



# Connector and Cable Specifications

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## Connector Specifications

### 10/100/1000 Ports (Including PoE)

All 10/100/1000 ports use standard RJ-45 connectors and Ethernet pinouts.

*Figure 1: 10/100/1000 Port Pinouts*

Pin	Label	1 2 3 4 5 6 7 8
1	TP0+	
2	TP0-	
3	TP1+	
4	TP2+	
5	TP2-	
6	TP1-	
7	TP3+	
8	TP3-	

## Module Connectors

*Figure 2: Duplex LC Cable Connector*

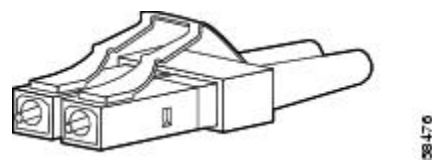


Figure 3: Simplex LC Cable Connector

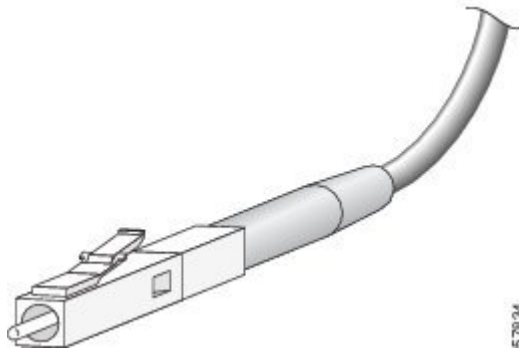


Figure 4: Copper SFP Module LC Connector

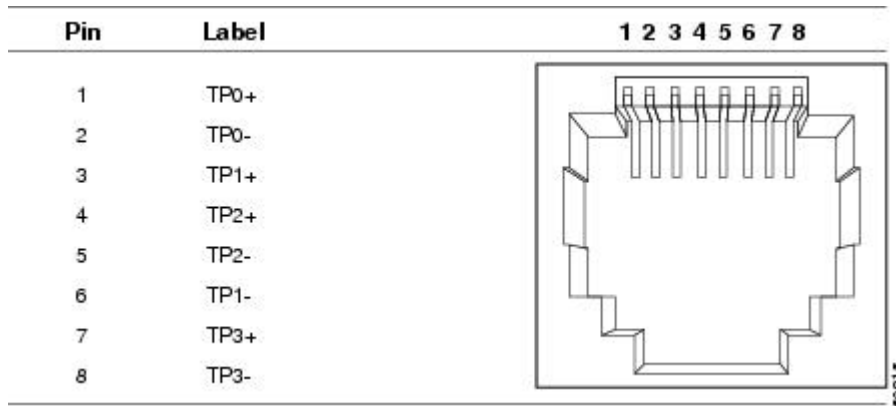
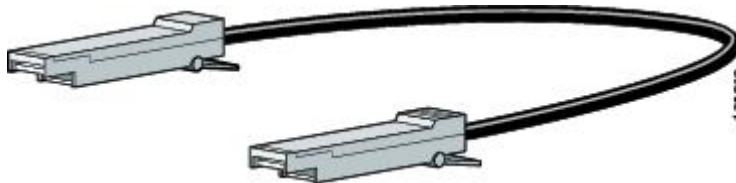


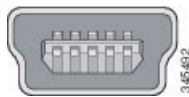
Figure 5: SFP Module Patch Cable



## Console Port

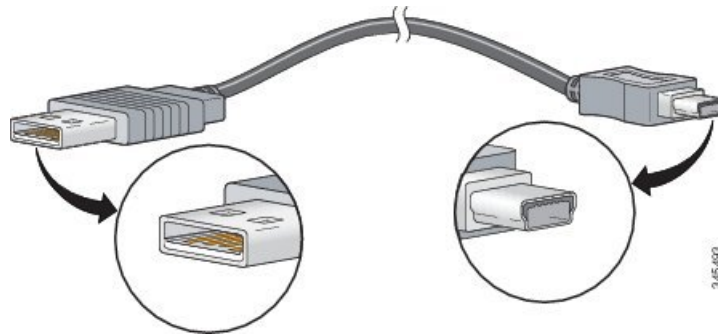
The switch has two console ports: a USB 5-pin mini-Type B port on the front panel and an RJ-45 console port on the rear panel.

Figure 6: USB Mini-Type B Port



The USB console port uses a USB Type A to 5-pin mini-Type B cable. The USB Type A-to-USB mini-Type B cable is not supplied. You can order an accessory kit (part number 800-33434) that contains this cable.

Figure 7: USB Type A-to-USB 5-Pin Mini-Type B Cable



The RJ-45 console port uses an 8-pin RJ-45 connection. The supplied RJ-45-to-DB-9 adapter cable is used to connect the console port of the switch to a console PC. You need to provide a RJ-45-to-DB-25 female DTE adapter if you want to connect the switch console port to a terminal.

## Cables and Adapters

### StackWise Cables

You can order these StackWise cables (nonhalogen) from your Cisco sales representative:

- STACK-T1-50CM= (0.5-meter cable)
- STACK-T1-1M= (1-meter cable)
- STACK-T1-3M= (3-meter cable)

Table 1: StackWise Cables Minimum Bend Radius and Coiled Diameter

Cable Part Number	Cable Length	Minimum Bend Radius	Minimum Coiled Diameter
STACK-T1-50CM	1.64 feet (0.5 m)	2.60 in. (66 mm)	5.20 in. (132 mm)
STACK-T1-1M	3.28 feet (1.0 m)	2.60 in. (66 mm)	5.20 in. (132 mm)
STACK-T1-3M	9.84 feet (3.0 m)	3.58 in. (91 mm)	7.17 in. (182 mm)
STACK-T2-50CM	1.64 feet (0.5 m)	2.60 in. (66 mm)	5.20 in. (132 mm)
STACK-T2-1M	3.28 feet (1.0 m)	2.60 in. (66 mm)	5.20 in. (132 mm)
STACK-T2-3M	9.84 feet (3.0 m)	3.58 in. (91 mm)	7.17 in. (182 mm)

### Transceiver Module Network Cables

For cabling specifications, refer to the following notes:

- [Cisco SFP and SFP+ Transceiver Module Installation Notes](#)

- [Cisco 40-Gigabit QSFP+ Transceiver Modules Installation Note](#)

Cisco Catalyst 2960-X and 2960-XR Switches now support QSFP-4X10G-AOC5M, the 40GQSFP to four 10G SFP+ direct attach breakout Active Optical cable assembly.

Each port must match the wavelength specifications on the other end of the cable, and the cable must not exceed the stipulated cable length. Copper 1000BASE-T SFP module transceivers use standard four twisted-pair, Category 5 cable at lengths up to 328 feet (100 meters).

## Cisco QSFP to SFP or SFP+ Adapter

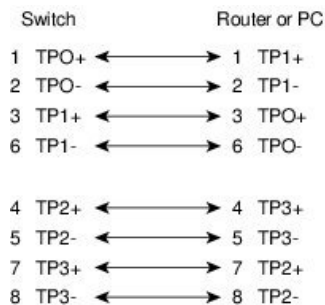
Cisco QSFP to SFP or SFP+ Adapter (QSA) is a pluggable adapter that converts a QSFP port in to an SFP or SFP+ port. You can connect one of the following SFP+ or SFP module or an SFP+ copper.

The following is the list of Cisco SFP or SFP+ transceiver modules that are currently supported.

- Cisco SFP-10G-SR - Cisco 10GBASE-SR SFP+ Module for Multimode Fiber
- Cisco SFP-10G-SR-S module (S-Class) - Cisco 10GBASE-SR SFP+ Module for Multimode Fiber
- Cisco SFP-10G-LR - Cisco 10GBASE-LR SFP+ Module for Single-Mode Fiber
- Cisco SFP-10G-LR-S module (S-Class) - Cisco 10GBASE-LR SFP+ Module for Single-Mode Fiber
- Cisco SFP-10G-ER - Cisco 10GBASE-ER SFP+ Module for Single-Mode Fiber (extended reach)
- Cisco SFP-10G-ER-S module (S-Class) - Cisco 10GBASE-ER SFP+ Module for Single-Mode Fiber (extended reach)
- Cisco SFP-10G-ZR - Cisco 10GBASE-ZR SFP+ Module for Single-Mode Fiber (up to 80 km reach)
- Cisco SFP-10G-ZR-S module (S-Class) - Cisco 10GBASE-ZR SFP+ Module for Single-Mode Fiber (up to 80 km reach)

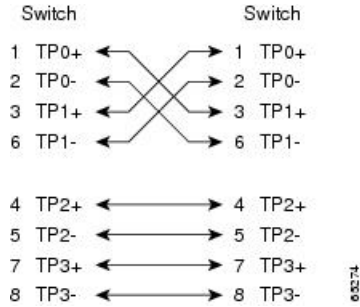
## Cable Pinouts

**Figure 8: Four Twisted-Pair Straight-Through Cable Schematic**

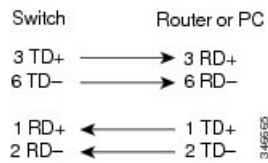


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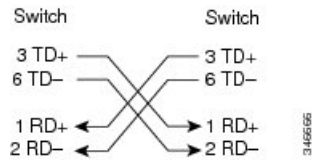
**Figure 9: Four Twisted-Pair Semi-Cross Cable Schematic**



**Figure 10: Two Twisted-Pair Straight-Through Cable Schematic**



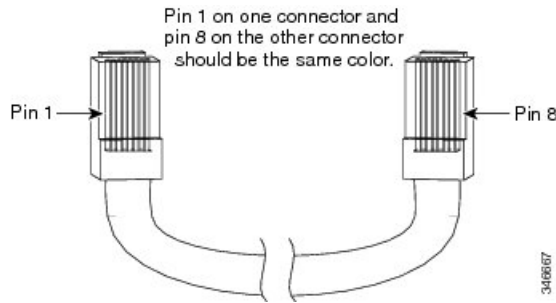
**Figure 11: Two Twisted-Pair Crossover Cable Schematic**



**Identifying a Crossover Cable**

To identify a crossover cable, compare the two modular ends of the cable. Hold the cable ends side-by-side, with the tab at the back. The wire connected to the pin on the outside of the left plug should be a different color from the wire connected to the pin on the inside of the right plug.

**Figure 12: Identifying a Crossover Cable**



**Console Port Adapter Pinouts**

The RS-232 console port uses an 8-pin RJ-45 connector. Use an RJ-45-to-DB-9 adapter cable to connect the switch console port to a console PC. You need to provide a RJ-45-to-DB-25 female DTE adapter to connect the switch console port to a terminal.

*Table 2: Console Port Signaling with a DB-9 Adapter*

<b>Switch Console Port (DTE)</b>	<b>RJ-45-to-DB-9 Terminal Adapter</b>	<b>Console Device</b>
<b>Signal</b>	<b>DB-9 Pin</b>	<b>Signal</b>
RTS	8	CTS
DTR	6	DSR
TxD	2	RxD
GND	5	GND
GND	5	GND
RxD	3	TxD
DSR	4	DTR
CTS	7	RTS

*Table 3: Console Port Signaling with a DB-25 Adapter*

<b>Switch Console Port (DTE)</b>	<b>RJ-45-to-DB-25 Terminal Adapter</b>	<b>Console Device</b>
<b>Signal</b>	<b>DB-25 Pin</b>	<b>Signal</b>
RTS	5	CTS
DTR	6	DSR
TxD	3	RxD
GND	7	GND
GND	7	GND
RxD	2	TxD
DSR	20	DTR
CTS	4	RTS