



Preface

This preface describes the objectives and organization of this document and explains how to find additional information on related products and services. This preface contains the following sections:

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Document Revision History

The Document Revision History table below, beginning with version OL-3065-05, records technical changes to this document.

Document Version	Date	Change Summary
OL-3065-05	April, 2007	Adds Cisco 7201 router information.

Objectives

This document describes how to the install and configure the balanced (120-ohm) and unbalanced (75-ohm) E1-G.703/G.704 synchronous serial port adapters, PA-4E1G-120 and PA-4E1G-75, hereafter referred to as the PA-4E1G, which are used in the following platforms:

- Cisco 7100 series routers, consisting of the Cisco 7120 series and Cisco 7140 series
- Cisco 7200 series routers and Cisco 7200 VXR routers, consisting of the two-slot Cisco 7202, four-slot Cisco 7204, and the six-slot Cisco 7206
- Cisco uBR7200 series universal broadband routers, consisting of the six-slot Cisco uBR7246 and Cisco uBR7246VXR, and the three-slot Cisco uBR7223
- Cisco 7201 router
- Cisco 7301 router
- Cisco 7304 PCI Port Adapter Carrier Card in the Cisco 7304 router
- Cisco 7401ASR router

- VIP2 in Cisco 7500 series and Cisco 7000 series routers with the 7000 Series Route Switch Processor (RSP7000) and 7000 Series Chassis Interface (RSP7000CI)

**Note**

Cisco 7000 series and Cisco 7500 series routers require the VIP2-15 at minimum.

- VIP4 in Cisco 7500 series and Cisco 7000 series routers with the 7000 Series Route Switch Processor (RSP7000) and 7000 Series Chassis Interface (RSP7000CI)
- VIP6-80 in Cisco 7500 series and Cisco 7000 series routers with the 7000 Series Route Switch Processor (RSP7000) and 7000 Series Chassis Interface (RSP7000CI)

Organization

This document is organized into the following chapters:

Section	Title	Description
Chapter 1	Overview	Describes the PA-4E1G and its LED displays, cables, and receptacles.
Chapter 2	Preparing for Installation	Describes safety considerations, tools required, and procedures you should perform before the actual installation.
Chapter 3	Removing and Installing Port Adapters	Describes the procedures for installing and removing PA-4E1G port adapters in the supported platforms.
Chapter 4	Configuring the PA-4E1G	Provides instructions for configuring the PA-4E1G on the supported platforms.

Related Documentation

The documentation listed below is available online, on the Documentation CD-ROM, or as printed documents.

Your router, switch, or gateway and the Cisco IOS software running on it contain extensive features and functionality, which are documented in the following resources:

- Cisco IOS software:

For configuration information and support, refer to the modular configuration and modular command reference publications in the Cisco IOS software configuration documentation set that corresponds to the software release installed on your Cisco hardware.

**Note**

You can access Cisco IOS software configuration and hardware installation and maintenance documentation on the World Wide Web at <http://www.cisco.com>, <http://www-china.cisco.com>, or <http://www-europe.cisco.com>.

- Cisco AS5800 Universal Access Server:

For hardware installation and maintenance information and software configuration information, refer to the following publications:

- *Cisco AS5800 Universal Access Server Hardware Installation and Configuration Guide*
- *Cisco AS5800 Universal Access Server Software Installation and Configuration Guide*

- Cisco 7000 series routers:

- For an online directory to quickly access documents for Cisco 7000 series routers, refer to the *Cisco 7000 Series Routers Introduction* index at the following URL:

http://www.cisco.com/en/US/products/hw/routers/ps332/tsd_products_support_eol_series_home.html

- For hardware installation and maintenance information, refer to the following documents:

- *Cisco 7000 Hardware Installation and Maintenance* for your router.
- *Second-Generation Versatile Interface Processor (VIP2) Installation and Configuration*
- *Fourth-Generation Versatile Interface Processor (VIP4) Installation and Configuration*
- *Versatile Interface Processor (VIP6-80) Installation and Configuration Guide*

- Cisco 7100 series routers:

- For an online directory to quickly access documents for Cisco 7100 series routers, refer to the *Cisco 7100 Series Documentation* roadmap at the following URL:

http://www.cisco.com/en/US/products/hw/vpndevc/ps333/products_product_index09186a00800fa142.html

- For hardware installation and configuration information refer to the *Cisco 7100 Series VPN Router Installation and Configuration Guide*.
- For information on setting up a Virtual Private Network, refer to the *Cisco 7100 Series VPN Configuration Guide*.

- Cisco 7200 series routers:

- For an online directory to quickly access documents for Cisco 7200 series routers, refer to the *Cisco 7200 Series Routers Documentation Roadmap* at the following URL:

http://www.cisco.com/en/US/products/hw/routers/ps341/products_documentation_roadmap09186a00801c0915.html

- For hardware installation and configuration information (including the Cisco 7206 or Cisco 7206VXR as a router shelf in a Cisco AS5800 Universal Access Server), refer to the online installation and configuration guide and quick start for your Cisco 7200 series router.
- For port adapter hardware and memory configuration guidelines, refer to the *Cisco 7200 Series Port Adapter Hardware Configuration Guidelines*.
- For information on network processing engines or network services engines, refer to the *Network Processing Engine and Network Services Engine Installation and Configuration* document.

- Cisco 7200 VXR routers:
 - For an online directory to quickly access documents for Cisco 7200 VXR routers, refer to the *Cisco 7200 Series Routers Documentation Roadmap* at the following URL:
http://www.cisco.com/en/US/products/hw/routers/ps341/products_documentation_roadmap09186a00801c0915.html
 - For hardware installation and maintenance information, refer to the *Cisco 7200 VXR Installation and Configuration Guide* or the *Cisco 7200 VXR Routers Quick Start Guide*.
- Cisco uBR7200 series routers:
 - For an online directory to quickly access documents for Cisco uBR7200 Universal Broadband routers, refer to the *Cisco uBR7200 Universal Broadband Router Documentation Roadmap* at the following URL:
http://www.cisco.com/en/US/products/hw/cable/ps2217/products_documentation_roadmap09186a00805e0d0c.html
- Cisco 7201 router:
 - For an online directory to quickly access documents for the Cisco 7201 router, refer to the *Cisco 7201 Router Documentation Roadmap* at the following URL:
http://www.cisco.com/en/US/customer/products/hw/routers/ps341/products_documentation_roadmap09186a00807f635a.html
 - For hardware installation and maintenance information, refer to the *Cisco 7201 Installation and Configuration Guide* or the *Cisco 7201 Router Quick Start Guide*.
- Cisco 7301 router:
 - For an online directory to quickly access documents for the Cisco 7301 router, refer to the *Cisco 7301 Internet Router Documentation Roadmap* at the following URL:
http://www.cisco.com/en/US/products/hw/routers/ps352/products_documentation_roadmap09186a00801c0f21.html
 - For hardware installation and maintenance information, refer to the *Cisco 7301 Installation and Configuration Guide* or the *Cisco 7301 Router Quick Start Guide*.
- Cisco 7304 PCI port adapter carrier card in Cisco 7304 router:
 - For an online directory to quickly access documents for the Cisco 7304 PCI Port Adapter Carrier Card in the Cisco 7301 router, refer to the *Cisco 7304 Router Line Card, Carrier Card, Port Adapter, Modular Services Card, and Shared Port Adapter Documentation Roadmap* at the following URL:
http://www.cisco.com/en/US/products/hw/routers/ps352/products_documentation_roadmap09186a00801c0f5e.html
 - For hardware installation and maintenance information, refer to the *Cisco 7304 PCI Port Adapter Carrier Card Installation and Configuration Guide*.
- Cisco 7401ASR router:
 - For an online directory to quickly access documents for the Cisco 7401ASR router, refer to the *Cisco 7401ASR Router Documentation Roadmap* at the following URL:
http://www.cisco.com/en/US/products/hw/routers/ps354/products_documentation_roadmap09186a00801c0fd5.html
 - For hardware installation and maintenance information, refer to the *Cisco 7401ASR Installation and Configuration Guide* or the *Cisco 7401ASR Router Quick Start Guide*.

- Cisco 7500 series routers:
 - For an online directory to quickly access documents for the Cisco 7500 series routers, refer to the *Cisco 7500 Series Routers Documentation Roadmap* at the following URL:
http://www.cisco.com/en/US/products/hw/routers/ps359/products_documentation_roadmap09186a00801c0f9b.html
 - For hardware installation and maintenance information, refer to the following documents:
 - *Cisco 7500 Series Installation and Configuration Guide* or the quick start for your Cisco 7500 series router.
 - *Second-Generation Versatile Interface Processor (VIP2) Installation and Configuration*
 - *Fourth-Generation Versatile Interface Processor (VIP4) Installation and Configuration*
 - *Versatile Interface Processor (VIP6-80) Installation and Configuration Guide*
- For international agency compliance, safety, and statutory information for WAN interfaces, refer to the following documents. Use the documentation roadmap for your particular router to link to the appropriate documents for your router:
 - *Cisco AS5800 Universal Access Server Regulatory Compliance and Safety Information*
 - *Regulatory Compliance and Safety Information for the Cisco 7000 Series Routers*
 - *Regulatory Compliance and Safety Information for Cisco 7100 Series VPN Routers*
 - *Regulatory Compliance and Safety Information for the Cisco 7200 Series Routers*
 - *Regulatory Compliance and Safety Information for the Cisco uBR7200 Series Universal Broadband Routers*
 - *Regulatory Compliance and Safety Information for the Cisco 7301 Internet Router*
 - *Regulatory Compliance and Safety Information for the Cisco 7304 Internet Router*
 - *Regulatory Compliance and Safety Information for the Cisco 7401ASR Internet Router*
 - *Regulatory Compliance and Safety Information for the Cisco 7500 Series Routers*
 - *Site Preparation and Safety Guide*

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly What's New in Cisco Product Documentation, which also lists all new and revised technical documentation at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

