



Connector and Cable Specifications

This appendix describes the Catalyst 3500 XL switch ports and the cables and adapters that you use to connect the switch to other devices.

Connector Specifications

10/100 Ports

The 10/100 Ethernet ports use standard RJ-45 connectors and Ethernet pinouts with internal crossovers, as indicated by an X in the port name. These ports have their transmit (TD) and receive (RD) signals internally crossed so that a straight-through cable and adapter can be attached to the port. Figure B-1 shows the pinout.

When connecting the 10/100 ports to compatible workstations, servers, routers, and Cisco IP Phones, you must use a straight-through cable wired for 10BaseT and 100BaseTX (Figure B-5 illustrates the straight-through cable schematics). When connecting to other switches or repeaters, ensure that you use a crossover cable. (Figure B-4 illustrates the crossover cable schematics.)



Note

Use a straight-through cable to connect two ports when one of the ports is designated with an **X**. Use a crossover cable to connect two ports when both ports are designated with an **X** or when both ports do not have an **X**.

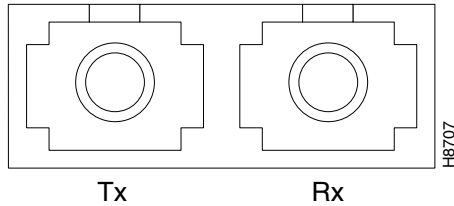
Figure B-1 10/100 Port Pinouts

Pin	Label	1 2 3 4 5 6 7 8
1	RD+	
2	RD-	
3	TD+	
4	NC	
5	NC	
6	TD-	
7	NC	
8	NC	

1000BaseX Ports

1000BaseX ports use duplex SC connectors, as shown in [Figure B-2](#).

Figure B-2 1000BaseX SC Connector



Gigastack Port

The GigaStack Gigabit Interface Converter (GBIC) uses proprietary connectors, as shown in [Figure B-3](#).

Figure B-3 GigaStack Connector



The GigaStack GBIC cables are proprietary, high-data-rate cables with enhanced signal integrity and EMI performance.



Caution

Do not use standard IEEE 1394 cables with the GigaStack GBIC.

Console Port

The console port uses an 8-pin RJ-45 connector, described in [Table B-1](#) and [Table B-2](#). The supplied RJ-45-to-RJ-45 rollover cable and DB-9 adapter are 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. You can order a kit (part number ACS-DSBUASYN=) containing that adapter from Cisco. For console port and adapter pinout information, see [Table B-1](#) and [Table B-2](#).

Cable and Adapter Specifications

Crossover and Straight-Through Cable Pinouts

The schematics of crossover and straight-through cables are shown in Figure B-4 and Figure B-5.

Figure B-4 Crossover Cable Schematic

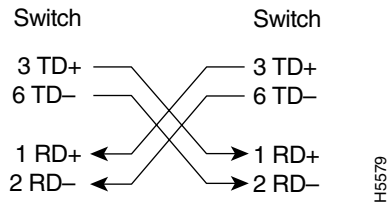
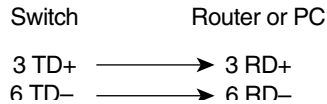


Figure B-5 Straight-Through Cable Schematic

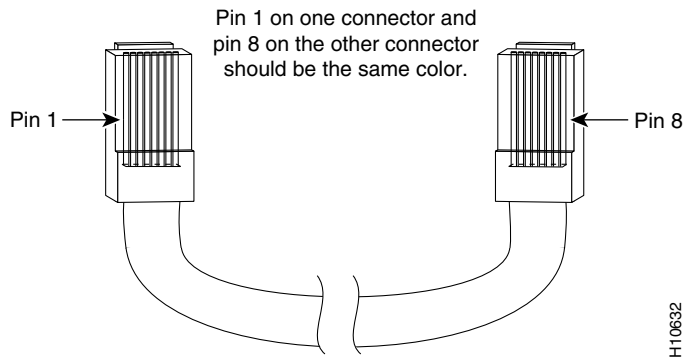


Rollover Cable and Adapter Pinouts

Identifying a Rollover Cable

To identify a rollover 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 the same color as the wire connected to the pin on the outside of the right plug (see Figure B-6).

Figure B-6 Identifying a Rollover Cable



Connecting to a PC

Use the supplied thin, flat, RJ-45-to-RJ-45 rollover cable and RJ-45-to-DB-9 female DTE adapter to connect the console port to a PC running terminal-emulation software. Figure B-7 shows how to connect the console port to a PC. Table B-1 lists the pinouts for the console port, the RJ-45-to-RJ-45 rollover cable, and the RJ-45-to-DB-9 female DTE adapter.

Figure B-7 Connecting the Console Port to a PC

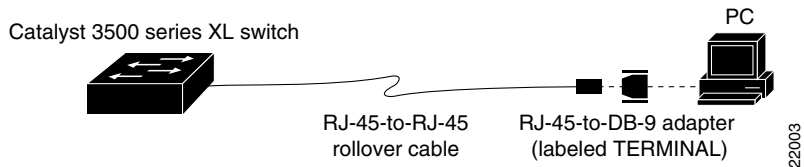


Table B-1 Console Port Signaling and Cabling Using a DB-9 Adapter

Console Port (DTE)	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-9 Terminal Adapter	Console Device
	RJ-45 Pin	RJ-45 Pin	DB-9 Pin	Signal
RTS	1	8	8	CTS
Not connected	2	7	6	DSR
TxD	3	6	2	RxD
GND	4	5	5	GND
GND	5	4	5	GND
RxD	6	3	3	TxD
Not connected	7	2	4	DTR
CTS	8	1	7	RTS

Connecting to a Terminal

Use the thin, flat, RJ-45-to-RJ-45 rollover cable and RJ-45-to-DB-25 female DTE adapter to connect the console port to a terminal. [Table B-2](#) lists the pinouts for the console port, the RJ-45-to-RJ-45 rollover cable, and the RJ-45-to-DB-25 female DTE adapter.



Note

The RJ-45-to-DB-25 female DTE adapter is not supplied with the switch. You can order a kit (part number ACS-DSBUASYN=) containing this adapter from Cisco.

Table B-2 Console Port Signaling and Cabling Using a DB-25 Adapter

Console Port (DTE)	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-25 Terminal Adapter	Console Device
	RJ-45 Pin	RJ-45 Pin	DB-25 Pin	
Signal				Signal
RTS	1	8	5	CTS
Not connected	2	7	6	DSR
TxD	3	6	3	RxD
GND	4	5	7	GND
GND	5	4	7	GND
RxD	6	3	2	TxD
Not connected	7	2	20	DTR
CTS	8	1	4	RTS

Cable and Adapter Specifications