Commercial Services

Scientific Atlanta

Prisma® Optical Media Converters CWDM FiberLinX Modules

Remotely Managed Optical Access

Prisma® FiberLinX modules are field-proven in Optical Ethernet, FTTx and campus area network applications worldwide.

Service providers who provide customers with Transparent LAN services must be able to remotely manage customer premises' equipment while keeping management and customer data traffic completely separated. Designed to meet the needs of service providers and administrators of enterprise campus networks, Prisma FiberLinX modules provision point-to-point fiber optic connections and provide a management tool to monitor the entire link between two locations.

The Prisma FiberLinX modules connect two remote networks over fiber and allow administrators to observe both end-points and the fiber link between them as a single management entity and not as separate elements. Host management traffic is not visible to the remote or customer network. Access to the customer network is not required, allowing end-to-end data integrity. Prisma FiberLinX modules allow for remote configuration and alert administrators to any potential problems on the long-haul fiber run, provide vital information on link condition, and reports data traffic statistics. In addition, the modules reduce the total cost of network equipment by functioning as a copper-to-fiber media converter, allowing lower-cost copper switches to be deployed at both ends of the fiber connection.

Offering outstanding flexibility, Prisma FiberLinX modules include one 100 Mbps fiber port with CWDM technology (10 wavelengths available), one 10/100 twisted pair data port, and an additional 10/100 twisted pair port for management. Twisted pair ports auto-negotiate or can be manually set for 10 or 100 Mbps, and half- or full-duplex. The Prisma FiberLinX module VLAN functionality is extremely versatile, allowing installation in virtually any environment. Prisma FiberLinX modules support a full-range of VLAN IDs, and offer a 2-tier queue for differential prioritization. Available as a module for installation in any Prisma MediaCenter™ Chassis or Prisma MediaCPE™ Chassis, Prisma FiberLinX also includes the FiberAlert feature for troubleshooting, as well as bi-directional bandwidth control.

Prisma FiberLinX modules are easy to configure with graphical user interface (GUI)-based PrismaView™ SNMP management application software. The PrismaView application provides operational and system health information, and the ability to control various functions of Prisma FiberLinX modules. SNMP traps alert administrators to potential network failures, reduce administrative overhead, and increase network integrity and uptime. Information reported from Prisma FiberLinX modules via SNMP services includes LAN packets received and transmitted, errors, and port status (see Prisma MIB Specifications). This allows network administrators to keep networks running in peak condition. The PrismaView application is available in several versions and can also function as a snap-in module for Hewlett-Packard OpenView Network Node Manager. Please contact us for assistance in selecting the right version of the PrismaView application for your operating system.

Features

- All management traffic remains isolated from the remote LAN
- 802.1Q and 802.1p compatible - Installs in a wide variety of VLAN and non-VLAN environments
- Provides differential priority and bidirectional bandwidth control
- Remotely configure initial settings
- Manage and monitor fiber traffic between switches or routers and receive vital system health information and notification should problems occur
- Minimizes costs of building and operating networks - Avoid unnecessary service calls; Deploy less expensive copper switches at both ends
- Includes GUI-based PrismaView SNMP management application software
- Includes three Loopback Testing modes
- Includes broadcast storm protection
- SNMP V2c compatible
- Auto MDI-II/MDI-X on data and external management transmit ports

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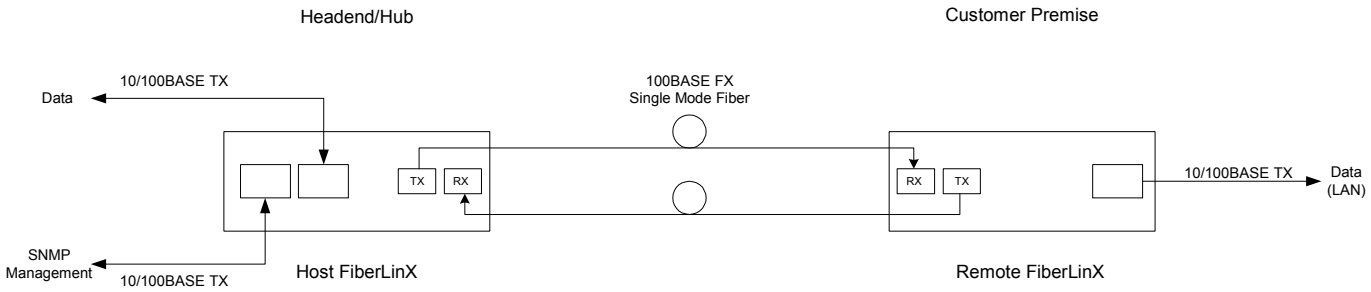
Application

When used in pairs, a Prisma FiberLinX module configured as a Host resides at the headend while another Prisma FiberLinX module configured as a Remote, is installed at the remote customer location, typically on the network edge where the customer network meets the service provider infrastructure. Via SNMP, the Prisma FiberLinX solution monitors the entire link and ensures data integrity while remaining isolated and completely transparent to the customer LAN. A Prisma FiberLinX module can be configured as a Standalone for a single-solution (CPE) application.



CWDM FiberLinX Modules

Specifications

Optical	
Wavelength Spacing	20 nm
Tx Wavelength	nominal ± 6 nm
Tx optical output range	-3 to +2 dBm
Rx optical input range	+2 to -36 dBm

Electrical	
Twisted Pair Data Port	IEEE 802.3 10Base-T/100Base-TX for data; RJ-45 connector; Half/Full-Duplex operation
Fiber Data Port	IEEE 802.3 100Base-FX for data; SC connectors; Half/Full-Duplex operation
Twisted Pair Management Port	IEEE 802.3 10Base-T/100Base-TX for management; RJ-45 connector; Half/Full-Duplex operation; can also function as serial port
Standards Compliance	IEEE 802.1Q VLAN, 802.1p and 802.3x Flow Control
Bandwidth Control	Dynamic bandwidth control (32 Kbps increments) via GUI-based management software
Cut Through Latency	< 15 us for 2 MediaConverters back-to-back, 64 byte frame size, 100% line utilization, bidirectional traffic

Prisma MIB	MIB-II (RFC 1213)	Transmission Dot 3 (RFC1643)
Link Status of Ports	Packets Transmitted	Alignment Errors
Port Type	Packets Received	Single Collision Frames
Fiber Type	Octets (bytes) Transmitted	Multiple Collision Frames
SNMP Port (Host/Remote)	Octets (bytes) Received	SQE Test Errors
SNMP Agent IP Address (Host/Remote/Single)	Plus All Standard MIB II Objects	Deferred Transmissions
Link Partner		Late Collisions
Traps (Cold Start, Warm Start, Link Up, Link Down, Authentication Failure, Remote Unit Lost, Remote Unit Back Online, Far End TX Link On and Far End TX Link Off)		Excessive Collisions
User-Definable Name of Product		Carrier Sense Errors
User-Definable ID/Name of Each Port		Frame Too Long
Enable/Disable Ports		Internal MAC Transmit Errors
Enable/Disable FiberAlert*		Internal MAC Receive Errors
Set Duplex Mode for Fiber Ports		
Set Auto-Negotiation/Speed for Twisted Pair Ports		
Specify the management port		

NOTE: Functions/features in blue are configurable via the software, all others listed can be monitored.

FiberAlert is not available on single-strand fiber versions.

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Ordering Information

The Prisma FiberLinX modules listed below install in any Prisma MediaCenter or Prisma MediaCPE chassis.

Prisma FiberLinX Modules – SC/APC	Part Number
Prisma FiberLinX/CWDM, TX/FX-SM1430-SC/APC [80km]	4005074
Prisma FiberLinX/CWDM, TX/FX-SM1450-SC/APC [80km]	4005075
Prisma FiberLinX/CWDM, TX/FX-SM1470-SC/APC [80km]	4004886
Prisma FiberLinX/CWDM, TX/FX-SM1490-SC/APC [80km]	4004887
Prisma FiberLinX/CWDM, TX/FX-SM1510-SC/APC [80km]	4004888
Prisma FiberLinX/CWDM, TX/FX-SM1530-SC/APC [80km]	4004889
Prisma FiberLinX/CWDM, TX/FX-SM1550-SC/APC [80km]	4004890
Prisma FiberLinX/CWDM, TX/FX-SM1570-SC/APC [80km]	4004891
Prisma FiberLinX/CWDM, TX/FX-SM1590-SC/APC [80km]	4004892
Prisma FiberLinX/CWDM, TX/FX-SM1610-SC/APC [80km]	4004893

Prisma FiberLinX Modules – SC/UPC	Part Number
Prisma FiberLinX/CWDM, TX/FX-SM1430-SC/UPC [80km]	4005938
Prisma FiberLinX/CWDM, TX/FX-SM1450-SC/UPC [80km]	4005950
Prisma FiberLinX/CWDM, TX/FX-SM1470-SC/UPC [80km]	4005942
Prisma FiberLinX/CWDM, TX/FX-SM1490-SC/UPC [80km]	4005943
Prisma FiberLinX/CWDM, TX/FX-SM1510-SC/UPC [80km]	4005944
Prisma FiberLinX/CWDM, TX/FX-SM1530-SC/UPC [80km]	4005945
Prisma FiberLinX/CWDM, TX/FX-SM1550-SC/UPC [80km]	4005946
Prisma FiberLinX/CWDM, TX/FX-SM1570-SC/UPC [80km]	4005947
Prisma FiberLinX/CWDM, TX/FX-SM1590-SC/UPC [80km]	4005948
Prisma FiberLinX/CWDM, TX/FX-SM1610-SC/UPC [80km]	4005949

For Prisma MediaCenter and Prisma MediaCPE Chassis specifications and ordering information, see data sheet #7001716 *"Prisma Optical Media Converters – Prisma MediaCenter Chassis."*

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1-800-722-2009 or 770-236-6900
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