This product has been discontinued

Spec Sheet

Cisco UCS C260 M2 High-Performance Rack-Mount Server

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OVERVIEW

The Cisco® UCS C260 M2 High-Performance Rack Server is a high-density, two-socket, two-rack-unit (2RU) rack server designed for compute, I/O, storage and memory-intensive standalone applications.

The UCS C260 M2 server (*Figure 1*) extends the capabilities of the Cisco Unified Computing System™, using Intel's latest Xeon E7-2800 Series multi-core processors to deliver increased performance and efficiency.

Figure 1 Cisco UCS C260 M2 High-Density Rack Server

Front View

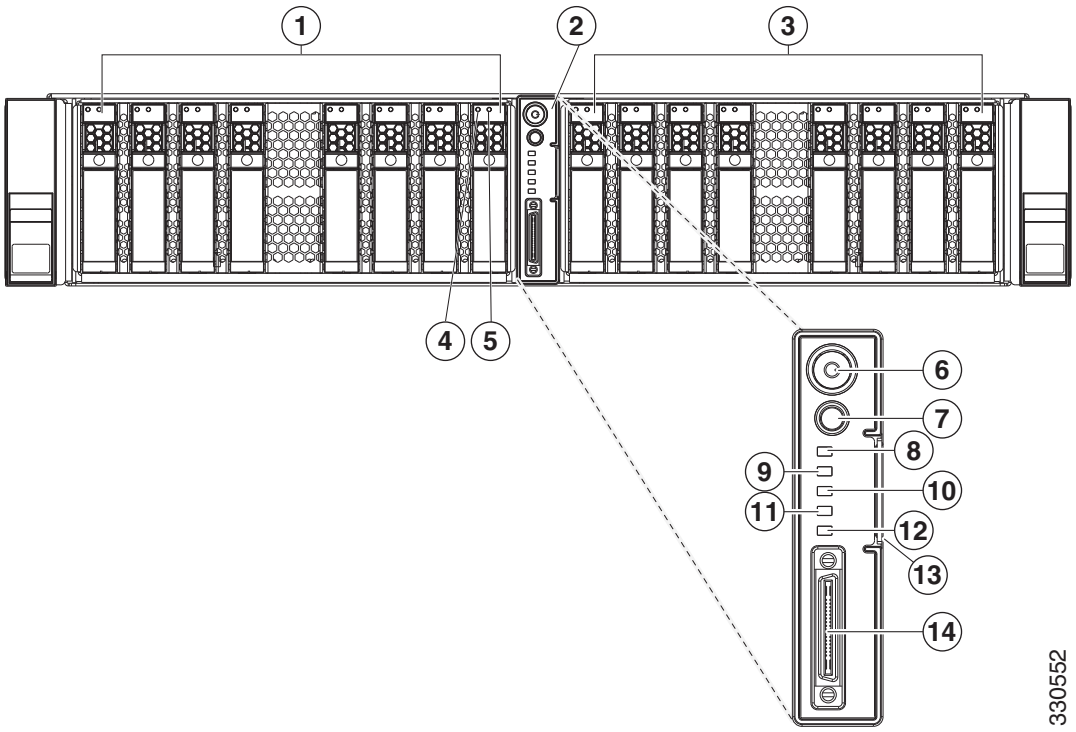
Rear View

DETAILED VIEWS

Chassis Front View

Figure 2 shows the Cisco UCS C260 M2 General-Purpose Rack Server.

Figure 2 Chassis Front View



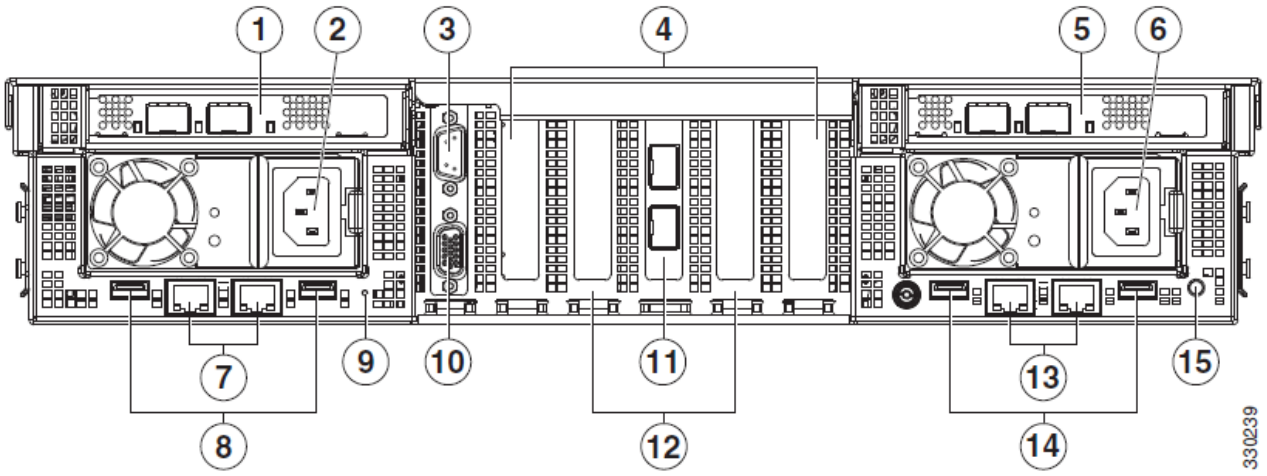
1	Modular drive bay 1	**8**	System status LED
2	Operator panel	**9**	Fan status LED
3	Modular drive bay 2	**10**	Temperature status LED
4	Hard drive activity LED	**11**	Power supply status LED
5	Hard drive fault LED	**12**	Network link activity LED
6	Power button/LED	**13**	Asset tag (serial number)
7	Identification button/LED	**14**	KVM connector (used with KVM cable that provides two USB, one VGA, and one serial connector

For more information regarding the KVM cable connection, see *KVM CABLE on page 49*.

Chassis Rear View

Figure 3 shows the external features of the rear panel.

Figure 3 Chassis Rear View



1	Horizontal PCIe slot (PCIe slot #1, standard-profile, half-length, x16)	**9**	Reset button
2	Power supply #1	**10**	VGA video connector
3	RS232 serial connector	**11**	10-Gigabit SFP+ LOM ports (two ports, supported with optional card in designated PCIe slot 4)
4	Five PCIe slots on motherboard (4 low-profile, half-length, x8 slots and 1 low-profile, half-length, x4 slot) PCIe slot numbering is 2, 3, 4, 5, 6 (left to right)	**12**	RAID controller cards (up to two, supported in designated PCIe slots 3 and 5)
5	Horizontal PCIe slot (PCIe slot #7, standard-profile, half-length, x16)	**13**	1-Gigabit Base-T LOM ports (two RJ-45 ports)
6	Power supply #2	**14**	Two USB 2.0 ports
7	10/100 dedicated management Ethernet ports (two RJ-45 ports)	**15**	Rear Identification button/LED
8	Two USB 2.0 ports		

BASE SERVER STANDARD CAPABILITIES and FEATURES

Table 1 lists the capabilities and features of the base server. Details about how to configure the server for a particular feature or capability (for example, number of processors, disk drives, or amount of memory) are provided in *CONFIGURING the SERVER on page 8*.

Table 1 Capabilities and Features

Capability/Feature	Description
Chassis	Two rack unit (2RU) chassis
CPU	Two Intel® Xeon® E7-2800 series processors
Chipset	Intel® 7500 (Boxboro) chipset
Memory	Sixteen slots for memory riser boards. The memory riser boards come in two choices: ■ Standard Intel chipset memory riser boards: each of these 16 risers can hold two DIMMs. This provides a possible total of up to 32 DIMMs and 512 GB of industry-standard DDR3 memory. ■ Optional memory riser boards containing a memory-expansion ASIC: each of the 16 risers can hold 4 DIMMs. This provides a possible total of up to 64 DIMMs and 1024 GB of industry-standard DDR3 memory.
Cisco FlexFlash drives	The server includes one internal Cisco FlexFlash drive, which is included on the I/O riser card. This drive is pre-loaded with four virtual drives (implemented as flash memory). The four virtual drives contain, respectively, the Cisco Server Configuration Utility, the Cisco Host Upgrade Utility, the Cisco C-Series server drivers set, and a Hypervisor. These virtual drives are booted through the server's F6 boot menu.
USB Flash drive	An optional 4GB USB drive can be used as a bootable drive
Expansion slots	There are seven PCIe expansion slots: ■ Two standard-profile, half-length, x16 horizontal slots on riser cards ■ Four low-profile, half-length, x8 slots on motherboard ■ One low-profile, half-length, x4 slot (x8-length connector) on motherboard ■ All cards are half-length due to internal clearance.
Storage controller	Factory-configured RAID support options: ■ RAID 0, 1, 5, 6, 10, 50, or 60 support for up to 16 SAS or SATA drives, with the optional LSI MegaRAID SAS 9261-8i RAID controller (up to two). There are also two mounting points inside the chassis for the optional LSI RAID battery backup units that can be used with the controller cards.

Table 1 Capabilities and Features *(continued)*

Capability/Feature	Description
Internal storage devices	Drives are installed into configurable (one or two) drive bay modules that provide hot-pluggable front-panel access. Each drive bay module can hold up to eight 2.5in x 0.55 in (63.5 mm x 14mm) SAS3 or SATA4 hard disk drives (HDDs) or solid state drives (SSDs), for a total of 16 drives.
Video	The server CIMC chip includes a Matrox G200 core. The first 8 MB of memory are allocated to the video core.
Interfaces	■ Rear panel • Two 10/100 dedicated management Ethernet ports • Two 1-Gigabit Base-T Ethernet ports • Two 10-Gigabit SFP+ Ethernet ports (on optional modular card) • One RS232 serial connector (on I/O riser card) • One 15-pin VGA connector (on I/O riser card) • Four USB 2.0 connectors ■ Front panel • One KVM console connector. When used with the provided KVM cable, provides two USB, one VGA, and one serial connector.
Power subsystem	Two 1200 W power supplies
Fans	Chassis: ■ Six fan modules, hot-swappable, redundant Power supply: ■ Each power supply is equipped with a fan.
Baseboard management	Pilot II BMC, running Cisco Integrated Management Controller (CIMC) firmware. Depending on your CIMC settings, the CIMC can be accessed through the 10/100 dedicated management ports, the 1-Gigabit LOM ports, the optional 10-Gigabit SFP+ ports, or a Cisco P81E virtual interface card.

CONFIGURING the SERVER

Follow these steps to configure the Cisco UCS C260 M2 General-Purpose Rack Server:

STEP 1 VERIFY BASE SKU

Verify the product ID (PID) of the base server as shown in *Table 2*.

Table 2 PID of the Base C260 M2 Rack Server

Product ID (PID)	Description
C260-BASE-2646	UCS C260 M2 Rack Server (w/o CPU, MRB, PSU)

The C260-BASE-2646 base server:

- Does not include CPUs, memory riser boards, hard disk drives (HDDs), solid-state Drives (SSDs), or plug-in PCIe cards.

NOTE: Use the steps on the following pages to configure the server with the components that you want to include.

STEP 2 CHOOSE CPU(S)

The standard CPU features are:

- Intel Xeon E7-2800 (Westmere EX) series CPUs
- Intel 7500 Boxboro chipset
- Cache size of 18, 24, or 30 MB

Choose CPUs

The available CPUs are listed in *Table 3*.

Table 3 Available CPUs: Intel Xeon Westmere E7-28xx/8867L Family

Product ID (PID)	Intel Number	Clock Freq (GHz)	Power (W)	Cache Size (MB)	Cores	QPI	Highest DDR3 DIMM Clock Support (MHz)
UCS-CPU-E72870	E7-2870	2.40	130	30	10	6.40	1333
UCS-CPU-E72860	E7-2860	2.26	130	24	10	6.40	1333
UCS-CPU-E78867L	E7-8867L	2.13	105	30	10	6.40	1333
UCS-CPU-E72850	E7-2850	2.00	130	24	10	6.40	1333
UCS-CPU-E72830	E7-2830	2.13	105	24	8	6.40	1333
UCS-CPU-E72803	E7-2803	1.73	105	18	6	4.80	1333

Approved Configurations

(1) Two-CPU Configuration (this is the mandatory configuration):

- Choose two identical CPUs from *Table 3*.

Caveats

- You must select two identical processors.

STEP 3 CHOOSE MEMORY

The standard memory features are:

- Plug-In Memory Riser Boards
  - Two types
    - 2-DIMM riser board
    - 4-DIMM extended memory riser board
  - Riser boards plug vertically into the motherboard
  - Four or eight riser boards per CPU (total maximum of sixteen per system)
- DIMMs
  - Clock speed: 1333 MHz
  - Ranks per DIMM: 1, 2, or 4
  - Operational voltage: 1.35 V
  - Registered
- Each CPU controls eight Millbrook-2 DDR3 channels. There is one memory riser board for each DDR3 channel. Memory is organized as paired-DIMM memory channels.

Choose Riser Boards

You may choose eight or sixteen riser boards. If you choose eight, four will be installed per CPU. If you choose sixteen, eight will be installed per CPU.

Table 4 Available Riser Boards

Product ID (PID)	PID Description	DIMMs per Riser
Riser Board Options		
C260-MRBD-002	Low Cost 2-Socket Memory Riser	2
C260-MRBD-004	Extended 4-Socket Memory Riser	4

Approved Configurations

(1) Eight Two-Socket Risers

- 16 DIMMs capacity total

(2) Sixteen Two-Socket Risers

- 32 DIMMs capacity total

(3) Eight Four-Socket Risers

- 32 DIMMs capacity total

(4) Sixteen Four-Socket Risers

- 64 DIMMs capacity total

Caveats

- Each CPU controls eight Millbrook-2 DDR3 channels. Memory risers must be installed in pairs on paired DDR3 channels. See *CPUs and DIMMs on page 44* for details.
- You cannot mix two- and four-socket risers in a C260 M2 system. You must choose either all two-socket risers or all four-socket risers.
- You should order enough risers with enough sockets to accommodate your maximum forseeable memory needs.
- The minimum riser configuration is one pair of risers for each CPU. Each riser for a CPU must contain an equal number of matched DIMMs. Each CPU can boot and run from a single matched pair of risers.

Choose DIMMs

DIMMs are orderable as kits, with two DIMMs per kit. Choose the desired number of DIMMs. The available memory DIMMs are listed in *Table 5*.

Table 5 Available DDR3 DIMM Kits

Product ID (PID)	PID Description	Voltage	Ranks/ DIMM
DIMM Options			
UCS-MR-2X041RX-C	8GB DDR3-1333MHz RDIMM/PC3-10600/2x4GB Kit	1.35	1
UCS-MR-2X082RX-C	16GB DDR3-1333MHz RDIMM/PC3-10600/2x8GB Kit	1.35	2
UCS-MR-2X162RX-C	32 GB DDR3-1333-MHz RDIMM/PC3-10600/2x16GB Kit	1.35	2

Approved Configurations

(1) Two-Socket Risers

- Each two-socket riser can accommodate two DIMMs.
  - If you ordered eight two-socket risers, you can order a minimum of two DIMM kits (four DIMMs) and a maximum of eight DIMM kits (16 DIMMs).
  - If you ordered sixteen two-socket risers, you can order a minimum of two DIMM kits (four DIMMs) and a maximum of sixteen DIMM kits (32 DIMMs).

(2) Four-Socket Risers

- Each four-socket riser can accommodate four DIMMs.
  - If you ordered eight four-socket risers, you can order a minimum of two DIMM kits (four DIMMs) and a maximum of sixteen DIMM kits (32 DIMMs).
  - If you ordered sixteen four -socket risers, you can order a minimum of two DIMM kits (four DIMMs) and a maximum of thirty-two DIMM kits (64 DIMMs).

Caveats

- Matched pairs of risers on paired DDR3 channels must have identical DIMM configurations. For example, the DIMM configurations must be identical on risers in the A0:A1 paired DIMM channels; however, the A0:A1 DIMM configuration does not have to be identical with the B0:B1 paired DIMM channels configuration.

For more information regarding memory, see *CPUs and DIMMs on page 44*.

STEP 4 CHOOSE HARD DISK DRIVES or SOLID STATE DRIVES

The standard disk drive features are:

- 2.5-inch small form factor
- Hot-pluggable
- Sled-mounted

Choose Drives

The available drives are listed in *Table 6*.

Table 6 Available Hot-Pluggable Sled-Mounted HDDs and SSDs

Product ID (PID)	PID Description	Drive Type	Capacity
HDDs			
A03-D300GA2	300 GB 6 Gb SAS 10K RPM SFF HDD	SAS	300 GB
UCS-HDD300GI2F105	300GB 6Gb SAS 15K RPM SFF HDD	SAS	900 GB
A03-D500GC3	500 GB 6 Gb SATA 7.2K RPM SFF	SATA	500 GB
A03-D600GA2	600 GB 6 Gb SAS 10K RPM SFF HDD	SAS	600 GB
UCS-HDD900GI2F106	900GB 6Gb SAS 10K RPM SFF HDD	SAS	900 GB
A03-D1TBSATA	1 TB SATA 7.2K RPM SFF HDD	SATA	1 TB
SSDs			
UCS-SD200G0KA2-E	200 GB Std Height 15mm SATA SSD	SATA	200 GB
UCS-SD300G0KA2-E	300 GB Std Height 15mm SATA SSD	SATA	300 GB
UCS-SD480G0KS2-EV	480 GB Enterprise Value 6G SATA SSD	SATA	480 GB
UCS-SD120G0KS2-EV	120 GB Enterprise Value 6G SATA SSD	SATA	120 GB

Approved Configurations

(1) One Drive Bay

- If you select one drive bay (see *STEP 5 CHOOSE MODULAR DRIVE BAYS, page 16*), you may select up to eight drives. You can mix SAS and SATA drives.

(1) Two Drive Bay

- If you select two drive bays (see *STEP 5 CHOOSE MODULAR DRIVE BAYS, page 16*), you may select up to sixteen drives. You can mix SAS and SATA drives.

Caveats

- You can mix hard drives and SSDs in the same server. However, You cannot configure a logical volume (virtual drive) that contains a mix of hard drives and SSDs. That is, when you create a logical volume, it must contain all hard drives or all SSDs.

STEP 5 CHOOSE MODULAR DRIVE BAYS

The C260 M2 server accommodates two drive bays, with each bay holding up to eight drives. You should choose the number of drive bays based on the number of drives you selected in *STEP 4 CHOOSE HARD DISK DRIVES or SOLID STATE DRIVES, page 14*.

The modular drive bays each come with a backplane and transition card installed. The transition card connects the drive bay backplane to the motherboard. There are two types of transition cards:

- Nonexpander (default): Two internal cables from the transition card to a plug-in RAID controller card are required to control eight drives. One of the connectors allows control of drives 1 through 4 on the backplane. The other connector allows control of drives 5 through 8 on the backplane.
- Expander (optional): One internal cable from the transition card to a plug-in RAID controller card is required to control eight drives. This one connector allows control of drives 1 through 8 on the backplane

Choose Drive Bays

Choose one or two of the drive bays listed in *Table 7*.

Table 7 Available Drive Bays

Product ID (PID)	PID Description
Drive Bay Options	
UCSC-DBKP-08D	8 Drive Backplane For C-Series
UCSC-DBKP-08E	8 Drive Backplane W/ Expander For C-Series

Approved Configurations

(1) One Standard Drive Bay with Nonexpander Transition Card

- This option accommodate a maximum of eight drives. All eight drives can be controlled with two cables connected from the transition card to a single RAID controller.

(2) Two Standard Drive Bays with Nonexpander Transition Cards

- This option accommodates a maximum of sixteen drives. Two RAID controllers are required to control all sixteen drives. Two cables must be connected to each RAID controller from each transition card.

(3) Two Standard Drive Bays with Expander Transition Cards

- This option accommodates a maximum of sixteen drives. One RAID controller is required to control all sixteen drives. One cable must be connected to the RAID controller from each transition card.

NOTE: With this configuration, two RAID controllers can also be installed, with one cable from each transition card to each RAID controller.

Caveats

- You cannot mix drive bay types. You must order either one or two identical drive bay types listed in *Table 7 on page 16*.

STEP 6 CHOOSE RAID CONFIGURATION

The C260 M2 server accommodates either one or two LSI MegaRAID SAS 9261-8i RAID controllers. The C260 M2 contains two drive bays, each housing up to eight HDDs or SSDs. Each RAID controller connects to a transition card that connects the drive bay backplane to the motherboard.

Cisco can provide factory-configured RAID 0, 1, 5, 6, and 10 systems depending on the RAID implementation chosen and the number of drives ordered. Factory-configured RAID options are listed at the end of *Table 8*. Note that RAID levels 50 and 60 are supported on the 9261-8i, but are not factory configurable.

Choose RAID Options

Choose one or two RAID controllers, one RAID configuration option, and, if desired, the battery backup unit (BBU) option listed in *Table 8 on page 19*.

CAUTION: Hot swapping the BBU is not supported. Please perform a graceful shutdown of the server prior to replacing the BBU.

Table 8 Available RAID Options

Product ID (PID)	PID Description
RAID Controllers	
R2XX-PL003	LSI MegaRAID SAS 9261-8i (RAID 0, 1, 5, 6, 10) ■ Each controller takes up one PCIe slot (slots 3 and 5 are used for RAID controllers). ■ Supports from one to sixteen internal SAS or SATA drives, depending on the type of transition board installed: • One drive bay with nonexpander transition board: up to eight drives supported with one RAID controller having two cables connected to the transition card. • Two drive bays with nonexpander transition boards: up to sixteen drives supported with one RAID controller having two cables connected to one transition card and a second RAID controller having two cables connected to the second transition card • One drive bay with expander transition board: up to eight drives supported with one RAID controller having one cable connected to the transition card. • Two drive bays with expander transition boards: up to sixteen drives supported with one RAID controller having one cable connected to one transition card and a second cable connected to the second transition card ■ Battery backup option available (see the battery backup PID section in this table) ■ Factory-configured RAID options: RAID 0, 1, 5, 6, 10 (see the RAID PIDs section in this table)
RAID Battery Backup Option	
UCSC-BBU-11-C260	Battery Backup
RAID Configuration	
R2XX-RAID0	Factory pre-configured RAID striping option Enable RAID 0 Setting. Requires a minimum of 1 hard drive.
R2XX-RAID1	Factory pre-configured RAID mirroring option Enable RAID 1 Setting. Requires exactly 2 drives, with same size, speed, capacity.
R2XX-RAID5	Factory pre-configured RAID option Enable RAID 5 Setting. Requires minimum 3 drives of same size, speed, capacity.
R2XX-RAID6	Factory pre-configured RAID option Enable RAID 6 Setting. Requires minimum 4 drives of same size, speed, capacity.
R2XX-RAID10	Factory pre-configured RAID option Enable RAID 10 Setting. Requires an even number of drives with a minimum of 4 drives of same size, speed, capacity.

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NOTE: No RAID option can be chosen if you have one of the following configurations:

- A mix of SAS and SATA drives
- No drives

Approved Configurations

(1) One or Two RAID Controller Cards

- Choose one or two R2XX-PL003 LSI MegaRAID SAS 9261-8i RAID controllers listed in *Table 8*. You will be able to control from one to sixteen drives, depending on the drive bay(s) selected and the type of installed transition card.

Caveats

- If you choose one RAID controller card, it is installed in PCIe slot 3.
- If you choose two RAID controller cards, they are installed in PCIe slots 3 and 5.
- If you selected two drive bays with nonexpander transition cards, you will need two RAID controllers to control the maximum number of drives (16). All other drive bay configurations require only one RAID controller card to control the maximum number of drives that can be installed in the drive bays.
- You can choose an optional RAID configuration (RAID 0, 1, 5, 6, or 10), which is pre-configured at the factory. If you do not choose a RAID configuration, the disks will be configured as a JBOD.

STEP 7 CHOOSE PCIe OPTION CARD(S)

The standard PCIe card offerings are:

- Converged Network Adapters (CNA)
- Lights Out Management (LOM)
- Network Interface Cards (NICs)
- Host Bus Adapters (HBAs)

Choose PCIe Option Cards

The available PCIe option cards are listed in *Table 9*.

Table 9 Available PCIe Option Cards

Product ID (PID)	PID Description	Card Height
Converged Network Adapters (CNA)		
UCSC-PCIE-CSC-02	Cisco VIC 1225 Dual Port 10Gb SFP+ CNA	Half
UCSC-PCIE-C10T-02	Cisco VIC 1225T Dual Port 10GBaseT CNA	Half
UCSC-PCIE-ESFP	Emulex OCe11102-FX Dual Port 10Gb SFP+ CNA	Half
N2XX-AEPCI01	Emulex 10Gb 2 Port CNA	Half
UCSC-PCIE-B3SFP	Broadcom 57810 10Gb A-FEX SFP+	Half
Network Interface Cards (NICs)		
UCSX-MLOM-001	10GbE PCIe LOM (dual port SFP+)	Full
N2XX-ABPCI03-M3	Broadcom 5709 Quad Port 1Gb w/TOE iSCSI for M3 Servers	Half
N2XX-AIPCI01	Intel Dual Port 10 GbE Ethernet X520 Server Adapter	Half
N2XX-AIPCI02	Intel Quad port GbE Controller (E1G44ETG1P20)	Half
UCSC-PCIE-BTG	Broadcom 57712 Dual Port 10GBASE-T w/TOE iSCSI	Half
UCSC-PCIE-IRJ45	Intel i350 Quad Port 1Gb Adapter	Half
UCSC-PCIE-ITG	Intel X520 Dual Port 10GBase-T Adapter	Half
Host Bus Adapters (HBAs)		
N2XX-AEPCI03	Emulex LPe 11002, 4Gb Fibre Channel PCIe Dual Channel HBA	Half
N2XX-AEPCI05	Emulex LPe 12002, 8Gb dual port Fibre Channel HBA	Half
N2XX-AQPCI03	Qlogic QLE2462, 4Gb dual port Fibre Channel HBA	Half
N2XX-AQPCI05	Qlogic QLE2562, 8Gb dual port Fibre Channel HBA	Half

Table 9 Available PCIe Option Cards *(continued)*

Product ID (PID)	PID Description	Card Height
UCS Storage Accelerators		
UCSC-F-FIO-3000M	Cisco UCS 3.0 TB MLC Fusion ioDrive2 for C-Series Servers	Full
UCSC-F-FIO-1205M	Cisco UCS 1205 GB MLC Fusion ioDrive2 for C-Series Servers	Half
UCSC-F-FIO-785M	Cisco UCS 785 GB MLC Fusion ioDrive2 for C-Series Servers	Half
UCSC-F-FIO-365M	Cisco UCS 365GB MLC Fusion ioDrive2 for C-Series Servers	Half

Approved Configurations

(1) Slot Usage Guidelines

- For the best performance, populate the PCIe slots in the order shown in *Table 10* for each type of add-on card. For each card type, populate the primary slot first, followed by the secondary slot, then any alternate slots. See *Figure 4* for the slot locations.

Table 10 Recommended PCIe Slot Population

PCIe Card Type	Primary Slot	Secondary Slot	Alternate Slots
RAID Controller	3	5	—
Low-profile NIC	6	3	1, 2, 5, or 7
Cisco UCS 1225 Virtual Interface Card	7	1	—
10GbE PCIe LOM (dual port SFP+)	4[1]	—	—
UCS Storage Accelerators			
UCSC-F-FIO-3000M[2]	—	—	1, 7
UCSC-F-FIO-1205M[3]	—	—	1, 2, 3, 5, 6, 7
UCSC-F-FIO-785M[3]	—	—	1, 2, 3, 5, 6, 7
UCSC-F-FIO-365M[3]	—	—	1, 2, 3, 5, 6, 7

Notes . . .

1. Slot 4 is reserved for the 10 GbE PCIe LOM card. No other PCIe card may be installed there.
2. The UCSC-F-FIO-3000M is a full-height card and must be installed only in slots 1 or 7
3. Not supported in slot 4

Figure 4 PCIe Slot Locations

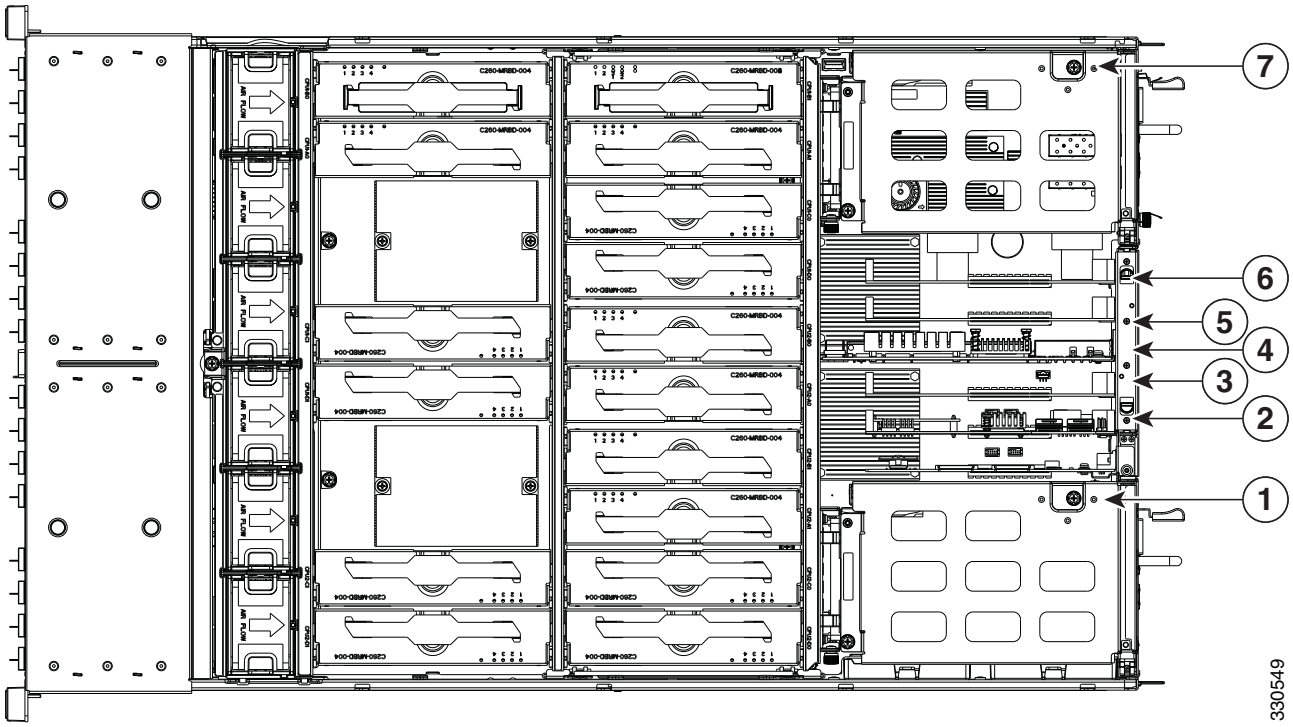


Table 11 PCIe Expansion Slot Numbering

Slot Number	Slot Characteristics
7 (on riser card)	PCI-Express Gen-2x16, x16 connector, half-length, standard profile
6	PCI-Express Gen-2x8, x8connector, half-length, low-profile
5	PCI-Express Gen-2x8, x8connector, half-length, low-profile
4	PCI-Express Gen-2x8, x8connector, half-length, low-profile
3	PCI-Express Gen-2x8, x8connector, half-length, low-profile
2	PCI-Express Gen-2x4, x8connector, half-length, low-profile
1 (on riser card)	PCI-Express Gen-2x16, x16 connector, half-length, standard profile

Caveats

- Slots 1 and 7 accommodate standard profile cards. To use a low-profile card in one of these slots, you must have a standard-profile rear panel attached to the card.
- The Cisco UCS 1225 Virtual Interface Card (VIC)/2-port 10Gbps card may be installed in either slot 1 or 7. Note, however, that if the server is running UCSM, only slot 7 is supported for the VIC card.
- Additional considerations for the Cisco 1225 VIC card:

- Supports 10G SFP+ optical and copper twinax connections
- To use the Cisco Card NIC mode, this card must be installed in PCIe slot 7. Slot 7 can operate while the server is in standby power mode.
- Requires that the server has CIMC firmware version 1.4(6) or later installed. There is a heartbeat LED on the top of the card that indicates when firmware is active.
- To use this card for UCS integration (Cisco UCS Manager mode) with Cisco UCS Manager 2.1(0) or later, the minimum card-firmware and uboot image level is 2.1(0.306).

■ To help ensure that your operating system is compatible with the cards you have selected, please check the Hardware Compatibility List at this URL:

http://www.cisco.com/en/US/products/ps10477/prod_technical_reference_list.html

STEP 8 CHOOSE SECURE DIGITAL (SD) CARD

One 16 or 32 GB SD flash memory cards is required to be inserted into a dedicated I/O riser card plugged into the motherboard. Select one SD card from *Table 12*.

Table 12 Available SD Card

Product ID (PID)	PID Description
UCSC-SD-16G-C260	16GB SD card for C260 M2
UCS-SD-32G-S	32 GB SD Card for UCS servers

STEP 9 CHOOSE POWER SUPPLIES

Two 1200 W power supplies are required. Select two power supplies from *Table 13*.

Table 13 Available Power Supplies

Product ID (PID)	PID Description
UCSC-PSU2-1200	1200W 2u Power Supply For UCS

STEP 10 SELECT AC POWER CORD(s)

Select the appropriate AC power cords listed in *Table 14*. You may select a minimum of no power cords and a maximum of two power cords. If you select the option R2XX-DMYMPWRCORD, no power cord is shipped with the server.

Table 14 Available Power Cords

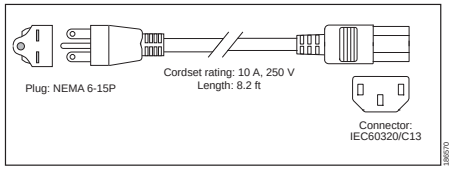
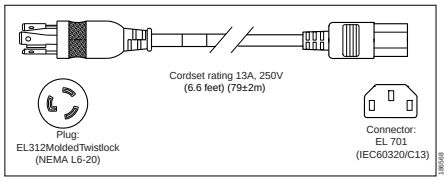
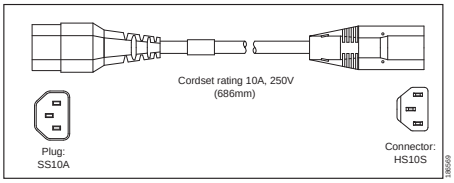
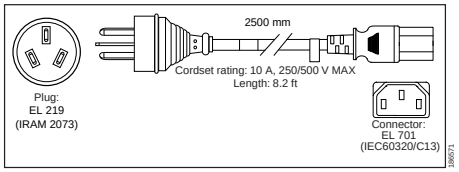
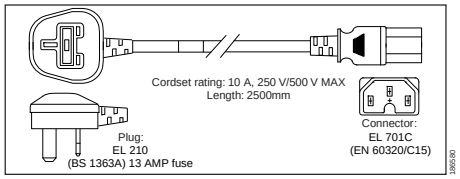
Product ID (PID)	PID Description	Images
R2XX-DMYMPWRCORD	No power cord (dummy PID to allow for a no power cord option)	Not applicable
CAB-N5K6A-NA	Power Cord, 200/240V 6A, North America	
CAB-AC-250V/13A	Power Cord, NEMA L6-20 250V/20A plug-IEC320/C13 receptacle, North America,	
CAB-C13-C14-JMPR	Power Cord, recessed receptacle AC power cord 27	
CAB-250V-10A-AR	Power Cord, SFS, 250V, 10A, Argentina	
CAB-9K10A-AU	Power Cord, 250VAC 10A 3112 Plug, Australia	

Table 14 Available Power Cords *(continued)*

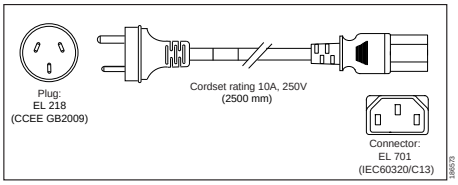
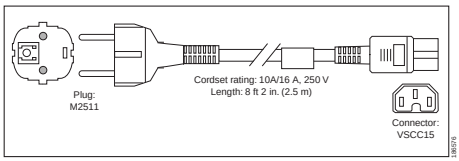
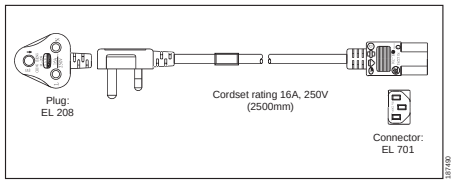
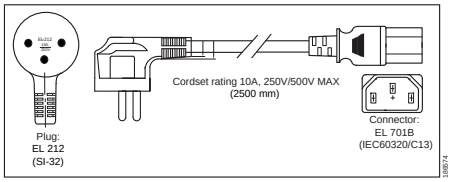
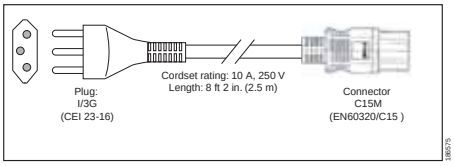
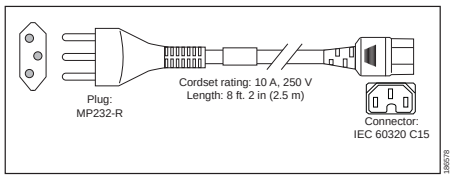
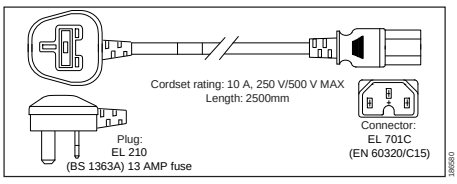
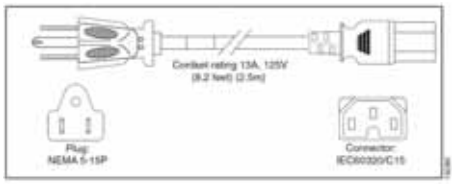
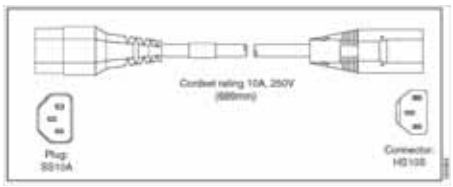
Product ID (PID)	PID Description	Images
SFS-250V-10A-CN	Power Cord, SFS, 250V, 10A, China	
CAB-9K10A-EU	Power Cord, 250VAC 10A CEE 7/7 Plug, EU	
SFS-250V-10A-ID	Power Cord, SFS, 250V, 10A, India	
SFS-250V-10A-IS	Power Cord, SFS, 250V, 10A, Israel	
CAB-9K10A-IT	Power Cord, 250VAC 10A CEI 23-16/VII Plug, Italy	
CAB-9K10A-SW	Power Cord, 250VAC 10A MP232 Plug, Switzerland	
CAB-9K10A-UK	Power Cord, 250VAC 10A BS1363 Plug (13 A fuse), UK	

Table 14 Available Power Cords *(continued)*

Product ID (PID)	PID Description	Images
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	
CAB-C13-C14-2M	Power Cord Jumper, C13-C14 Connectors, 2 Meter Length	
CAB-JPN-3PIN	Power Cord 3PIN, Japan	Image not available

STEP 11 ORDER TOOL-LESS SLIDE RAIL KIT

A tool-less slide rail kit (PID UCSC-RAIL-2U) is available for the C260 M2 server. The slide rail is adjustable from 26 inches (660 mm) to 36 inches (914 mm). Order one slide rail kit listed in *Table 15*.

Table 15 Cable Management Arm

Product ID (PID)	PID Description
UCSC-RAIL-2U	2U Rail Kit for UCS C-Series servers

STEP 12 ORDER OPTIONAL CABLE MANAGEMENT ARM

The cable management arm attaches to the left slide rail at the rear of the server and is used for cable management. You can order one of the cable management arms listed in *Table 16*.

Table 16 Cable Management Arm

Product ID (PID)	PID Description
UCSC-CMA-0002	Cable Management Arm - 2u For C-Series

STEP 13 ORDER OPTIONAL USB BOOT DRIVE

An optional 4 GB USB drive may be ordered and used as a boot drive. The USB drive plugs into a vertical USB slot on the motherboard. You can order the USB boot drive listed in *Table 17*.

Table 17 Available USB Drive

Product ID (PID)	PID Description	Drive Type	Capacity
UCS-USBFLSH-4GB	4GB USB Drive	USB	4 GB

Approved Configurations

- Select one USB drive from *Table 17*.

Caveats

None

STEP 14 ORDER A TRUSTED PLATFORM MODULE

Trusted Platform Module (TPM) is a computer chip (microcontroller) that can securely store artifacts used to authenticate the platform (server). 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.

The TPM ordering information is listed in *Table 18*.

Table 18 Trusted Platform Module

Product ID (PID)	PID Description
UCSX-TPM1-001	Trusted Platform Module

NOTE: The module used in this server conforms to TPM v1.2/1.3, as defined by the Trusted Computing Group (TCG).

STEP 15 CHOOSE OPERATING SYSTEM AND VALUE-ADDED SOFTWARE

Several operating systems and value-added software programs are available. Select as desired from *Table 1*.

Table 19 OSs and Value-Added Software (for 2-CPU servers)

PID Description	Product ID (PID)
Cisco One	
C1F2PUCSK9	Cisco ONE Foundation Perpetual UCS
C1F2SICFBK9	Cisco ONE Foundation Subsr Intercloud Fabric For Business
C1A1PUCSK9	Cisco ONE Enterprise Cloud Perpetual UCS
C1UCS-OPT-OUT	Cisco One Data Center Compute Opt Out Option
Microsoft Windows Server	
MSWS-12-ST2S	Windows Server 2012 Standard (2 CPU/2 VMs)
MSWS-12-DC2S	Windows Server 2012 Datacenter (2 CPU/Unlimited VMs)
MSWS-12-ST2S-NS	Windows Server 2012 Standard (2 CPU/2 VMs) No Cisco SVC
MSWS-12-DC2S-NS	Windows Server 2012 Datacenter (2 CPU/Unlim VM) No Cisco SVC
MSWS-12R2-ST2S	Windows Server 2012 R2 Standard (2 CPU/2 VMs)
MSWS-12R2-DC2S	Windows Server 2012 R2 Datacenter (2 CPU/Unlimited VMs)
MSWS-12R2-ST2S-NS	Windows Server 2012 R2 Standard (2 CPU/2 VMs) No Cisco SVC
MSWS-12R2-DC2S-NS	Windows Server 2012 R2 Datacen (2 CPU/Unlim VM) No Cisco Svc
SUSE	
SLES-2S2V-1A	SUSE Linux Enterprise Srvr (1-2 CPU,1 Phys);1yr Support Reqd
SLES-2S2V-3A	SUSE Linux Enterprise Srvr (1-2 CPU,1 Phys);3yr Support Reqd
SLES-2S2V-5A	SUSE Linux Enterprise Srvr (1-2 CPU,1 Phys);5yr Support Reqd
SLES-2SUV-1A	SUSE Linux Enterprise Svr (1-2 CPU,Unl Vrt);1yr Support Reqd
SLES-2SUV-3A	SUSE Linux Enterprise Svr (1-2 CPU,Unl Vrt);3yr Support Reqd
SLES-2SUV-5A	SUSE Linux Enterprise Svr (1-2 CPU,Unl Vrt);5yr Support Reqd
SLES-2S-HA-1S	SUSE Linux High Availability Ext (1-2 CPU); 1yr Support Reqd
SLES-2S-HA-3A	SUSE Linux High Availability Ext (1-2 CPU); 3yr Support Reqd
SLES-2S-HA-5A	SUSE Linux High Availability Ext (1-2 CPU); 5yr Support Reqd
SLES-2S-GC-1S	SUSE Linux GEO Clustering for HA (1-2 CPU); 1yr Support Reqd
SLES-2S-GC-3S	SUSE Linux GEO Clustering for HA (1-2 CPU); 3yr Support Reqd
SLES-2S-GC-5S	SUSE Linux GEO Clustering for HA (1-2 CPU); 5yr Support Reqd
SLES-SAP-2S2V-1A	SLES for SAP Applications (1-2 CPU,1 Phys); 1yr Support Reqd
SLES-SAP-2S2V-3A	SLES for SAP Applications (1-2 CPU,1 Phys); 3yr Support Reqd
SLES-SAP-2S2V-5A	SLES for SAP Applications (1-2 CPU,1 Phys); 5yr Support Reqd
SLES-SAP-2SUV-1A	SLES for SAP Applications (1-2 CPU,Unl Vrt);1yr Support Reqd
SLES-SAP-2SUV-3A	SLES for SAP Applications (1-2 CPU,Unl Vrt);3yr Support Reqd
SLES-SAP-2SUV-5A	SLES for SAP Applications (1-2 CPU,Unl Vrt);5yr Support Reqd
Nexus 1000V for Hyper-V and vSphere	

Table 19 OSs and Value-Added Software (for 2-CPU servers) *(continued)*

PID Description	Product ID (PID)
N1K-VSG-UCS-BUN	Over half off N1K and VSG w/ purchase of UCS B/C Series
N1K-VLEM-UCS-1	Nexus 1000V License Paper Delivery (1 CPU) for bundles
VSG-VLEM-UCS-1	VSG License Paper Delivery (1 CPU) for bundles
UCS Director	
CUIC-PHY-SERV-BM-U	Cisco Cloupia Resource Lic - One Phy Server node bare metal
CUIC-PHY-SERV-U	Cisco Cloupia Resource Lic - One physical Server node
CUIC-TERM	Acceptance of Cisco Cloupia License Terms
UCS Performance Manager	
UCS-PM-IE	UCS Performance Manager
UCS-PM-EE	UCS Performance Manager Express
EVAL-UCS-PM-IE	UCS Performance Manager - 60 days evaluation
EVAL-UCS-PM-EE	UCS Performance Manager Express - 60 days evaluation
NFR-UCS-PM-IE	UCS Performance Manager - Not For Resale
NFR-UCS-PM-EE	CS Performance Manager Express - Not For Resale
IMC Supervisor	
EVAL-CIMC-SUP	EVAL: IMC Supervisor-Branch Mgt SW for C/E-Series - 50 Svrs
EVAL-CIMC-SUP-BAS	EVAL: IMC Supervisor One-time Site Installation License
CIMC-SUP-B01	IMC Supervisor-Branch Mgt SW for C-Series & E-Series up to 100 Svrs
CIMC-SUP-B02	IMC Supervisor- Branch Mgt SW for C-Series & E-Series up to 250 Svrs
CIMC-SUP-B10	IMC Supervisor- Branch Mgt SW for C-Series & E-Series up to 1K Svrs
CIMC-SUP-BASE-K9	IMC Supervisor One-time Site Installation License
CIMC-SUP-TERM	Acceptance of Cisco IMC Supervisor License Terms
VMware 5	
VMW-VS5-STD-1A	VMware vSphere 5 Standard for 1 Processor, 1 Year, Support Rqd
VMW-VS5-STD-2A	VMware vSphere 5 Standard for 1 Processor, 2 Year, Support Rqd
VMW-VS5-STD-3A	VMware vSphere 5 Standard for 1 Processor, 3 Year, Support Rqd
VMW-VS5-STD-4A	VMware vSphere 5 Standard for 1 Processor, 4 Year, Support Rqd
VMW-VS5-STD-5A	VMware vSphere 5 Standard for 1 Processor, 5 Year, Support Rqd
VMW-VS5-ENT-1A	VMware vSphere 5 Enterprise for 1 Processor, 1 Year Support Rqd
VMW-VS5-ENT-2A	VMware vSphere 5 Enterprise for 1 CPU, 2 Yr Support Rqd
VMW-VS5-ENT-3A	VMware vSphere 5 Enterprise for 1 CPU, 3 Yr Support Rqd
VMW-VS5-ENT-4A	VMware vSphere 5 Enterprise for 1 Processor, 4 Year Support Rqd
VMW-VS5-ENT-5A	VMware vSphere 5 Enterprise for 1 CPU, 5 Yr Support Rqd
VMW-VS5-ENTP-1A	VMware vSphere 5 Enterprise Plus for 1 Processor, 1 Year Support Rqd
VMW-VS5-ENTP-2A	VMware vSphere 5 Enterprise Plus for 1 CPU, 2 Yr Support Rqd
VMW-VS5-ENTP-3A	VMware vSphere 5 Enterprise Plus for 1 Processor, 3 Year Support Rqd
VMW-VS5-ENTP-4A	VMware vSphere 5 Enterprise Plus for 1 Processor, 4 Year Support Rqd
VMW-VC5-STD-1A	VMware vCenter 5 Server Standard, 1 yr support required
VMW-VC5-STD-2A	VMware vCenter 5 Server Standard, 2 yr support required

Table 19 OSs and Value-Added Software (for 2-CPU servers) *(continued)*

PID Description	Product ID (PID)
VMW-VC5-STD-3A	VMware vCenter 5 Server Standard, 3 yr support required
VMW-VC5-STD-4A	VMware vCenter 5 Server Standard, 4 yr support required
VMW-VC5-STD-5A	VMware vCenter 5 Server Standard, 5 yr support required

STEP 16 CHOOSE OPERATING SYSTEM MEDIA KIT

Choose the optional operating system media listed in *Table 20*.

Table 20 OS Media

Product ID (PID)	PID Description
RHEL-6	RHEL 6 Recovery Media Only (Multilingual)
SLES-11	SLES 11 media only (multilingual)
MSWS-08R2-STHV-RM	Windows Svr 2008 R2 ST (1-4CPU, 5CAL), Media
MSWS-08RS-ENHV-RM	Windows Svr 2008 R2 EN (1-8CPU, 25CAL), Media
MSWS-08R2-DCHV-RM	Windows Svr 2008 R2 DC (1-8CPU, 25CAL), Media
MSWS-12-ST2S-R	Windows Server 2012 Standard (2 CPU/2 VMs) Recovery Media
MSWS-12-DC2S-RM	Windows Server 2012 Datacenter (2 CPU/Unlimited VM) Rec Media
MSWS-12R2-ST2S-RM	Windows Server 2012 R2 Standard (2 CPU/2 VMs) Recovery Media
MSWS-12R2-DC2S-RM	Windows Server 2012 R2 Datacen(2 CPU/Unlimited VM) Rec Media

STEP 17 CHOOSE SERVICE and SUPPORT LEVEL

A variety of service options are available, as described in this section.

Unified Computing Warranty, No Contract

If you have noncritical implementations and choose to have no service contract, the following coverage is supplied:

- Three-year parts coverage.
- Next business day (NBD) parts replacement eight hours a day, five days a week.
- 90-day software warranty on media.
- Downloads of BIOS, drivers, and firmware updates.
- UCSM updates for systems with Unified Computing System Manager. These updates include minor enhancements and bug fixes that are designed to maintain the compliance of UCSM with published specifications, release notes, and industry standards.

Unified Computing Mission Critical Service

This service delivers personalized technical account management, expedited technical support, and expert field support engineering for the Cisco Unified Computing System (UCS).

The Mission Critical Support Service provides a designated technical account manager (TAM) who acts as a strategic resource to help ensure that the unified computing environment runs at peak efficiency. If a problem arises that threatens business continuity, the TAM provides crisis management leadership, and your IT staff receives expedited access to Cisco's Technical Assistance Center (TAC).

Please note: This service has qualification criteria. Your company must have $1.2M of UCS equipment, 200 blades and a single location to qualify for this service level. Choose the desired service listed in *Table 21*.

Table 21 Unified Computing Mission Critical Service

Product ID (PID)	On Site?	Description
CON-UCM7-C260-M2	Yes	UC Mission Critical 24x7x4 On-site
CON-UCM8-C260-M2	Yes	UC Mission Critical 24x7x2 On-site

Unified Computing Support Service

For support of the entire Unified Computing System, Cisco offers the Cisco Unified Computing Support Service. This service provides expert software and hardware support to help sustain performance and high availability of the unified computing environment. Access to Cisco Technical Assistance Center (TAC) is provided around the clock, from anywhere in the world.

For UCS blade servers, there is Smart Call Home, which provides proactive, embedded diagnostics and real-time alerts. For systems that include Unified Computing System Manager, the support service includes downloads of UCSM upgrades. The Unified Computing Support Service includes flexible hardware replacement options, including replacement in as little as two hours. There is also access to Cisco's extensive online technical resources to help maintain

optimal efficiency and uptime of the unified computing environment. You can choose a desired service listed in *Table 22*.

Table 22 UCS Computing Support Service

Product ID (PID)	On Site?	Description
CON-UCS1-C260-M2	No	UC Support 8X5XNBD
CON-UCS2-C260-M2	No	UC Support 8X5X4
CON-UCS3-C260-M2	No	UC Support 24x7x4
CON-UCS4-C260-M2	No	UC Support 24x7x2
CON-UCS5-C260-M2	Yes	UC Support 8X5XNBD
CON-UCS6-C260-M2	Yes	UC Support 8X5X4
CON-UCS7-C260-M2	Yes	UC Support 24x7x4
CON-UCS8-C260-M2	Yes	UC Support 24x7x2

Unified Computing Warranty Plus Service

For faster parts replacement than is provided with the standard Cisco Unified Computing System warranty, Cisco offers the Cisco Unified Computing Warranty Plus Service. You can choose from several levels of advanced parts replacement coverage, including onsite parts replacement in as little as two hours. Warranty Plus provides remote access any time to Cisco support professionals who can determine if a return materials authorization (RMA) is required. You can choose a service listed in *Table 23*.

Table 23 UCS Computing Warranty Plus Service

Product ID (PID)	On Site?	Description
CON-UCW2-C260-M2	No	UC Warranty Plus 8x5x4
CON-UCW3-C260-M2	No	UC Warranty Plus 24x7x4
CON-UCW4-C260-M2	No	UC Warranty Plus 24x7x2
CON-UCW5-C260-M2	Yes	UC Warranty Plus 8X5XNBD
CON-UCW6-C260-M2	Yes	UC Warranty Plus 8X5X4
CON-UCW7-C260-M2	Yes	UC Warranty Plus 24x7x4
CON-UCW8-C260-M2	Yes	UC Warranty Plus 24x7x2

Unified Computing Drive Retention Service

With the Cisco Unified Computing Drive Retention (UCDR) service, you can obtain a new disk drive in exchange for a faulty drive without returning the faulty drive. In exchange for a Cisco replacement drive, you provide a signed Certificate of Destruction (CoD) confirming that the drive has been removed from the system listed, is no longer in service, and has been destroyed.

Sophisticated data recovery techniques have made classified, proprietary, and confidential information vulnerable, even on malfunctioning disk drives. The UCDR service enables you to retain your drives and ensures that the sensitive data on those drives is not compromised, thereby reducing the risk of any potential liabilities. This service also enables you to comply with regulatory, local, and federal requirements.

If your company has a need to control confidential, classified, sensitive, or proprietary data, you might want to consider one of the Drive Retention Services listed in *Table 24*.

NOTE: Cisco does not offer a certified drive destruction service as part of this service.

Table 24 Drive Retention Service Options

Service Description	Service Program Name	Service Level GSP	Service Level	Product ID (PID)
UCS Mission Critical Support Service With Drive Retention	UC CRIT DR	UCMD7	24x7x4 Onsite	CON-UCMD7-C260-M2SFF
		UCMD8	24x7x2 Onsite	CON-UCMD8-C260-M2SFF
UCS Support Service With Drive Retention	UC SUPP DR	UCSD1	8x5xNBD	CON-UCSD1-C260-M2SFF
		UCSD2	8x5x4	CON-UCSD2-C260-M2SFF
		UCSD3	24x7x4	CON-UCSD3-C260-M2SFF
		UCSD4	24x7x2	CON-UCSD4-C260-M2SFF
		UCSD5	8x5xNBD Onsite	CON-UCSD5-C260-M2SFF
		UCSD6	8x5x4 Onsite	CON-UCSD6-C260-M2SFF
		UCSD7	24x7x4 Onsite	CON-UCSD7-C260-M2SFF
		UCSD8	24x7x2 Onsite	CON-UCSD8-C260-M2SFF

Table 24 Drive Retention Service Options *(continued)*

Service Description	Service Program Name	Service Level GSP	Service Level	Product ID (PID)
UCS Warranty Plus With Drive Retention	UC PLUS DR	UCWD2	8x5x4	CON-UCWD2-C260-M2SFF
		UCWD3	24x7x4	CON-UCWD3-C260-M2SFF
		UCWD4	24x7x2	CON-UCWD4-C260-M2SFF
		UCWD5	8x5xNBD Onsite	CON-UCWD5-C260-M2SFF
		UCWD6	8x5x4 Onsite	CON-UCWD6-C260-M2SFF
		UCWD7	24x7x4 Onsite	CON-UCWD7-C260-M2SFF
		UCWD8	24x7x2 Onsite	CON-UCWD8-C260-M2SFF

For more service and support information, see the following URL:

http://www.cisco.com/en/US/services/ps2961/ps10312/ps10321/Cisco_UC_Warranty_Support_DS.pdf

For a complete listing of available services for Cisco Unified Computing System, see this URL:

http://www.cisco.com/en/US/products/ps10312/serv_group_home.html

OPTIONAL STEP - ORDER RACK(s)

The optional R42610 rack is available from Cisco for the C-Series servers, including the C260 M2 server. This rack is a standard 19-inch rack and can be ordered with a variety of options, as listed in *Table 25*. Racks are shipped separately from the C260 M2 server.

Table 25 Racks and Rack Options

Product ID (PID)	PID Description
RACK-UCS[1]	Cisco R42610 expansion rack, no side panels
RACK-UCS2[1]	Cisco R42610 standard rack, w/side panels
RACK-BLANK-001	Filler panels (qty 12), 1U, plastic, toolless
RACK-CBLMGT-001	Cable mgt D rings (qty 10), metal
RACK-CBLMGT-011	Cable mgt straps (qty 10), Velcro
RACK-FASTEN-001	Mounting screws (qty 100), M6
RACK-FASTEN-002	Cage nuts (qty 50), M6
RACK-JOIN-001	Rack joining kit

Notes . . .

1. Use these same base PIDs to order spare racks (available only as next-day replacements).

For more information about the R42610 rack, see *RACKS on page 46*.

OPTIONAL STEP - ORDER PDU

An optional power distribution unit (PDU) is available from Cisco for the C-Series rack servers, including theC260 M2 server. This PDU is available in a zero rack unit (RU) style (see *Table 25*).

Table 26 PDU Options

Product ID (PID)	PID Description
RP208-30-1P-U-1	Cisco Single-Phase PDU 2x C13, 4x C19
RP208-30-1P-U-2	Cisco Single-Phase PDU 20x C13, 4x C19

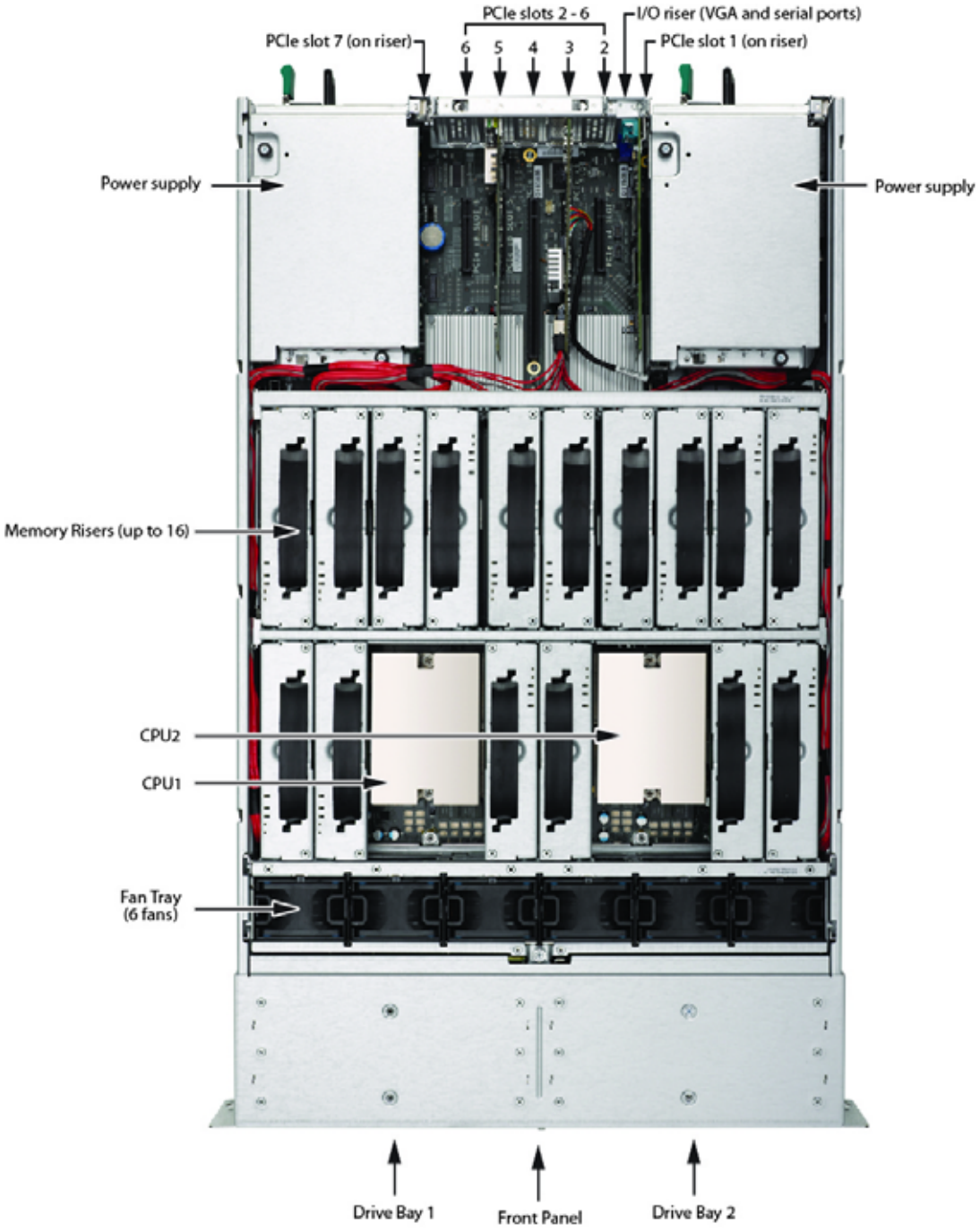
For more information about the PDU, see *PDUs on page 48*.

SUPPLEMENTAL MATERIAL

CHASSIS

An internal view of the C260 M2 chassis with the top cover removed is shown in *Figure 5*.

Figure 5 C260 M2 With Top Cover Removed



CPUs and DIMMs

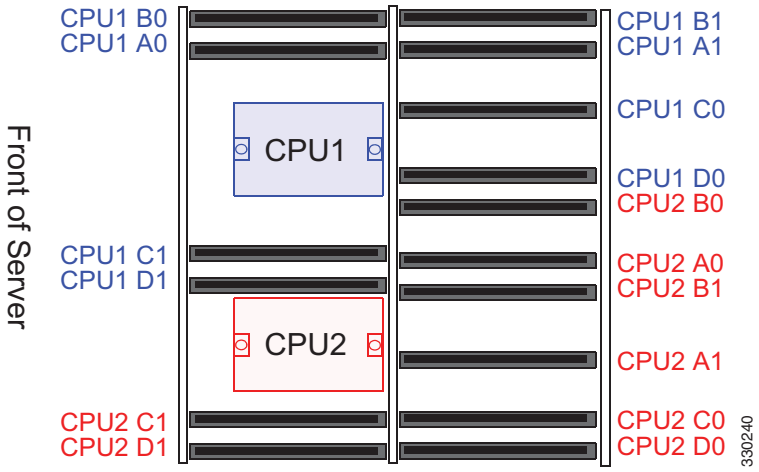
Physical Layout

Each CPU controls eight DDR3 channels. There is one memory riser for each channel. The channels are paired (two risers per pair) and organized as follows:

- CPU1: channels [A0:A1], [B0:B1], [C0:C1], [D0:D1]
- CPU2: channels [A0:A1], [B0:B1], [C0:C1], [D0:D1]

The physical layout of the CPUs, memory risers, and memory riser channels is shown in *Figure 6*.

Figure 6 Physical Layout



Memory Population Rules

When considering the memory configuration of your server, you should observe the following:

- The server must have either all two-DIMM risers or all four-DIMM risers. Do not mix riser types.
- Memory risers must be installed in pairs on paired DDR3 channels. Paired channels are:
  - CPU1— [A0:A1], [B0:B1], [C0:C1], [D0:D1]
  - CPU2— [A0:A1], [B0:B1], [C0:C1], [D0:D1]
- Matched pairs of risers on paired DDR3 channels must have identical DIMM configurations.

  For example, the DIMM configurations must be identical on risers in A0:A1; however, the A0:A1 configurations do not have to be identical with the B0:B1 configurations.
- The minimum riser configuration is one matched pair of risers on either CPU1 or CPU2. Either CPU can boot and run from a single matched pair of risers.
- Any riser installed on a socket that is controlled by an absent CPU is not recognized.

Recommended Configuration

- For optimal performance, distribute riser pairs evenly across the CPUs. Follow the recommended installation order shown in *Table 27* and refer to *Figure 6 on page 44*.

Table 27 Recommended Memory Riser Installation Order

Installation Order	CPU Number	Memory Riser Channel Pair
1	CPU1	[A0:A1]
	CPU2	[A0:A1]
2	CPU1	[C0:C1]
	CPU2	[C0:C1]
3	CPU1	[B0:B1]
	CPU2	[B0:B1]
4	CPU1	[D0:D1]
	CPU2	[D0:D1]

RACKS

The Cisco R42610 rack (see *Figure 7*) is certified for Cisco UCS installation at customer sites and is suitable for the following equipment:

- Cisco UCS B-Series servers and fabric interconnects
- Cisco UCS C-Series and select Nexus switches

The rack is compatible with hardware designed for EIA-standard 19-inch racks. Rack specifications are listed in *Table 28*.

Table 28 Cisco R42610 Rack Specifications

Parameter	Standard Rack	Expansion Rack
Dimensions (H x W x D)	78.74 x 24 x 43.38 in. (2000 x 610 x 1102 mm)	78.74 x 23.58 x 43.38 in. (2000 x 599 x 1102 mm)
Dimensions (H x W x D) with packaging	89 x 33 x 47 in. (2261 x 838 x 1194 mm)	89 x 33 x 47 in. (2261 x 838 x 1194 mm)
Distance from front mounting rail to rear mounting rail	29.2 in. (741 mm)	29.2 in. (741 mm)
Weight	299.83 lb (136 kg)	231. 49 lb (105 kg)
Weight with packaging	354 lb (161 kg)	284 lb (129 kg)
Side panels included	Yes	No
Equipment mounting capacity	42RU	42RU
Static load capacity	2100 lb (954 kg)	2100 lb (954 kg)
Dynamic load capacity	Not applicable	Not applicable

NOTE: The AC input connector is an IEC 320 C-14 15 A/250 VAC power inlet.

Figure 7 Cisco R42610 Rack

Front view - door closed | Front view - door open | Front view - door removed

PDUs

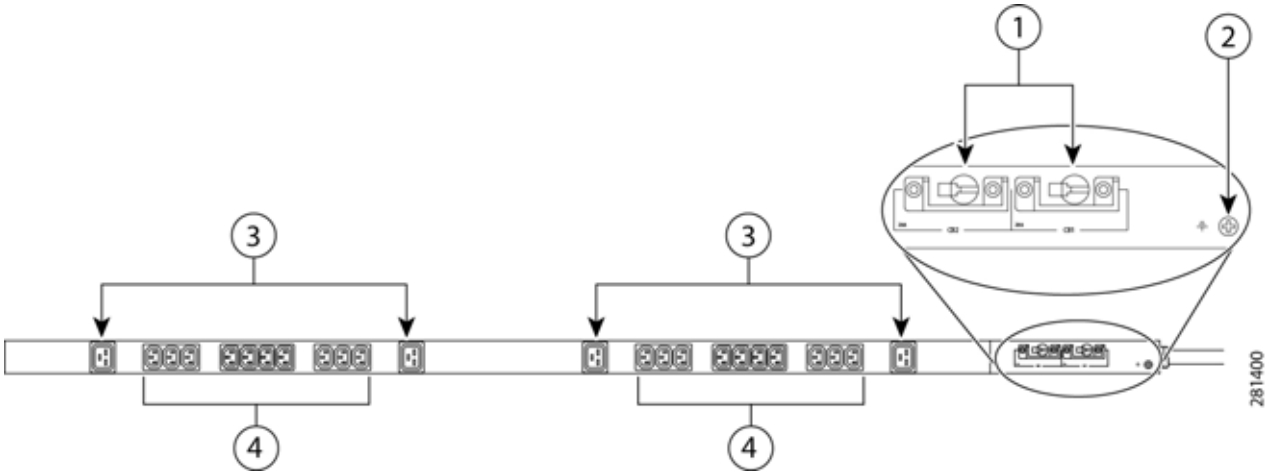
Cisco RP Series Power Distribution Units (PDUs) offer power distribution with branch circuit protection.

Cisco RP Series PDU models distribute power to up to 24 outlets. The architecture organizes power distribution, simplifies cable management, and enables you to move, add, and change rack equipment without an electrician.

With a Cisco RP Series PDU in the rack, you can replace up to two dozen input power cords with just one. The fixed input cord connects to the power source from overhead or under-floor distribution. Your IT equipment is then powered by PDU outlets in the rack using short, easy-to-manage power cords.

The C-series severs accept the zero-rack-unit (0RU) PDU. See *Figure 8*).

Figure 8 Zero Rack Unit PDU (PID = RP208-30-2P-U-2)



1	Breakers	**3**	C13 plugs
2	Ground connection	**4**	C19 plugs

Cisco RP Series PDU models provide two 20-ampere (A) circuit breakers for groups of receptacles. The effects of a tripped circuit are limited to a receptacle group. Simply press a button to reset that circuit.

KVM CABLE

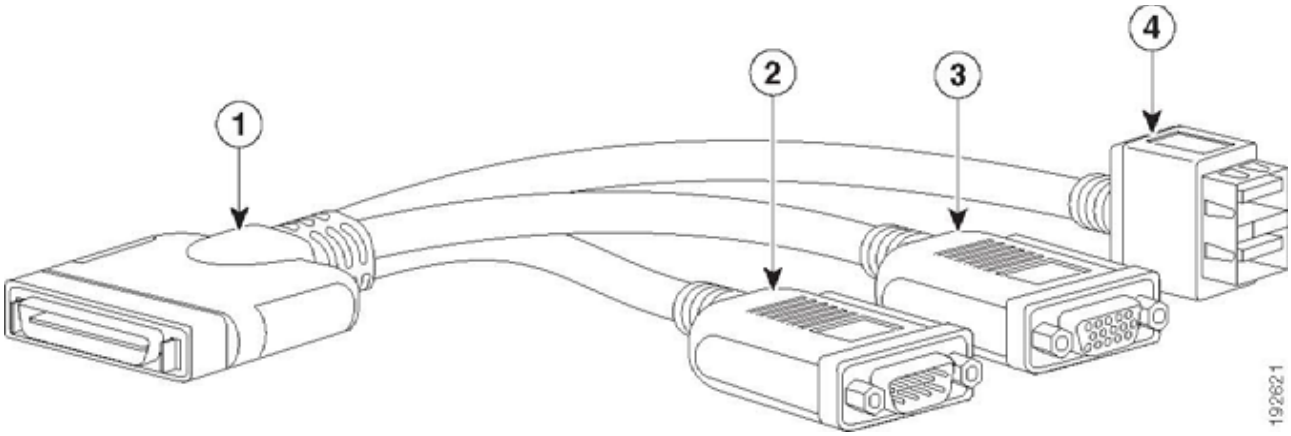
The KVM cable provides a connection into the server, providing a DB9 serial connector, a VGA connector for a monitor, and dual USB ports for a keyboard and mouse. With this cable, you can create a direct connection to the operating system and the BIOS running on the server.

The KVM cable ordering information is listed in *Table 29*.

Table 29 KVM Cable

Product ID (PID)	PID Description
37-1016-01	KVM Cable

Figure 9 KVM Cable



1	Connector (to server front panel)	**3**	VGA connector (for a monitor)
2	DB-9 serial connector	**4**	Two-port USB connector (for a mouse and keyboard)

TECHNICAL SPECIFICATIONS

Dimensions and Weight

Table 30 UCS C260 M2 Dimensions and Weight[1]

Parameter	Value
Height	3.5 in. (8.9 cm)
Width (including rack-mount flanges)	18.95 in.(48.1 cm)
Depth (including slide-rail brackets)	31.5 in. (80 cm)
Front Clearance	3 in. (7.62 cm)
Side Clearance	1 in. (2.54 cm)
Rear Clearance	6 in. (15.24 cm)
Weight (maximum configuration, including slide rail brackets and cable management arm)	92 lbs (41.7 kg)*

Notes . . .

1. The system weight given here is an estimate for a fully configured system and will vary depending on the number of peripheral devices and power supplies.

Power Specifications

The general power specifications for the C260 M2 server are listed in *Table 31*.

Table 31 UCS C260 M2 Power Specifications

Description	Specification
AC input voltage	100 to 127 VAC nominal (Range: 90 to 264 VAC)
AC input frequency	50 to 60 Hz nominal (Range: 47 to 63 Hz)
Maximum AC input current	10 A at 100 VAC
Maximum AC inrush current	30 A peak sub-cycle duration
Maximum output power for each power supply	1200 W
Power supply output voltage	Main power: 12 VDC Standby Power: 5 VDC
Power supply efficiency	94% Peak, complies with 80Plus Gold Standard

NOTE: AC input connector is an IEC 320 C-14 15A/250VAC power inlet.

For details on power consumption, see the following link:

http://ucspowercalc.cisco.com

Environmental Specifications

The power specifications for the C260 M2 server are listed in *Table 32*.

Table 32 UCS C260 M2 Environmental Specifications

Parameter	Minimum
Temperature operating	10°C to 35°C (50°F to 95°F)
Temperature nonoperating	-40°C to 65°C (-40°F to 149°F)
Altitude operating	0 to 3,000 m (0 to 10,000 ft.); maximum ambient temperature decreases by 1° per 300 m
Humidity nonoperating	5 to 93%, noncondensing
Vibration nonoperating	2.2 Grms, 10 minutes per axis on each of the three axes
Shock operating	Half-sine 2 G, 11 ms pulse, 100 pulses in each direction, on each of the three axes
Shock nonoperating	Trapezoidal, 25 G, two drops on each of six faces Velocity = 175 inches per second on bottom face drop Velocity = 90 inches per second on the other five faces
Electrostatic discharge	Tested to ESD levels up to 15 kilovolts (kV) air discharge and up to 8 kV contact discharge without physical damage
Acoustic	Sound power: 54.7 dBA (5.7 Bels) at ambient temperature 23°C measured using the Dome Method GOST MsanPiN 001-96

Compliance Requirements

The regulatory compliance requirements for C-Series servers are listed in *Table 33*.

Table 33 UCS C-Series Regulatory Compliance Requirements

Parameter	Description
Regulatory Compliance	Products should comply with CE Markings per directives 2004/108/EC and 2006/95/EC
Safety	UL 60950-1 Second Edition CAN/CSA-C22.2 No. 60950-1 Second Edition EN 60950-1 Second Edition IEC 60950-1 Second Edition AS/NZS 60950-1 GB4943 2001
EMC - Emissions	47CFR Part 15 (CFR 47) Class A AS/NZS CISPR22 Class A CISPR22 Class A EN55022 Class A ICES003 Class A VCCI Class A EN61000-3-2 EN61000-3-3 KN22 Class A CNS13438 Class A
EMC - Immunity	EN55024 CISPR24 EN300386 KN24