

Cisco 4-Port E1 G.703 Serial Port Adapters

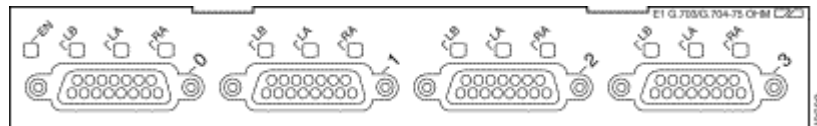
Cisco® 4-Port E1 Port Adapters supporting G.703 and G.704.

The Cisco 4-Port E1 G.703 Serial Port Adapters (PA-4E1G) provide up to four E1 synchronous serial interfaces, which are compatible with and specified by G.703/G.704. The port adapter network interfaces provide a connection between standard serial interfaces such as V.35 to telephone lines or post, telephone, and telegraph (PTT) networks. Each port adapter interface operates in full-duplex mode at E1 (2.048 Mbps) speed.

The port adapter interfaces do not operate in the data-terminal-equipment (DTE) and data-communications-equipment (DCE) modes that are typical of data communications interfaces; they operate with either a line-recovered or an internal clock signal. The default is for a line clock signal that the interface recovers from the received data stream. The interface can also operate with an internal clock signal. The port adapter generates the internal clock signal; the interface does not use the motherboard or system clock.

The Cisco 4-Port E1 G.703 Serial Port Adapters provide framed and unframed service access, E1 (2.048 Mbps) line speeds over unbalanced 75-ohm or balanced 120-ohm cable, with 15-pin, D-shell (DB-15) receptacles on the port adapter. Two unique port adapters support either balanced or unbalanced modes, not both (Figure 1).

Figure 1. Cisco 4-Port E1 G.703 Serial Port Adapters



Applications

The Cisco 4-Port E1 G.703 Serial Port Adapters provide up to four E1 synchronous serial interfaces, which are compatible with and specified by G.703/G.704. G.703 is the Consultative Committee for International Telegraph and Telephone (CCITT) standard for transmitting voice over digital carriers over an E1 circuit. G.703 provides the specifications for pulse code modulation at data rates from 64 kbps to 2 Mbps (E1). G.703 service is typically used for interconnecting DCE such as bridges, routers, and multiplexers and is transported over balanced (120-ohm twisted pair) or unbalanced (dual 75-ohm coaxial) cable supported by this port adapter. Whether the G.703 is balanced or unbalanced depends on your geographic location and the carrier that supplies the service. Balanced service is the most common around the world except for England and Holland. G.704 is the framing specification for G.703.

Key Features

Table 1 describes the features and benefits of the Cisco 4-Port E1 G.703 Serial Port Adapters.

Table 1. Features and Benefits of the Cisco 4-Port E1 G.703 Serial Port Adapter

Features
Operation Modes
Balanced 120-ohm or unbalanced 75-ohm

Product Specifications

Chassis and Processors

The Cisco 4-Port E1 G.703 Serial Port Adapter is supported on the platforms and processors listed in Table 2.

Table 2. Chassis and Processor Compatibility

Chassis	Processors
Cisco 7204VXR and Cisco 7206VXR	Cisco 7200 Series NPE-225 Network Processing Engine (NPE-225), NPE 400, and NPE-G1
Cisco 7301	NPE-G1
Cisco 7304	Cisco 7304 Internet Router NSE-100 Forwarding Engine (NSE-100) and NPE-G100
Cisco 7500	Versatile Interface Processor (VIP)
Cisco 7600	FlexWAN and Enhanced FlexWAN

Software Support

The Cisco 4-Port E1 G.703 Serial Port Adapter is supported in the following minimum Cisco IOS® Software releases per platform listed in Table 3.

Table 3. Chassis and Minimum Cisco IOS Software Release

Chassis	Minimum IOS Release
Cisco 7204VXR and Cisco 7206VXR	12.1 Mainline and above
Cisco 7301	12.3 Mainline and above
Cisco 7304	12.2(14)SZ and above
Cisco 7500	12.1S and above
Cisco 7600	12.2(17)SXB

Key Features

The Cisco 4-Port E1 G.703 Serial Port Adapters provide the following features and capabilities:

- Provides framed and unframed service access, E1 (2.048 Mbps) line speeds over unbalanced 75-ohm or balanced 120-ohm cable, with 15-pin, D-shell (DB-15) receptacles on the port adapter
- Operates over E1 leased-line services, and provides ITU-T G.703 with high-density bipolar of order 3 (HDB3) line encoding
- Operates with either an external or internal clock signal, and runs at wire speed
- Provides for local and remote loopback testing services
- Allows you to fractionalize a data stream into a single channel from 64 to 1984 kbps

- Provides G.704 framing for n x 64-kbps service support (where n = 1 to 31)
- Supports 4-bit cyclic redundancy check (CRC4) to provide and ensure data integrity
- Supports point-to-point connections to supported platforms
- Eliminates the need for a separate, external data termination unit that is typically used to convert standard serial interfaces, such as V.35, to E1-G.703/G.704

Product Specifications

Physical

- Dimensions (H x W x D): Approximately 1 x 6 5/8 x 7 inches (overall)

Safety and Compliance

- Emission requirement: EN55022
- Performance approvals: G.703 and G.704
- Safety approvals: UL 1950, CSA 22.2 No. 950, EN60950, AUSTEL TS001, AS/NZ 3260, and IEC 950
- The European Union's requirements as specified by approval number CE0168X
- The United Kingdom's requirements as specified by approval number 607113
- E1-G.703/G.704 interface on the port adapter compliance with BABT 221

Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#) and refer to Table 4.

Table 4. Ordering Information

Product Name	Part Number
Cisco 4-Port E1 G.703 Serial Port Adapter (120ohm/Balanced) Port Adapter	PA-4E1G/120
Cisco 4-Port E1 G.703 Serial Port Adapter (120ohm/Balanced) (SPARE)	PA-4E1G/120=
Cisco 4-Port E1 G.703 Serial Port Adapter (75ohm/Unbalanced)	PA-4E1G/75
Cisco 4-Port E1 G.703 Serial Port Adapter (75ohm/Unbalanced) (SPARE)	PA-4E1G/75=

Service and Support

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For More Information

For more information about the Cisco 4-Port E1 G.703 Serial Port Adapters, visit <http://www.cisco.com/en/US/products/hw/modules/ps2033/ps2956/index.html> or contact your local Cisco account representative.



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