

## **Specifications**

This appendix contains tables that list the specifications for the main components of the Cisco CRS Multishelf System:

- FCC Specifications, on page 1
- S2 Switch Fabric Card Specifications, on page 4
- SCGE Card Specifications, on page 4
- OIM and OIM-LED Card Specifications, on page 5
- Regulatory, Compliance, and Safety Specifications, on page 6
- FCC Specifications, page 1
- S2 Switch Fabric Card Specifications, page 4
- SCGE Card Specifications, page 4
- OIM and OIM-LED Card Specifications, page 5
- Regulatory, Compliance, and Safety Specifications, page 6

#### **FCC Specifications**

This table lists the system specifications for the FCC.

#### **Table 1: FCC Specifications**

Chassis Dimensions	
Height with power shelves	84 in. (213.4 cm)
Width	23.546 in. (59.807 cm)
Depth	38.264 in. (97.191 cm) without doors and cosmetics40.236 in. (102.199 cm) with front and rear doors

Chassis Dimensions	
Overhead clearance	24 in. (61 cm) overhead clearance recommended. This overhead clearance includes 12 in. (30.5 cm) for the tray and 12 in. (30.5 cm) for access to the cables.
Chassis Weight	
Chassis shipping weight	1075 lb (487.6 kg) fabric chassis with shipping crate and pallet
	780 lb) chassis with fans and blanks as shipped
Chassis, fully loaded with cards and cosmetics (doors, panels, grilles, and so on)	1627 lb (738 kg)
Floor Loading	
Chassis footprint floor contact area	4.72 sq ft (4385 sq. cm) 680 sq in. (4385 sq. cm)
Maximum floor loading	1658 lb/4.72 sq ft = 351 lb/sq. ft752 kg/4385 sq cm = 0.171 kg/sq. cm
Supported Cards and Modules	24 switch fabric cards (SFCs)
	2 shelf controller Gigabit Ethernet (SCGE) cards
	2 fan trays
	1 air filter
Power Shelves	Fixed or modular configuration power shelves(Cannot mix fixed and modular configuration power shelves)
	2 AC or 2 DC power shelves(Cannot mix AC and DC power shelves)
DC power shelf	Fixed configuration power shelf supports three DC power entry modules (PEMs) and one alarm module.
	Modular configuration power shelf supports up to six DC power modules and one alarm module.
AC power shelf	Fixed configuration power shelf supports three AC to DC rectifiers and one alarm module.
	Modular configuration power shelf supports up to four power modules and one alarm module.
Maximum Power Consumption (total input power)	
Fixed Configuration	
Maximum DC	9.0 kW

Chassis Dimensions		
Maximum AC	11.1 kW (Delta or Wye 3-phase)	
Modular Configuration		
Maximum DC	13.2KW (assume 95% efficiency)	
Maximum AC	12.6KW (assume 95% efficiency)	
	Note Proper grounding is also required at the site to ensure that equipment is not damaged by lightning or power surges.	
Power Redundancy (2N)		
Fixed Configuration		
DC	2 A battery plant feeds required for one power shelf, and 2B battery plant feeds required for the other shelf	
AC (Delta or Wye 3-phase)	Two independent Delta or Wye 3-phase power sources required, one for each power shelf	
Modular Configuration		
DC	2N: six A battery plant feeds and six B battery plant feeds	
AC	2N: four A AC single phase power sources and four B single phase power sources	
DC Input		
Nominal input voltage	-48 VDC North America-54 VDC Telco (RBOC)-60 VDC European Community(range -42 to -75 VDC)	
Input current	46 A maximum at –48 VDC 37 A maximum at –60 VDC	
	55 A maximum at –40 VDC (low voltage extreme)	
AC Input, Delta 3-phase	3W + PE (3 wire + protective earthing <sup>1</sup> )	
Input voltage	3-phase 200 to 240 VAC, phase-to-phase (nominal)(range 180 to 264 VAC, phase-to-phase)	
Line frequency	50-60 Hz(range 47 to 63 Hz)	
Recommended AC service	60 A	
AC Input, Wye 3-phase	3W + N + PE (3 wire + neutral + protective earthing1)	

Chassis Dimensions	
Input voltage	3-phase 200-240/346-415 VAC(range 180 to 264 VAC, phase-to-neutral)(range 311 to 456 VAC, phase-to-phase)
Line frequency	50-60 Hz (nominal)(range 47 to 63 Hz)
Recommended AC service	40 A (North America)32 A (International)

<sup>1</sup> Protective earthing conductor (ground wire).

## **S2 Switch Fabric Card Specifications**

This table lists the system specifications for the S2 switch fabric card.

**Table 2: Switch Fabric Card Specifications** 

Module type	Product ID	Specification
S2 switch fabric card (SFC)	CRS-FCC-SFC=	Height—20.56 in. (52.22 cm)
	CRS-FCC-SFC-140	Depth—11.18 in. (28.40 cm)
	CRS-FCC-SFC-400	Width—1.4 in. (3.56 cm)
		Weight—11.9 lb (5.40 kg)
		Power consumption—up to 229 W
		8 installed in one, two, or four FCCs

## **SCGE Card Specifications**

This table lists the system specifications for the shelf controller Gigabit Ethernet card.

**Table 3: SCGE Card Specifications** 

Module type	Product ID	Specification
22-port shelf controller Gigabit	CRSFCCSC22GE=CRSFCCSC22GEB=	Height—2 in. (5.08 cm)
Ethernet		Depth—24.6 in. (62.48 cm)
		Width—20.5 in. (52.07 cm)
		Weight—16.35 lb (7.41 kg)
		Power consumption—100 W (Typical)
		PCMCIA flash cards: 2 cards, 1 GB each (one nonremovable) CRS-FCC-SC-22GE= only
		Interfaces:
		• RJ-45 CONSOLE and AUX
		• 22 Gigabit Ethernet ports for control plane and management (1000BASE-LX)
		Up to 2 SCGE cards installed in an FCC

# **OIM and OIM-LED Card Specifications**

This table lists the system specifications for the optical interface module and the optical interface module LED card.

Table 4: OIM and OIM-LED Card Specifications

Module Type	Product ID	Specification
Optical interface module (OIM)	CRS-FCC-OIM-1S=	Height—20.56 in. (52.22 cm)
		Depth—11.18 in. (28.40 cm)
		Width—2.8 in. (7.11 cm)
		Weight—12.75 lb (5.78 kg)
		Power consumption—166 W
		8 distributed in one, two, or four FCCs

Module Type	Product ID	Specification
Optical interface module LED card (OIM-LED)	CRS-FCC-LED=	Height—20.56 in.(52.22 cm)
		Depth—11.18 in. (28.40 cm)
		Width—2.8 in. (7.11 cm)
		Weight—12.25 lb (5.56 kg)
		Power consumption—334 W
		2 in every FCC

## **Regulatory, Compliance, and Safety Specifications**

For information about the regulatory, compliance, and safety standards to which the Cisco CRS Series system conforms, see *Regulatory Compliance and Safety Information for the Cisco CRS Carrier Routing System*.