FIBER ACCESS SOLUTIONS

SFP-to-SFP Media Module

Overview

Combining data rate independent connectivity with support for SFP transceivers, the Fiber Driver™ SFP-to-SFP Media Module (EM316-2SFP) from MRV Communications defines a new level of deployment flexibility and inventory management, enabling the implementation of an extremely wide range of optical infrastructure solutions from media conversion and signal boosting to lambda conversion, Wave Division Multiplexing (WDM) and Optical Add/Drop Multiplexing (OADM).

The SFP-to-SFP Media Module offers plug-n-play ease of installation. Simply place the module into the Fiber Driver chassis, insert the SFP transceivers required for the protocol and distance of the application, and connect to the network. Changing the connection type later on only requires changing the transceivers. With the SFP hot swappable functionality there is virtually no down time involved.
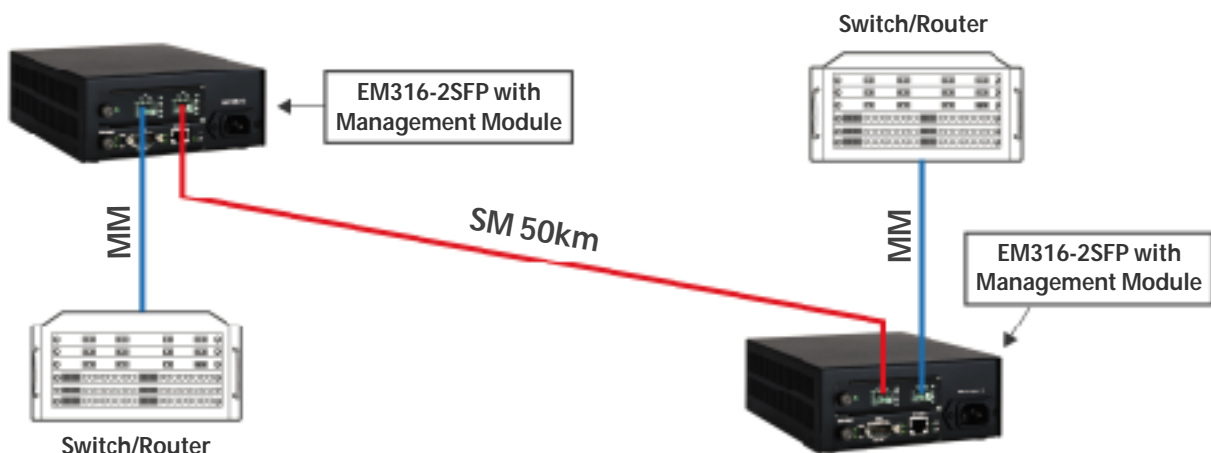
Features

- Provides SFP-to-SFP interface connectivity
- Data rate independent, protocol transparent (protocol determined by choice of SFPs)
- Greater flexibility and scalability
  - Add/Change optics and adjust data rates as needed
  - Maintain single item inventory
- MSA compatible
  - Choose the best of the breed optics from MRV Communications or the vendor of choice
- Performs 2R data signal conditioning
- Supports SFP digital diagnostics as per SFF-8472
- SNMP manageable, MegaVision Web™ supported

Applications

- Media conversion
- Signal boosting
- Lambda conversion
- CWDM
- DWDM
- OADM

Typical Application: *Multimode to Singlemode Conversion*

Switch/Router

EM316-2SFP with Management Module

MM

SM 50km

MM

Switch/Router

EM316-2SFP with Management Module

Because SFP transceivers are portable they can be easily used again at a different location for a different application, maximizing the investment in equipment and reducing the need for on-hand inventory. The industry's non-proprietary SFP MultiSource Agreement (MSA) ensures that a large selection of system compatible SFP optics is available from multiple sources, including MRV Communications.

The SFP-to-SFP Media Module is data rate independent and performs 2R - reshape and retransmit - conditioning of the data signal. Any protocol is supported, including Fast and Gigabit Ethernet, FDDI, ESCON, SONET (OC-3, OC-12, OC-48 and above), Fibre Channel (1 Gbps & 2 Gbps), Serial Digital Video Interface (SDI) SMPTPE-269 and SMTPE-292, DVB, HDTV (1.5 Gbps), and many others. The SFP pair selected determines the protocol.

The SFP-to-SFP Media Module fully supports the SFP standard including digital diagnostics as per SFF-8472. Together with the Network Management Module (EM316NM), it provides real-time access to information such as transceiver type (protocol, range, vendor, etc.), transceiver temperature, TX/RX optical power, and transceiver supply voltage. It also provides a means for generating management alerts and warnings when system parameters fall outside of the normal operating range.

With an externally connected Mux/Demux unit such as the 4- or 8-channel Fiber Driver CWDM Passive Mux/Demux (EM316PA4N / EM316PA8N), the SFP-to-SFP Media Module can be used as a WDM solution building block configured to the desired protocol/data rate and provided with SFPs of the required wavelengths. Deployed along a WDM trunk at customer service points using MRV Communications' passive OADM technology, the SFP-to-SFP Media Module can be used to create a sophisticated Add/Drop topology.

The SFP-to-SFP Media Module is a hot swappable, single-slot module that can be placed in any powered Fiber Driver chassis. Through the Fiber Driver Network Management Module, the EM316-2SFP is SNMP manageable and fully supported through the GUI of MegaVision Web™, MRV Communications' comprehensive Network Management System (NMS).

For additional information on this or any of the full line of MRV Communications products, including pricing and availability, contact your MRV Communications sales representative.

Physical Specifications: SFP-to-SFP Media Module

Operating Temperature Range* (AC):	0°C to 50°C (32°F to 122°F)
Operating Temperature Range* (DC):	0°C to 70°C (32°F to 158°F)
Storage Temperature:	-10°C to 60°C (-14°F to 140°F)
Relative Humidity:	85% maximum, non-condensing
Physical Dimensions:	25 mm x 75 mm x 175 mm deep (1" x 3" x 7" deep)
Weight:	Approximately 213 g (7.5 oz)
Emission Compliance:	FCC - PART 15, SUBPART B, 1999, CLASS A; CE MARK - EN 50081-1:1992;
	EN 50082:1997; EN 55024:1998; EN 55022:1998; AS/NZS 3548:1995

* Operating Range listed is for the module only. Operating Range of pluggable interface(s) used may differ

Part Number	Function	Protocol	Connectors	Wavelength	Budget (dB)	Range
EM316-2SFP	Protocol independent fiber media module	Data rate independent, protocol transparent	SFP (x2)	N/A (SFP dependent)	N/A (SFP dependent)	N/A (SFP dependent)

Ordering Info

MRV has more than 50 offices throughout the world. Addresses, phone numbers, and fax numbers are listed at www.mrv.com.
Please e-mail us at **sales@mrv.com** or call us for assistance.

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