



Connector and Cable Specifications

This appendix contains these topics:

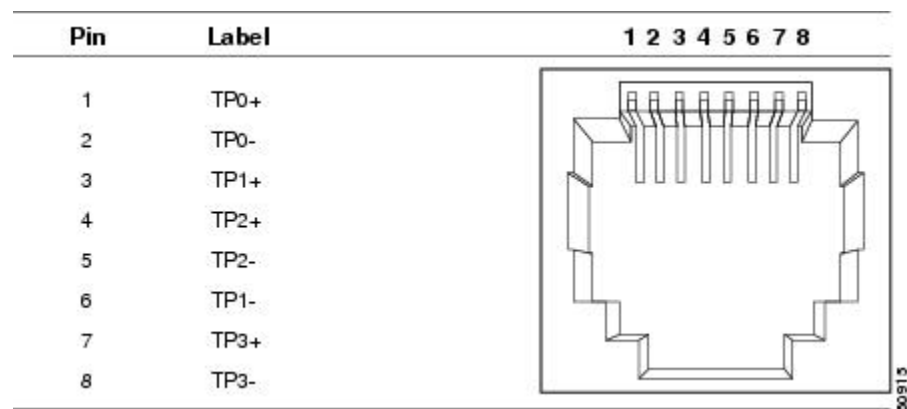
- [Connector Specifications, on page 1](#)
- [Cables and Adapters, on page 2](#)

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



SFP Module Connectors

Figure 2: Duplex LC Cable Connector

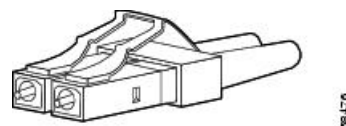


Figure 3: Simplex LC Cable Connector

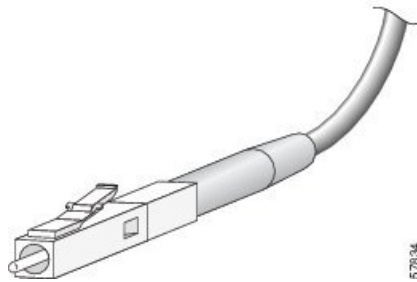


Figure 4: Copper SFP Module LC Connector

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-								

Cables and Adapters

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).

Cable Pinouts

Figure 5: Four Twisted-Pair Straight-Through Cable Schematic

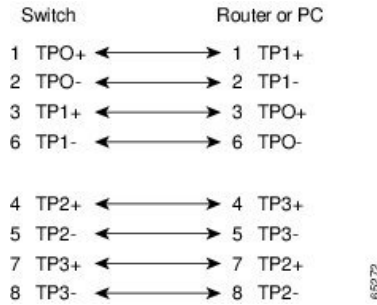


Figure 6: Four Twisted-Pair Semi-Cross Cable Schematic

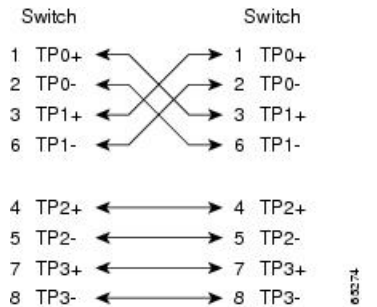


Figure 7: Two Twisted-Pair Straight-Through Cable Schematic

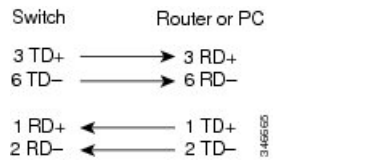
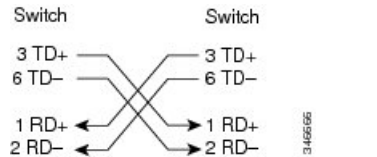
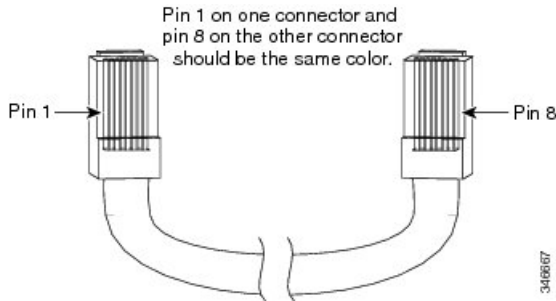


Figure 8: Two Twisted-Pair Crossover Cable Schematic



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 9: 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 1: Console Port Signaling with a DB-9 Adapter

Switch Console Port (DTE)	RJ-45-to-DB-9 Terminal Adapter	Console Device
Signal	DB-9 Pin	Signal
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 2: Console Port Signaling with a DB-25 Adapter

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

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

