

Digital Transport

Prisma IP™ Gigabit Ethernet Line Card Optical Interface for Ethernet Services

Ethernet Card for Packet Aggregation or Routing

Scientific-Atlanta's Prisma IP™ optical access switches deliver a new level of carrier-class reliability and performance to Metropolitan Area Networks (MANs). This packet-based platform provides full support for legacy voice and circuit services, while delivering a range of new differentiated data services.

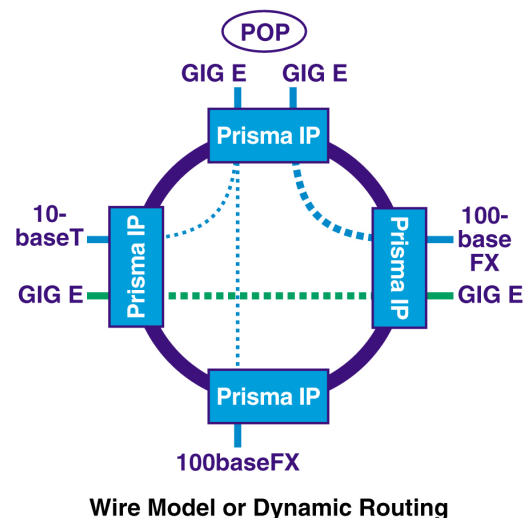
Ethernet has emerged as the dominant LAN technology, and Gigabit Ethernet is rapidly becoming the key interface for metro Ethernet access. The Prisma IP Gigabit Ethernet line card provides carriers with a flexible interface to support applications such as rate limiting Virtual LAN (VLAN), and Ethernet/IP aggregation services. This standards-based interface card offers support for rate-limiting capabilities, packet aggregation, routing, and superior bandwidth management. Prisma IP is based on Resilient Packet Transport (RPT), a superset of the emerging Resilient Packet Ring (RPR) protocol (IEEE 802.17). Prisma IP provides carrier-class service for metropolitan optical networks requiring the highest level of availability, survivability, and scalability.

Features

- IEEE 802.3 compliant
- Modular GBIC form factor interfaces
- Hot swappable without service interruption
- Forwarding and queuing
- High packet throughput for line-rate forwarding
- Individual port assignment to wire or routing modes
- Rate-limiting of bandwidth per individual port
- Short, intermediate, and long-reach optics
- Compatible with both M-Series and C-Series Prisma IP chassis

Metro Ethernet Transport, Routing and Aggregation

The Prisma IP Gigabit Ethernet line card is optimized for IP/Ethernet transport and aggregation and provides Layer 2/3 support for switching and routing. User ports can be configured for wire transport or for dynamic routing. Bandwidth provisioning in 64 Kbps increments is provided for each individual user port or VLAN. Classification of packets per DiffServ is provided for up to three different classes. The Gigabit Ethernet line card supports several fiber interfaces and offers auto-sensing/auto-negotiating ports. These fiber interfaces include short, intermediate and long-reach optics. Intra-card routing and switching is provided via an internal routing table and switch fabric located on each individual card. The Gigabit Ethernet line card can be used as an aggregation point into a core WAN or other metro ring.



Prisma IP Gigabit Ethernet User Card

Specifications

Prisma IP Gigabit Ethernet Line Card Specifications	
Width	Single slot
Operating temperature	0° to 50°C / 32° to 122°F (extended operation above 40° C / 104° F not recommended)
Storage temperature	-40°C to 70°C / -40°F to 158°F
Humidity	5% to 85% (non-condensing)
Power	45 watts
Number of ports per card	2 ports per card
Specifications	- 1000 SX short wave multi-mode Laser 850 nm, up to 550 m - 1000 LX long wave single-mode Laser, 1310 nm, up to 10 km - 1000 LX-H long wave single mode Laser, 1550 nm, up to 70 km
Protocols	802.1 p/Q, OSPF, MPLS
Standards	IEEE 802.3z
Connectors	Type SC GBICS
	- SX
	- LX
	- LX-H
Protection	N/A
Performance parameters	Packet loss statistic
	Errored packets
	Conforms to statistics RFC2665
Provision parameters (per port)	- Maximum burst rate
	- Committed bandwidth
	- Full duplex
	- Protected or unprotected service
	- Class of Service
Port classifications	Per DiffServ model
	- Express forwarding (toll-quality)
	- Assured forwarding
	- Best effort
Non-conformance options (per port)	- No action
	- Discard excessive packets
	- Mark down to next class
Agency compliance	Safety: UL, CUL & TÜV
	Emissions: FCC Part 15B & CE
	Telecom requirements: