Cisco UCS M4308 Modular Chassis

CONTENTS

OVERVIEW

The Cisco UCS M4308 modular chassis is a highly dense, modular, power efficient platform for parallelized workloads offering optimal performance per Watt, large number of processor cores per rack unit, with policy based provisioning, automation, and management.

This new offering extends the capabilities of Cisco's Unified Computing System portfolio in a 2U form factor with up to eight slots in the front of the chassis that accommodate up to eight single-wide cartridges. The chassis architecture supports a variety of cartridges such as compute, storage, or any other special function cartridge. Any of the 8 slots can support compute server modules. In addition, there are three special slots that can accommodate other functions. For example, slots 3 and 4 support future storage cartridges or modules. Each of these slots supports two SAS/SATA interfaces. Slot 8 supports a future PCIe adapter. The function is limited only by the form factor of the cartridge.

The rear of the chassis supports 4 SSDs that are connected to an internal removable RAID controller. The storage complex is distributed to the pluggable cartridges in a virtualized way provided by a custom ASIC and driver firmware. In addition, there is one half-width/half-height PCI slot for possible future use. Network I/O is provided by two 40-Gbps QSFP ports that aggregate all cartridge I/O as well as all management traffic. An upstream VNTAG capable top of rack switch is required for the total solution.

Figure 1   **Cisco UCS M4308 Modular Chassis**
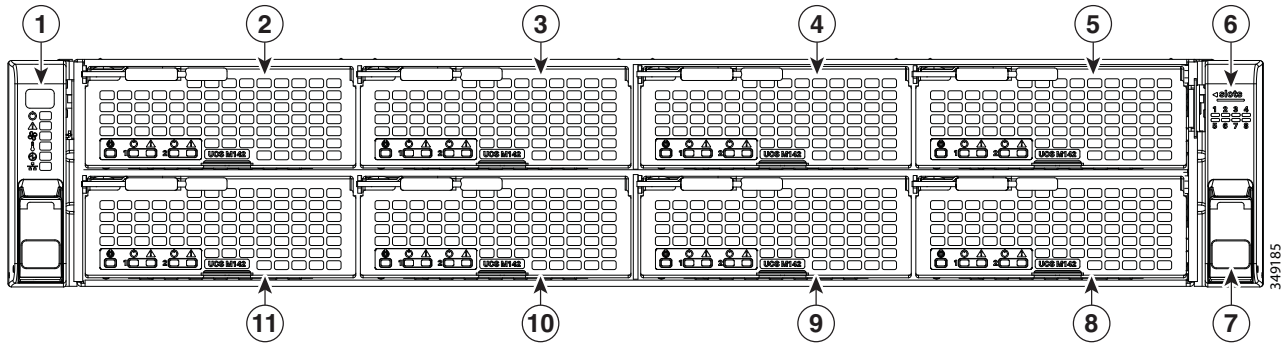
Front View

Rear View

DETAILED VIEWS

Chassis Front View

Figure 2 shows the front view of the Cisco UCS M4308 Modular Chassis.

Figure 2   UCS M4308 Modular Chassis Front View

1	Front panel quick status LEDs	7	Chassis release lever
2	UCS M142 compute cartridge (slot 1)	8	UCS M142 compute cartridge (slot 8)
3	UCS M142 compute cartridge (slot 2)	9	UCS M142 compute cartridge (slot 7)
4	UCS M142 compute cartridge (slot 3)	10	UCS M142 compute cartridge (slot 6)
5	UCS M142 compute cartridge (slot 4)	11	UCS M142 compute cartridge (slot 5)
6	Slot enumeration LEDs	—	—

Figure 2 shows the front panel indicator details.

Figure 3   UCS M4308 Modular Chassis Front Panel Indicators
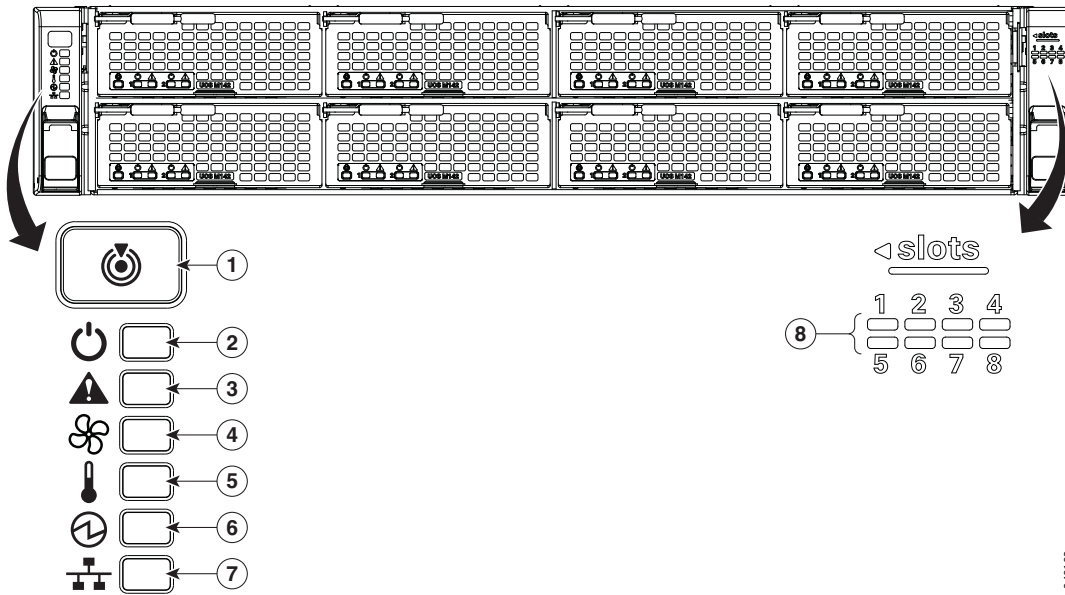
1	Unit identification button/LED (blue)	5	Temperature status LED (green/amber)
2	Power status LED (green/amber)	6	Power supply status LED (green/amber)
3	System status LED (green/amber)	7	Network activity LED (green)
4	Fan status LED (green/amber)	—	—

Chassis Rear View

Figure 4 shows the external features of the rear panel (identical for all chassis versions).

Figure 4   UCS M4308 Modular Chassis Rear View
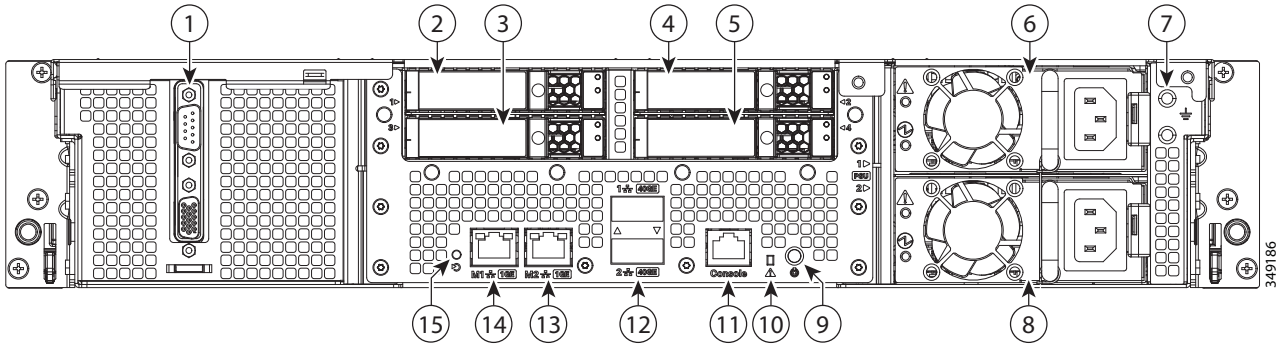
1	PCIe slot (for future use)	9	Unit identification button/LED (blue)
2	Solid-state drive (slot 1)	10	System status LED (green/yellow)
3	Solid-state drive (slot 3)	11	CMC console connector
4	Solid-state drive (slot 2)	12	QSFP connectors (ports 1 and 2)
5	Solid-state drive (slot 4)	13	CMC connector (port 2)
6	PSU 1	14	CMC connector (port 2)
7	Ground	15	Reset button
8	PSU 2	—	—

BASE CHASSIS STANDARD CAPABILITIES and FEATURES

Table 1 lists the capabilities and features of the UCS M4308 base chassis. Details about how to configure the chassis for a particular feature or capability (for example, number of compute cartridges, disk drives, or amount of memory) are provided in CONFIGURING the CHASSIS, page 9.

Table 1   Capabilities and Features

Capability/Feature	Description
Chassis	Two rack unit (2RU) chassis, supporting up to eight single-wide plug-in cartridges
Cartridges	Eight slots at the front of the chassis accommodate a variety of cartridges ■ All eight slots can accept processing cartridges ■ One slot can also be used for a PCIe cartridge (future capability) ■ Two slots can also be used for storage cartridges (future capability)
Expansion Slot	One PCIe slot is provided at the rear of the chassis. The slot is half-height, half-width, x8, and limited to 25 W (this slot is not currently enabled and is for future use)
Internal storage devices	Solid State Drives ■ The rear of the chassis supports four plug-in solid-state drives (SSDs) that are connected to a removable RAID controller inside the chassis. The storage complex is distributed to the pluggable cartridges in a virtualized manner provided by a special ASIC and accompanying ASIC driver firmware.
Interfaces	■ Rear panel • One half-height, half-width PCIe connector (not enabled, for future use) • Two RJ45 Ethernet management ports (to be used only by service personnel for factory and debug purposes) • One RJ45 serial console port (to be used only by service personnel for factory and debug purposes) • Two QSFP ports • Four SSD small form factor ports ■ Front panel • Eight cartridge ports
Power subsystem	Two of the following hot-swappable power supplies: ■ 1400 W (AC) Two power supplies are mandatory.
Storage controller	■ Cisco 12G SAS Modular RAID controller card, which plugs into a dedicated RAID controller slot inside the chassis. This card comes with an onboard 2 GB Flash-Backed Write Cache (FBWC).
Front Panel	■ A front panel controller provides status indications and control buttons
ACPI	This chassis supports the advanced configuration and power interface (ACPI) 4.0 standard.
Fans	Chassis: ■ Six hot-swappable fans for front-to-rear cooling

Capability/Feature	Description
Integrated management processor	Baseboard Management Controller (BMC) running Cisco Integrated Management Controller (CIMC) firmware on a PowerPC.

CONFIGURING the CHASSIS

Follow these steps to configure the Cisco UCS M4308 chassis:

STEP 1   VERIFY BASE CHASSIS SKU

Select one chassis product ID (PID) from *Table 2*.

Table 2   PID of the M4308 Modular Chassis

Product ID (PID)	Description
UCSME-4308	UCS M-Series Chassis

The Cisco UCS M4308 chassis:

■   Does not include power supplies, cartridges, solid-state drives (SSDs), RAID controller, or PCIe cards, or rail kit.

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

STEP 2   SELECT SOLID STATE DRIVES (SSDs)

The standard disk drive features are:

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

Select Drives

The available HDDs and SSDs are listed in *Table 3*.

Table 3   Available Hot-Pluggable Sled-Mounted SSDs

Product ID (PID)	PID Description	Drive Type	Capacity
Enterprise Performance SSDs[1]			
UCS-SD16TB12S4-EP	1.6 TB 2.5 inch Enterprise Performance 12G SAS SSD (10X endurance)	SAS	1.6 TB
UCS-SD800G12S4-EP	800 GB 2.5 inch Enterprise Performance 12G SAS SSD (10X endurance)	SAS	800 GB
UCS-SD800G0KS2-EP	800 GB Enterprise Performance 6 Gbps SAS eMLC SSD (high endurance)	SAS	800 GB
UCS-SD400G12S4-EP	400 GB 2.5 inch Enterprise Performance 12G SAS SSD (10X endurance)	SAS	400 GB
UCS-SD400G0KS2-EP	400 GB Enterprise Performance 6 Gbps SAS eMLC SSD (high endurance)	SAS	400 GB

Notes . . .

1. Targeted for IO write centric applications. Supports endurance of 10 FDWP (full drive writes per day).

NOTE: When creating a RAID volume, follow these guidelines:
- Use the same capacity for each drive in the volume
- Use either all SAS drives or all SATA drives

Approved Configurations

(1) Select zero, two, or four identical drives from *Table 3*. Do not mix SSD types.

STEP 3 ORDER POWER SUPPLIES

The M4308 chassis requires two 1400 W power supplies. Use the power calculator at the following link to determine the needed power based on the options chosen (CPUs, drives, memory, and so on):

http://ucspowercalc.cisco.com

Table 4   Power Supply

Product ID (PID)	PID Description
UCSC-PSU2V2-1400W	1400 W V2 AC Power Supply (200 - 240V) 2U & 4U C Series

STEP 4   SELECT QSFP CABLES (OPTIONAL)

The Cisco UCS M4308 has two QSFP ports at the rear of the chassis. You can select cables for these ports.

Select QSFP Cables

Select cables from those listed in *Table 5*.

Table 5   Available QSFP Cables

Product ID (PID)	PID Description
QSFP-4SFP10G-CU1M	40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 1 meter passive
QSFP-4SFP10G-CU3M	40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 3 meter passive
QSFP-4SFP10G-CU5M	40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 5 meter passive
QSFP-4x10G-AC7M	40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 7 meter active
QSFP-4x10G-AC10M	40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 10 meter active

Approved Configurations

(1) Select either one or two QSFP cables from *Table 5*.

STEP 5   SELECT AC POWER CORD(s)

Using *Table 6*, select the appropriate AC power cords. You can select a minimum of no power cords and a maximum of two. If you select the option R2XX-DMYMPWRCORD, no power cord is shipped with the chassis.
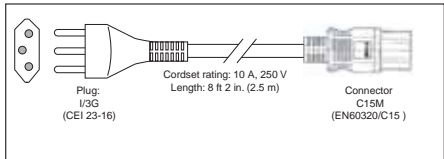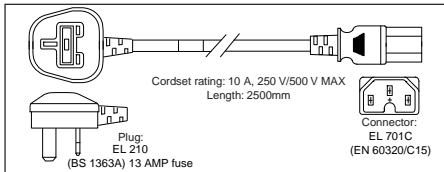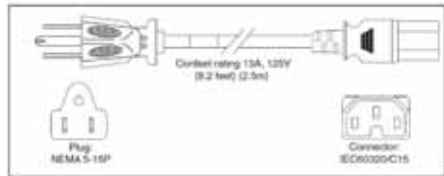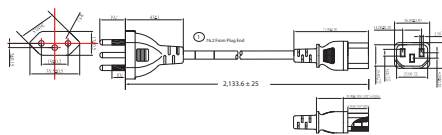
Table 6   Available Power Cords

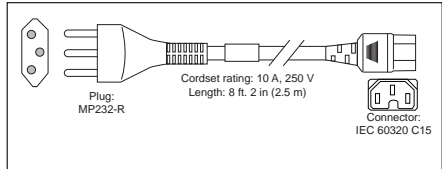| Product ID (PID)	PID Description	Images
R2XX-DMYMPWRCORD	No power cord (dummy PID to allow for a no power cord option)	Not applicable
CAB-N5K6A-NA	Power Cord, 200/240V 6A, North America	
CAB-AC-L620-C13	AC Power Cord, NEMA L6-20 - C13, 2M/6.5ft	
CAB-C13-CBN	CABASY,WIRE,JUMPER CORD, 27" L, C13/C14, 10A/250V	
CAB-C13-C14-2M	CABASY,WIRE,JUMPER CORD, PWR, 2 Meter, C13/C14,10A/250V	
CAB-C13-C14-AC	CORD,PWR,JMP,IEC60320/C14,IEC60320/C13, 3.0M	

Table 6   Available Power Cords

Product ID (PID)	PID Description	Images
SFS-250V-10A-AR	Power Cord, SFS, 250V, 10A, Argentina	
CAB-9K10A-AU	Power Cord, 250VAC 10A 3112 Plug, Australia	
SFS-250V-10A-CN	Power Cord, SFS, 250V, 10A, China	
CAB-250V-10A-CN	AC Power Cord - 250V, 10A - PRC	
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	

Table 6   Available Power Cords

Product ID (PID)	PID Description	Images
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	
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	
CAB-250V-10A-BR	Power Cord - 250V, 10A - Brazil	
CAB-JPN-3PIN	Power Cord 3PIN, Japan	Image not available
CAB-C13-C14-2M-JP	Power Cord C13-C14, 2M/6.5ft Japan PSE mark	Image not available

STEP 6   SELECT 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) onsite parts replacement eight hours a day, five days a week.
- 90-day software warranty on media.
- Ongoing 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.

SMARTnet for UCS

For support of the entire Unified Computing System, Cisco offers the Cisco SMARTnet for UCS 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 Cisco SMARTnet for UCS 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 7*.

Table 7   Cisco SMARTnet for UCS Service

Service SKU	On Site?	Description
CON-PREM-CH4308	Yes	ONSITE 24X7X2 UCS M4308 chassis
CON-OSP-CH4308	Yes	ONSITE 24X7X4 UCS M4308 chassis
CON-OSE-CH4308	Yes	ONSITE 8X5X4 UCS M4308 chassis
CON-OS-CH4308	Yes	ONSITE 8X5XNBD UCS M4308 chassis
CON-S2P-CH4308	No	SMARTNET 24X7X2 UCS M4308 chassis
CON-SNTP-CH4308	No	SMARTNET 24X7X4 UCS M4308 chassis
CON-SNTE-CH4308	No	SMARTNET 8X5X4 UCS M4308 chassis
CON-SNT-CH4308	No	SMARTNET 8X5XNBD UCS M4308 chassis

SMARTnet for UCS Hardware Only Service

For faster parts replacement than is provided with the standard Cisco Unified Computing System warranty, Cisco offers the Cisco SMARTnet for UCS Hardware Only Service. You can choose from two levels of advanced onsite parts replacement coverage in as little as four hours. SMARTnet for UCS Hardware Only Service 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 8*.

Table 8   SMARTnet for UCS Hardware Only Service

Service SKU	Service Level GSP	On Site?	Description
CON-UCW7-CH4308	UCW7	Yes	UC PLUS 24X7X4OS UCS M4308 chassis
CON-UCW5-CH4308	UCW5	Yes	UC PLUS 8X5XNBDOS UCS M4308 chassis

Unified Computing Partner Support Service

Cisco Partner Support Service (PSS) is a Cisco Collaborative Services service offering that is designed for partners to deliver their own branded support and managed services to enterprise customers. Cisco PSS provides partners with access to Cisco's support infrastructure and assets to help them:

■ Expand their service portfolios to support the most complex network environments

■ Lower delivery costs

■ Deliver services that increase customer loyalty

Partner Unified Computing Support Options enable eligible Cisco partners to develop and consistently deliver high-value technical support that capitalizes on Cisco intellectual assets. This helps partners to realize higher margins and expand their practice.

Partner Unified Computing Support Options are available to Cisco PSS partners. For additional information, see the following URL:

www.cisco.com/go/partnerucssupport

The two Partner Unified Computing Support Options include:

■ Partner Support Service for UCS

■ Partner Support Service for UCS Hardware Only

Partner Support Service for UCS provides hardware and software support, including triage support for third party software, backed by Cisco technical resources and level three support.

See *Table 9*.

Table 9   Partner Support Service for UCS

Service SKU	Service Level GSP	On Site?	Description
CON-PSJ1-CH4308	PSJ1	No	UCS SUPP PSS 8X5XNBD UCS M4308 chassis
CON-PSJ2-CH4308	PSJ2	No	UCS SUPP PSS 8X5X4 UCS M4308 chassis
CON-PSJ3-CH4308	PSJ3	No	UCS SUPP PSS 24X7X4 UCS M4308 chassis
CON-PSJ4-CH4308	PSJ4	No	UCS SUPP PSS 24X7X2 UCS M4308 chassis
CON-PSJ6-CH4308	PSJ6	Yes	UCS SUPP PSS 8x5x4 Onsite UCS M4308 chassis
CON-PSJ7-CH4308	PSJ7	Yes	UCS SUPP PSS 24X7X4 Onsite UCS M4308 chassis
CON-PSJ8-CH4308	PSJ8	Yes	UCS SUPP PSS 24X7X2 Onsite UCS M4308 chassis

Partner Support Service for UCS Hardware Only provides customers with replacement parts in as little as two hours. See *Table 10*.

Table 10   Partner Support Service for UCS (Hardware Only)

Service SKU	Service Level GSP	On Site?	Description
CON-PSW2-CH4308	PSW2	No	UCS W PL PSS 8X5X4 UCS M4308 chassis
CON-PSW3-CH4308	PSW3	No	UCS W PL PSS 24X7X4 UCS M4308 chassis
CON-PSW4-CH4308	PSW4	No	UCS W PL PSS 24X7X2 UCS M4308 chassis
CON-PSW6-CH4308	PSW6	Yes	UCS HW ONLY PSS 8x5x4 Onsite UCS M4308 chassis
CON-PSW7-CH4308	PSW7	Yes	UCS HW ONLY PSS 24x7x4 Onsite UCS M4308 chassis

Cisco Combined Services

Combined Services makes it easier to purchase and manage required services under one contract. SMARTnet services for UCS help increase the availability of your vital data center infrastructure and realize the most value from your unified computing investment. The more benefits you realize from the Cisco Unified Computing System (Cisco UCS), the more important the technology becomes to your business. These services allow you to:

■ Optimize the uptime, performance, and efficiency of your UCS

■ Protect your vital business applications by rapidly identifying and addressing issues

■ Strengthen in-house expertise through knowledge transfer and mentoring

■ Improve operational efficiency by allowing UCS experts to augment your internal staff resources

■ Enhance business agility by diagnosing potential issues before they affect your operations

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, which reduces 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 11*, *Table 12*, or *Table 13*.

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

Table 11 Drive Retention Service Options

Service Description	Service Program Name	Service Level GSP	Service Level	Product ID (PID)
SMARTnet for UCS Service with Drive Retention	UCS DR	UCSD7	24x7x4 Onsite	CON-UCSD7-CH4308
		UCSD5	8x5xNBD Onsite	CON-UCSD5-CH4308
SMARTnet for UCS HW ONLY+Drive Retention	UCS HW+DR	UCWD7	24x7x4 Onsite	CON-UCWD7-CH4308
		UCWD5	8x5xNBD Onsite	CON-UCWD5-CH4308

Table 12 Drive Retention Service Options for Partner Support Service

Service Description	Service Level GSP	Service Level	Product ID (PID)
Partner Support Service for UCS Drive Retention	PSJD6	8x5x4 Onsite	CON-PSJD6-CH4308
	PSJD7	24x7x4 Onsite	CON-PSJD7-CH4308

Table 13 Drive Retention Service Options for Partner Support Service (Hardware Only)

Service Description	Service Level GSP	Service Level	Product ID (PID)
Partner Support Service for UCS Drive Retention Hardware only	PSWD6	8x5x4 Onsite	CON-PSWD6-CH4308
	PSWD7	24x7x4 Onsite	CON-PSWD7-CH4308

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

http://www.cisco.com/en/US/services/ps2961/ps10312/Unified_Computing_Services_Overview.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 M4308 chassis. This rack is a standard 19-inch rack and can be ordered with a variety of options, as listed in *Table 14*. Racks are shipped separately from the M4308 chassis.

Table 14   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, page 26.

OPTIONAL STEP - ORDER PDU

An optional power distribution unit (PDU) is available from Cisco for the C-Series rack servers, including the M4308 chassis. This PDU is available in a zero rack unit (RU) style (see *Table 14*).

Table 15   PDU Options

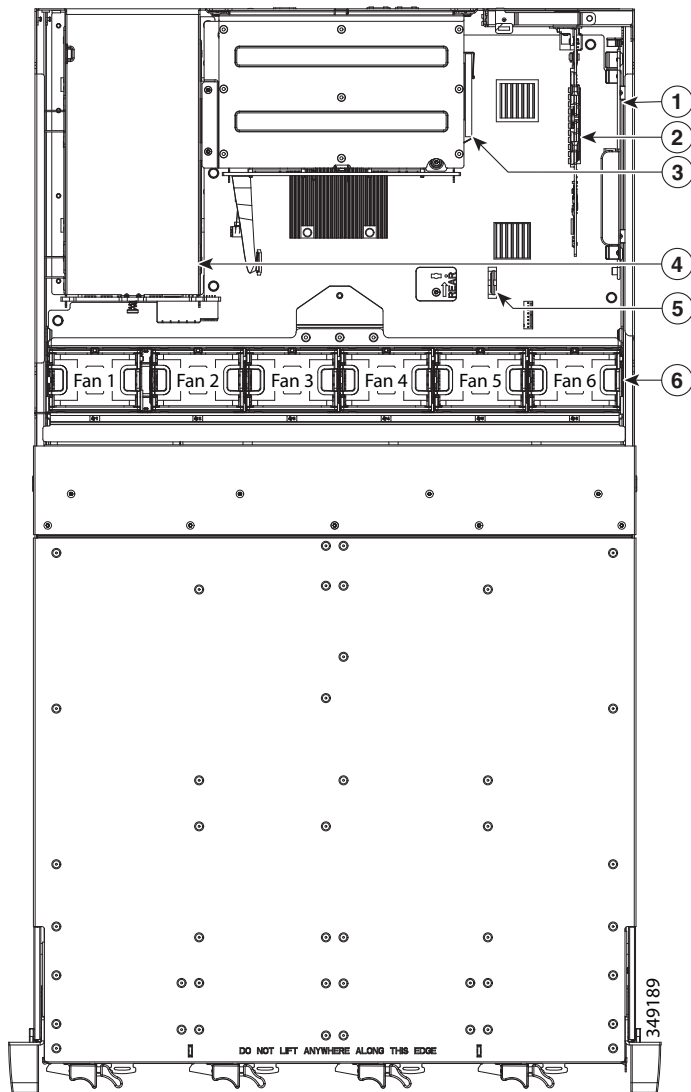| Product ID (PID)	PID Description
RP208-30-2P-U-2	Zero RU PDU

For more information about the PDU, see PDUs, page 28.

SUPPLEMENTAL MATERIAL

Top View

A view of the chassis from the top with the cover removed is shown in *Figure 5*.
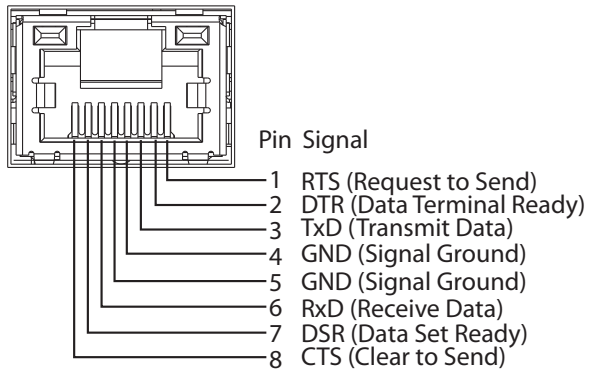
Figure 5   Top View With Cover Removed

1	RAID controller card	4	Power supplies
2	PCIe adapter card (future use)	5	RTC battery
3	2-GB flash-backed cache	6	Fan modules (x6)

Serial Port Details

The pinout details of the rear RJ-45 serial port connector are shown in *Figure 6*.

Figure 6   Serial Port (Female RJ-45 Connector) Pinout

Serial Port (RJ-45 Female Connector)

Pin Signal
1 RTS (Request to Send)
2 DTR (Data Terminal Ready)
3 TxD (Transmit Data)
4 GND (Signal Ground)
5 GND (Signal Ground)
6 RxD (Receive Data)
7 DSR (Data Set Ready)
8 CTS (Clear to Send)

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 M-Series chassis and fabric interconnects

The rack is compatible with hardware designed for EIA-standard 19-inch racks. Rack specifications are listed in *Table 16*.

Table 16 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.

Cisco UCS M4308 Modular Chassis

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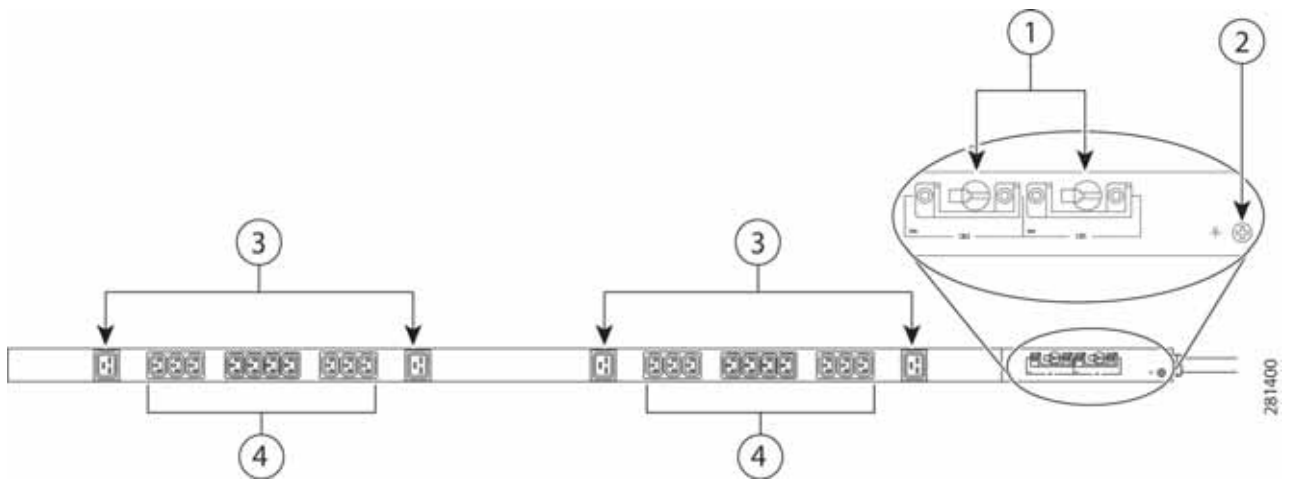
1	Breakers	3	C19 plugs
2	Ground connection	4	C13 plugs

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.

TECHNICAL SPECIFICATIONS

Dimensions and Weight

Table 17 UCS M4308 Dimensions and Weight

Parameter	Value
Height	3.5 in. (89 mm)
Width	17.5 in. (445 mm)
Depth	30.5 in. (775 mm)
Front Clearance	3 in. (76 mm)
Side Clearance	1 in. (25 mm)
Rear Clearance	6 in. (152 mm)
Weight[1]	75 lbs (34 kg)

Notes . . .

1. Weight includes inner rail, which is attached to the chassis. Weight does not include outer rail, which is attached to the rack.

Power Specifications

The chassis is available with the following power supply:

- 1400 W (AC)

Table 18 UCS M4308 1400 W V2 Power Supply (UCSC-PSU2V2-1400W) Power Specifications

Description	Specification
AC input voltage	Voltage Range 200-240 VAC nominal (range:180-264 VAC)
AC input frequency	50 to 60 Hz nominal (range: 47 to 63 Hz)
Maximum Input VA	1700 VA
Maximum output power	1400 W at 200 - 240 VAC
Maximum AC inrush current	35 A (sub-cycle duration)
Maximum holdup time	12 ms at 1400 W
Power supply output voltage	12 VDC
Power supply standby voltage	12 VDC
Efficiency rating	Climate Savers Platinum Efficiency (80Plus Platinum Certified)
Form factor	RSP1 (C-Series 2U and 4U Server)
Input connector	IEC320 C14

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

http://ucspowercalc.cisco.com

Environmental Specifications

The power specifications for the M4308 chassis are listed in *Table 19*.

Table 19 UCS M4308 Environmental Specifications

Parameter	Minimum
Temperature operating	41 to 104° F (5 to 40° C)
	derate the maximum temperature by 1°C per every 305 m of altitude above sea level
Temperature nonoperating	–40 to 149°F (–40 to 65°C)
Humidity (RH) operating, non-condensing	10 to 90%
Altitude operating	0 to 3,000 m (0 to 10,000 ft.)
Altitude nonoperating	0 to 12,192 m (0 to 40,000 ft.)
Sound Power level, Measure A-weighted per ISO7779 LWAd (Bels) Operation at 73°F (23°C)	5.8 Bel
Sound Pressure level, Measure A-weighted per ISO7779 LpAm (dBA) Operation at 73°F (23°C)	43 dbA
Shock	5.0G, 11msec pulse width, half sine wave

Compliance Requirements

The regulatory compliance requirements for C-Series servers are listed in *Table 20*.

Table 20 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

CISCO.

Cisco UCS M4308 Modular Chassis