

## **Datasheet**



# **GBIC Multimode Extender**



### **Overview**

The Fiber Driver(tm) GBIC Multimode Extenders increase the reach of Gigabit Ethernet and Fibre Channel data links to distances that far exceed the defined standard. Pioneered by MRV Communications, this award-winning technology allows Multimode fiber previously used for FDDI, Fast Ethernet and other legacy protocols to now be used for creating high-speed communication backbones. Since first appearing in the Fiber Driver Gigabit Multimode Extender module, the performance and reliability of the Multimode Extender (MMX) technology has been proven in installations throughout the world.



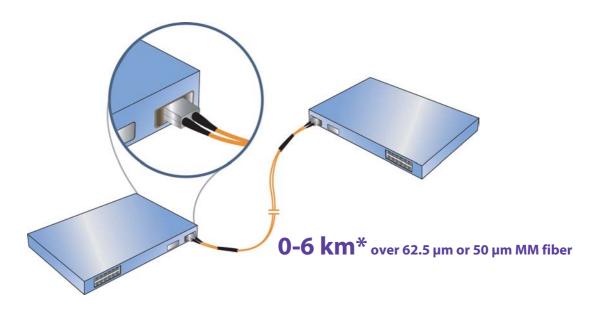
#### **Features**

- Transmits Gigabit Ethernet and Fibre Channel up to 4 km\* over 62.5μm and 50μm dual fiber Multimode links
- Supports Gigabit Ethernet (IEEE 802.3) and Fibre Channel (ANSI X3.230-1994)
- Plug-and-Play functionality
- Hot swappable
- Interoperable with all standard GBIC compliant switches and routers

#### **Benefits**

- Protects investment in existing Multimode fiber plant while providing a clear migration path to gigabit-speed protocols
- Avoids the cost, complications and lead times associated with the installation of new fiber
- Seamlessly integrates into existing infrastructure

<sup>\* 2</sup> km guaranteed. Maximum range depends upon grade and condition of fiber plant used.



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Typically, Gigabit Ethernet and Fibre Channel transmissions over MM fiber are limited to a distance of 550 meters or less, far shorter than the 2-kilometer standard when Multimode fiber is used for transmitting FDDI and Fast Ethernet. This fact has left IT managers needing to implement gigabit-speed protocols with little choice but to abandon their existing Multimode fiber plant and install new Singlemode fiber. However, the Multimode Extender (MX) 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 GBIC Multimode Extenders carry gigabit-speed protocols on existing 62.5µm or 50µm Multimode fiber plant to a guaranteed distance of 2 km, and as far as 4 km\*. The modules are

interoperable with all standard GBIC interfaces, support plug-and-play functionality, and are hot swappable.

The MMX technology found in the Fiber Driver GBIC Multimode Extenders brings new life to existing Multimode fiber, making it possible to greatly increase network capacity while avoiding the cost, complications and lead times associated with the installation of new fiber. It provides a clear migration path to Gigabit-speed protocols while protecting the investment in existing fiber.

For additional information including availability and configuration options, contact your MRV Communications sales representative.

<sup>\* 2</sup> km guaranteed. Maximum range depends upon grade and condition of fiber plant used.

Physical Specifications: GBIC Multimode Extender							
Operating Temperature:	0° to 70° C / 32° to 158° F						
Storage Temperature:	-40° to 85° C / -40° to 185° F						
Supply Voltage (3.3V):	3.3V Typical (3.13V Minimum, 3.46V Maximum)						
Supply Current (3.3V):	140mA						
Power Dissipation (3.3V):	485mW						
Supply Voltage (5.0V):	5.0V Typical (4.75V Minimum, 5.25V Maximum)						
Supply Current (5.0V):	125mA						
Power Dissipation (5.0V):	630mW						

Info	Part Number	Function	Voltage	Protocol	Data Rate Max (Gbps)	Connectors <sup>1</sup>	Wavelength (nm)	Fiber Lead Length <sup>2</sup> (cm)	Range <sup>3</sup> (km)
Ordering	GBIC-MMX	GBIC 1000Base-SX, Extended MM	(Specify 3.3 or 5.0)	Gigabit Ethernet /Fibre Channel	1.25	MM DSC	1310	30.5	0 - 4

<sup>&</sup>lt;sup>1</sup> Other connectors are optional

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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<sup>&</sup>lt;sup>2</sup> Other fiber lead lengths are optional

<sup>&</sup>lt;sup>3</sup> 2 km guaranteed. Maximum range is dispersion limited, and depends upon grade and condition of fiber plant used.