

Prisma IP™ Optical Packet Transport System RPR over SONET/SDH Ring Interface Card

Description

The support of SONET ring interfaces in the Prisma IP™ system enables network operators to deploy new, high bandwidth, managed services over legacy networks. Designed to integrate smoothly into existing networks, Prisma IP allows operators to derive the greatest performance and revenue potential from existing SONET/SDH infrastructures.

Resilient Packet Ring (RPR) and MPLS technologies enable network operators to offer high revenue voice, video, and data services to residential and business customers. The bandwidth efficiency, resiliency, and simple end-to-end provisioning allow operators to more quickly and cost-effectively deploy new services. Key applications include:

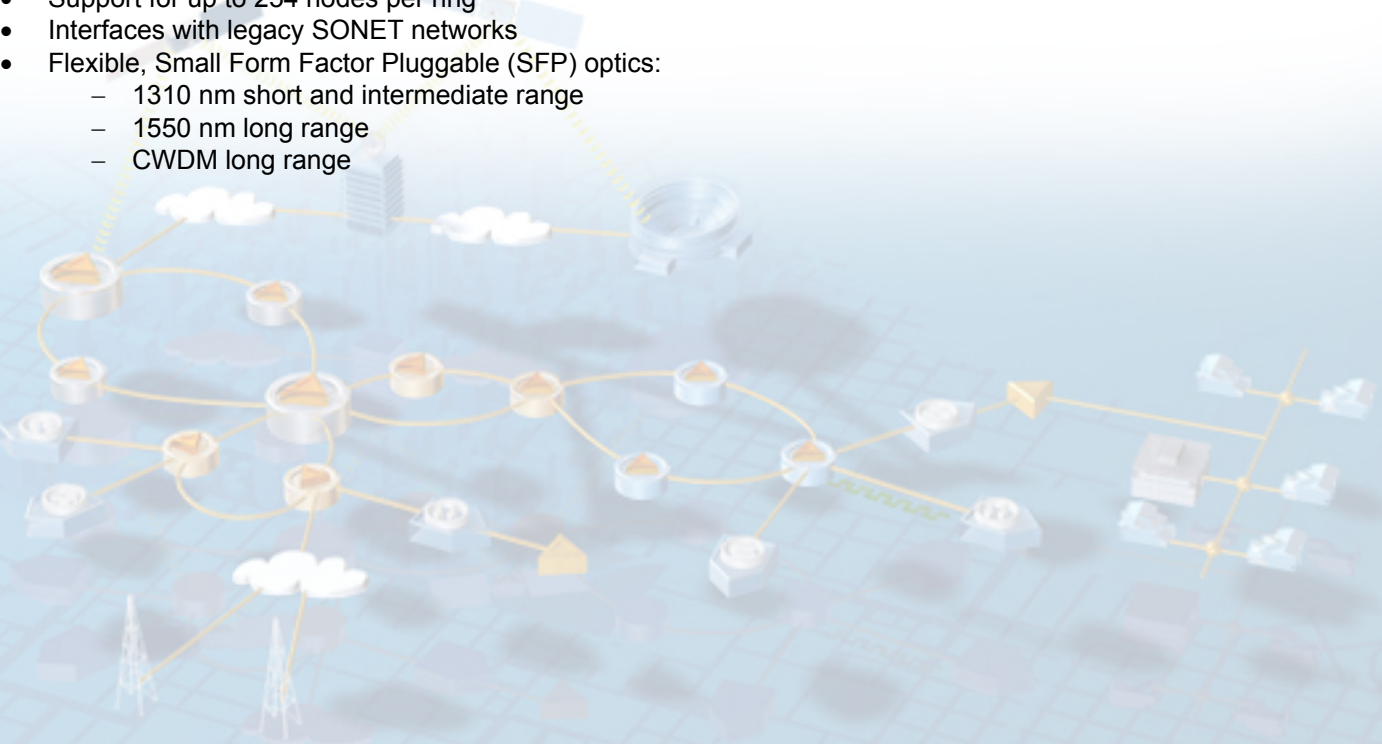
- Transparent LAN Service
- Video Transport
- Ethernet Transport
- TDM Private Line Transport



The RPR over SONET/SDH interface cards support SONET OC-3 to OC-48 (SDH STM-1 to STM-16) rates. Ring speed is software selectable. The Prisma IP ring I/O card is the main optical transceiver interface between the Prisma IP shelf and the optical transport network. Each RPR ring I/O card supports two pluggable optic modules transmitting and receiving packet data to and from adjacent nodes.

Features

- Sub 50 ms restoration time for protection switching
- Software selectable OC-3c/STM-1, OC-12c/STM-4, or OC-48c/STM-16 SONET/SDH ring
- Supports Generic Framing Procedure (GFP)
- Timing Port for external Stratum-level timing source
- Deployable in Prisma IP M- or C-series chassis
- Standard compliant - GR253 (SONET) and ITU-T G.707 (SDH)
- Support for up to 254 nodes per ring
- Interfaces with legacy SONET networks
- Flexible, Small Form Factor Pluggable (SFP) optics:
 - 1310 nm short and intermediate range
 - 1550 nm long range
 - CWDM long range



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General Specifications

Data Rates	
Supported Line/Data Rates	OC-3c / STM-1 SONET/SDH OC-12c / STM-4 SONET/SDH OC-48c / STM-16 SONET/SDH
Status Monitoring and Control	
Local Monitoring and Control	Front Panel LEDs and Syscon Command Line Interface (CLI)
Remote Monitoring and Control	Syscon CLI Access via Telnet EMS Client/Server with Graphical User Interface (GUI) Syscon SNMP Traps to Network Manager
Physical & System Specifications	
Dimensions	Double-width Prisma IP card slot (rear)
Operating Temperature	0°C to 40°C
Operating Humidity	5 to 85% non-condensing
Operating Altitude	Up to 4,000 meters
Optical Connections	Small Form Factor Pluggable (SFP) optics
Timing Port Connection	RJ-48c, T1/E1 BITS
Agency Compliance	
SONET	GR-253
SDH	ITU-T G.707
Safety	UL, cUL, TUV
Emissions	FCC Part 15B Class A, IECS-003 Class A

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Ordering Information

The RPR over SONET/SDH Ring Interface Card can only be used with the 20Gig RPT G2 Switch Fabric cards (part numbers #1002039 and #1002900) and system software release R 7.0 or higher.

RPR over SONET Interface Card

Description	Part Number
RPR over SONET I/O Card	1002298

Small Form Factor Pluggable (SFP) Optics Modules

Rate SONET / SDH	Reach (km)	Wavelength (nm)	Part Number
OC-12c / STM-4	15	1310	1002430
OC-3c / STM-1	30	1310	1002391
OC-12c / STM-4	30		
OC-48c / STM-16	20		
OC-3c / STM-1	100	1550	1002393
OC-12c / STM-4	100		
OC-48c / STM-16	70		
OC-48c / STM-16	70	1470 (CWDM)	1002415
OC-48c / STM-16	70	1490 (CWDM)	1002416
OC-48c / STM-16	70	1510 (CWDM)	1002417
OC-48c / STM-16	70	1530 (CWDM)	1002418
OC-48c / STM-16	70	1550 (CWDM)	1002026
OC-48c / STM-16	70	1570 (CWDM)	1002419
OC-48c / STM-16	70	1590 (CWDM)	1002420
OC-48c / STM-16	70	1610 (CWDM)	1002421



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