Cisco CRS Flexible SPA and 6-port 10GE PLIM

Product Overview

The Cisco CRS Flexible PLIM is a Next Generation PLIM, which provides the flexibility and supports both: Cisco SPA (Shared Port Adapter) as well as integrated 10GE ports built into the PLIM itself. With four SPA bays available in the PLIM, those customers with any existing SPA install base can migrate their SPA infrastructure to CRS. With the CRS Flexible PLIM, the customers can also utilize built-in 6-ports of 10GE. These 6 x 10GE ports support multiple framing options including the new OTN framing on top of the WAN and LAN PHY framing. Also, the 10GE ports will support Tunable DWDM optics, turning the 6-ports into 10GE IPoDWDM interfaces.

Figure 1.

Features and Benefits

The Cisco CRS Flexible PLIM provides the following features.

- Four SPA bays
- Six 10GE ports fixed in the faceplate
- DWDM Tunable Optics support
- LAN/WAN/OTN Framing support

With the features listed above, Cisco CRS Flexible PLIM provides the following benefits.

- Cisco CRS Flexible PLIM extends the current generation of the Cisco® I-Flex design combining shared port adapters (SPAs) and SPA interface processors (SIPs), leveraging an extensible design that enables service prioritization for voice, video and data services.
- Enterprise and service provider customers can take advantage of improved slot economics resulting from modular port adapters that are interchangeable across Cisco routing platforms.
- Investment protection on the existing SPA interfaces from CRS-1, GSR and 7600 platforms
- Low speed interface support on CRS next work infrastructure
- 10 Gigabit OTN framing support in addition to LAN/WAN Phy support on CRS platform
- Up to six 10GE IPoDWDM interfaces with DWDM Tunable optics
- Slot consolidation with SPA and 10GE interfaces on the same slots on CRS systems

SPA Support List

Following table shows the list of SPA's which will be support at the time of release and subsequent releases in the future.

Table 1.   List of SPA's Supported

IOS XR Release	Type of Interface	Supported SPA's
4.3.0	POS	SPA-OC192POS-XFP SPA-4XOC48POS/RPR
	Ethernet	SPA-8X1GE-V2
4.3.1 (Planned)	POS	SPA-8XOC12-POS SPA-4XOC12-POS SPA-8XOC3-POS SPA-4XOC3-POS
4.3.2 (Planned)	POS	SPA-2XOC48POS/RPR SPA-4XOC3-POS-V2
	Ethernet	SPA-1X10GE-WL-V2 SPA-1X10GE-L-V2 SPA-10X1GE-V2
Post 4.3.2 (Planned)	POS	SPA-2XOC12-POS
	Ethernet	SPA-5X1GE-V2

Licensing

For OTN framing support on Cisco CRS Flexible PLIM, the following license will be required for each CRS Flexible PLIM installed on the system.

- CRS-OTN-LIC – Cisco CRS Series OTN License Physical Interface Module

Product Specifications

Table 2.   Product Specifications

Description	Specification
Chassis Compatibility	• Compatible with all current Cisco CRS line-card chassis with 140G Fabric Cards • Requires Cisco 140G Modular Services Card or 140G Forwarding Processor Card for operation
Interfaces	• 6 x 10GE interfaces built in • 4 x SPA bays
Reliability and availability	• Line-card online insertion and removal (OIR) support without system impact
Network management	• Cisco IOS XR Software command-line interface (CLI) • Simple Network Management Protocol (SNMP) • Extensible Markup Language (XML) interface • CraftWorks Interface (CWI) • Cisco Active Network Abstraction (ANA)
Physical dimensions (HxWxD)	• Height: 20.6 in. (52.2 cm) • Depth: 11.2 in. (28.4 cm) • Width: 1.8 in. (4.49 cm)
Power	108 Watts
Storage temperature range	–40 to 70℃ (–40 to 158℉)

Description	Specification
Operating Temperature range	• Normal: 5 to 40°C (41 to 104°F) • Short term: –5 to 50°C (23 to 122°F) * Short term refers to a period of not more than 96 consecutive hours and a total of not more than 15 days in one year. (This refers to a total of 360 hours in any given year, but no more than 15 occurrences during that one-year period.)
Relative Humidity range	• Normal: 5 to 85% • Short term: 5 to 90% but not to exceed 0.024 kg of water per kg of dry air * Short term refers to a period of not more than 96 consecutive hours and a total of not more than 15 days in one year. (This refers to a total of 360 hours in any given year, but no more than 15 occurrences during that one-year period.)
Additional specifications	Enter specification description

Table 3.   Approvals and Compliance

Standard	Description
Safety Standards	• UL/CSA/IEC/EN 60950-1 • AS/NZS 60950.1
EMI[1]	• FCC Class A • ICES 003 Class A • AS/NZS 3548 Class A • CISPR 22 (EN55022) Class A • VCCI Class A
Immunity (basic standards)[2]	• IEC/EN-61000-4-2: Electrostatic Discharge Immunity (8-kV Contact, 15-kV Air) • IEC/EN-61000-4-3: Radiated Immunity (10V/m)
ETSI and EN	• EN300 386: Telecommunications Network Equipment (EMC) • EN55022: Information Technology Equipment (Emissions) • EN55024: Information Technology Equipment (Immunity) • EN50082-1/EN-61000-6-1: Generic Immunity Standard
Network Equipment Building System (NEBS)	This product is designed to meet the following requirements (qualification in progress): • GR-1089-CORE: NEBS EMC and Safety • GR-63-CORE: NEBS Physical Protection

Warranty Information

Find warranty information on Cisco.com at the Product Warranties page.

Ordering Information

To place an order, visit the Cisco Ordering Home Page. To download software, visit the Cisco Software Center.

Table 4.   Ordering Information

Product Name	Part Number
Cisco CRS Flexible PLIM	6-10GE-WLO-FLEX(=)

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1   For a full list of Compliance specifications, please see the Regulatory Compliance and Safety Information for the Cisco CRS Carrier Routing System.
2   For a full list of Compliance specifications, please see the Regulatory Compliance and Safety Information for the Cisco CRS Carrier Routing System.

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