Cisco ASR 9000 Series Shared Port Adapter Support

Product Overview

The Cisco® Interface Flexibility (I-Flex) design combines shared port adapters (SPAs) and SPA interface processors (SIPs), taking advantage of an extensible design that facilitates service prioritization for voice, video, and data services. SPAs provide the physical interfaces for router connectivity ranging from copper, Channelized, Packet over SONET/SDH (PoS) and ATM. The Cisco ASR 9000 Series SIP provides the physical termination for the SPAs and accepts up to four half-height and two full-height Cisco SPAs. Customers can take advantage of improved slot economics resulting from modular port adapters that are interchangeable across Cisco routing platforms. The I-Flex design maximizes connectivity options and offers powerful service intelligence through programmable interface processors that deliver line-rate performance. I-Flex enhances speed-to-service revenue and provides a rich set of quality-of-service (QoS) features for premium service delivery while effectively reducing the overall cost of ownership. Figure 1 shows the Cisco ASR 9000 Series SIP.

Figure 1.   Cisco ASR 9000 Series SPA Interface Processor

Modular port adapters and programmable interface processors, which are interchangeable across Cisco carrier routing platforms, help customers protect network investments and reduce total cost of ownership. The Cisco SPA/SIP portfolio offers a rich set of quality-of-service (QoS) features for premium service delivery.

Features and Benefits

The Cisco SPA/SIP portfolio offers many advantages, including:

- Industry's most modular, flexible, intelligent interface processors:
  - Powerful flexibility provides mix-and-match interface types on the same interface processor for consistent services, independent of access technology.
  - Pioneering programmable interface processors provide flexibility for the service diversity required in next-generation networks.
  - The innovative design provides intelligent delivery of services without compromising on performance.

- Increased speed to service revenue:
  - Interface breadth (copper, Channelized, PoS and ATM) on a modular interface processor allows service providers to more quickly roll out new services, helping ensure that all customers large and small receive consistent, secure, and guaranteed services.
  - High-density Small Form-Factor Pluggable (SFP) interfaces are featured for high-port-count applications with reach flexibility. Future optical technology improvements can be adopted using existing SPAs.

Product Specifications

For product specifications for all Cisco SPAs, please visit the following website: http://www.cisco.com/en/US/products/ps6267/prod_module_series_home.html. Table 1 gives ordering information.

Table 1.　　**Table 1.** Ordering Information

Product Name	Product Number
ASR9000 SPA Interface Processor	
Cisco ASR 9000 Series SPA Interface Processor 700	A9K-SIP700
ATM SPA	
Cisco 1-Port Clear Channel OC3 ATM Shared Port Adapter	SPA-1XOC3-ATM-V2
Cisco 3-Port Clear Channel OC3 ATM Shared Port Adapter	SPA-3XOC3-ATM-V2
Cisco 1-Port OC12 STM Shared Port Adapter	SPA-1XOC12-ATM-V2
Cisco 1 Port Channelized OC3/STM-1 ATM and Circuit Emulation SPA	SPA-1CHOC3-CE-ATM
Cisco 2-Port T3/E3 Circuit Emulation over Packet Shared Port Adapter	SPA-2CHT3-CE-ATM
Cisco 24-Port T1/E1 Circuit Emulation over Packet Shared Port Adapter	SPA-24CHT1-CE-ATM
Serial and Channelized SPA	
Cisco 8-Port Channelized T1/E1 Shared Port Adapter	SPA-8XCHT1/E1
Cisco 4-Port Channelized T3 (DS0) Shared Port Adapter	SPA-4XCT3/DS0
Cisco 1-port Channelized STM-1/OC-3c to DS0 Shared Port Adapter	SPA-1XCHSTM1/OC3
Cisco 2-Port Clear Channel T3/E3 Shared Port Adapter	SPA-2XT3/E3
Cisco 4-Port Clear Channel T3/E3 Shared Port Adapter	SPA-4XT3/E3
Cisco 2-port Channelized OC12/STM-4 SPA	SPA-2XCHOC12/DS0
Cisco 1-port Channelized OC48/STM-16 SPA	SPA-1xCHOC48/DS3

Product Name	Product Number
Packet Over Sonet SPA (POS)	
Cisco 4-Port OC3c/STM-1c POS Shared Port Adapter	SPA-4XOC3-POS
Cisco 8-port OC3/STM4 POS Shared Port Adapter	SPA-8XOC3-POS
Cisco 2-Port OC12/STM4 POS Shared Port Adapter	SPA-2XOC12-POS
Cisco 4-Port OC12/STM4 POS Shared Port Adapter	SPA-4XOC12-POS
Cisco 8-port OC12/STM4 POS SPA Shared Port Adapter	SPA-8XOC12-POS
Cisco 1-port OC48/STM16 POS/RPR Shared Port Adapter	SPA-1XOC48POS/RPR
Cisco 2-port OC48/STM16 POS/RPR Shared Port Adapter	SPA-2XOC48POS/RPR
Cisco 4-port OC48/STM16 POS/RPR Shared Port Adapter	SPA-4XOC48POS/RPR
Cisco 1-Port OC-192c/STM-64c POS/RPR Shared Port Adapter with XFP Optics	SPA-OC192POS-XFP

Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help to protect your network investment, optimize network operations, and prepare the network for new applications to extend network intelligence and the power of your business. For more information about Cisco Services, refer to Cisco Technical Support Services or Cisco Advanced Services.

For More Information

For more information about the Cisco SPAs, visit www.cisco.com/en/US/products/ps6267/prod_module_series_home.html or contact your local Cisco account representative.

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