

**Datasheet**

**Multi-Rate (2 Gbps) Multi-Mode Extended SFP Transceivers**

SFP-MR27D-MMX



**Highlights**

- SFP transceiver
- Data Rates: 100 - 2700 Mbps
- Compliant protocols:
  - Fast Ethernet
  - Gigabit Ethernet
  - 1 Gbps Fibre Channel
  - 2 Gbps Fibre Channel
  - Digital Video
  - OC-3/STM-1 to OC-48/STM-16 and OC-48 with FEC
- Multi-mode DSC adapter
- 1310 nm
- 0 to 1 km (or more, depending on fiber conditions)
- Duplex LC connector
- Digital Diagnostics (SFF-8472)
- Hot-swap

**Overview**

The Fiber Driver® SFP Multimode Extender from MRV Communications increases the reach of Gigabit Ethernet and Fibre Channel data links to distances far beyond the defined standard. Pioneered by MRV Communications, this award-winning technology allows multi-mode (MM) fiber previously used for FDDI, Fast Ethernet, and other legacy protocols to support high-speed communication backbones. The performance and reliability of the Multimode Extender (MMX) technology has been proven in installations throughout the world since first appearing in the Fiber Driver Gigabit Multimode Extender module.

Typically, Gigabit Ethernet and Fibre Channel transmissions distances over multi-mode fiber are limited to 550 meters, far shorter than the standard for multi-mode FDDI or Fast Ethernet. This limitation forces network managers to abandon existing multi-mode fibers and install single-mode fibers for greater link ranges with Gigabit-speed support. MMX technology, available exclusively in the Fiber Driver product line, gives network administrators another option.

Used in pairs or in combination with other MMX-enabled Fiber Driver products, the Fiber Driver SFP Multimode Extenders carry Gigabit-speed protocols on existing 62.5µm or 50µm multi-mode fiber plant beyond 1 km depending on the grade and condition of the fiber media. The modules support all standard SFP interfaces, use plug-and-play functionality, and are hot-swappable.

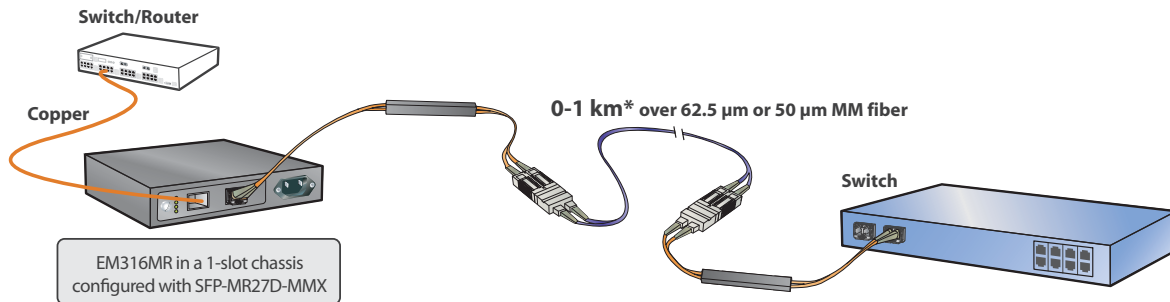
The MMX technology used in the Fiber Driver SFP Multimode Extender brings new life to existing multi-mode fiber. It allows great increases in network capacity while avoiding the cost, complications, and lead times associated with installing new fiber. It provides a clear migration path to Gigabit-speed protocols while amplifying the investment in existing fiber.

Specifications Overview	
Data Rate	100 - 2700 Mbps
Tx Wavelength	1310 nm
Tx Power (Minimum)	-10 dBm
Tx Disable	Yes
Rx Wavelength Range	1200 - 1360 nm
Rx Sensitivity	-20 dBm
Rx Saturation	-3 dBm
Operating Temperature Range	-5 to 70 °C
Power Consumption	1 Watt

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Small Form-Factor Pluggable (SFP) transceivers from MRV Communications provide the high speeds and physical compactness that networks require today while delivering the deployment flexibility and inventory control that network administrators demand.

These SFPs are designed to Multi-Source Agreement (MSA) standards to ensure broad network equipment compatibility. They are a perfect match for the MRV Communications line of Fiber Driver® pluggable media modules and chassis, the OptiSwitch® line of routers and switches, and any other communication equipment supporting SFPs. Together, Fiber Driver devices create the ultimate managed fiber infrastructures.



\* 1 km specified. Maximum range depends upon grade and condition of fiber plant used.

### Ordering Information

Model	Description	Data Rate (Mbps)	Wavelength (nm)	Digital Diagnostics	Bail Latch Color	Fiber Lead Length (cm)	Distance Range (km)
SFP-MR27D-MMX	Multi-Rate extended multi-mode SFP Transceiver with Digital Diagnostics	100 - 2700 Mbps	1310	Yes	Yellow	30.5	0 - 1

### Regulatory and Industry Compliances

Class 1 Laser Product, complies with EN 60825-1 and 21 CFR 1040.10 except for deviations pursuant to Laser Notice No. 50. dated June 24, 2007  
MSA SFF-8074i; Digital Diagnostic SFF-8472  
Certified by one or more of the following agencies: TÜV, UL, CSA  
RoHS Directive; China RoHS; California RoHS Law, REACH Directive SVHC; WEEE Directive  
The Quality Management System is certified to ISO 9001 by QMI-SAI Global  
The Environmental Management System is in compliance with ISO 14001

### Warnings

**Handling Precautions:** This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

**Laser Safety:** Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

MRV has more than 50 offices throughout the world. Addresses, phone numbers and fax numbers are listed at [www.mrv.com](http://www.mrv.com). Please e-mail us at [info@mrv.com](mailto:info@mrv.com) or call us for assistance.

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