

# **Technical Specifications**

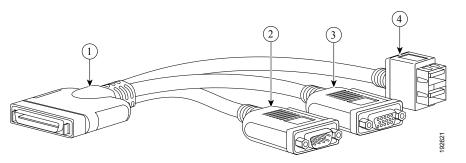
This appendix lists the technical specifications for the Cisco UCS 5108 server chassis and includes the following sections:

- KVM Cable, on page 1
- Chassis Specifications, on page 2
- Environmental Specifications, on page 3
- Specifications for the Cisco UCS 5108 Blade Server Chassis Power Supply Units, on page 4
- Supported AC Power Cords and Plugs, on page 7

## **KVM** Cable

The KVM cable (N20-BKVM) provides a connection into a Cisco UCS blade 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 a blade server.

Figure 1: KVM Cable for Blade Servers



1	Connector to blade server slot	3	VGA connection for a monitor
2	DB9 serial connector	4	2-port USB connector for a mouse and keyboard

# **Chassis Specifications**

#### Table 1: Cisco UCS Server Chassis

Description	Specification
Height x Width x Depth	10.5 in (26.7 cm) x 17.5 in (44.5 cm) x 32 in (81.2 cm)
Blade server slots	8
FEX slots	2
Fan module bays	8
Power supply bays	4
Backplane throughput	1.2 Tb aggregate

#### Table 2: Weight of the Chassis Components

Description	Specification
Empty chassis	90 lbs (40.83 kg)
FEX	2.5 lbs (1.13 kg)
UCS 6324 Fabric Interconnect	2.5 lbs (1.13 kg)
Fan module	1.8 lbs (0.82 kg)
B200 Blade Server	13.5 lbs (6.1 kg)
B230 Blade Server	18.0 lbs (8.16 kg) <sup>5</sup>
B250 Blade Server	25 lbs (11.34 kg) <sup>5</sup>
B440 Blade Server	34.5 lbs (15.65 kg) <sup>5</sup>
Hard drive	0.8 lbs (0.36 kg)
Fully Populated UCS 5108 Server Chassis	Approximately 255 lbs (115.66 kg), depending on models and options selected

<sup>1</sup> The system weight listed here is an estimate for a fully configured system and will vary depending on the devices installed.

# **Environmental Specifications**

Description	Specification
feet (0 to 3,000 meters)	50 to 95°F (10 to 35°C)
	(As altitude increases, maximum temperature decreases by 1°C per 300m.)
	System performance might be reduced for greater-than 165 W TDP processors if operating with a fan fault or above $32^{\circ}$ C ( $89.6^{\circ}$ F) system air inlet temperature, depending upon the application load. See the CPU Configuration Rules in your M5 blade server service note for more information.
	For general information, see the Cisco Unified Computing System Site Planning Guide: Data Center Power and Cooling.
Temperature, non-operating within altitude: 0 to 40,000 feet (0 to 12,000 meters)	-40 to 149°F (-40 to 65°C)
Humidity (RH), noncondensing	Operating: 10-90%, 28°C max. wet bulb
	Nonoperating: 5-93%, 38°C max wet bulb
Altitude	Operating – 0 to 10000 feet (0 to 3000 meters) Above 10,000 feet, maximum temperature decreases by 1°C per 1000 feet (~300 meters) above 10,000 feet Nonoperating – 40,000 ft (12,000 m)
Sound Pressure Level	83 dBA—at normal operating temperature.

Table 3: Environmental Specifications for the Chassis

# Environmental Conditions and Power Requirement Specifications for Twinax SFP+ Transceivers

Parameter	Symbol	Min.	Max.	Unit
Storage temperature	TS	-40	85	°C
Case temperature	ТС	0	50	°C
Module supply voltage	VCCT,R	3.1	3.5	V

# Specifications for the Cisco UCS 5108 Blade Server Chassis Power Supply Units

Table 5: AC-input Gold Power Supply (N20-PAC5-2500W) Specifications

Description	Specification
AC-input voltage	Voltage Range 100-120 VAC, 200-240 VAC nominal (range: 90-132 VAC, 180-264 VAC)
AC-input frequency	50 to 60 Hz nominal (range: 47 to 63 Hz)
Maximum AC-input current	12.5 A @ 100 VAC
	6.0 A @208 VAC
Maximum input VA	1250 VA at 100 VAC
Maximum output power per power supply	800 W @ 100-120 VAC
	1050 W @ 200-240 VAC
Maximum inrush current	15 A (sub cycle duration)
Maximum hold up time	12 ms @ 770 W
Power supply output voltage	12 VDC
Power supply standby voltage	12 VDC
Efficiency Rating	Climate Savers Platinum Efficiency (80Plus Platinum Certified
Form Factor	RSP2 (C-Series 1U and C3x60 Storage Server)
Input connector	IEC320 C14

Table 6: AC-input Platinum Power Supply (UCSB-PSU-2500ACPL) Specifications

Description	Specification
Minimum Software requirement	UCS Software Release 2.0(2)
AC-input voltage	200 to 240 VAC nominal (Range: 180 to 264 VAC)
AC-input frequency	50 and 60 Hz nominal (Range: 47 to 63 Hz)
AC-input current	< 16 Amps @ 200 VAC
Maximum Input VA	2790 VA @ 200 VAC
Maximum output power per power supply	2500 W (up to four power supplies)

Description	Specification
Maximum inrush current	35 A (sub cycle duration)
Maximum Heat Output	8530 BTU
Maximum hold up time	12 ms @ 2500 W
Power supply output voltage	12 VDC @ 208 A
Power supply standby voltage	3.3 VDC @ 5A
Efficiency Rating	Climate Savers Platinum
Efficiency (80 Plus Platinum Certified)	20% 50% 100%   90% 94% 91%
Input connector	IEC320 C20

Table 7: DC-Input Power Supply (UCSB-PSU-2500DC48) Specifications

Item	Specification
Minimum software requirement	Cisco UCS Software Release 2.0(1)
	Capability Catalog Version 42
DC-input voltage	-48 VDC to -60 VDC nominal
	(range: -40 VDC to -72 VDC)
Maximum output power	2500 W
Maximum inrush current	90 A (cold turn-on)
Current draw at min voltage	71 A
Current draw at max voltage	40 A
Maximum input VA	2840 W
Efficiency	88% at 10% load
	88% at 20% load
	92% at 50% load
	88% at 100% load
DC input terminal block	Accepts Panduit LCD4-14AF-L or equivalent barrel-type lug terminals with 90-degree angle, two- hole tongue, which accommodates 1/0 AWG size copper wire. The connector tongue width is 0.82 in, the stud hole spacing is 5/8 in, and the hole size is 1/4 in.

Item	Specification
Maximum holdup time	8 ms at 50% load
	4 ms at 100% load

Table 8: HVDC-Input Platinum Power Supply (UCSB-PSU-2500HVDC) Specifications

Item	Specification
DC-input voltage	200 to 380 VDC nominal (Range: 180 to 400 VDC)
Maximum DC-input current	15.5 Amps @ 200 VDC
Maximum output power	2500 W
Maximum inrush current	35 A
Efficiency rating	Climate Savers Platinum
Efficiency (80 Plus Platinum Certified)	10% 20% 50% 100%
	93.5% 94.9% 95% 93%
Power supply output voltage	12 VDC
Maximum holdup time	12 ms 2500 W
Input connector	IEC320 C20

Table 9: AC-input Dual Voltage Platinum Power Supply (UCSB-PSU-2500ACDV) Specifications

Description	Specification
AC-input voltage	200 to 240 VAC nominal (Range: 180 to 264 VAC)
	100 to 120 VAC nominal (Range: 90 to 127 VAC) supported only with the UCS 6324 Fabric Interconnect
AC-input frequency	50 and 60 Hz nominal (Range: 47 to 63 Hz)
AC-input current	< 15 Amps @ 200 VAC
Maximum Input VA	2790 VA @ 200 VAC
Maximum output power per power supply	2500 W @ 200 to 240 VAC
	1300 W @ 100 to 120 VAC
Maximum inrush current	35 A (sub cycle duration)
Maximum Heat Output	8530 BTU
Maximum hold up time	12 ms @ 2500 W
Power supply output voltage	12 VDC @ 208 A

Description	Specification
Power supply standby voltage	3.3 VDC @ 5A
Efficiency Rating	Climate Savers Platinum
Efficiency (80 Plus Platinum Certified)	10% 20% 50% 100%
	93.5% 94.9% 95% 93%
Input connector	IEC320 C20

DC wiring must meet your local codes and regulations, we recommend using a licensed local electrician to install the DC wiring needed.

To determine the number of power supply units needed for the blade server, remember that each single slot server is budgeted a max 550 W and each full width server is budgeted a max 1100 W. For a more detailed estimate, contact Cisco Sales.

For information about supported power cords, see the Cisco UCS 5108 Server Chassis Installation Guide.

## **Supported AC Power Cords and Plugs**

The AC power connectors on the blade server chassis PDU use an IEC 320 C20 socket. Each chassis power supply has a separate power cord. The power cord that you use to connect the blade server power supply units to an AC power source will have an IEC 320 C19 plug on one end and on the other end one that conforms to the AC power outlet specifications for your country. See the following table to determine which cord to order for your blade server chassis power supply units. When you determine which power cord you need to order, you can verify that its plugs conform to the power outlets for your facility by clicking on its reference link.

The jumper power cords, for use in racks, are available as an optional alternative to the standard power cords. The optional jumper power cords have an IEC C19 connector (such as a Cisco RP Series PDU) on the end that plugs into the chassis' PDU and an IEC C20 connector on the end that plugs into an IEC C19 outlet receptacle. For more information, contact your Cisco Systems representative.



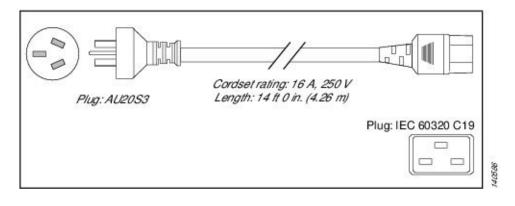
Note

e Only the regular power cords or jumper power cords provided with the chassis are supported.

#### Australia and New Zealand

Power Cord Part Number—CAB-AC-16A-AUS

Cord Set Rating—16A, 250 VAC



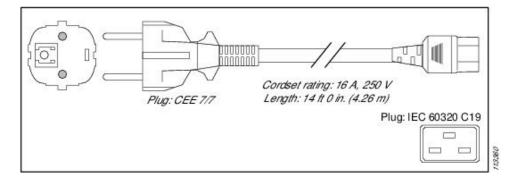
#### Figure 2: CAB-AC-16A-AUS Power Cord for the Cisco UCS 5108 Blade Server Chassis

## **Continental Europe**

Power Cord Part Number-CAB-AC-2500W-EU

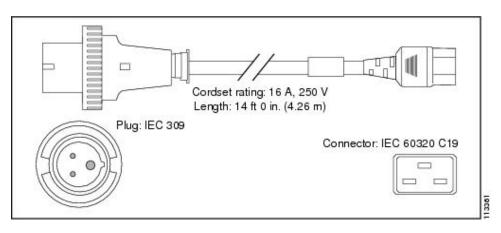
Cord Set Rating-16A, 250 VAC

Figure 3: CAB-AC-2500W-EU Power Cord for the UCS 5108 Blade Server Chassis



#### International

Power Cord Part Number—CAB-AC-2500W-INT Cord Set Rating—16A, 250 VAC



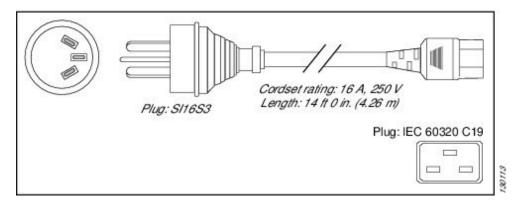
#### Figure 4: CAB-AC-2500W-INT Power Cord for the UCS 5108 Blade Server Chassis

### Israel

Power Cord Part Number—CAB-AC-2500W-ISRL

Cord Set Rating-16A, 250 VAC

Figure 5: CAB-AC-2500W-ISRL Power Cord for the UCS 5108 Blade Server Chassis



## **Japan and North America**

#### Non-Locking 200 to 240 VAC operation

Power Cord Part Number—CAB-AC-2500W-US1 Cord Set Rating—16A, 250 VAC

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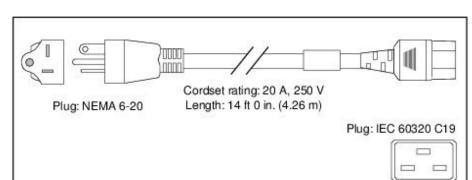


Figure 6: CAB-AC-2500W-US1 Power Cord for the UCS 5108 Blade Server Chassis

#### Locking 200 to 240 VAC Operation

Power Cord Part Number—CAB-AC-C6K-TWLK

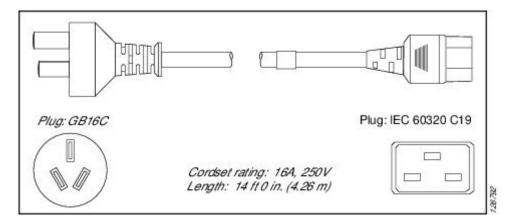
Cord Set Rating-16A, 250 VAC

## **Peoples Republic of China**

Power Cord Part Number-CAB-AC-16A-CH

Cord Set Rating-16A, 250 VAC

Figure 8: CAB-AC-16A-CH Power Cord for the Cisco UCS 5108 Blade Server Chassis



#### Taiwan

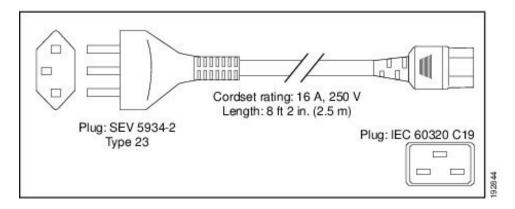
Power Cord—CAB-AC-C19-TW Plug—250 VAC 16 A, C19 Length—7.5 feet / 2.3 meters

### Switzerland

Power Cord Part Number-CAB-ACS-16

Cord Set Rating-16A, 250 VAC

Figure 9: CAB-ACS-16 Power Cord for the UCS 5108 Blade Server Chassis



## **Power Distribution Unit (PDU)**

Power Cord Part Number—CAB-C19-CBN

Cord Set Rating—Not applicable

Figure 10: CAB-C19-CBN Power Cord for the UCS 5108 Blade Server Chassis

