A P P E N D I X   B

Technical Specifications

This appendix describes the technical specifications for the Cisco Nexus 5500 Platform switches and the Cisco Nexus 5000 Platform switches.

This appendix includes the following sections:

Note   Specifications for cables and connectors are provided in Appendix C, "Cable and Port Specifications."

Switch Specifications

Table B-1 lists the physical specifications for the Cisco Nexus 5596 switch.

Table B-1   Physical Specifications for the Cisco Nexus 5596 Switch

Description	Specification
Dimensions (H x W x D)	3.47 in. x 17.3 in. x 29.5 in. (8.8 x 43.9 x 74.9 cm)
Weight (with two power supplies, one expansion module, and four fan modules)	50 lb (22.68 kg)

Table B-2 lists the physical specifications for the Cisco Nexus 5548 switch.

Table B-2   Physical Specification for the Cisco Nexus 5548 Switch

Description	Specification
Dimensions (H x W x D)	1.72 in. x 17.3 in. x 29.5 in. (4.4 x 43.9 x 74.9 cm)
Weight (with two power supplies, one expansion module, and two fan modules)	32 lb (14.51 kg)

Table B-3 lists the physical specifications for the Cisco Nexus 5020 switch.

Table B-3   Physical Specification for the Cisco Nexus 5020 Switch

Description	Specification
Dimensions (H x W x D)	3.47 in. (8.8 cm) x 17.3 in. (43.9 cm) x 30.0 in. (76.2 cm)
Weight (with two power supplies and two expansion modules installed)	50 lb (22.680 kg)

Table B-4 lists the physical specifications for the Cisco Nexus 5010 switch.

Table B-4   Physical Specification for the Cisco Nexus 5010 Switch

Description	Specification
Dimensions (H x W x D)	1.72 in. x 17.3 in. (43.9 cm) x 30.0 in. (76.2 cm)
Weight (with two power supplies and one expansion module installed)	35 lb (15.875 kg)

Environmental Specifications

Table B-5 lists the environmental specifications for the Cisco Nexus 5500 Platform switches.

Table B-5   Environmental Specifications for the Cisco Nexus 5500 Platform Switches

Property	Cisco Nexus 5596 Switch	Cisco Nexus 5548 Switch
Operating temperature	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Nonoperating (storage) temperature	–40 to 158°F (–40 to 70°C)	–40 to 158°F (–40 to 70°C)
Humidity	5 to 95% (noncondensing)	5 to 95% (noncondensing)
Altitude	0 to 10,000 ft (0 to 300 m)	0 to 10,000 ft (0 to 300 m)

Table B-6 lists the environmental specifications for the Cisco Nexus 5000 Platform switches.

Table B-6   Environmental Specifications for the Cisco Nexus 5000 Platform Switches

Property	Cisco Nexus 5020 Switch	Cisco Nexus 5010 Switch
Operating temperature	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Nonoperating (storage) temperature	–40 to 158°F (-40 to 70°C)	–40 to 158°F (–40 to 70°C)
Humidity	5 to 95% (noncondensing)	5 to 95% (noncondensing)
Altitude	0 to 10,000 ft (0 to 300 m)	0 to 10,000 ft (0 to 300 m)

Expansion Module Specifications

Table B-7 lists the physical specifications for the Cisco Nexus 5020 switch expansion module.

Table B-7   Physical Specifications for the Cisco Nexus 5020 Switch Expansion Modules

Description	Specification
Weight	1 lb (0.5 kg)

Power Specifications

This section describes the power specifications for the Cisco Nexus 5000 Series switches. This section includes the following topics:

Specifications for the Cisco Nexus 5596 Power Supply

Table B-8 lists the specifications for the Cisco Nexus NXA-PAC-1100W and N55-PAC-1100W AC power supplies.

Table B-8   Specifications for the Cisco Nexus NXA-PAC-1100W and N55-PAC-1100W AC Power Supplies

Power Supply Properties	Specification
Maximum rated power output	1100W
Typical operating power consumption	5596UP: 680W 5596T: 900W
Maximum power consumption	5596UP: 1079W 5596T: 1079W
Maximum AC input current (@100VAC, 200VAC)	13A, 7A
Input AC voltage range	90 to 264 VAC
Frequency	47 to 63 Hz
Efficiency	94% (50% load)
RoHS compliance	Yes
Hot swappable	Yes
Heat dissipation	75 BTU/hr

Table B-9 lists the specifications for the Cisco Nexus NXA-PHV-1100W power supply.

Table B-9   Specifications for the Cisco Nexus NXA-PHV-1100W Power Supply

Power Supply Properties	Specification
Maximum rated power output	1100W
Typical operating power consumption	5596UP: 680W 5596T: 900W
Maximum power consumption	5596UP: 1079W 5596T: 1079W
Maximum input current (@240 VDC, 380 VDC, 277 VAC)	5.5A, 3.5A, 4.7A
Input voltage range	192 to 400 VDC, 90 to 295 VAC
Efficiency	94% (50% load)
RoHS compliance	Yes
Hot swappable	Yes

Table B-10 lists the specifications for the Cisco Nexus N55-PDC-1100W DC Power Supply

Table B-10   Specifications for the Cisco Nexus N55-PDC-1100W DC Power Supply

Power Supply Properties	Specification
Maximum rated power output	1100W
Typical operating power consumption	5596UP: 680W 5596T: 900W
Maximum power consumption	5596UP: 1079W 5596T: 1079W
Maximum DC input current (–40 VDC)	32A
Input DC voltage range	–40 to –72 VDC
Efficiency	92% (at 50% load)
RoHS compliance	Yes
Hot swappable	Yes
Heat dissipation	450 BTU/hr

Specifications for the Cisco Nexus 5548 Power Supply

Table B-11 lists the specifications for the Cisco Nexus 5548 750W DC power supply.

Table B-11   Specifications for the Cisco Nexus 5548 750 W DC Power Supply

DC Power Supply Properties	Specification
Maximum rated power output	750W
Typical operating power consumption	390W
Maximum power consumption	680W

Table B-11   Specifications for the Cisco Nexus 5548 750 W DC Power Supply (continued)

DC Power Supply Properties	Specification
Input current	22A/12.5A
Input voltage	–40 to –72 VDC
Frequency	N/A
Efficiency	88%
RoHS compliance	Yes
Hot swappable	Yes
Heat Dissipation	307 BTU/hr

Table B-12 lists the specifications for the Cisco Nexus 5548 750W AC Power supply.

Table B-12   Specifications for the Cisco Nexus 5548 750W AC Power Supply

AC Power Supply Properties	Specification
Maximum rated power output	750W
Typical operating power consumption	390 W
Maximum power consumption	680 W
Input current	10A/3.75A
Input voltage	100 to 240 VAC
Frequency	50 to 60 Hz
Efficiency	95 to 98% (50 to 100% load)
RoHS compliance	Yes
Hot swappable	yes
Heat dissipation	51 BTU/hr

Specifications for the Cisco Nexus 5020 Power Supplies

Table B-13 lists the specifications for the Cisco MDS 9200 Series750 W AC power supply.

Table B-13   Specifications for the Cisco Nexus 5020 750 W AC Power Supply

Description	Specification
Typical Operating Power	480 W (Typical)
Max Power (system)	750 W
Input Voltage	100–120 V/200–240 V
Input Current	9.2 A/4.5 A
Frequency	50–60 Hz
RoHS Compliance	Yes
Hot Swappable	Yes

Table B-13   Specifications for the Cisco Nexus 5020 750 W AC Power Supply (continued)

Description	Specification
Heat Dissipation	51 BTU/hr
Dimensions (H x W x D)	1.57 in. (0.039 m) x 4.00 in. (0.101 m) x 13.00 in. (0.330 m)

Table B-14 lists the specifications for the Cisco MDS 9200 Series1200 W power supply.

Table B-14   Specifications for the Cisco Nexus 5020 1200 W Power Supply

Description	Specification
Typical Operating Power	480 W (Typical)
Max Power (system)	750 W
Input Voltage	100–120 V/200–240 V
Input Current	9.2 A/7.5 A
Frequency	50–60 Hz
RoHS Compliance	Yes
Hot Swappable	Yes
Heat Dissipation	491 BTU/hr
Dimensions (H x W x D)	1.57 in. (0.039 m) x 4.00 in. (0.101 m) x 13.00 in. (0.330 m)

Specifications for the Cisco Nexus 5010 Power Supply

The power supplies connect to the system through panel mount connectors and connectors attach to the baseboard through cables. Three connectors on the baseboard: two for power delivery, and one for power supply control signals. Table B-15 lists the specifications for the Cisco Nexus 5010 550 W AC power supply.

Table B-15   Specifications for the Cisco Nexus 5010 550W AC Power Supply

Description	Specification
Typical Operating Power	340W
Max Power (system)	410W
Input voltage	90–264 VAC
Add input current	7.3A/2.75A
Frequency	47–63 Hz
ROHS Compliant	Yes
Size (W x H x D)	2.75 in. x 1.57 in. x 13.7 in.
Hot plug capable	Yes
Hot swappable	Yes
Heat Dissipation	1536 BTU/hr

Transceiver Specifications

Table B-16 lists the general specifications for the 10-Gigabit Ethernet SFP+ transceiver module for the Cisco Nexus 5500 Platform switches and the Cisco Nexus 5000 Platform switches.

Table B-16   General Specifications for the 10-Gigabit Ethernet SFP+ Transceiver Module

Description	Short Range	
Connector type	LC	—
Wavelength	850 nm	—
Core size	50 microns	62.5 microns
Cable distance	300 m	33 m

This section includes the following topics:

- Environmental Conditions and Power Requirement Specifications for SFP+ Transceivers, page B-7
- General Specifications for Cisco Fibre Channel SFP Transceivers, page B-7
- Environmental Conditions and Power Requirements Specification for SFP Transceivers, page B-8

Environmental Conditions and Power Requirement Specifications for SFP+ Transceivers

Table B-17 lists the environmental conditions and power requirement specifications for the 10-Gigabit Ethernet SFP+ transceiver module for the Cisco Nexus 5500 Platform switches and Cisco Nexus 5000 Platform switches.

Table B-17   Environmental Conditions and Power Requirement Specifications for the 10-Gigabit Ethernet SFP+ Transceiver Module

Parameter	Symbol	Minimum	Maximum	Unit
Storage temperature	T_s	–40	—	°C
Case temperature	T_c	0	70	°C
Relative humidity	RH	—	—	—
Module supply voltage	$V_{cc}T,R$	3.1	3.5	V

General Specifications for Cisco Fibre Channel SFP Transceivers

Table B-18 lists the general specifications for Cisco Fibre Channel SFP transceivers at 4 Gbps for the Cisco Nexus 5500 Platform switches and the Cisco Nexus 5000 Platform switches.

Table B-18   General Specifications for Cisco Fibre Channel SFP Transceivers at 4 Gbps

Description	Short Wavelength	
Connector type	LC	—
Wavelength	850 nm	—
Fibre type	MMF	—
Core size	50 microns	62.5 microns
Cable distance[1]	328.08 yd (300 m)	164.04 yd (150 m)
Transmit power	–9 to –2.5 dBM	

1. Approximate; actual distance may vary depending on fiber quality and other factors.

Environmental Conditions and Power Requirements Specification for SFP Transceivers

Table B-19 provides the maximum environmental and electrical ratings for Cisco Fibre Channel SFP transceivers for the Cisco Nexus 5500 Platform switches and Cisco Nexus 5000 Platform switches.

Table B-19   Environmental Conditions and Power Requirements Specifications for SFP Transceivers

Parameter	Symbol	Minimum	Maximum	Unit
Storage temperature[1]	T_s	–40	85	°C
Case temperature[1],[2]	T_c	0	70	°C
Relative humidity[1]	RH	5	95	%
Module supply voltage[1]	V_{cc}T,R	3.1	3.5	V

1. Absolute maximum ratings are those values beyond which damage to the device may occur if these limits are exceeded for other than a short period of time.

2. Functional performance is not intended, device reliability is not implied, and damage to the device may occur over an extended period of time between absolute maximum ratings and the recommended operating conditions.