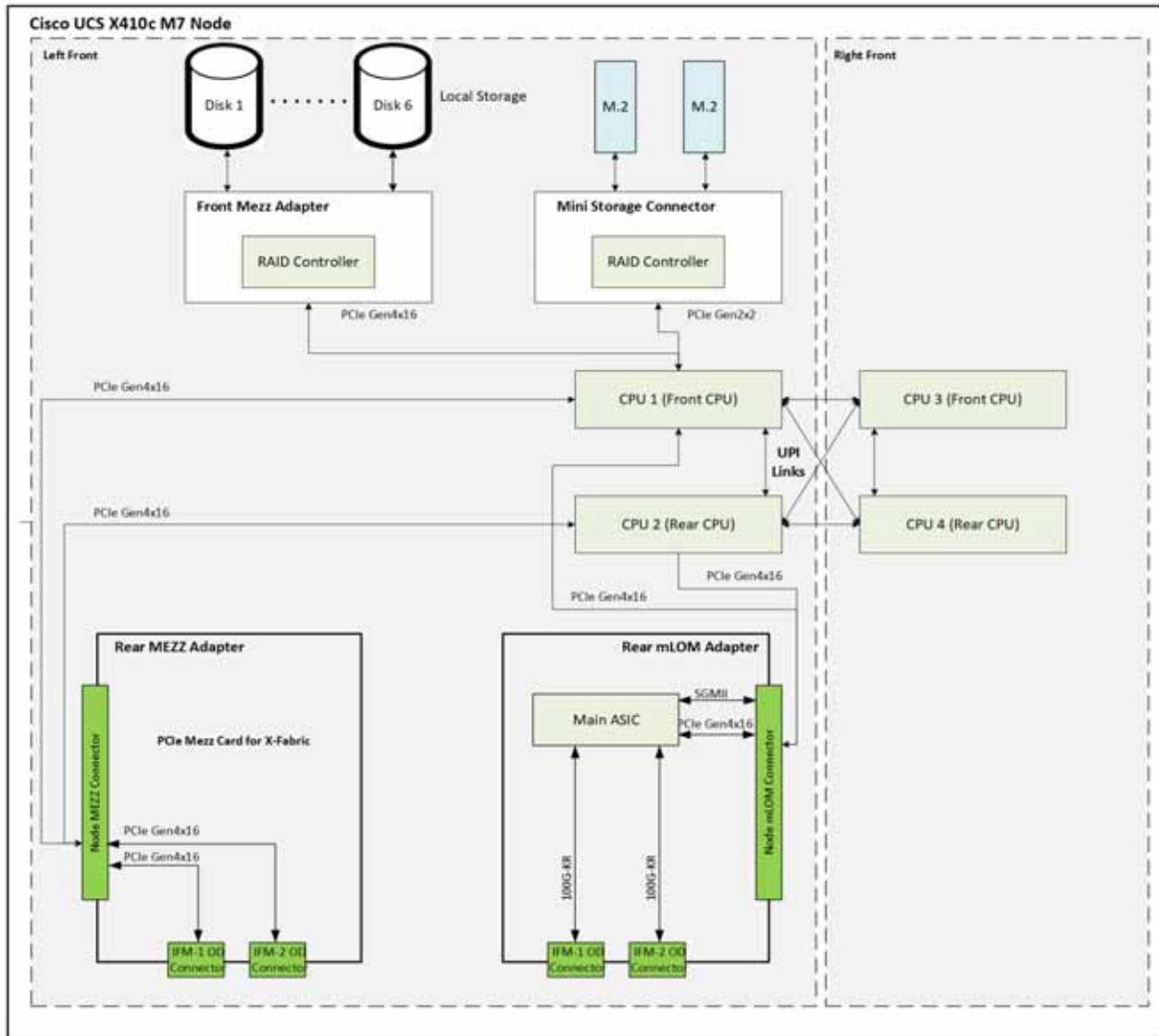
System Board

A top view of the Cisco UCS X410c M7 Compute Node system board is shown in *Figure 9*.

Figure 9 Cisco UCS X410c M7 Compute Node System Board
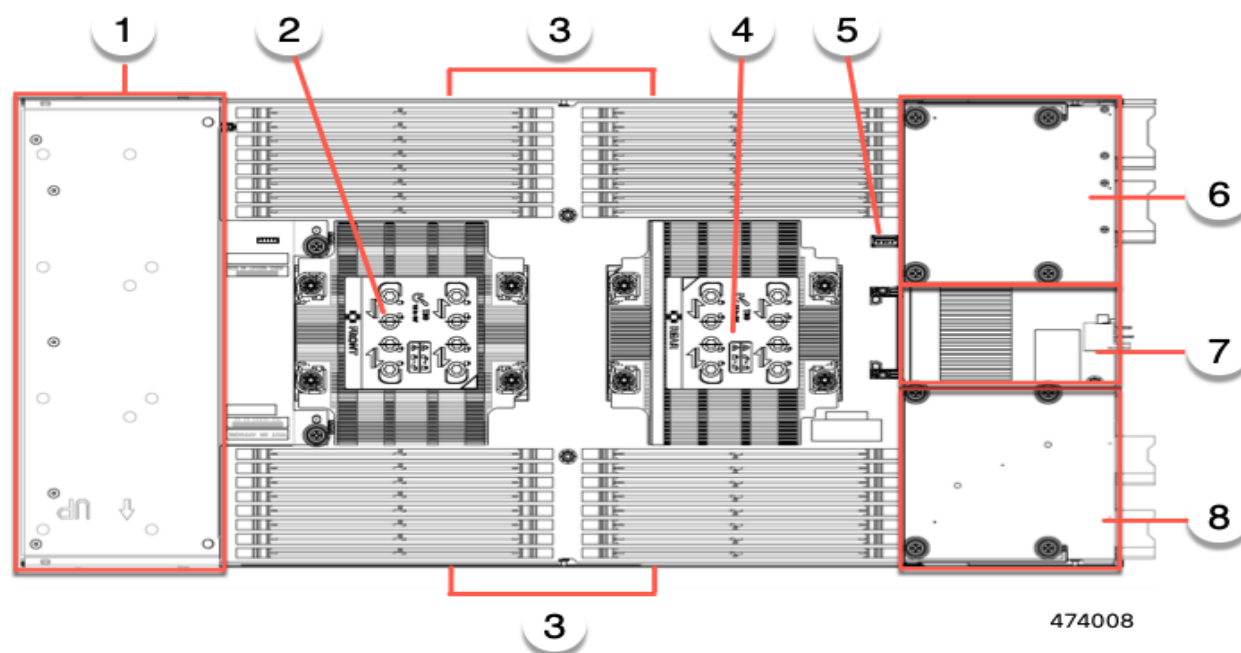
1	Front mezzanine module slot	5	Motherboard USB connector
2	CPU 1 slot	6	Rear mezzanine slot, which supports X-Series mezzanine cards, such as VIC 15422.
3	DIMM slots	7	Bridge Card slot, which connects 8 rear mezzanine slot and the mLOM/VIC slot
4	CPU 2 slot	8	mLOM/VIC slot that supports zero or one Cisco VIC or Cisco X-Series 100 Gbps mLOM

Please refer to the Cisco UCS X410c M7 Compute Node Installation Guide for installation procedures.

UPGRADING or REPLACING CPUs and MEMORY

- Refer to Cisco UCS X410c M7 Server Installation and Service Guide to upgrading or replacing the CPUs
- Refer to Cisco UCS X410c M7 Server Installation and Service Guide to upgrading or replacing the Memory

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Notes:

1. Compared to prior generation Intel® Xeon® processor. See [G1] at intel.com/processorclaims: 4th Gen Intel® Xeon® Scalable processors. Results may vary.

2. Compared to prior generation Intel® Xeon® processor. See [A16] and [A17] at intel.com/processorclaims: 4th Gen Intel® Xeon® Scalable processors. Results may vary.

3. Comparing benefits transitioning from Intel® Xeon® 4110 to Intel® Xeon® 5420+. See [E11] at intel.com/processorclaims: 4th Gen Intel® Xeon® Scalable processors. Results may vary.

4. Compared to prior generation Intel® Xeon® processor. See [E1] at intel.com/processorclaims: 4th Gen Intel® Xeon® Scalable processors. Results may vary.

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TECHNICAL SPECIFICATIONS

Dimensions and Weight

Table 22 Cisco UCS X410c M7 Compute Node Dimensions and Weight

Parameter	Value
Height	3.67 inches (93.22 mm)
Width	11.28 inches (286.52 mm)
Depth	23.8 inches (604.52 mm)
Weight	The weight depends on the components installed: ■ Minimally configured compute node weight: 25 lb (11.34 kg) ■ Fully configured compute node weight: 42 lb (19.05 kg)

Environmental Specifications

Table 23 Cisco UCS X410c M7 Compute Node Environmental Specifications

Parameter	Value
Operating temperature	Supported operating temperatures depend on the compute node's memory: ■ For 256GB DDR5 DIMMs: 50° to 89.6° F (10° to 32° C) at 0 to 10,000 ■ All other memory configurations: 50° to 95° F (10° to 35° C) at 0 to 10,000
Non-operating temperature	-40° to 149°F (–40° to 65°C)
Operating humidity	5% to 90% noncondensing
Non-operating humidity	5% to 93% noncondensing
Operating altitude	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1°C per 300m
Non-operating altitude	40,000 ft (12,000m)

For configuration-specific power specifications, use the Cisco UCS Power Calculator at:

http://ucspowercalc.cisco.com

Cisco UCS X410c M7 Compute Node

DISCONTINUED EOL PRODUCTS

Below is the list of parts were previously available for this product and are no longer sold. Please refer to the EOL Bulletin Links via table below to determine if still supported.

Table 24   EOS

Product ID	Description	EOL/EOS link
Drives		
UCSX-M2-240GB-D	240GB 2.5in M.2 SATA Micron G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSX-M2-960GB-D	960GB 2.5in M.2 SATA Micron G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSX-SD76TM1XEV-D	7.6TB 2.5in Enter Value 6G SATA Micron G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSXSD240GM1XEV-D	240GB 2.5in Enter Value 6G SATA Micron G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSXSD480GM1XEV-D	480 GB 2.5in Enter Value 6G SATA Micron G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSX-SD16TM1XEV-D	1.6TB 2.5in Enter Value 6G SATA Micron G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSX-SD38TM1XEV-D	3.8TB 2.5in Enter Value 6G SATA Micron G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSX-NVME-W6400-D	6.4TB 2.5in U.2 WD SN840 NVMe Extreme Perf. High Endurance	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/unified-computing-accessories-eol.html
UCSX-SD32TK3XEP-D	3.2TB 2.5in Enter Perf 12G SAS Kioxia G1 SSD (3X)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html
UCSX-SD38TK1XEV-D	3.8TB 2.5in Enter Value 12G SAS Kioxia G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html
UCSX-SD76TBKNK9-D	7.6TB 2.5in Enter Value 12G SAS Kioxia G1 SSD (SED-FIPS)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html
UCSX-SD76TK1XEV-D	7.6TB 2.5in Enter Value 12G SAS Kioxia G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html
UCSXNVMEI4I6400-D	6.4TB 2.5in U.2 Intel P5600 NVMe High Perf High Endurance	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html
UCSX-SD16TBKNK9-D	1.6TB 2.5in Enter Perf 12G SAS Kioxia G1 SSD (3X SED-FIPS)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html

Table 24   EOS

UCSX-SD16TK3XEP-D	1.6TB 2.5in Enter Perf 12G SAS Kioxia G1 SSD (3X)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html
UCSX-SD19TK1XEV-D	1.9TB 2.5in Enter Value 12G SAS Kioxia G1 SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-b-series-blade-servers/select-ucs-accessories-eol.html
UCSXSD38T6S1XEV-D	3.8TB 2.5in Enter Value 6G SATA Samsung SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-hci-accessories-eol.html
UCSXSD38T6S1XEV-D	3.8TB 2.5in Enter Value 6G SATA Samsung SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-hci-accessories-eol.html
UCSXS960G6S1XEV-D	960GB 2.5 inch Enterprise Value 6G SATA Samsung SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-accessories-eol15371.html
UCSX-SD19TS1XEV-D	1.9TB 2.5v Enter Value 12G SAS Seagate SSD	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-hci-accessories-eol.html
UCSX-ML-V5D200G-D	Cisco VIC 15231 2x 100G mLOM X-Series	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-ucsx-accessories-eol.html
UCSX-SD38TBKNK9-D	3.8TB 2.5in Enter Value 12G SAS Kioxia G1 SSD (SED-FIPS)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-drives-storage-controllers-eol.html
UCSX-M2-I480GB-D	480GB SATA M.2 SSD	
UCSXSD960GK1XEV-D	960GB 2.5 inch Enterprise Value 12G SAS SSD	

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