# Cable and Port Specifications

This appendix includes the cables and connectors used with the Cisco MDS 9396S Multilayer Fabric Switch.

**Caution** We strongly recommend that power cable runs and other potential noise sources be located as far away as practical from network cabling that terminates on Cisco equipment. In situations where long parallel cable runs exist but cannot be separated by at least 3.3 ft. (1 m), we recommend that you shield these potential noise sources. To avoid interference, the source should be shielded by housing it in a grounded metallic conduit.



# Cables and Adapters

The Cisco MDS 9396S Switch accessory kit includes the following:

- RJ-45 to RJ-45 rollover cable
- RJ-45 to DB-9 female DTE adapter (labeled “Terminal”)
- RJ-45 to DB-25 female DTE adapter (labeled “Terminal”)
- RJ-45 to DB-25 male DCE adapter (labeled “Modem”)

**Note** Additional cables and adapters can be ordered from your customer service representative.

**Note** If you purchased this product through a Cisco reseller, contact the reseller directly for technical support. If you purchased this product directly from Cisco, contact Cisco Technical Support at this URL: http://www.cisco.com/c/en/us/support/index.html.

# Console Port

The console port is an asynchronous RS-232 serial port with an RJ-45 connector. You can use the RJ-45 to RJ-45 rollover cable and the RJ-45 to DB-9 female adapter or the RJ-45 to DB-25 female DTE adapter (depending on your computer serial port) to connect the console port to a computer running terminal emulation software.

## Console Port Pinouts

The following table lists the pinouts for the console port on the Cisco MDS 9396S Switch.

***Table 1: Console Port Pinouts***

| Pin | Signal |
|---|---|
| 1[1] | RTS |
| 2 | DTR |
| 3 | TxD |
| 4 | GND |
| 5 | GND |
| 6 | RxD |
| 7 | DSR |
| 8 | CTS |

1. Pin 1 is connected internally to pin 8.

## Connecting the Console Port to a Computer Using the DB-25 Adapter

You can use the RJ-45 to RJ-45 rollover cable and RJ-45 to DB-25 female DTE adapter (labeled “Terminal”) to connect the console port to a computer running terminal emulation software. The following table 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.

***Table 2: Port Mode Signaling and Pinouts with DB-25 Adapter***

| Console Port | RJ-45 to RJ-45 Rollover Cable | | RJ-45 to DB-25 Terminal Adapter | Console Device |
|---|---|---|---|---|
| **Signal** | **RJ-45 Pin** | **RJ-45 Pin** | **DB-25 Pin** | **Signal** |
| RTS | 1 | 8 | 5 | CTS |
| DTR | 2 | 7 | 6 | DSR |
| TxD | 3 | 6 | 3 | RxD |

| Console Port | RJ-45 to RJ-45 Rollover Cable | | RJ-45 to DB-25 Terminal Adapter | Console Device |
|---|---|---|---|---|
| GND | 4 | 5 | 7 | GND |
| GND | 5 | 4 | 7 | GND |
| RxD | 6 | 3 | 2 | TxD |
| DSR | 7 | 2 | 20 | DTR |
| CTS | 8 | 1 | 4 | RTS |

# Connecting the Console Port to a Computer Using the DB-9 Adapter

You can use the RJ-45 to RJ-45 rollover cable and RJ-45 to DB-9 female DTE adapter (labeled “Terminal”) to connect the console port to a computer running terminal emulation software. The following table 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.

***Table 3: Port Mode Signaling and Pinouts with DB-9 Adapter***

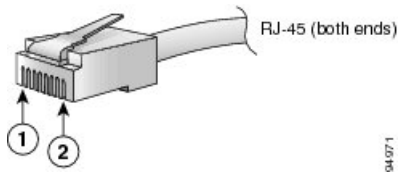
| Console Port | RJ-45 to RJ-45 Rollover Cable | | RJ-45 to DB-9 Terminal Adapter | Console Device |
|---|---|---|---|---|
| **Signal** | **RJ-45 Pin** | **RJ-45 Pin** | **DB-9 Pin** | **Signal** |
| RTS | 1 | 8 | 8 | CTS |
| DTR | 2 | 7 | 6 | DSR |
| TxD | 3 | 6 | 2 | RxD |
| GND | 4 | 5 | 5 | GND |
| GND | 5 | 4 | 5 | GND |
| RxD | 6 | 3 | 3 | TxD |
| DSR | 7 | 2 | 4 | DTR |
| CTS | 8 | 1 | 7 | RTS |

# MGMT 10/100/1000 Ethernet Port

Use a modular, RJ-45, straight-through UTP cable to connect the 10/100/1000 management Ethernet port to external hubs and switches. To connect to a router, use a crossover cable.

Cable and Port Specifications

*Figure 1: RJ-45 Interface Cable Connector*




| | | | |
|---|---|---|---|
| 1 | Pin 1 | 2 | Pin 8 |

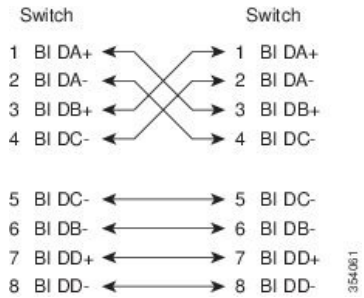
The following table lists the connector pinouts and signal names for a 10/100/1000BASE-T management port (MDI) cable.

*Table 4: 10/100/1000BASE-T Management Port Cable Pinout*

| Pin | Signal |
|---|---|
| 1 | BI DA+ |
| 2 | BI DA- |
| 3 | BI DB+ |
| 4 | BI DC+ |
| 5 | BI DC- |
| 6 | BI DB- |
| 7 | BI DD+ |
| 8 | BI DD- |

The following figure shows a schematic of the 10/100/1000BASE-T cable.

*Figure 2: Twisted-Pair 10/100/1000BASE-T Cable Schematic*



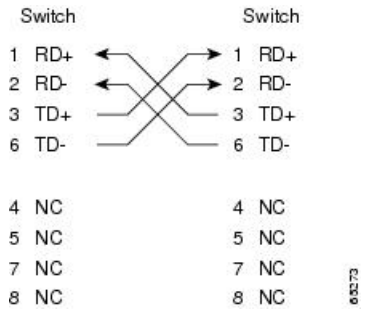

The following table lists the connector pinouts and signal names for a 10/100BASE-T management port (MDI) cable.

*Table 5: 10/100BASE-T Management Port Cable Pinout*

| Pin | Signal |
|---|---|
| 1 | TD+ |
| 2 | TD- |
| 3 | RD+ |
| 4 | RD- |
| 5 | Not used |
| 6 | Not used |
| 7 | Not used |
| 8 | Not used |

The following figure shows a schematic of the 10/100BASE-T cable.

*Figure 3: Twisted-Pair 10/100BASE-T Cable Schematic*




# Supported Power Cords and Plugs

A separate power cord is provided for each power supply. Standard power cords or jumper power cords are available for connection to a power distribution unit having IEC 60320 C13 outlet receptacles. The jumper power cords, for use in cabinets, are available as an option instead of the standard power cords.

## Power Cords

The standard power cords have an IEC C15 connector on the end that plugs into the switch. The optional jumper power cords have an IEC C15 connector on the end that plugs into the switch, and an IEC C14 connector on the end that plugs into an IEC C13 outlet receptacle.

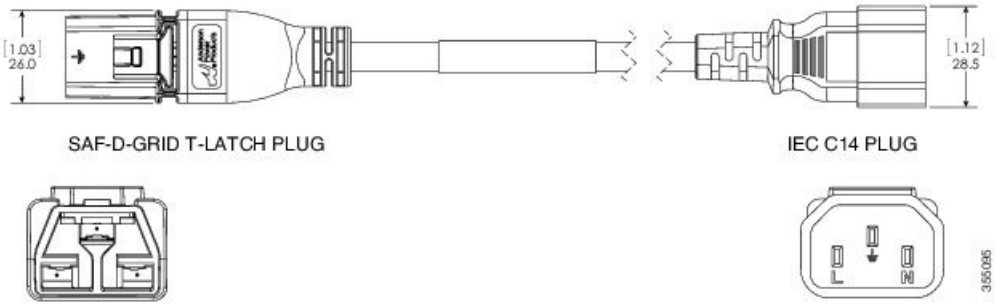
Cable and Port Specifications

**Note**

- Only the standard power cords or jumper power cords provided with the switch are supported.
- If you do not order the optional power cord with the system, you are responsible for selecting the appropriate power cord for the product. Using a non-compatible power cord with this product may result in electrical safety hazard. Orders delivered to Argentina, Brazil, and Japan must have the appropriate power cord ordered with the system.

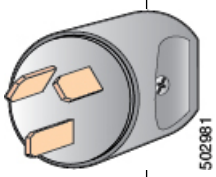
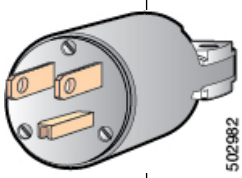
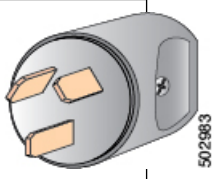
The following figure shows the power cord used with the 3.5-kW HVDC/HVAC Power Supply Unit:

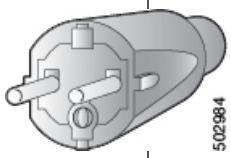
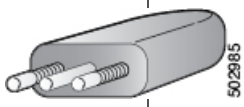
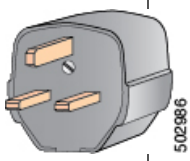
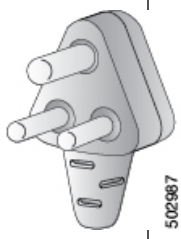
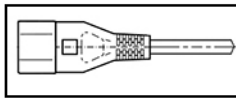
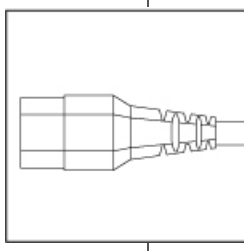
***Figure 4: CAB-HVAC-C14-2M Power Cord and Plugs for the 3.5-kW HVDC/HVAC Power Supply Unit***




The following table lists the supported power cords and power plugs for the Cisco MDS 9396S switch:

***Table 6: Supported Power Cords and Power Plugs for the Cisco MDS 9396S Switch***

| Locale | Power Cord Part Number | Source Plug Type | Cordset Rating | Length | | Power Plug Reference Illustration |
|---|---|---|---|---|---|---|
| | | | | Feet | Meters | |
| Argentina | CAB-9K10A-AR | IRAM 2073 plug (10 A) | 10 A, 250 V | 8.2 | 2.5 |  502981 |
| North America | CAB-9K12A-NA | NEMA 5-15P plug (15 A) | 15 A, 125 V | 8.2 | 2.5 |  502982 |
| Australia and New Zealand | CAB-9K10A-AU | SAA/3 plug, AS/NZS 3112-1993 (10 A) | 10 A, 250 V | 8.2 | 2.5 |  502983 |

| Locale | Power Cord Part Number | Source Plug Type | Cordset Rating | Length | | Power Plug Reference Illustration |
|---|---|---|---|---|---|---|
| | | | | Feet | Meters | |
| Europe | CAB-9K10A-EU | VIIG Plug, CEE (7) VII (16 A) | 10 A, 250 V | 8.2 | 2.5 |  |
| Italy | CAB-9K10A-IT | 1/3G plug, CEI 23-16 (10 A) | 10 A, 250 V | 8.2 | 2.5 |  |
| United Kingdom | CAB-9K10A-UK | BS89/13, BS 1363/A<br>(13 A; replaceable fuse) | 10 A, 250 V | 8.2 | 2.5 |  |
| South Africa | CAB-9K10A-SA | EL 208, SABS 164-1 (10 A) | 10 A, 250 V | 5.12 | 1.82 |  |
| Switzerland | CAB-9K10A-SW | 12G SEV 1011 (10 A) | 10 A, 250 V | 8.2 | 2.5 |  |
| Japan | CAB-C15-CBN-JP | C14-C15 | 12 A, 250 VAC | 10 | 3.05 m |  |
| Cabinet Jumper Power Cord | CAB-C15-CBN | C14-C15 Connectors | 13A, 250 VAC | 4 | 1.22 |  |

# Jumper Power Cord

The following figure shows the C14 and C15 connectors on the optional jumper power cord for the Cisco MDS 9396S Switch. The C15 connector connects into the C14 inlet on the Cisco MDS 9396S Switch power supply, while the C14 connector connects into the C13 receptacle of a power distribution unit for a cabinet.

Cable and Port Specifications

*Figure 5: Connectors on Jumper Power Cord for Cisco MDS 9396S Switch*