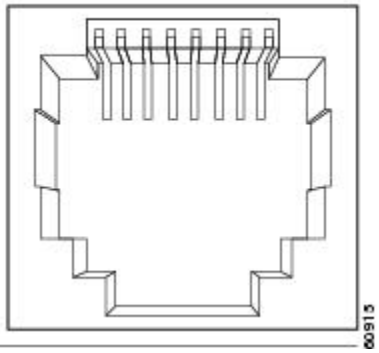
Connector and Cable Specifications

Connector Specifications

10/100/1000 Ports

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

This section describes the different SFP/QSFP/QSFP-DD module connectors used on 10G/25G/40G/100G/400G ports on the switches.

Figure 2: Duplex LC Cable Connector

Figure 3: Simplex LC Cable Connector

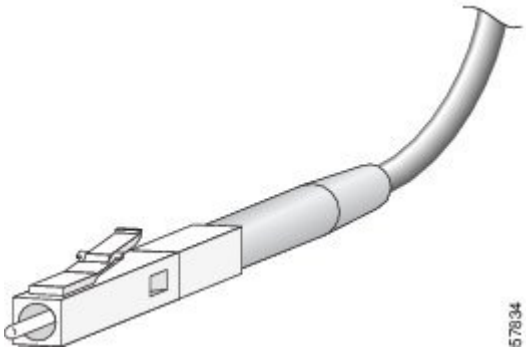
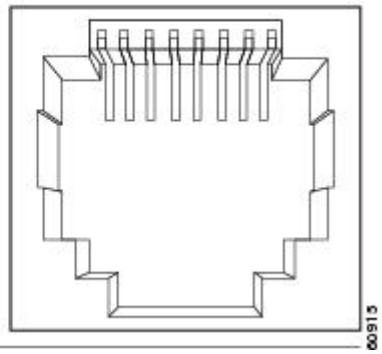


Figure 4: Copper SFP Module LC Connector

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

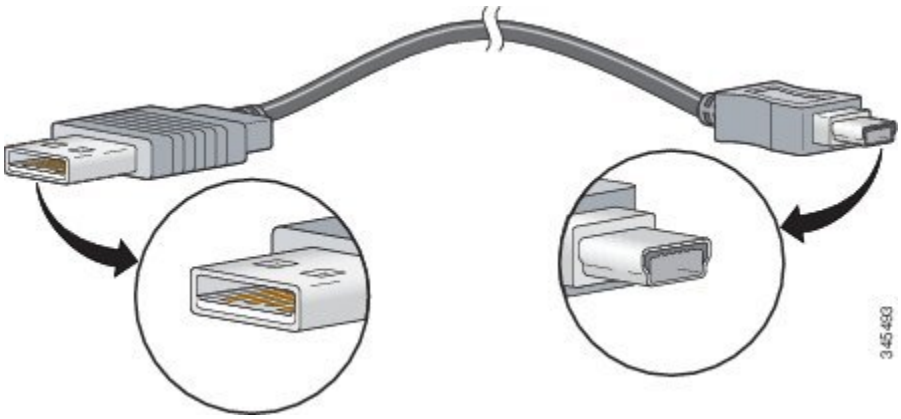


Console Cables

Switch Name	Supported Console Cable
Cisco Catalyst 9500 Series Switches	USB Type A to 5-pin mini-Type B (CAB-CONSOLE-USB)
Cisco Catalyst 9500 Series High Performance Switches	

The USB console port uses a USB Type A to 5-pin mini-Type B cable and a USB Type A to Type C cable. These cables are not supplied with the switch; you have to order them separately.

Figure 5: 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 an RJ-45-to-DB-25 female DTE adapter if you want to connect the switch console port to a terminal.

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

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 6: Four Twisted-Pair Straight-Through Cable Schematic

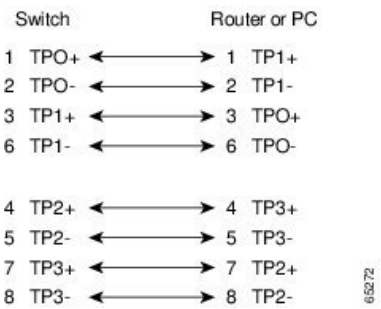


Figure 7: Four Twisted-Pair Semi-Cross Cable Schematic

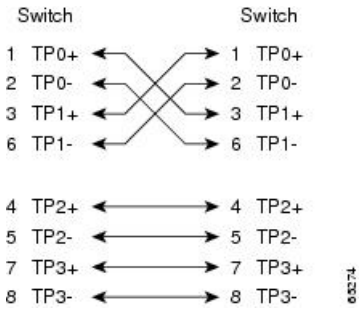


Figure 8: Two Twisted-Pair Straight-Through Cable Schematic

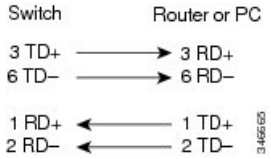
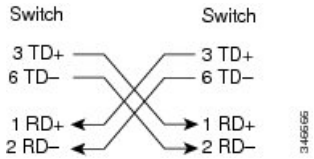


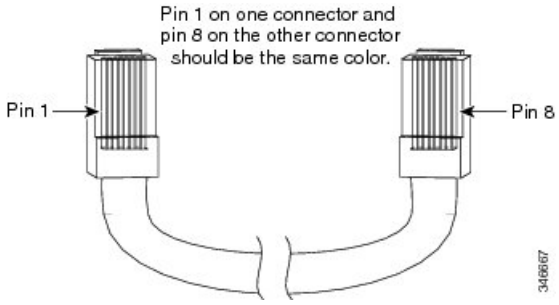
Figure 9: Two Twisted-Pair Crossover Cable Schematic



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 10: 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**
TxD	2	RxD
GND	5	GND
GND	5	GND
RxD	3	TxD

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**
TxD	3	RxD
GND	7	GND
GND	7	GND
RxD	2	TxD

Connector and Cable Specifications