



Optical Self-Healing Switch



Features

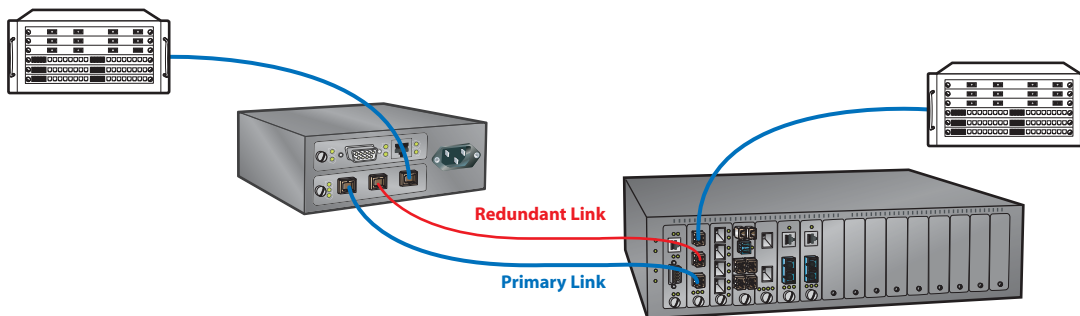
- 1+1 hot stand-by path protection
 - Point-to-point
 - Ring
- Link switchover times of 10 ms or less
- Protocol independence
- 1260 nm through 1620 nm wavelength range
- Maximum insertion loss of 5 dB per link
- Transparent network operation

Overview

The Fiber Driver® Optical Self-Healing Switch from MRV (EM316OSSH) makes creating a redundant optical link easier and more affordable than ever before. Designed to provide full path protection for mission critical networks, the module is capable of automatically switching between a primary and secondary (backup) link virtually instantaneously in the event of a fiber cut or transponder failure.

As an all optical device performing no optical-electrical-optical (OEO) conversion, the EM316OSSH remains protocol independent. It accepts all wavelengths from 1260 nm to 1620 nm (including the 1310 nm and 1550 nm bands), making it suitable for virtually any application including WDM path protection. The module can provide 1+1 hot stand-by protection in resilient point-to-point or Optical Unidirectional Path Switched Ring (O-UPSR) deployments. Insertion loss is a maximum of 5 dB per pair of EM316OSSH modules.

Application #1: Point to Point





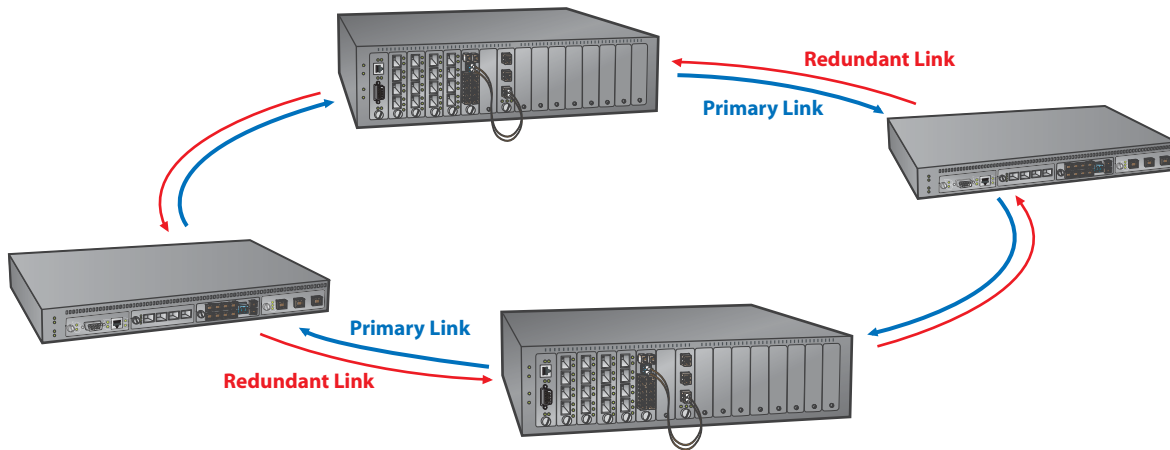
Link switchover of 10 milliseconds or less is controlled by circuitry directly on the module. The switchover occurs so quickly that convergence protocols such as Spanning Tree or OSPF may never be triggered. The event remains transparent to both the network and the end user. The primary and secondary links are continuously monitored. The module can be set to automatically return to the primary link if it fails and then comes back online.

In addition to loss of link detection, the EM316OSSH can be set to trigger a switchover based upon a lower optical power threshold of -5, -10, -15, -20, or -30 dBm. If the RX signal strength falls below the set threshold, the module automatically switches to the secondary link.

The EM316OSSH may be configured through onboard DIP switch settings or from SNMP, Telnet, and local commands. A Fiber Driver Network Management Module installed in the same chassis paired with the Optical Self-Healing Switch is compatible with MegaVision Pro®, the MRV network management system (NMS), or any SNMP-enabled NMS. Management functions include alarm and trap control, primary and secondary path configuration, optical power threshold settings, module status check, and other useful parameters.

Contact your MRV Communications representative or visit <http://www.mrv.com> for additional information on the Fiber Driver Optical Self-Healing Switch.

Application #2: O-UPSR Ring



Physical Specifications	
Operating Temperature Range	0°C to 60°C (32°F to 140°F)
Storage Temperature	-40°C to 75°C (-40°F to 167°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)
Regulatory Compliance	FCC Part 15 (Class A); IC (Class A); EMC Directive: Emission (Class A) and Immunity;
	RoHS Directive; China RoHS; WEEE Directive

**Ordering Information**

Model	Function	Connectors Port/Link	Wavelength Range (nm)	Max. Insertion Loss (dB)
EM316OSSH	Optical Switch, self-healing	MU/MU	1260 / 1620	5 (per link)

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.

MRV (West Coast USA)
20415 Nordhoff St.
Chatsworth, CA 91311
800-338-5316
818-773-0900

MRV (East Coast USA)
295 Foster St.
Littleton, MA 01460
800-338-5316
978-952-4700

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

All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. Please contact MRV Communications for more information. MRV Communications and the MRV Communications logo are trademarks of MRV Communications, Inc. Other trademarks are the property of their respective holders.