Spec Sheet

Cisco UCS X210c M8 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



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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 X210c M8 Compute Node is the third generation of compute node to integrate into the Cisco UCS X-Series Modular System. It delivers performance, flexibility, and optimization for deployments in data centers, and at remote sites.

This enterprise-class server offers market-leading performance, versatility, and density without compromise for workloads. 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 M8 Compute Node harnesses the power of the latest Intel® Xeon® Scalable Processors, and refer to ***COMPUTE NODE STANDARD CAPABILITIES and FEATURES on page 5***.

NOTE: All options listed in the Spec Sheet are compatible with Intersight Managed Mode and UCSM Managed Mode configurations. For firmware requirements for all components in Intersight Managed Mode see Supported Systems.

Figure 1 on page 4 shows a front view of the Cisco UCS X210c M8 Compute Node.

Figure 1 Cisco UCS X210c M8 Compute Node



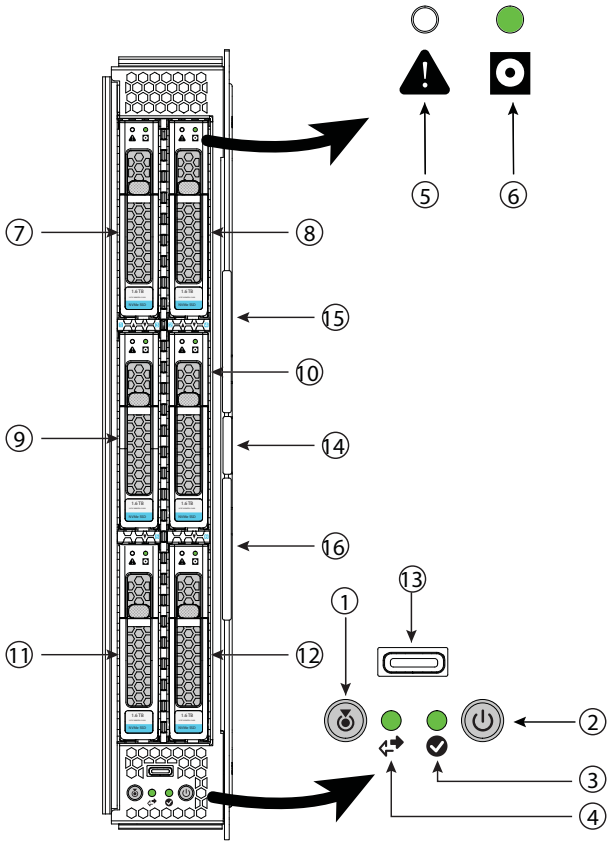
DETAILED VIEWS

Cisco UCS X210c M8 Compute Node Front View

Figure 2 & ***Figure 2*** is a front view of the Cisco UCS X210c M8 Compute Node.

Figure 2 Cisco UCS X210c M8 Compute Node Front View (Drives option)

Storage Drives Option



1	Locate button/LED	**9**	Drive Bay 3 (shown populated)
2	Power button/LED	**10**	Drive Bay 4 (shown populated)
3	Status LED	**11**	Drive Bay 5 (shown populated)
4	Network activity LED	**12**	Drive Bay 6 (shown populated)
5	Warning LED (one per drive)	**13**	OCuLink console port[1]
6	Disk drive activity LED (one per drive)	**14**	Ejector handle retention button
7	Drive Bay 1 (shown populated)	**15**	Upper ejector handle
8	Drive Bay 2 (shown populated)	**16**	Lower ejector handle

Notes:

1. An adapter cable (PID UCSX-C-DEBUGCBL) is required to connect the OCuLink port to the transition serial USB and video (SUV) octopus cable.

COMPUTE NODE STANDARD CAPABILITIES and FEATURES

Table 1 lists the capabilities and features of the base Cisco UCS X210c M8 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 X210C M8 COMPUTE NODE on page 8***.

Table 1 Capabilities and Features

Capability/Feature	Description
Chassis	The Cisco UCS X210c M8 Compute Node mounts in a Cisco UCS X9508 chassis.
CPU	■ One or two Intel® Xeon® 6 Scalable Processors ■ Each CPU has 8 channels with up to 2 DIMMs per channel, for up to 16 DIMMs per CPU ■ UPI Links: Up to 4 at 24GT/s
Memory	■ 32 total DDR5-6400 MT/s DIMM slots with Intel® Xeon® 6 Scalable Processors (16 per CPU) ■ Up to 8TB with 32 x 256GB DDR5-6400 DIMMs, in a 2-socket configuration with Intel® Xeon® 6 Scalable Processors.
Mezzanine Adapters (Front)	One front mezzanine connector that supports: ■ EDSFF E3.S NVMe passthrough controller ■ NVMe passthrough controller for U.3 NVMe drives ■ RAID controller with 4GB cache for SSD and mix of SSD and NVMe drives ■ GPU front mezzanine ■ No front mezzanine
Mezzanine Adapters (Rear)	■ Cisco UCS VIC 15422, a 5th Gen virtual interface card, 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 4x 25 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 PCI mezzanine card for Cisco UCS 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 Cisco UCS X-Series PCIe Nodes. **NOTE:** All VIC mezzanine cards also provide I/O connections from the Cisco UCS X210c Compute Node to the Cisco UCS X-Series PCIe Nodes.

Table 1 Capabilities and Features *(continued)*

Capability/Feature	Description
Internal Storage and GPU	■ Front mezzanine storage options (hot-swappable): • Up to 9x EDSFF E3.S NVMe drives • Up to 6x 2.5-inch SAS and SATA RAID-compatible SSDs • Up to 6x 2.5-inch NVMe PCIe drives • A mixture of up to six SAS/SATA or NVMe drives **NOTE:** Drives require a RAID or passthrough controller in the front mezzanine module slot. ■ Boot drive options: • Mini storage module with 2x M.2 (up to 960GB per drive) SATA drives with Hardware RAID • Mini storage module with 2x M.2 (up to 960GB per drive) NVMe drives in pass-through mode (Non-RAID). ■ GPU options: • GPU front mezzanine module with 2x 2.5-inch NVMe drives and 2 HHHL x GPUs
Mezzanine Adapter (Rear)	■ Cisco UCS VIC 15422, a 5th Gen virtual interface card, 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 4x 25 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 PCI mezzanine card for Cisco UCS 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 Cisco UCS X-Series PCIe Nodes. ■ All VIC mezzanine cards also provide I/O connections from the Cisco UCS X210c Compute Node to the Cisco UCS X-Series PCIe Nodes.
mLOM	■ Cisco UCS VIC (Virtual Interface Card) 15420 occupies the server's modular LAN on motherboard (mLOM) slot, enabling up to 50 Gbps (2x 25Gbps) of unified fabric connectivity to each of the chassis's intelligent fabric modules (IFMs) for 100 Gbps connectivity per server with secure boot technology. ■ Cisco UCS 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's intelligent fabric modules (IFMs) for 200 Gbps connectivity per server with secure boot technology.
Video	Video uses a Matrox G200e video/graphics controller. ■ Integrated 2D graphics core with hardware acceleration ■ DDR4 memory interface supports up to 512 MB of addressable memory (16 MB is allocated by default to video memory) ■ Supports display resolutions up to 1920 x 1200 32 bpp@ 60Hz ■ Video is available with an Oculink connector on the front panel. An adapter cable (PID UCSX-C-DEBUGCBL) is required to connect the OCuLink port to the transition serial USB and video (SUV) octopus cable.

Table 1 Capabilities and Features *(continued)*

Capability/Feature	Description
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.
Fans	Integrated in the Cisco UCS X9508 chassis.
Integrated management processor	■ The built-in Cisco Integrated Management Controller enables monitoring of Cisco UCS X210c M8 Compute Node inventory, health, and system event logs. ■ ASPEED Pilot IV BMC
Security:	The server supports an optional trusted platform module (TPM). Additional features include a secure boot FPGA and ACT2 anti-counterfeit provisions.
Firmware standards	■ UEFI Spec 2.9 ■ ACPI 6.5 ■ SMBIOS Ver 3.7
Front Indicators	■ Power button and indicator ■ System activity indicator ■ Location button and indicator
Management	■ **Cisco Intersight software** (SaaS, Virtual Appliance and Private Virtual Appliance) ■ UCS Manager starting with (UCSM) 4.3(6) or later
Fabric Interconnect	Compatible with the Cisco UCS 6454, 64108, 6536 and 6664 fabric interconnects

NOTE: All options listed in the Spec Sheet are compatible with Intersight Managed Mode and UCSM Managed Mode configurations. For firmware requirements for all components in Intersight Managed Mode see Supported Systems.

CONFIGURING THE CISCO UCS X210C M8 COMPUTE NODE

Follow these steps to configure the Cisco UCS X210c M8 Compute Node:

- *STEP 1 CHOOSE BASE CISCO UCS X210c M8 COMPUTE NODE SKU, page 9*
- *STEP 2 CHOOSE CPU(S), page 10*
- *STEP 3 SELECT MEMORY (REQUIRED), page 13*
- *STEP 4 CHOOSE REAR mLOM ADAPTER, page 16*
- *STEP 5 CHOOSE OPTIONAL REAR MEZZANINE VIC/BRIDGE ADAPTERS, page 20*
- *STEP 6 CHOOSE OPTIONAL FRONT MEZZANINE ADAPTER, page 22*
- *STEP 7 CHOOSE OPTIONAL GPU PCIe NODE, page 23*
- *STEP 8 CHOOSE OPTIONAL GPUs, page 24*
- *STEP 9 CHOOSE OPTIONAL DRIVES, page 25*
- *STEP 10 ORDER M.2 MODULE SSDs AND OPTIONAL DRIVES, page 28*
- *STEP 11 CHOOSE OPTIONAL TRUSTED PLATFORM MODULE, page 30*

STEP 1 CHOOSE BASE CISCO UCS X210c M8 COMPUTE NODE SKU

Top Level ordering product ID (PID) of the Cisco UCS X210c M8 Compute Node as shown in ***Table 2***

Table 2 Top level ordering PID

Product ID (PID)	Description
UCSX-M8-MLB	UCSX M8 Modular Server and Chassis MLB

Select the product ID (PID) of the Cisco UCS X210c M8 Compute Node as shown in ***Table 3***.

Table 3 PID of the Base Cisco UCS X210c M8 Compute Node

Product ID (PID)	Description
UCSX-210C-M8	Cisco UCS X210c M8 Compute Node without CPU, memory, drive bays, drives, VIC adapter, or mezzanine adapters (ordered as a UCS X9508 chassis option)
UCSX-210C-M8-U	Cisco UCS X210c M8 Compute Node without CPU, memory, drive bays, drives, VIC adapter, or mezzanine adapters (ordered standalone)

A base Cisco UCS X210c M8 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 are required in a functional compute node:

- CPUs
- Memory
- Cisco storage RAID or passthrough controller with drives (or blank, for no local drive support)
- Drives
- Cisco adapters (such as the 15000 series VIC or Bridge)

STEP 2 CHOOSE CPU(S)

The standard CPU features are:

- Up to 86 cores
- Cache size of up to 336 MB
- Power: Up to 350Watts
- UPI Links: Up to 4 at 24GT/s

Select CPUs from *Table 4*



CAUTION:

- Normal operating temperature is limited to 35° C [95° F], and is lowered to 28° C [82.4° F], with a fan fault.

Table 4 Available Intel® Xeon® 6 Scalable CPUs

Product ID	Segment/ Workload	Maximum Socket	Cores	Clock Freq	Power	Cache Size	Highest DDR5 DIMM Clock
(PID)		(S)	(C)	(GHz)	(W)	(MB)	(MT/s)
UCSX-CPU-I6787P	Performance	2S	86	2.00	350	336	6400
UCSX-CPU-I6781P[1]	Single Socket	1S	80	2.00	350	336	6400
UCSX-CPU-I6767P	Performance	2S	64	2.40	350	336	6400
UCSX-CPU-I6761P[1]	Single Socket	1S	64	2.50	350	336	6400
UCSX-CPU-I6760P	Mainline	2S	64	2.20	330	320	6400
UCSX-CPU-I6747P	Performance	2S	48	2.70	330	288	6400
UCSX-CPU-I6745P	Performance	2S	32	3.10	300	336	6400
UCSX-CPU-I6741P[1]	Single Socket	1S	48	2.50	300	288	6400
UCSX-CPU-I6740P	Mainline	2S	48	2.10	270	288	6400
UCSX-CPU-I6736P	Performance	2S	36	2.00	205	144	6400
UCSX-CPU-I6737P	Performance	2S	32	2.90	270	144	6400
UCSX-CPU-I6731P[1]	Single Socket	1S	32	2.50	245	144	6400
UCSX-CPU-I6730P	Performance	2S	32	2.50	250	288	6400
UCSX-CPU-I6530P	Mainline	2S	32	2.30	225	144	6400
UCSX-CPU-I6728P	Socket scalable	4S	24	2.70	210	144	6400
UCSX-CPU-I6527P	Performance	2S	24	3.00	255	144	6400
UCSX-CPU-I6521P[1]	Single Socket	1S	24	2.60	225	144	6400
UCSX-CPU-I6520P	Mainline	2S	24	2.40	210	144	6400

Table 4 Available Intel® Xeon® 6 Scalable CPUs

Product ID	Segment/ Workload	Maximum Socket	Cores	Clock Freq	Power	Cache Size	Highest DDR5 DIMM Clock
(PID)		(S)	(C)	(GHz)	(W)	(MB)	(MT/s)
UCSX-CPU-I6511P[1]	Single Socket	1S	16	2.50	150	72	6400
UCSX-CPU-I6724P	Performance	4S	16	3.60	210	72	6400
UCSX-CPU-I6517P	Performance	2S	16	3.20	190	72	6400
UCSX-CPU-I6515P	Mainline	2S	16	2.30	150	72	6400
UCSX-CPU-I6505P	Mainline	2S	12	2.20	150	48	6400
UCSX-CPU-I6714P	Performance	4S	8	4.00	165	48	6400
UCSX-CPU-I6507P	Performance	2S	8	3.50	150	48	6400

Notes:

1. Single Socket only CPUs

Table 5 CPU PID Decoder

Identifier#1	Identifier#2	Identifier#3	Identifier#4	Identifier#5	Identifier#6	Identifier#7
Cisco Product Family UCSX	**CPU supplier** **I:** Intel	**CPU Generation** **6:** 6th Generation	**SKU Tier** **5:** GNR-SP Mid Tier **7:** GNR-SP High Tier	**CPU SKU (2 digits)** **Examples:** 20, 34, 48 See detailed SKUs stack from supplier **11, 21, 31, 41, 61, 81:** single-socket	**Core Architecture** **P:** P-Core	**Option/Spare CPU** **Blank:** Option **=:** Spare

Supported Configurations

(1) DRAM configuration:

- Select one or two identical CPUs from ***Table 4 on page 10***

(2) Configurations with NVMe PCIe drives:

- Select one or two identical CPUs from ***Table 4 on page 10***

(3) Configurations with GPUs:

- Select one or two identical CPUs from ***Table 4 on page 10***

(4) One-CPU Configuration

- Choose one CPU from any one of the rows of ***Table 4 on page 10***

(5) Two-CPU Configuration

- Choose two identical CPUs from any one of the rows of ***Table 4 on page 10***

(6) Use with UCS X-Series X-Fabric and UCS X-Series PCIe Nodes require two CPUs

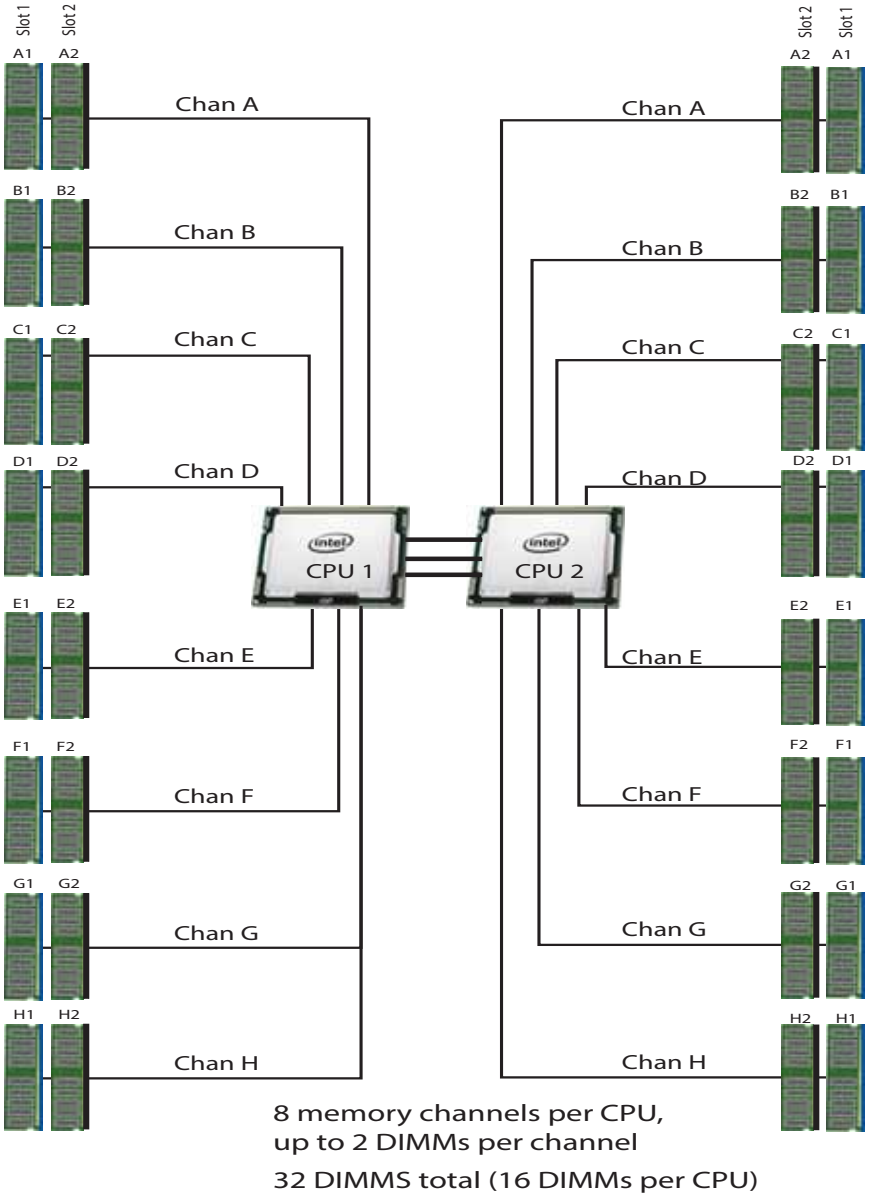
STEP 3 SELECT MEMORY (REQUIRED)

The ***Table 6*** below describes the main memory DIMM features supported on the server.

Table 6 Server Main Memory Features

Memory server technologies	Description
	DIMM
Intel® Xeon® CPU generation	Intel® Xeon® 6 CPUs
DDR5 memory clock speed	Up to 6400 MT/s 1DPC; Up to 5200 MT/s 2DPC
Operational voltage	1.1 Volts
DRAM fab density	16Gb, 24Gb and 32Gb
Memory type	RDIMM (Registered DDR5 DIMM)
Memory DRAM DIMM organization	Eight memory DIMM channels per CPU; up to 2 DIMMs Per Channel
Maximum number of DRAM DIMM per server	32 (2-Socket)
DRAM DIMM Densities and Ranks	16GB 1Rx8, 32GB 1Rx4, 32GB 2Rx8, 64GB 2Rx4, 96GB 2Rx4, 128GB 2Rx4, 256GB 4Rx4
Maximum system memory capacity	8TB (32x256GB)

Figure 3 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 7***.

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 7 Available Memory Options

Product ID (PID)	PID Description	Ranks/DIMM
DDR5-6400 MT/s Cisco Memory PIDs list		
UCSX-MRX16G1RE5	16GB RDIMM 1Rx8 1.1Volts (16Gb)	1
UCSX-MRX32G1RE5	32GB RDIMM 1Rx4 1.1Volts (16Gb)	1
UCSX-MRX32G2RE5	32GB RDIMM 2Rx8 1.1Volts (16Gb)	2
UCSX-MRX64G2RE5	64GB RDIMM 2Rx4 1.1Volts (16Gb)	2
UCSX-MRX96G2RF5	96GB RDIMM 2Rx4 1.1Volts (24Gb)	2
UCSX-MR128G2RG5	128GB RDIMM 2Rx4 1.1Volts (32Gb)	2
UCSX-MR256G4RG5	256GB DDR5-6400 RDIMM 4Rx4 (32Gb)	4
Memory Mirroring Option		
N01-MMIRRORD	Memory mirroring option	
Accessories/spare included with Memory configuration: ■ UCS-DDR5-BLK[1] is auto included for the unselected DIMMs slots		

Notes:

1. 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.
- For full details on supported memory configurations, count rules, population rules and mixing rules see the **Intel M8 Memory guide**.

STEP 4 CHOOSE REAR mLOM ADAPTER

The Cisco UCS X210c M8 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.

Select mLOM Adapter from *Table 8*

Table 8 mLOM Adapters

Product ID (PID)	Description	Connection type	Compatibility/Functionality
UCSX-MLV5D200GV2D	Cisco UCS VIC 15230 modular LOM w/Secure Boot X Compute Node	mLOM	■ Supported with both IFM 25G and IFM 100G ■ Operates at 4x 25G with both IFM 25G and IFM 100G
UCSX-ML-V5Q50G-D	UCS VIC 15420 4x25G secure boot mLOM for X Compute Node	mLOM	■ Supported with both IFM 25G and IFM 100G ■ Operates at 4x 25G with both IFM 25G ■ Operates at 2x 25G with IFM 100G

NOTE:

- The mLOM adapter is mandatory for the Ethernet connectivity to the network by means of the IFMs and has x16 PCIe Gen4 connectivity to CPU1 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 4*** shows the location of the mLOM and rear mezzanine adapters on the Cisco UCS X210c M8 Compute Node. The bridge adapter connects the mLOM adapter to the rear mezzanine adapter.

Figure 4 Location of mLOM and Rear Mezzanine Adapters

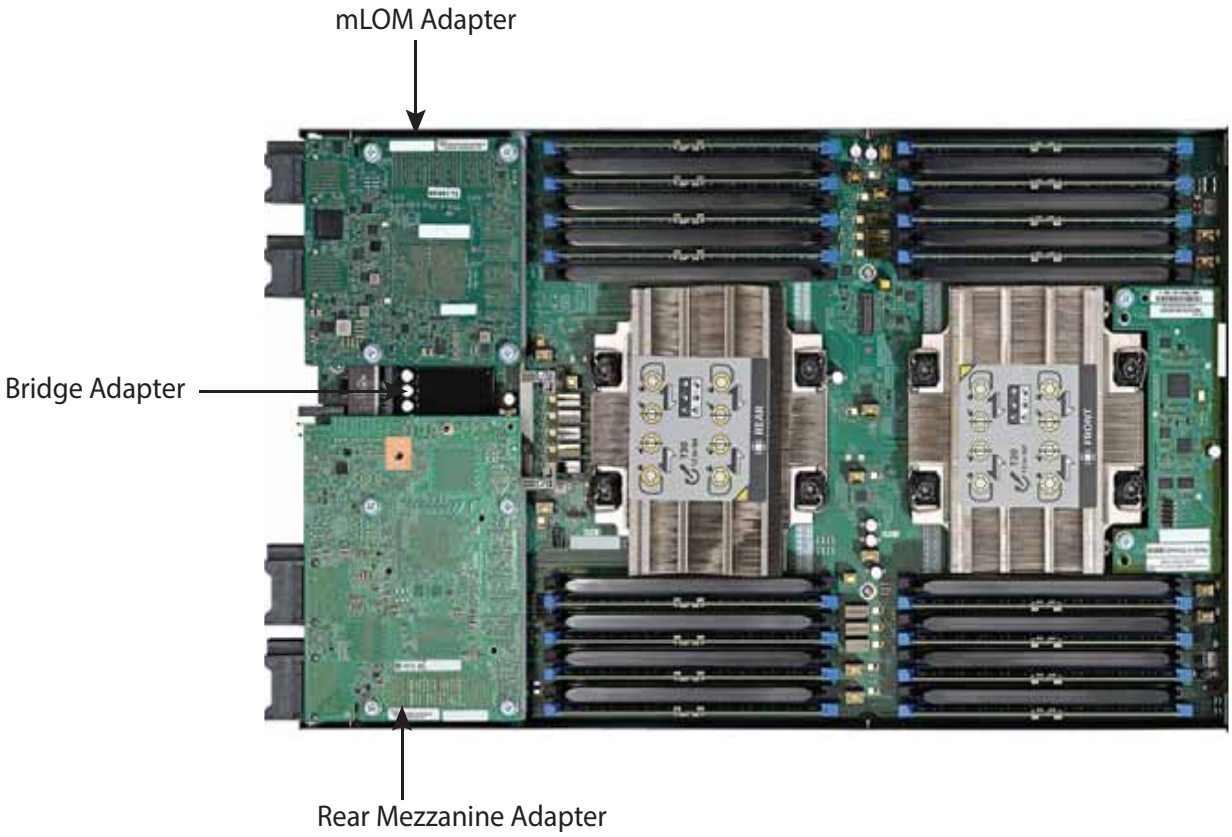
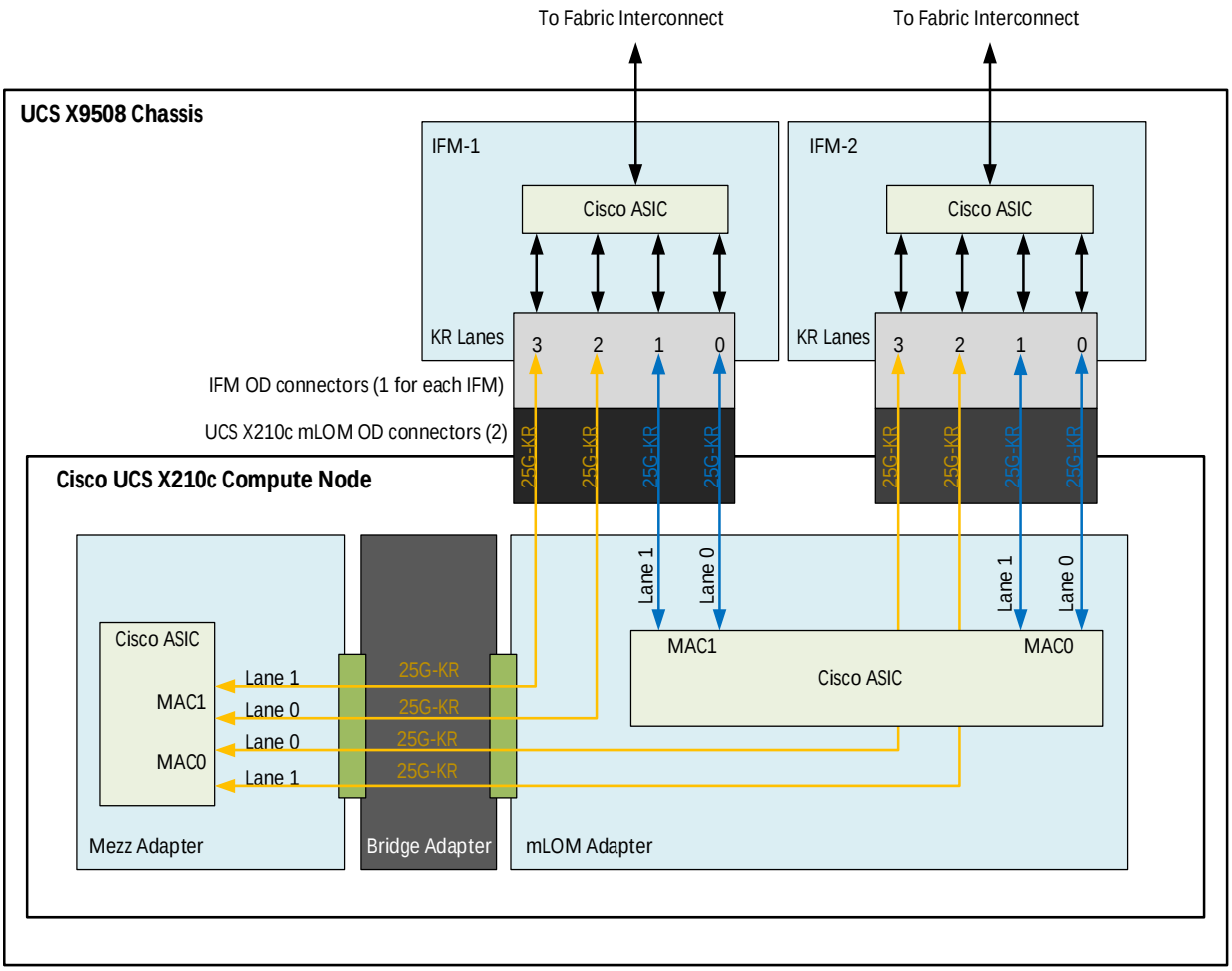


Figure 5 shows the network connectivity from the mLOM out to the 25G IFMs.

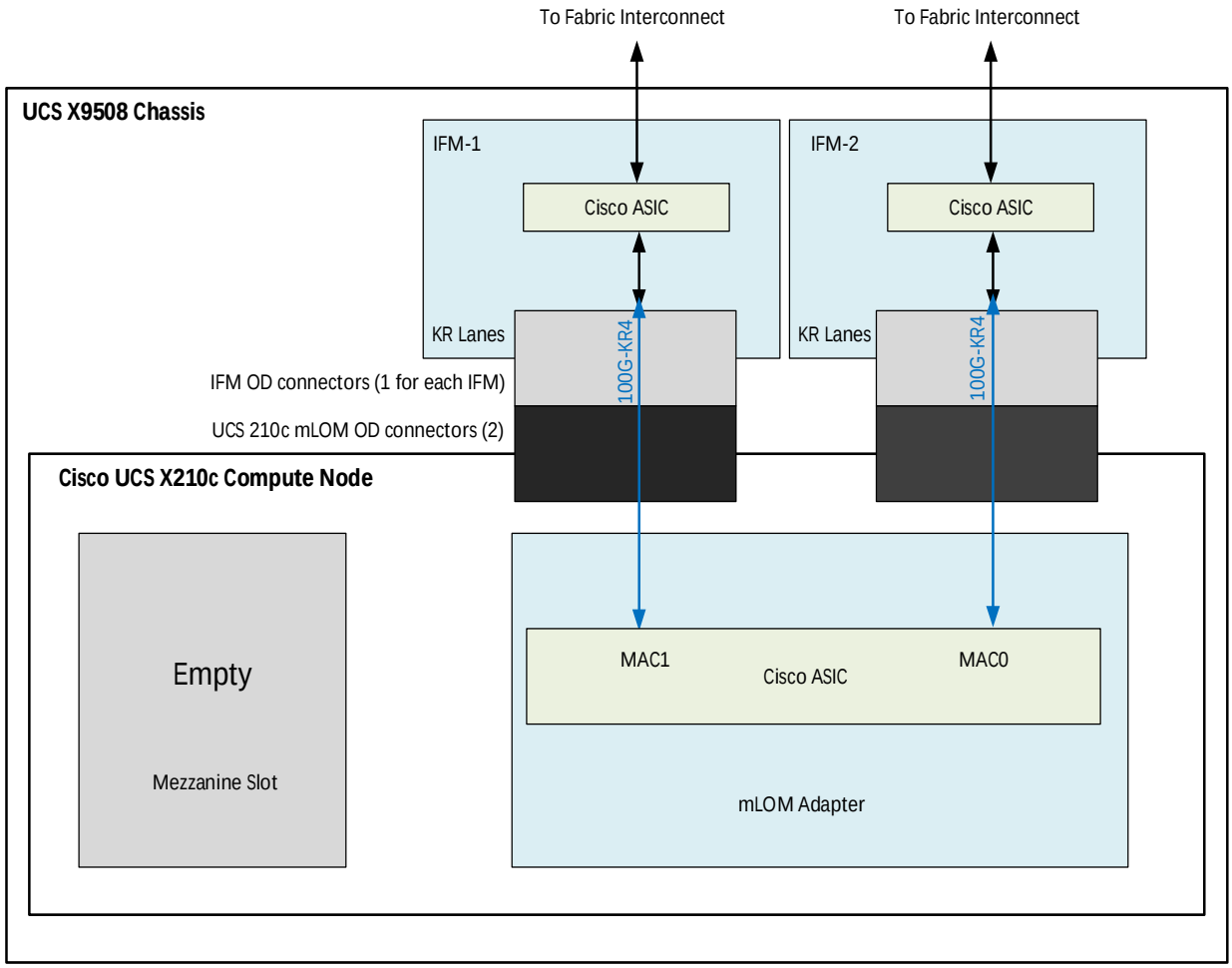
Figure 5 Network Connectivity 25G IFMs



NOTE: The 25G-KR traces from the Mezz Adapter do not go through the mLOM adapter ASIC

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 X210c M8 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 X-Series PCIe Nodes 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 X-Series PCIe Nodes.

Select Rear Mezzanine Adapter from *Table 9*

Table 9 Available Rear Mezzanine Adapters

Product ID(PID)	PID Description	CPUs Required	Connector Type
Cisco VIC Card			
UCSX-V4-PCIME-D[1]	UCS PCI Mezz Card for X-Fabric	2 CPUs required	Rear Mezzanine connector on motherboard
UCSX-V5-PCIME[2]	UCS PCI Mezz card for X-Fabric Gen5	Two CPUs are required	Rear Mezzanine connector on motherboard
UCSX-ME-V5Q50G-D	UCS VIC 15422 4x25G secure boot mezz for X Compute Node	2 CPUs required	Rear Mezzanine connector on motherboard
Cisco VIC Bridge Card[3]			
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 X210c M8 Compute Node)	2 CPUs required	One connector on Mezz card and one connector on mLOM card

Notes:

1. 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. All Mezzanine adapters enable connectivity from the X210c M8 Compute Node to the X-Series PCIe Nodes.
2. The UCSX-V5-PCIME rear mezzanine card for X-Fabric has PCIe Gen5 x16 connectivity towards each CPU1 and CPU2. Additionally, the card also provides two PCIe Gen5 x16 to each X-fabric.
3. Included with the Cisco VIC 15422 mezzanine adapter.

Table 10 Throughput Per UCS X210c M8 Server

X210c M8 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	
X210c configuration	VIC 15230	VIC 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 8*** 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 2 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 X210c M8 Compute Node has one front mezzanine connector that can accommodate one of the following mezzanine cards from the ***Table 11***

Table 11 Available Front Mezzanine Adapters

Product ID(PID)	PID Description	Connector Type
UCSX-X10C-PT4F-D	UCS X10c Compute Pass Through Controller (Front) ■ Supports up to 6 U.3 NVMe drives	Front Mezzanine
UCSX-X10C-RAIDF-D	UCS X10c Compute RAID Controller with LSI 3900 (Front) ■ This RAID controller with 4GB cache, with LSI 3900 ■ Supports up to 6 SAS/SATA/NVMe drives (SAS/SATA and NVMe drives can be mixed) ■ RAID levels (0, 1, 5, 6, 10, and 50) for 6 SAS/SATA/U.3 NVMe drives or up to 4 NVMe drives (drive slots 1-4) and SAS/SATA/U.3 NVMe (drive slots 5-6)	Front Mezzanine
UCSX-RAID-M1L6	24G Tri-Mode M1 RAID Controller w/4GB FBWC 6Drv ■ Supports up to 6 U.3 NVMe drives ■ RAID levels 0, 1, 5, 6, 10, and 50) for 6 SAS/SATA/U.3 NVMe drives or optionally up to 2 U.3 NVMe drives (drive slots 5-6) in pass-through	Front Mezzanine
UCSX-X10C-PTE3	UCS X10c Compute Pass Through Controller for E3.S (Front) ■ Supports a maximum of 9 E3.S drives ■ Cannot mix with 2.5in SATA/SAS/U.3 drives	Front Mezzanine
UCSX-X10C-GPUFM-D	UCS X10c Compute Node GPU Front Mezz ■ Supports configurations with either 1 or 2 CPUs. ■ If selected, supports a maximum of 2 NVMe U.3 drives. ■ If GPU PCIe Node is selected then only allowed with GPU PID UCSX-GPU-FLEX140 + UCSX-GPU-FLX140MZ or UCSX-GPU-L4 + UCSX-GPU-L4-MEZZ	Front Mezzanine

STEP 7 CHOOSE OPTIONAL GPU PCIe NODE

Select GPU PCIe Node

NOTE: If PCIe Node is selected, then rear mezzanine is required.

Table 12 GPU PCIe Node

Product ID(PID)	PID Description
UCSX-440P-D	UCS X-Series Gen4 PCIe node
UCSX-580P	UCS X-Series Gen5 PCIe node

NOTE:

The available PCIe node GPU options are listed in:

- For the supported GPU card supported on the x580P PCIe Node is listed on the **https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-x-series-modular-system/x580p-specsheet.pdf, Step 2, Order GPU Cards**
- For the supported GPU card supported on the x440P PCIe Node is listed on the **https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-x-series-modular-system/x440p-specsheet.pdf, Step 3, Order GPU Cards.**

STEP 8 CHOOSE OPTIONAL GPUs

Available PCIe GPU card supported on the compute node front mezz is listed on ***Table 13***

Select GPU Options

NOTE:

The available PCIe node GPU options are listed in:

- For the supported GPU card supported on the x580P PCIe Node is listed on the **https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-x-series-modular-system/x580p-specsheet.pdf, Step 2, Order GPU Cards**
- For the supported GPU card supported on the x440P PCIe Node is listed on the **https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucs-x-series-modular-system/x440p-specsheet.pdf, Step 3, Order GPU Cards**

Table 13 Available GPUs

GPU Product ID (PID)	PID Description
UCSX-GPU-L4-MEZZ	NVIDIA GPU L4, Gen4x16, 1 Slot, HHHL, 70W 24GB, PCIe

STEP 9 CHOOSE OPTIONAL DRIVES

The standard storage drive features are:

- 2.5-inch small form factor drives or E3.S 1T NVMe drives
- Hot-pluggable
- Drives come mounted in sleds

Select Drives

Select one to six 2.5-inch small form factor SAS/SATA SSDs, PCIe U.3 NVMe drives, or one to nine E3.S 1TB NVMe drives from the list of supported drives available in ***Table 14***.



NOTE:

- The Cisco UCS X210c M8 Compute Node can be ordered with or without drives.
- U.3 drives work exactly like U.2's in direct connect mode, in both Hybrid slots or behind passthrough controllers.



CAUTION: Cisco uses solid state drives (SSDs) from a number of vendors. All solid state drives (SSDs) 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 (SSDs) that have exceeded any maximum usage specifications set by Cisco or the manufacturer, as determined solely by Cisco.

Table 14 Available Drive Options

Product ID (PID)	Description	Drive Type	Speed	Size
SAS/SATA SSDs[1,2,3]				
Self-Encrypted Drives (SED)				
UCSX-SD38TBKANK9D	3.8TB 2.5in Enter Value 12G SAS Kioxia G2 SSD (SED-FIPS)	SAS	12G	3.8TB
UCSX-SD16TBKANK9D	1.6TB 2.5in Enter Perf 12G SAS Kioxia G2 SSD (3X SED-FIPS)	SAS	12G	1,6TB
UCSX-SD960GM2NK9D	960GB 2.5in Enter Value 6G SATA Micron G2 SSD (SED)	SATA	6G	960GB
Enterprise Performance SSDs (high endurance, supports up to 3X DWPD (drive writes per day))				
UCSX-SD16TKA3XEPD	1.6TB 2.5in Enter Perf 24G SAS Kioxia G2 SSD (3X)	SAS	24G	1.6TB
UCSXSD32TKA3XEP-D	3.2TB 2.5in Enter Perf 24G SAS Kioxia G2 SSD (3X)	SAS	24G	3.2TB
UCSXSD480GBM3XEPD	480GB 2.5in Enter Perf 6G SATA Micron G2 SSD (3X)	SATA	6G	480GB
UCSXSD960GBM3XEPD	960GB 2.5in Enter Perf 6G SATA Micron G2 SSD (3X)	SATA	6G	960GB
UCSX-SD19TBM3XEPD	1.9TB 2.5in Enter Perf 6G SATA Micron G2 SSD (3X)	SATA	6G	1.9TB
UCSX-SDB1T9OA1P	1.9TB 2.5in 15mm Solidigm S4620 Enter Perf 6G SATA 3X SSD	SATA	6G	1.9TB
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-SDB960OA1P	960GB 2.5in 15mm Solidigm S4620 Enter Perf 6G SATA 3X SSD	SATA	6G	960GB
UCSX-SDB3T8OA1V	3.8TB 2.5in 15mm Solidigm S4520 Enter Perf 6G SATA 1X SSD	SATA	6G	3.8TB

Table 14 Available Drive Options *(continued)*

Product ID (PID)	Description	Drive Type	Speed	Size
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
Enterprise Value SSDs (Low endurance, supports up to 1X DWPD (drive writes per day))				
UCSXSD38TKA1XEV-D	3.8TB 2.5in Enter Value 24G SAS Kioxia G2 SSD	SAS	24G	3.8TB
UCSXSD240GBM1XEVD	240GB 2.5in Enter Value 6G SATA Micron G2 SSD	SATA	6G	240GB
UCSXSD480GBM1XEVD	480 GB 2.5in Enter Value 6G SATA Micron G2 SSD	SATA	6G	480GB
UCSX-SD19TBM1XEVD	1.9TB 2.5in Enter Value 6G SATA Micron G2 SSD	SATA	6G	1.9TB
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
NVMe[4,5,6]				
2.5				
UCSX-NVMEG4M1536D	15.3TB 2.5in U.3 Micron 7450 NVMe High Perf Medium Endurance	NVMe	U.3	15.3TB
UCSX-NVMEG4M6400D	6.4TB 2.5in U.3 Micron 7450 NVMe High Perf High Endurance	NVMe	U.3	6.4TB
UCSX-NVB960M2V	960GB 2.5in U.3 15mm Micron 7500 Hg Perf Med End 1X NVMe	NVMe	U.3	960GB
UCSX-NVB1T9M2V	1.9TB 2.5in U.3 15mm Micron 7500 Hg Perf Med End 1X NVMe	NVMe	U.3	1.9TB
UCSX-NVB3T2M2P	3.2TB 2.5in U.3 15mm Micron 7500 Hg Perf Hg End 3X NVMe	NVMe	U.3	3.2TB
UCSX-NVB3T8M2V	3.8TB 2.5in U.3 15mm Micron 7500 Hg Perf Med End 1X NVMe	NVMe	U.3	3.8TB
UCSX-NVB3T8M2V9	3.8TB 2.5in U.3 15mm Micron 7500 HgPerf MedEnd 1X NVMe FIPS	NVMe	U.3	3.8 TB
UCSX-NVB1T9M2V9	1.9TB 2.5in U.3 15mm Micron 7500 HgPerf MedEnd 1X NVMe FIPS	NVMe	U.3	1.9 TB
UCSX-NVB7T6M2V9	7.6TB 2.5in U.3 15mm Micron 7500 HgPerf MedEnd 1X NVMe FIPS	NVMe	U.3	7.6 TB
UCSX-NVB15T3M2V9	15.3TB 2.5in U.3 15mm Micron 7500 HgPerf MedEnd 1X NVMe FIPS	NVMe	U.3	15.3 TB
UCSX-NVB7T6M2V	7.6TB 2.5in U.3 15mm Micron 7500 Hg Perf Med End 1X NVMe	NVMe	U.3	7.6 TB
UCSX-NVB12T8M2P	12.8TB 2.5in U.3 15mm Micron 7500 Hg Perf Hg End 3X NVMe	NVMe	U.3	12.8TB
UCSX-NVB1T6M2P	1.6TB 2.5in U.3 15mm Micron 7500 Hg Perf Hg End 3X NVMe	NVMe	U.3	1.6TB
UCSX-NVB61T4M3L	61.4TB 2.5" U.2 15mm Micron 6550 HgPerf EcoEnd G4/5 <1X NVMe	NVMe	U.2	61.4TB
E3.S				
UCSX-NVE112T8K1P	12.8TB E3.S1T KCD8XPJE HgPerf HgEnd Gen5 3X NVMe (SIE SCEF)	NVMe	E3.S	12.8TB
UCSX-NVE11T6K1P	1.6TB E3.S1T KCD8XPJE HgPerf HgEnd Gen5 3X NVMe (SIE SCEF)	NVMe	E3.S	1.6TB
UCSX-NVE13T2K1P	3.2TB E3.S1T KCD8XPJE HgPerf HgEnd Gen5 3X NVMe (SIE SCEF)	NVMe	E3.S	3.2TB
UCSX-NVE16T4K1P	6.4TB E3.S1T KCD8XPJE HgPerf HgEnd Gen5 3X NVMe (SIE SCEF)	NVMe	E3.S	6.4TB
UCSX-NVE115T3K1V	15.3TB E3.S1T KCD8XPJE HgPerf MedEnd Gen5 1X NVMe (SIE SCEF)	NVMe	E3.S	15.3TB
UCSX-NVE11T9K1V	1.9TB E3.S1T KCD8XPJE HgPerf MedEnd Gen5 1X NVMe (SIE SCEF)	NVMe	E3.S	1.9TB
UCSX-NVE13T8K1V	3.8TB E3.S1T KCD8XPJE HgPerf MedEnd Gen5 1X NVMe (SIE SCEF)	NVMe	E3.S	3.8TB
UCSX-NVE17T6K1V	7.6TB E3.S1T KCD8XPJE HgPerf MedEnd Gen5 1X NVMe (SIE SCEF)	NVMe	E3.S	7.6TB
UCSX-NVE11T6S1P	1.6TB E3.S1T PM1745 HgPerf HgEnd Gen5 3X NVMe (TCG OPAL)	NVMe	E3.S	1.6TB
UCSX-NVE13T2S1P	3.2TB E3.S1T PM1745 HgPerf HgEnd Gen5 3X NVMe (TCG OPAL)	NVMe	E3.S	3.2TB
UCSX-NVE16T4S1P	6.4TB E3.S1T PM1745 HgPerf HgEnd Gen5 3X NVMe (TCG OPAL)	NVMe	E3.S	6.4TB
UCSX-NVE112T8S1P	12.8TB E3.S1T PM1745 HgPerf HgEnd Gen5 3X NVMe (TCG OPAL)	NVMe	E3.S	12.8TB
UCSX-NVE11T9S1V	1.9TB E3.S1T PM1743 HgPerf MedEnd Gen5 1X NVMe (TCG OPAL)	NVMe	E3.S	1.9TB

Table 14 Available Drive Options *(continued)*

Product ID (PID)	Description	Drive Type	Speed	Size
UCSX-NVE13T8S1V	3.8TB E3.S1T PM1743 HgPerf MedEnd Gen5 1X NVMe (TCG OPAL)	NVMe	E3.S	3.8TB
UCSX-NVE115T3S1V	15.3TB E3.S1T PM1743 HgPerf MedEnd Gen5 1X NVMe (TCG OPAL)	NVMe	E3.S	15.3TB
UCSX-NVE11T9K2V9	1.9TB E3.S1T Kioxia CM7-R Gen 5 1DWPD NVMe (SED FIPS)	NVMe	E3.S	1.9TB
UCSX-NVE13T8K2V9	3.8TB E3.S1T Kioxia CM7-R Gen 5 1DWPD NVMe (SED FIPS)	NVMe	E3.S	3.8 TB
UCSX-NVE17T6K2V9	7.6TB E3.S1T Kioxia CM7-R Gen 5 1DWPD NVMe (SED FIPS)	NVMe	E3.S	7.6TB
UCSX-NVE115T3K2V9	15.3TB E3.S1T Kioxia CM7-R Gen 5 1DWPD NVMe (SED FIPS)	NVMe	E3.S	15.3TB
Accessories/spare included with drives: Drive blanks, either UCSC-BBLKD-M7 for 2.5" modules or UCSC-E3S1T-F for the E3.S mezzanine are included for unpopulated drive slots on configured systems. They must be ordered separately when ordering a front mezzanine as a spare.				

Notes:

1. SSD drives require the **UCSX-X10C-RAIDF-D** front mezzanine adapter.
2. For SSD drives to be in a RAID group, two or more 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 for RAID support.
5. A maximum of 6 U.3 NVMe drives can be ordered with RAID controller.
6. A maximum of 2 NVMe drives can be ordered with Front Mezzanine GPU module.

STEP 10 ORDER M.2 MODULE SSDs AND OPTIONAL DRIVES

- **Cisco 6GB/s SATA Boot-Optimized M.2 RAID Controller (included):** Boot-Optimized RAID controller (UCSX-M2I-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.
- **Instead of 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, 480GB, 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.
- If selected, the M.2 NVMe module replaces the M.2 RAID Controller.
- The NVMe module does not support RAID

Table 15 Front Panel with M.2 options

Product ID (PID)	PID Description
UCSX-M2I-HWRD-FPS	UCSX Front panel w/M.2 RAID controller Included for SATA drv
UCSX-M2-PT-FPN	UCSX Front Panel w/M.2 Pass Through Controller for NVME Drv

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

NOTE:

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

Table 16 M.2 Drives

Product ID (PID)	PID Description	Protocol
UCSX-M2-240G-D	240GB M.2 SATA Micron G2 SSD	SATA
UCSX-M2-480G-D	480GB M.2 SATA Micron G2 SSD	SATA
UCSX-M2-960G-D	960GB M.2 SATA Micron G2 SSD	SATA
UCSX-M2240OA1V	240GB M.2 Boot Solidigm S4520 SATA 1X SSD	SATA
UCSX-M2480OA1V	480GB M.2 Boot Solidigm S4520 SATA 1X SSD	SATA

Table 16 M.2 Drives

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

STEP 11 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 X210c M8 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 17 Available TPM Option

Product ID (PID)	Description
UCSX-TPM-002D-D	TPM 2.0 TCG FIPS140-2 CC+ Cert M7 Intel MSW2022 Compliant
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 X210c M8 Compute Node with a TPM is returned, the replacement Cisco UCS X210c M8 Compute Node must be ordered with a new TPM. If there is no existing TPM in the Cisco UCS X210c M8 Compute Node, you can install a TPM 2.0. Refer to the following document for Installation location and instructions:

SUPPLIMENT MATERIAL

Simplified Block Diagram

A simplified block diagram of the Cisco UCS X210c M8 Compute Node system board is shown in ***Figure 7*** thorough ***Figure 12***.

Figure 7 Cisco UCS X210c M8 Compute Node Simplified Block Diagram (VIC 25G with Drives). Raid Controller

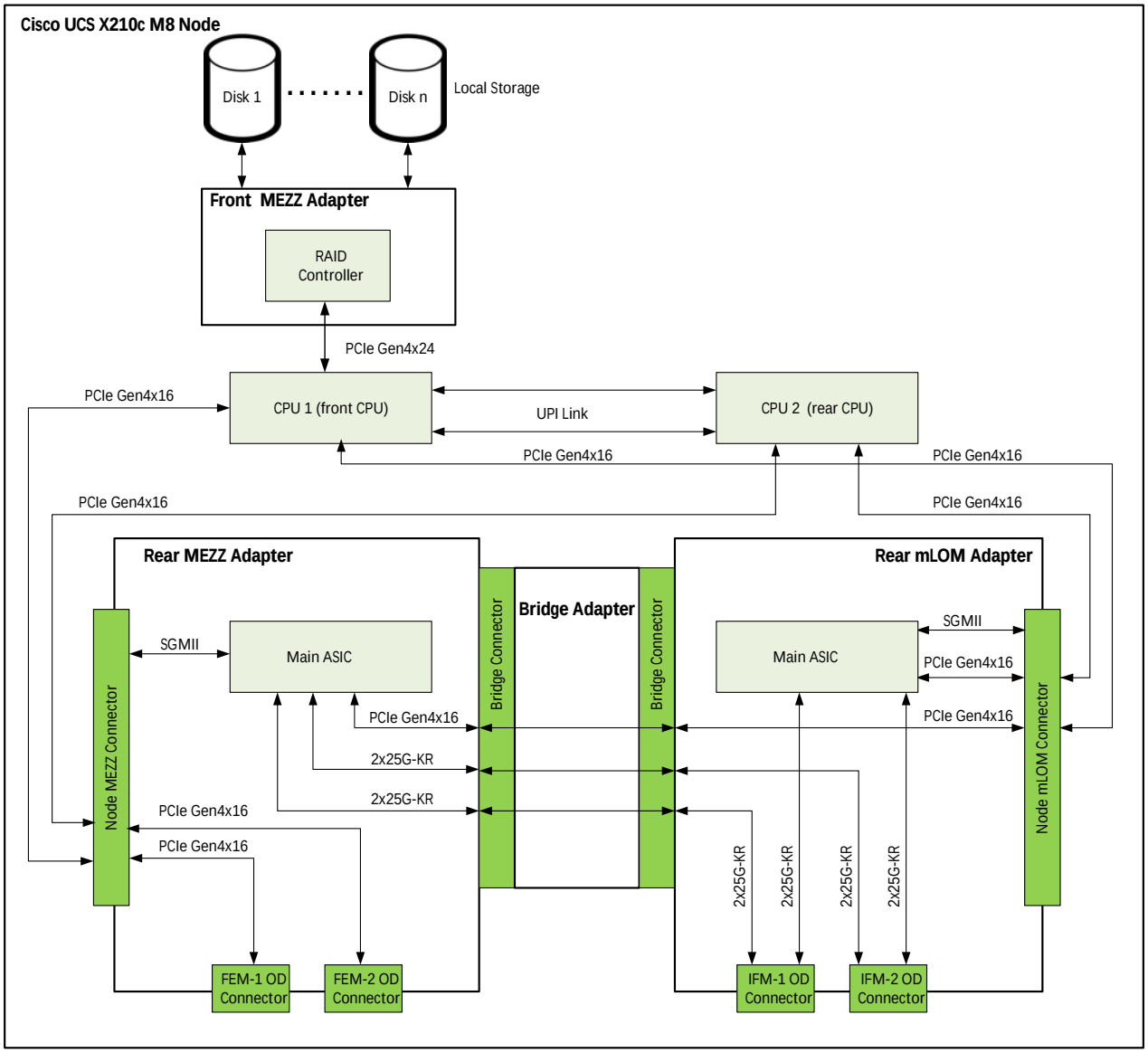


Figure 8 Cisco UCS X210c M8 Compute Node Simplified Block Diagram (VIC 25G with Drives) Pass Through Controller

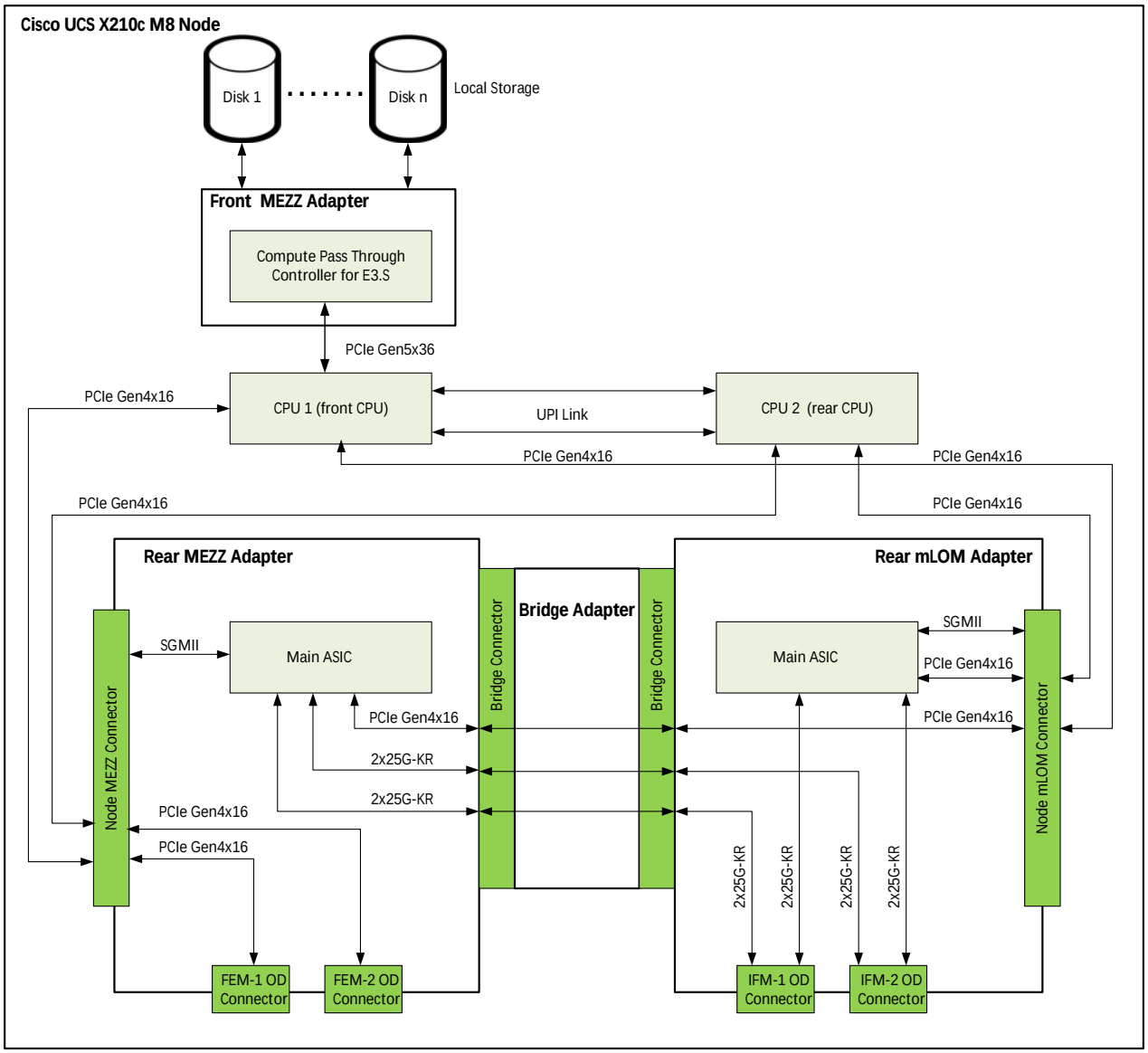


Figure 9 Cisco UCS X210c M8 Compute Node Simplified Block Diagram (VIC 100G with Drives). Raid Controller

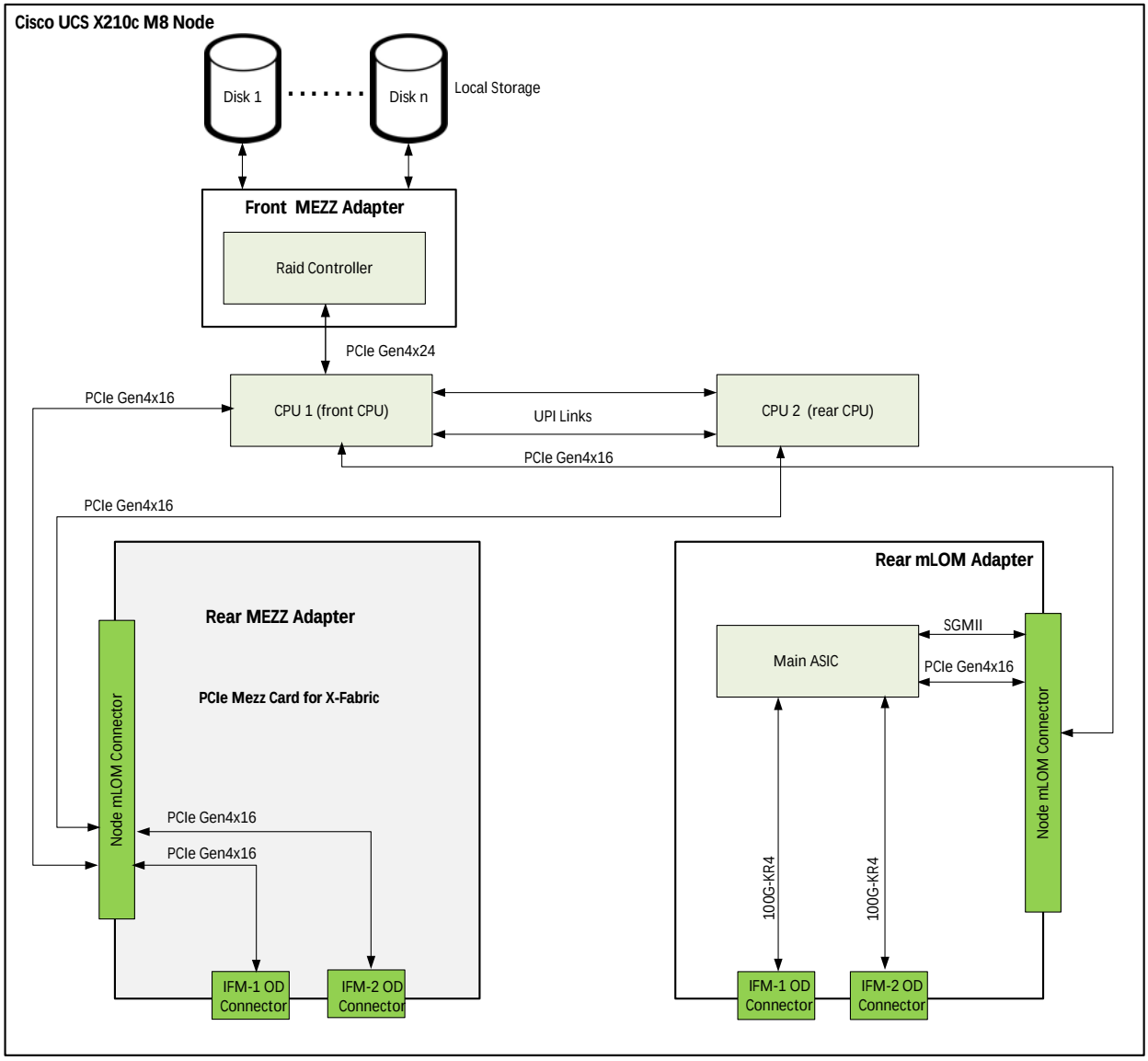


Figure 10 Cisco UCS X210c M8 Compute Node Simplified Block Diagram (VIC 100G with Drives). Pass Through Controller

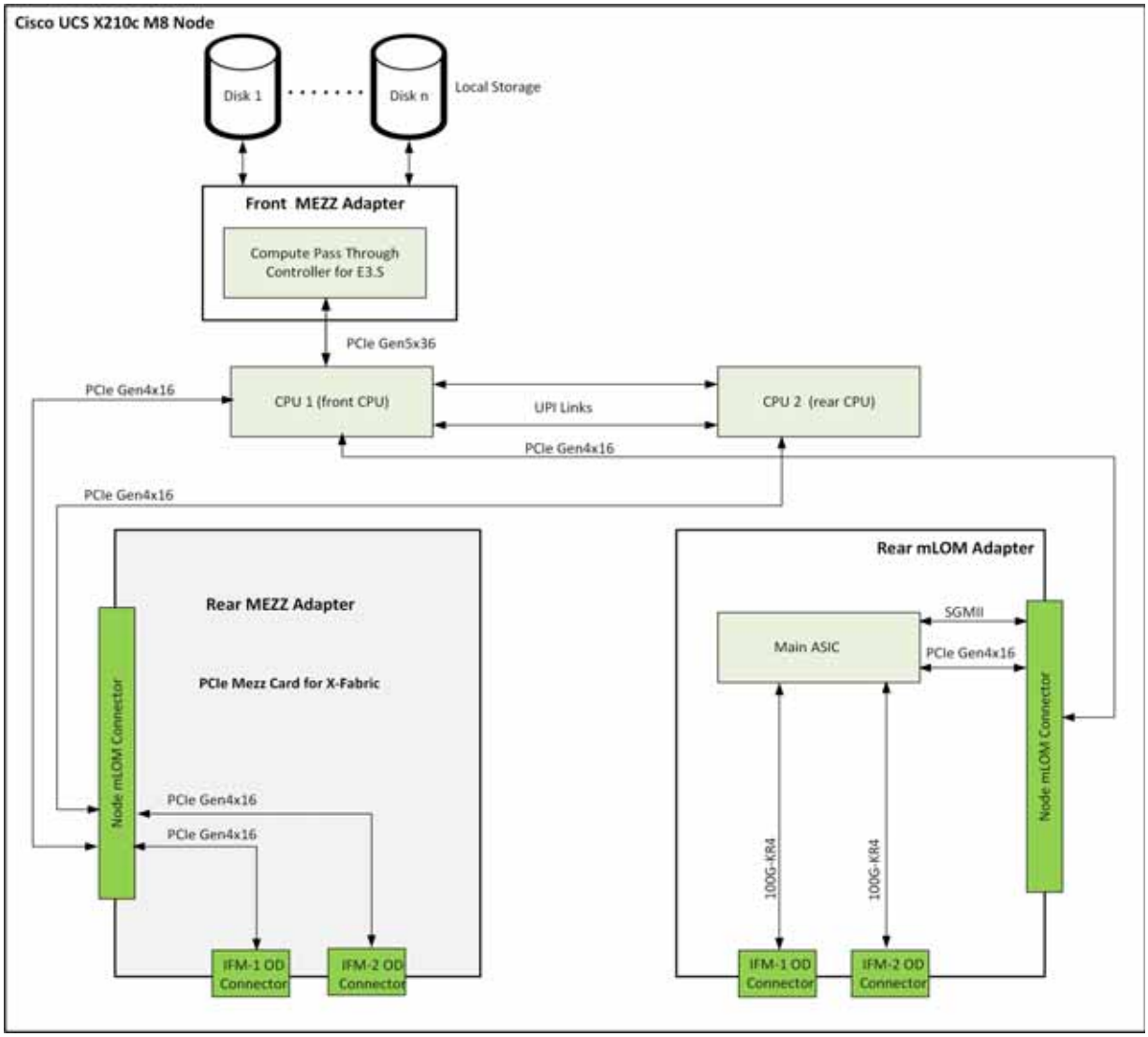


Figure 11 Cisco UCS X210c M8 Compute Node Simplified Block Diagram (VIC 25G with Drives and GPUs)

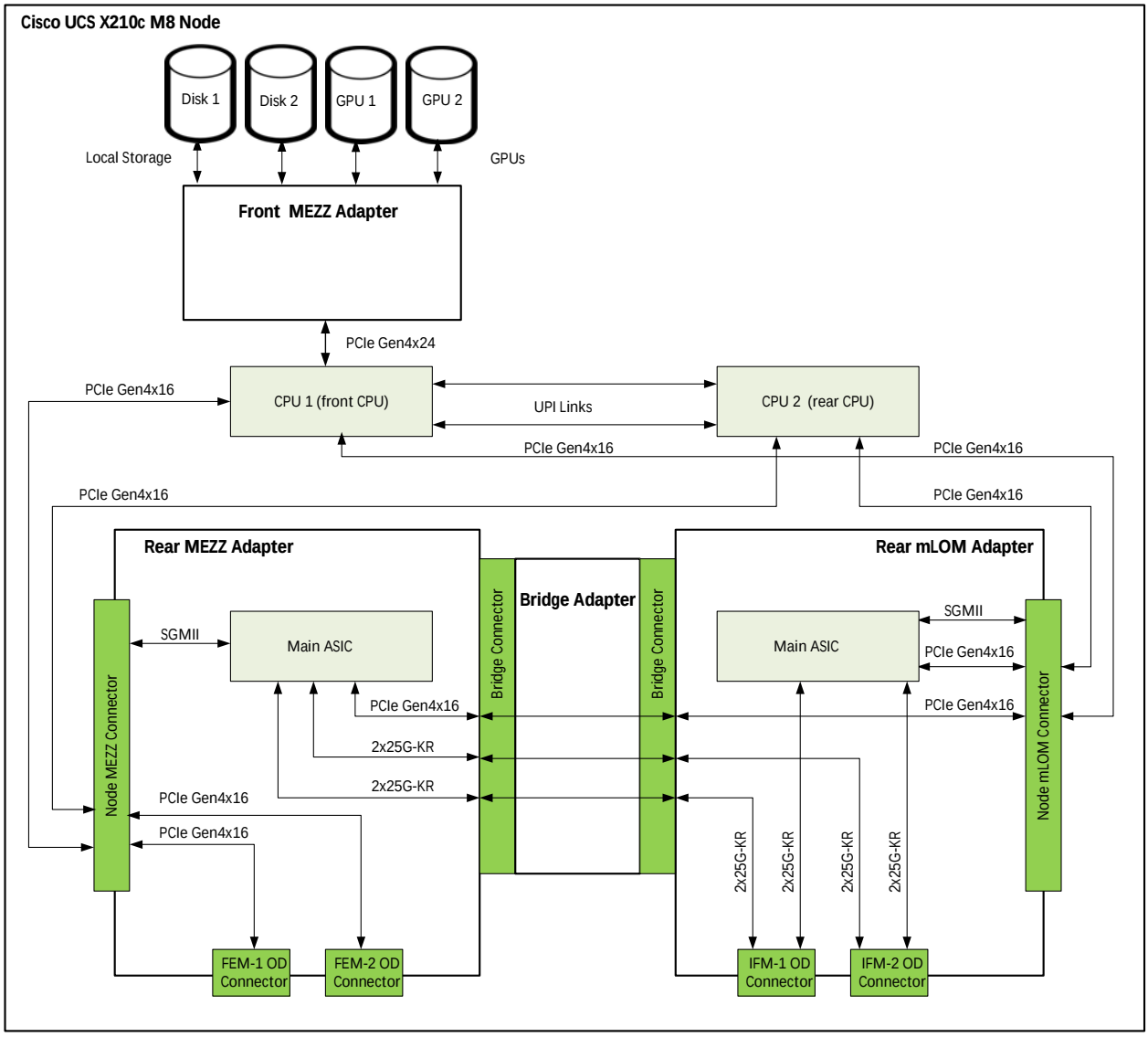
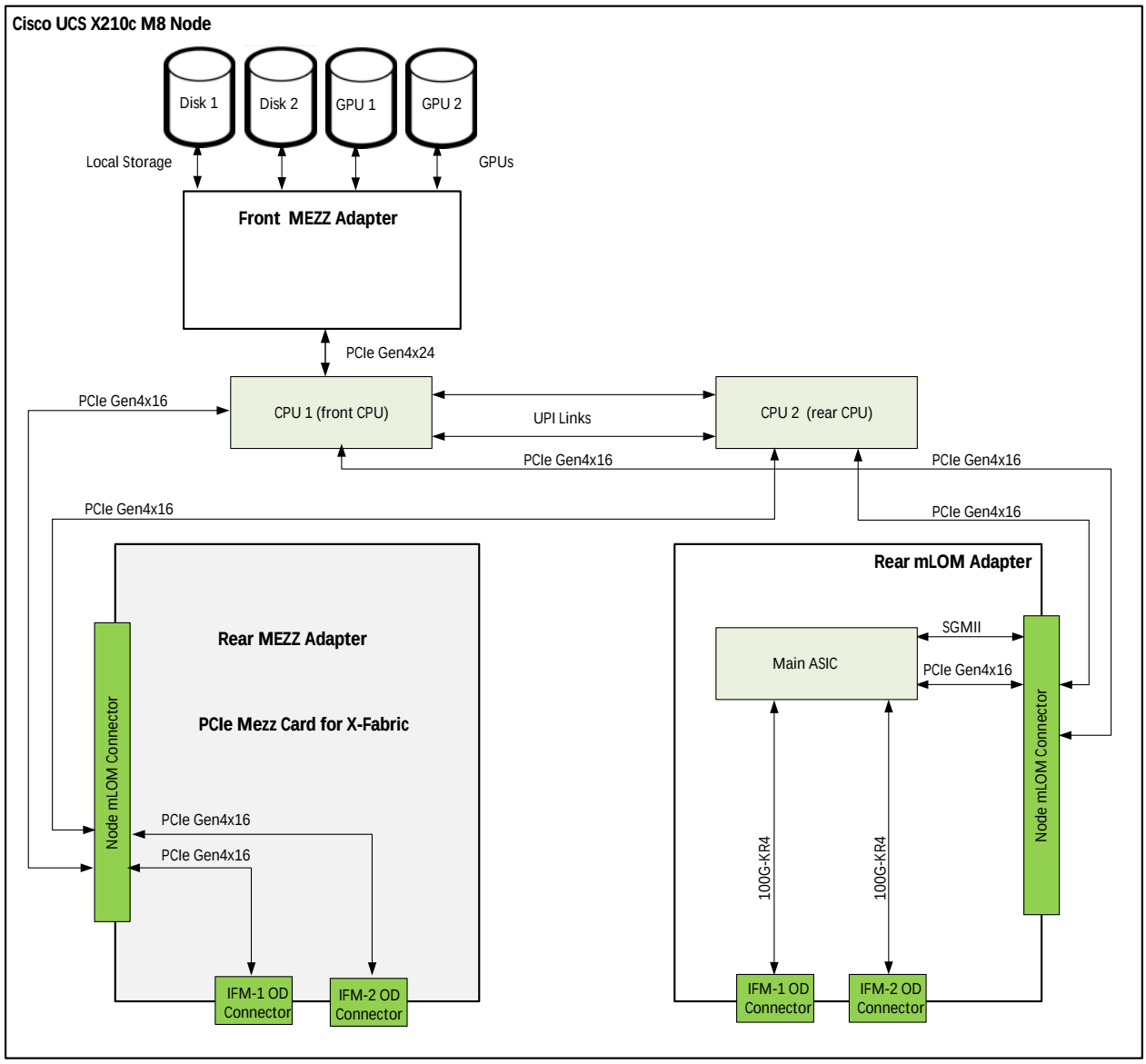


Figure 12 Cisco UCS X210c M8 Compute Node Simplified Block Diagram (VIC 100G with Drives and GPUs)



SPARE PARTS

This section lists the upgrade and service-related parts for the **Cisco UCS X210c M8 Compute Node**. Some of these parts are configured with every server.

- Spare parts for the **Cisco UCS X210c M8 Compute Node** use the same Product IDs (PIDs) as the **regular components**, with the addition of an **equals sign (=) at the end** of the PID. For example, if the regular PID for a component is **UCS-CPU-I6760P**, its corresponding spare PID would be **UCS-CPU-I6760P=**
- Therefore, to find the full list of available spare parts and their descriptions, refer to the relevant sections for each component (e.g., Risers, CPUs, Memory, Drive Controllers, Drives, PCIe Cards, Power Supplies, etc.) and append an = to the listed PIDs.



NOTE: Some spare parts you order may also require accessories for full functionality. For example, drives or RAID controllers may need accompanying cables. CPUs may need heatsinks, thermal paste, and installation tools. The spares and their accessory parts are listed in ***Table 18***.

However, the ***Table 18*** below lists the spare parts and their descriptions. These are different from the main components described in previous sections. This table is the complete list for all spare part IDs (they end with an '=' sign), as these specific spare parts are not listed individually in those earlier sections.

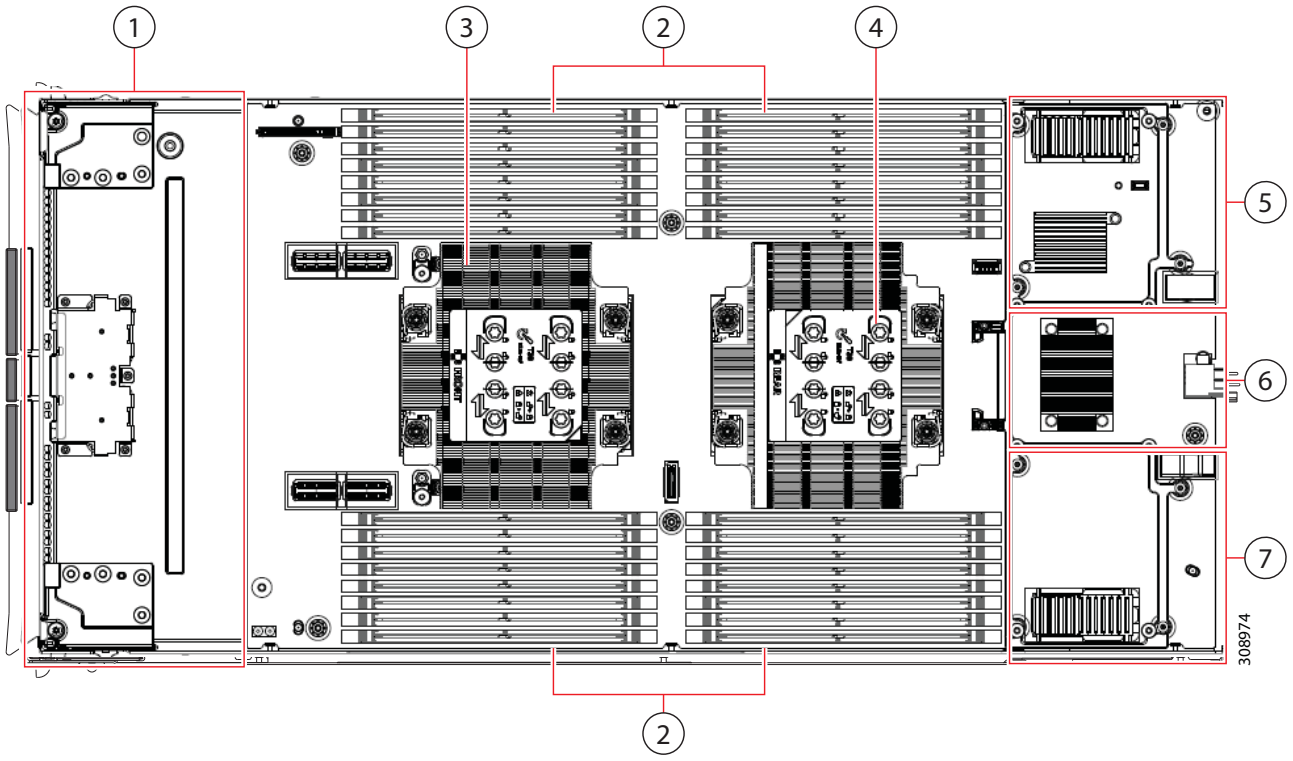
Table 18 Spare Parts

Product ID (PID)	PID Description
UCSX-M8I-HS-F=	UCSX Intel M8 Compute Node Front CPU Heat Sink
UCSX-M8I-HS-R=	UCSX Intel M8 Compute Node Rear CPU Heat Sink
UCS-DDR5-BLK=	UCS DDR5 DIMM Blanks
UCSX-M8A-FMEZZBLK=	Front Mezzanine Blank for X series servers
UCSC-BBLKD-M7=	UCS C-Series M7 SFF drive blanking panel
UCSC-E3S1T-F=	UCS C-Series E3.S 1T Drive Filler
UCSX-V5-BRIDGE-D=	UCS VIC 15000 bridge to connect mLOM and mezz X Compute Node
UCSX-M2I-HWRD-FPS=	UCSX Front panel w/M.2 RAID controller Included for SATA drv

System Board

A top view of the Cisco UCS X210c M8 Compute Node system board is shown in ***Figure 13***.

Figure 13 Cisco UCS X210c M8 Compute Node System Board



1	Front mezzanine slot for SAS/SATA or NVMe drives and M.2 Controllers.	5	Rear mezzanine slot, which supports a mezzanine card with standard or extended mLOM. If an extended mLOM slot is used, it occupies this slot, such that no rear mezzanine card can be installed.
2	DIMM slots (32 maximum)	6	Bridge adapter (for connecting the mLOM to the rear mezzanine card)
3	CPU 1 slot (shown populated)	7	mLOM slot for a standard or extended mLOM
4	CPU 2 slot (shown populated)	-	-

TECHNICAL SPECIFICATIONS

Dimensions and Weight

Table 19 Cisco UCS X210c M8 Compute Node Dimensions and Weight

Parameter	Value
Height	1.80 in. (45.7 mm)
Width	11.28 in. (286.5 mm)
Depth	23.7 in. (602 mm)
Weight	■ Minimally configured node weight = 12.84 lbs. (5.83 kg) ■ Fully configured compute node weight = 25.1 lbs. (11.39 kg)

Environmental Specifications

Table 20 Cisco UCS X210c M8 Compute Node Environmental Specifications

Parameter	Value
Operating temperature	50° to 95°F (10° to 35°C)
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



NOTE: The ambient temperature must be less than 35 ºC (95 ºF).

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 21 EOS

Product ID	Description	EOL/EOS link
UCSX-NVMEG4-M960D	960GB 2.5in U.3 15mm P7450 Hg Perf Med End NVMe	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-ucsx-hci-accessories-eol15818.html
UCSX-NVMEG4M1920D	1.9TB 2.5in U.3 15mm P7450 Hg Perf Med End NVMe	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-ucsx-hci-accessories-eol15818.html
UCSX-NVMEG4M3200D	3.2TB 2.5in U.3 15mm P7450 Hg Perf Hg End NVMe (3X)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-ucsx-hci-accessories-eol15818.html
UCSX-NVMEG4M3840D	3.8TB 2.5in U.3 15mm P7450 Hg Perf Med End NVMe	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-ucsx-hci-accessories-eol15818.html
UCSX-NVMEG4M1600D	1.6TB 2.5in U.3 15mm P7450 Hg Perf Hg End NVMe (3X)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-ucsx-hci-accessories-eol15818.html
UCSX-NVMEG4M7680D	7.6TB 2.5in U.3 15mm P7450 Hg Perf Med End NVMe	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-accessories-eol15875.html
UCS-MRX48G1RF5	48GB DDR5-6400 RDIMM 1Rx4 (24Gb)	https://www.cisco.com/c/en/us/products/collateral/servers-unified-computing/ucs-c-series-rack-servers/select-ucs-ucsx-hci-accessories-eol15910.html
UCS-MCX32G2RE11	32GB DDR5 MRDIMM 8800 2Rx8 (16Gb)	-
UCS-MCX64G2RE11	64GB DDR5 MRDIMM 8800 2Rx4 (16Gb)	-

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