

Datasheet

# 10 Gbps Converter/Repeater/WDM Transponder

EM316-10G-XY



## Overview

The Fiber Driver™ XY media module family from MRV Communications combines ultra high-speed protocol support with the flexibility of multi-rate and multifunction design. XY modules are an economical alternative for enterprise applications.

EM316-10G-XY modules are ideal for large telecommunications carriers moving very large amounts of data to distances beyond 100 kilometers without amplification. They are compact, hot-swappable, one-slot modules with two XFP sockets and one SFP+ for modular transceivers. Installation and setup is simple plug-n-play; insert the module into any powered Fiber Driver chassis with the XFP and SFP+ transceivers required for the application, and then connect to the network.

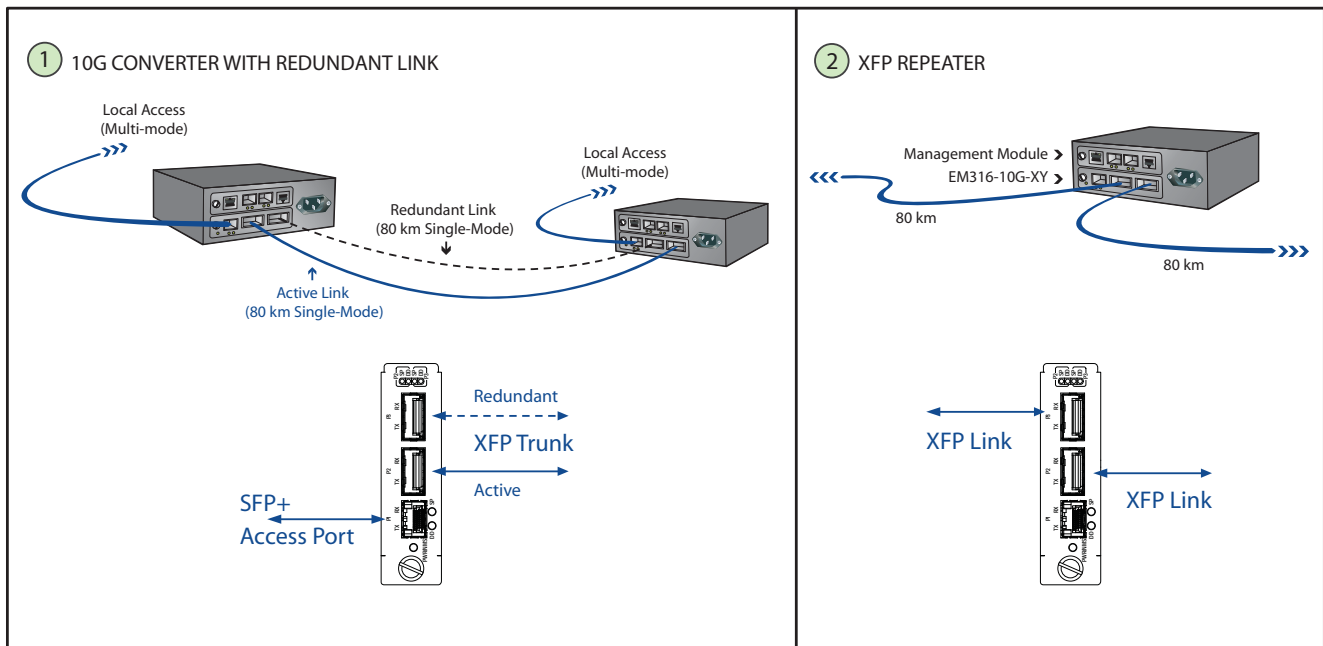
Changing a connection type at any time is simple, requiring only replacement of a hot-swappable XFP or SFP+ transceiver. The module ports support the MSA standard including Digital Diagnostics. Because the transceivers meet industry standards, a smaller inventory shared between applications maximizes the return on investment.

## Highlights

- Multiple functions in one module:
  - 10G redundant converter
  - WDM transponder
- Data rates between 9.95 Gbps and 11.3 Gbps (10G Ethernet/Fibre Channel/SONET/SDH)
- XFP and SFP+ ports for flexibility and scalability
  - Add or change optics to adjust data rates as needed
  - Single item module inventory
- Link Integrity Notification (LIN)
- Loopback
- Management through EM316LNXM-OT
  - Command line interface (CLI)
  - SNMP management
  - Full graphical management with MegaVision Pro®
  - Port feature control
  - Digital Diagnostics
- Pseudo Random Bit Sequence (PRBS) sender/checker for connection testing
- Hot-swap support (module and interfaces)
- Fiber Driver chassis compatibility

## Benefits

- Extend fiber optic links by hundreds of kilometers
- Reduce capital and operating expenses





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Pluggable XFP transceivers support SONET/SDH OC-192/STM-64, SONET/SDH OC-192/STM-64 with Forward Error Correction (FEC), 10 Gigabit Ethernet, 10 Gbps Fibre Channel, and G.709. Pluggable SFP+ transceivers support 10 Gbps Ethernet, Fibre Channel, and SONET/SDH applications. XY modules support an extremely wide range of optical infrastructure solutions including media conversion, signal repeating, lambda conversion, and Wave Division Multiplexing (WDM).

The EM316-10G-XY also offers advanced module loopback and PRBS capabilities on each interface. Loopback eases the challenge of validating the installation, debugging the optical link, and finding potential faults on either the client or line interface. PRBS provides additional circuit testing.

### Operational Modes

The Fiber Driver XY family modules provide operational modes to change the module function for different application roles. The EM316-10G-XY has two modes: 10G converter with redundant link and XFP-to-XFP converter/repeater. (See diagram on page 1.)

### Management

The EM316LNxNM-OT management module provides Fiber Driver network administration through a command line, SNMP, and MegaVision Pro®, the MRV Communications graphical network management system. The EM316LNxNM-OT monitors XFP and SFP+ port status, manages module configuration, and provides vendor information.

For more information on Fiber Driver and other MRV products, visit <http://www.mrv.com> or send email to MRV sales at [sales@mrv.com](mailto:sales@mrv.com).

Physical Specifications	
<b>Operating Temperature Range*</b>	0°C to 60°C (32°F to 140°F)
<b>Storage Temperature</b>	-40°C to 70°C (-40°F to 158°F)
<b>Relative Humidity</b>	85% maximum, non-condensing
<b>Approximate Dimensions</b>	25 mm x 75 mm x 175 mm deep (1" x 3" x 7" deep)
<b>Approximate Weight</b>	213 g (7.5 oz)
<b>Regulatory Compliances</b>	FCC Part 15 (Class A); IC (Class A); EMC Directive: Emission (Class A) and Immunity; RoHS Directive; China RoHS; REACH Directive; 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

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

Ordering Info	Model Number	Description	Data Rate	Connectors
	<b>EM316-10G-XY</b>	10 Gbps Repeater, Converter, or Transponder, two universal XFP sockets, one SFP+ socket	Data rate independent, protocol transparent from 9.95 to 11.32 Gbps	XFP (x2) SFP (x1)

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