CHAPTER 1

# Overview of the Router

Table 1-1 lists the router models discussed in this publication and provides a summary of the interfaces supported on each model. These router models are similar in functionality, but differ in the number of interfaces supported.

**Table 1-1 Summary of Router Interfaces**

| Model | Ethernet AUI[1] (DB-15) | Token Ring (DB-9) | Serial (DB-60) | ISDN[2] BRI[3] (RJ-45) |
|---|---|---|---|---|
| Cisco 2501/ CPA2501 | 1 | – | 2 | – |
| Cisco 2502/ CPA2502 | – | 1 | 2 | – |
| Cisco 2503/ CPA2503 | 1 | – | 2 | 1 |
| Cisco 2504/ CPA2504 | – | 1 | 2 | 1 |
| Cisco 2513/ CPA2513 | 1 | 1 | 2 | – |
| Cisco 2514/ CPA2514 | 2 | – | 2 | – |
| Cisco 2515[4] | – | 2 | 2 | – |

1. AUI = attachment unit interface.
2. ISDN = Integrated Services Digital Network.
3. BRI = Basic Rate Interface.
4. A CPA2515 model is not available.

**Note** Throughout the remainder of the publication, one model number will be used in text references. For example, references to the model 2501 router will apply to both the Cisco 2501 and CPA2501 routers.

# Hardware Features

In addition to the interfaces listed in Table 1-1, the routers include the following hardware features:

- Dynamic random-access memory (DRAM) for main memory and shared memory
- Nonvolatile random-access memory (NVRAM) for storing configuration information
- Flash memory for running the Cisco IOS software
- EIA/TIA-232 console port for local system access using a console terminal
- EIA/TIA-232 auxiliary port for remote system access using a modem

**Note** EIA/TIA-232 and EIA/TIA-449 were known as recommended standards RS-232 and RS-449 before their acceptance as standards by the Electronic Industries Association (EIA) and Telecommunications Industry Association (TIA).

Figure 1-1 to Figure 1-7 show the rear panels of the router models discussed in this publication.

**Figure 1-1 Model 2501 Router Rear Panel**

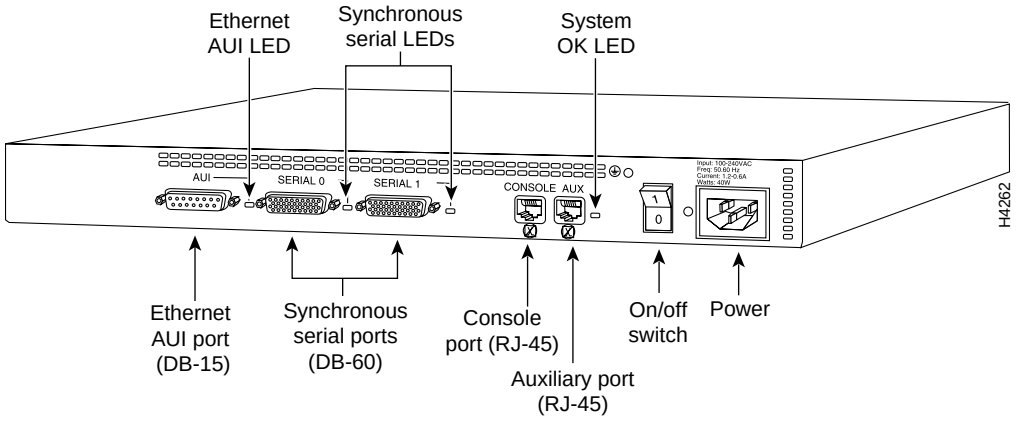



**Figure 1-2 Model 2502 Router Rear Panel**

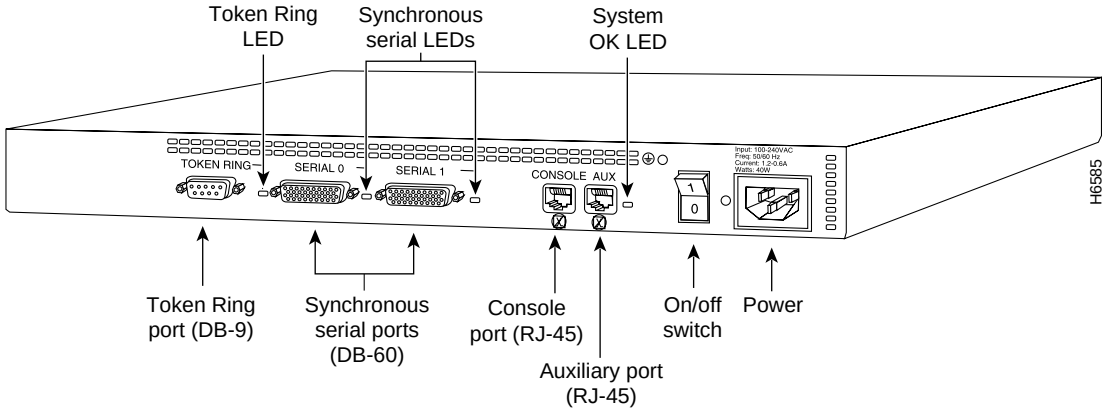


**Figure 1-3 Model 2503 Router Rear Panel**

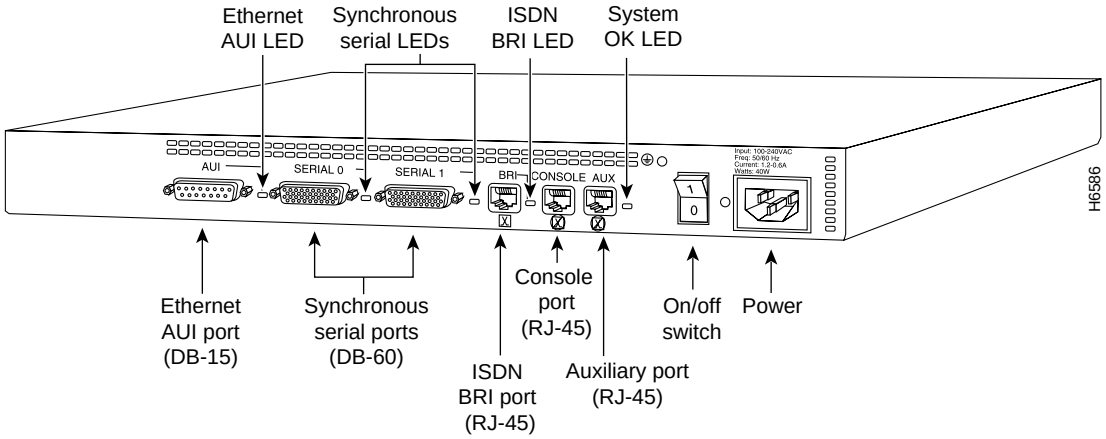



**Figure 1-4 Model 2504 Router Rear Panel**

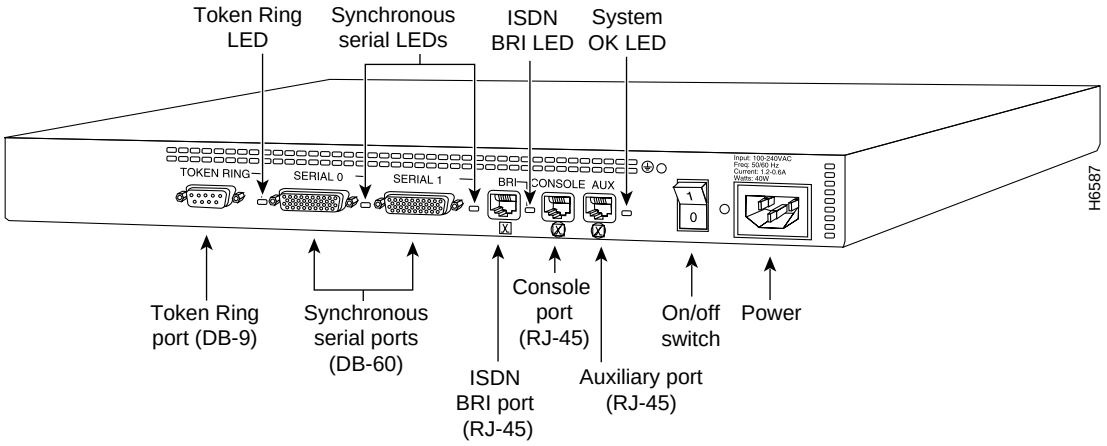


**Figure 1-5 Model 2513 Router Rear Panel**

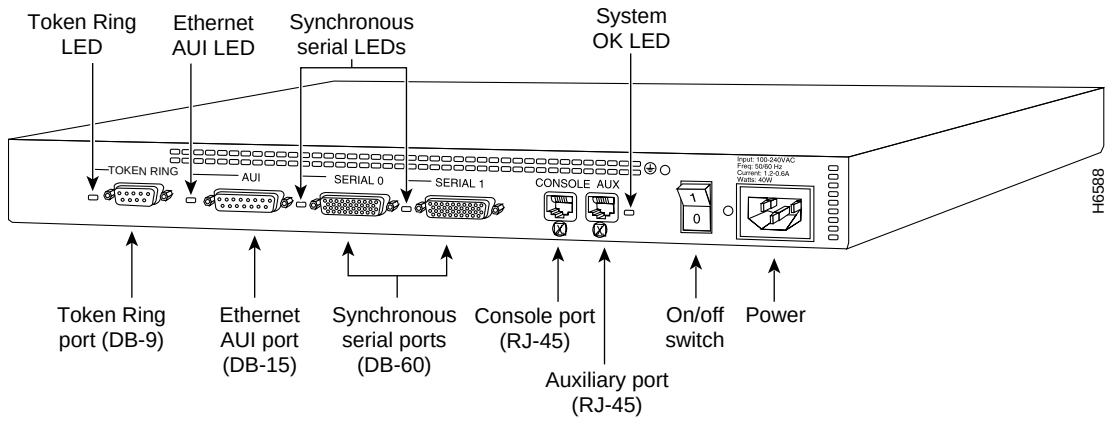



**Figure 1-6 Model 2514 Router Rear Panel**

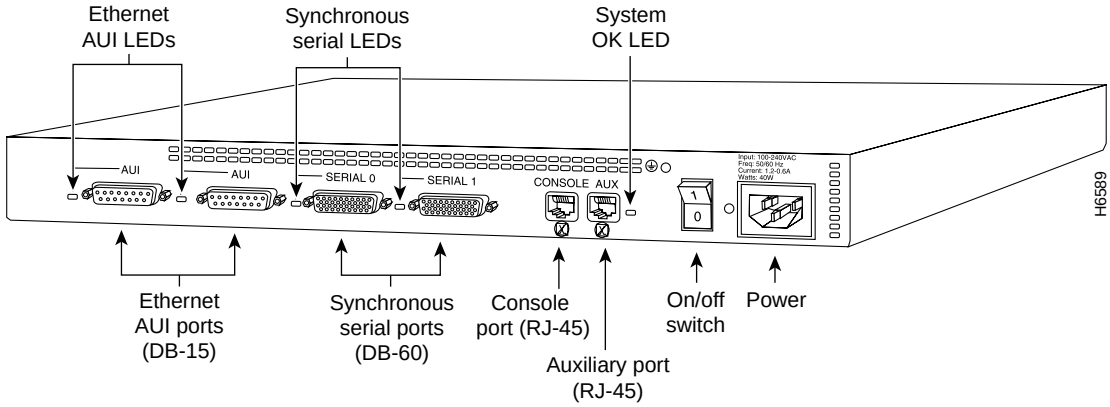
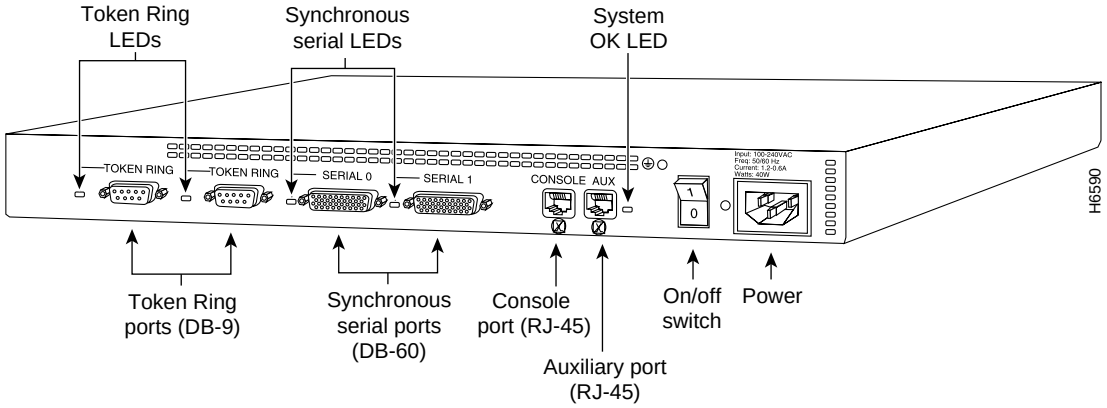


**Figure 1-7 Model 2515 Router Rear Panel**




# System Specifications

The system specifications of the routers are listed in Table 1-2.

**Table 1-2 System Specifications**

| Description | Specification |
|---|---|
| Dimensions (H x W x D) | 1.75 x 17.5 x 10.56 in. (4.44 x 44.45 x 26.82 cm), one rack unit |
| Weight | 10 lb (4.5 kg) |
| Input voltage, AC power supply<br>Current<br>Frequency<br>Power dissipation | 100 to 240 VAC<br>1.2 to 0.6A<br>50/60 Hz<br>40W (maximum), 135.5 Btus[1]/hr |
| Input voltage, DC power supply<br>Current<br>Power dissipation | 40W, 40 to 72 VDC<br>1.5 to 1.0A<br>40W (maximum), 135.5 Btus/hr |
| Processor | 20-MHz Motorola 68EC030 |

**Table 1-2 System Specifications (Continued)**

| Description | Specification |
|---|---|
| Interfaces | See Table 1-1 for a list of interfaces supported on each router model.<br>• Ethernet AUI (IEEE[2] 802.3) (DB-15)<br>• Token Ring (IEEE 802.5) (DB-9)<br>• Synchronous serial[3] (DB-60)<br>• ISDN BRI (RJ-45)[4]<br>• Console (RJ-45)<br>• Auxiliary (RJ-45) |
| Operating environment | 32 to 104°F (0 to 40°C) |
| Nonoperating temperature | –40 to 185°F (–40 to 85°C) |
| Operating humidity | 5 to 95%, noncondensing |
| Noise level | 34 dBa @ 3 ft (0.914 m) |
| Regulatory compliance | FCC Class A and Canadian DOC Class A<br>For more regulatory information, refer to the *Regulatory Compliance and Safety Information* document that accompanied your router. |

1. Btus = British thermal units.
2. IEEE = Institute of Electrical and Electronic Engineers.
3. The synchronous serial interface supports the following standards in data terminal equipment (DTE) and data communications equipment (DCE) mode: EIA/TIA-232, EIA/TIA-449, V.35, and X.21. The EIA-530 standard is supported in DTE mode only.
4. External network terminal 1 (NT1) device required.

# Obtaining Service and Support

For service and support for a product purchased from a reseller, contact the reseller. Resellers offer a wide variety of Cisco service and support programs, which are described in the information packet that shipped with your chassis.

**Note** If you purchased your product from a reseller, you can access Cisco Connection Online (CCO) as a guest. CCO is Cisco Systems' primary, real-time support channel.Your reseller offers programs that include direct access to CCO's services.

For service and support for a product purchased directly from Cisco, use CCO.

# Cisco Connection Online

CCO is Cisco Systems' primary, real-time support channel. SMARTnet customers and partners can self-register on CCO to obtain additional content and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously—a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com.
- WWW: http://www-europe.cisco.com.
- WWW: http://www-china.cisco.com.
- Telnet: cco.cisco.com.
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and baud rates up to 14.4 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

**Note** If you need technical assistance with a Cisco product that is under warranty or covered by a Cisco maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com.

Please use CCO to obtain general information about Cisco Systems, Cisco products, or upgrades. If CCO is not accessible, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

# Ordering Documentation

Documentation for Cisco products is available in three forms: on a CD-ROM, printed books, and on the World Wide Web. You have the option of subscribing to the documentation CD through an update service. Or you can order printed documentation at an additional cost. Refer to the information packet included with the router for detailed ordering information. You can also access Cisco documentation on the World Wide Web URL http://www.cisco.com.