

Time Division Multiplexers

EM316GEMX4R



Overview

The Fiber Driver® LinkMux family from MRV is a line of time division multiplexer (TDM) modules designed to optimize fiber and wavelength use and to provide redundancy. The EM316GEMX4R (GEMX4R) module multiplexes four channels of Gigabit Ethernet over a proprietary 5-Gbps optical trunk using a single wavelength. The GEMX4R uses standard SFP (Small Form-factor Pluggable) transceivers, allowing optimization per each individual interface for each application. The module supports the full range of MRV fiber-optic and copper SFPs.

The EM316LNXXM-OT network manager provides a command line interface (CLI) and an SNMP API to monitor and provision the GEM4R module. The SNMP interface supports industry standard network management systems (NMS) including MRV's MegaVision Pro®, which provides real-time access to link and interface status, operating temperature, fan status, power supply voltage, performance monitoring, and more.

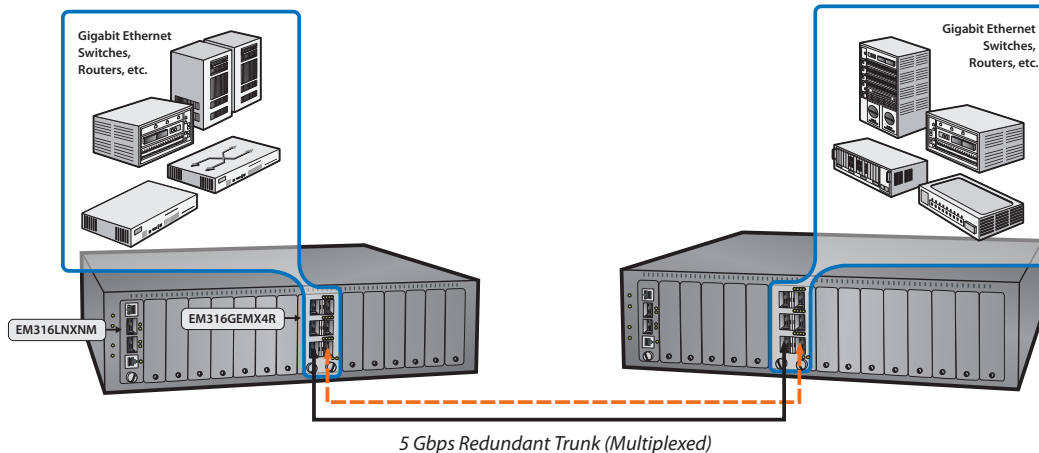
Highlights and Benefits

- Four 1-Gigabit Ethernet channels multiplexed through a redundant 5-Gbps trunk
- Optimization of existing fiber bandwidth and wavelengths
- Hot-swappable SFP trunk and access interfaces for more applications and in-service maintenance
- Transparent network operation – does not alter data or packet framing
- Real-time interface monitoring through SFP Digital Diagnostics (SFF-8472)
 - Early detection of potential network problems
 - Reduced network down time and overhead
- Link redundancy capability with fast switchover – essential service protection for mission-critical applications
- SNMP management with MegaVision Pro® support for end-to-end network management
- Reduced capital and operating expenses

Applications

- Limited fiber installations
- Mission-critical services requiring maximum up time
- Sub-wavelength aggregation for WDM transport

Application 1





Datasheet

Many SFPs provide Digital Diagnostics, a powerful tool for managing the pluggable interface. The GEMX4R module fully supports the Digital Diagnostics Multi-Source Agreement (MSA) standard (SFF-8472) that reports a number of interface parameters including:

- Optical transmit power
- Voltage & temperature
- Serial number
- Optical receive power
- Vendor ID
- Wavelength

Fiber Driver GEMX4R modules include six SFP interfaces: four access ports and two trunk interface ports. The trunk ports include redundant link

capability, an invaluable feature for mission critical applications. A lost link on the active trunk of the module can automatically switch to the secondary trunk and send a management alert. The link transition happens quickly to minimize any effect on network data. The event is transparent to the network and to the end user. Switchovers are based on optical receive power thresholds and time of day, which may be set through management.

For additional information including pricing and availability, contact your MRV Communications sales representative or visit <http://www.mrv.com>.

Physical Specifications	
Operating Temperature Range	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Relative Humidity	85% maximum, non-condensing
Physical Dimensions (H x W x D)	75 mm x 50 mm x 175 mm (3" x 2" x 7")
Weight	Approximately 315 g (11 oz)
Regulatory Compliance	FCC Part 15 (Class A); IC (Class A); EMC Directive: Emission (Class A) and Immunity; RoHS Directive; China RoHS; WEEE Directive

Ordering Info	Model	Function
	EM316GEMX4R	4-channel TDM module for Gigabit Ethernet. Four SFP data ports. Two SFP trunk ports (redundant). Occupies two chassis slots.

MRV has offices throughout the world. Addresses, phone numbers and fax numbers are listed at www.mrv.com. Please e-mail us at info@mrv.com or call us for assistance.

MRV Los Angeles
 20415 Nordhoff Street
 Chatsworth, CA 91311
 800-338-5316
 818-773-0900

MRV Boston
 300 Apollo Drive
 Chelmsford, MA 01824
 800-338-5316
 978-674-6800

MRV International
 Business Park Moerfelden
 Waldeckerstrasse 13
 64546 Moerfelden-Walldorf
 Germany
 Tel. (49) 6105/2070
 Fax (49) 6105/207-100

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