



# Specifications

This appendix provides system, port, and cabling specifications for Cisco 850 series and Cisco 870 series routers. It contains the following sections:

- [Router Specifications, page A-1](#)
- [Power-over-Ethernet Module Specifications, page A-2](#)
- [LAN Port Pinouts, page A-3](#)
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## Router Specifications

[Table A-1](#) outlines the system specifications for the routers.

**Table A-1 Router Specifications**

| Description                                 | Design Specification   |
|---|--|
| <b>Physical Dimensions</b>                  |  |
| Dimensions (H x W x D)                      | <ul style="list-style-type: none"> <li>• With antenna connectors: 2.0 x 10.25 x 9.13 in. (51 x 260 x 232 mm)</li> <li>• Without antenna connectors: 2.0 x 10.25 x 8.5 in. (51 x 260 x 216 mm)</li> </ul> |
| Weight (not including desktop power supply) | 2.10 lb (0.95 kg)  |
| <b>Environmental Operating Ranges</b>       |  |
| Nonoperating temperature                    | –4 to 149°F (–20 to 65°C)  |
| Nonoperating humidity                       | 5 to 95% relative humidity   |
| Nonoperating altitude                       | 0 to 15,000 ft (4570 m)  |
| Operating temperature                       | 32 to 104°F (0 to 40°C)  |
| Operating humidity                          | 10 to 85% relative humidity  |
| Operating altitude                          | 0 to 10,000 ft (3000 m)  |

**Table A-1 Router Specifications (continued)**

| Description                              | Design Specification   |
|--|--|
| <b>Router Power</b>                      |  |
| AC input voltage                         | 100 to 240 VAC   |
| Frequency                                | 50 to 60 Hz  |
| Power output                             | 26 W maximum   |
| Output voltages                          | 5 V and 12 V   |
| <b>Integrated 802.11b/g Radio Module</b> |  |
| Radio technology                         | IEEE 802.11b and 802.11g standard compliant  |
| Operating frequency                      | 2412 to 2484 MHz ISM <sup>1</sup> band   |
| Modulation schemes                       | OFDM <sup>2</sup> , DQPSK <sup>3</sup> , DBPSK <sup>4</sup> , 16 QAM <sup>5</sup> , 64 QAM, and CCK <sup>6</sup> |
| Number of channels                       | 11 channels for the U.S., 13 channels for Europe, 14 channels for Japan  |
| Data rate                                | 54 Mbps with fallback rates of 48, 36, 24, 18, 12, 9, and 6 Mbps   |
| Media access protocol                    | CSMA/CA <sup>7</sup> with ACK <sup>8</sup>   |
| Power consumption (typical)              | 500 mA/3.3V at transmit mode, 320 mA/3.3V at receive mode  |

1. ISM = Industrial, Scientific, and Medical
2. OFDM = orthogonal frequency-division multiplexing
3. DQPSK = differential quaternary phase shift keying
4. DBPSK = differential binary phase shift keying
5. QAM = quadrature amplitude modulation
6. CCK = complementary code keying
7. CSMA/CA = carrier sense multiple access with collision avoidance
8. ACK = acknowledgement

## Power-over-Ethernet Module Specifications

Table A-2 shows the specifications for the power-over-Ethernet (PoE) module.

**Table A-2 POE Module Specifications**

| Description                                 | Design Specification                       |
|---|--|
| <b>Physical Dimensions</b>                  |  |
| Dimensions (H x W x D)                      | 1.13 x 4.0 x 10.25 in. (29 x 102 x 260 mm) |
| Weight (not including desktop power supply) | 0.32 lb (0.14 kg)                          |

**Table A-2** POE Module Specifications (continued)

| Description                           | Design Specification        |
|---------------------------------------|-----------------------------|
| <b>Environmental Operating Ranges</b> |                             |
| Nonoperating temperature              | −4 to 149°F (−20 to 65°C)   |
| Nonoperating humidity                 | 5 to 95% relative humidity  |
| Nonoperating altitude                 | 0 to 15,000 ft (4570 m)     |
| Operating temperature                 | 32 to 104°F (0 to 40°C)     |
| Operating humidity                    | 10 to 85% relative humidity |
| Operating altitude                    | 0 to 10,000 ft (3000 m)     |
| <b>Power</b>                          |                             |
| AC input voltage                      | 100 to 240 VAC              |
| Frequency                             | 50 to 60 Hz                 |
| Power output                          | 80 W maximum                |
| Output voltage                        | 48 VDC                      |

For information on regulatory compliance, see the *Regulatory Compliance and Safety Information for Cisco 800 Series and SOHO Series Routers* document that was shipped with your router.

**Warning**

**Ultimate disposal of this product should be handled according to all national laws and regulations.**  
Statement 1040

## LAN Port Pinouts

Table A-3 provides pinouts for the Ethernet LAN port on the routers.

**Table A-3** Ethernet LAN Port Pinouts

| Pin | Function |
|-----|----------|
| 1   | RX+      |
| 2   | RX−      |
| 3   | TX+      |
| 4   | Unused   |
| 5   | Unused   |
| 6   | TX−      |
| 7   | Unused   |
| 8   | Unused   |

## Console Connector Pinouts

Table A-4 provides pinouts for the console connector (for connecting a terminal or PC).

**Table A-4** Console Connector Pinouts (RJ-45-to-DB-9)

| RJ-45 Pin | Function | DB-9 Pin |
|-----------|----------|----------|
| 1         | RTS      | 8        |
| 2         | DTR      | 6        |
| 3         | TXD      | 2        |
| 4         | GND      | 5        |
| 5         | GND      | 5        |
| 6         | RXD      | 3        |
| 7         | DSR      | 4        |
| 8         | CTS      | 7        |

The console port is configured as a data communications equipment (DCE) device. The default parameters for the console port are as follows:

- 9600 baud
- 8 data bits
- No parity
- One stop bit

## ADSL Port Connector Pinouts

Table A-5 shows ADSL connector pinouts.

**Table A-5** ADSL Connector Pinouts (RJ-11-to-RJ-45)

| RJ-11 Pin | Function | RJ-45 Pin | Function |
|-----------|----------|-----------|----------|
| 1         | Unused   | 1         | Unused   |
| 2         | Unused   | 2         | Unused   |
| 3         | Ring     | 3         | Unused   |
| 4         | Tip      | 4         | Ring     |
| 5         | Unused   | 5         | Tip      |
| 6         | Unused   | 6         | Unused   |
|           |          | 7         | Unused   |
|           |          | 8         | Unused   |

# Power Output Connector Pinouts

Figure A-1 shows the power output connector and pin numbers.

**Figure A-1** Power Connector Ports

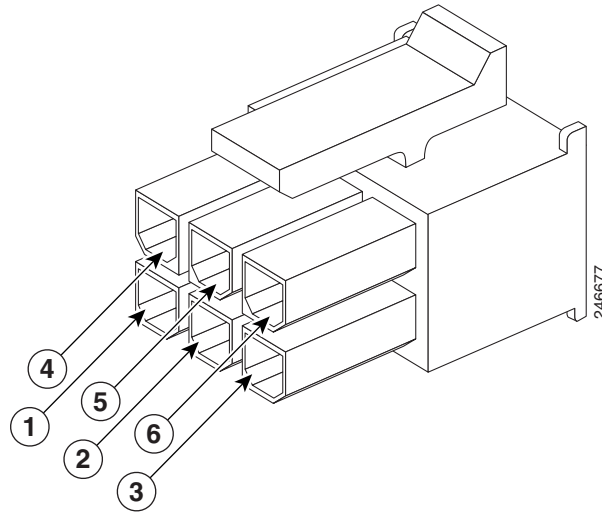


Table A-6 provides pinouts for the power output connector for the power supply.

**Table A-6** Power Output Connector Pinouts

| Pin | Signal |
|-----|--------|
| 1   | Ground |
| 2   | Ground |
| 3   | Ground |
| 4   | +12V   |
| 5   | +5V    |
| 6   | +5V    |

## Cable Specifications

This section provides specifications for the following Ethernet cables, which you might need to provide:

- Straight-through cable
- Crossover cable

Because of the autocrossover (autosensing) function, both straight-through and crossover cables can be used for the Ethernet LAN port.

## Ethernet Cable Specifications

Table A-7 provides specifications that apply to both straight-through and crossover Ethernet cables.

**Table A-7**      *Ethernet Cable Specifications*

| Type      | Category             |
|-----------|----------------------|
| 10BASE-T  | Category 3 or 5      |
| 100BASE-T | Category 5 or higher |

## Maximum Cable Length

The maximum length for the Ethernet cables that connect equipment to the router is 328 ft (100 m). The length also indicates the maximum distance between the router and the equipment connected to it.