Self Healing / Redundant Link

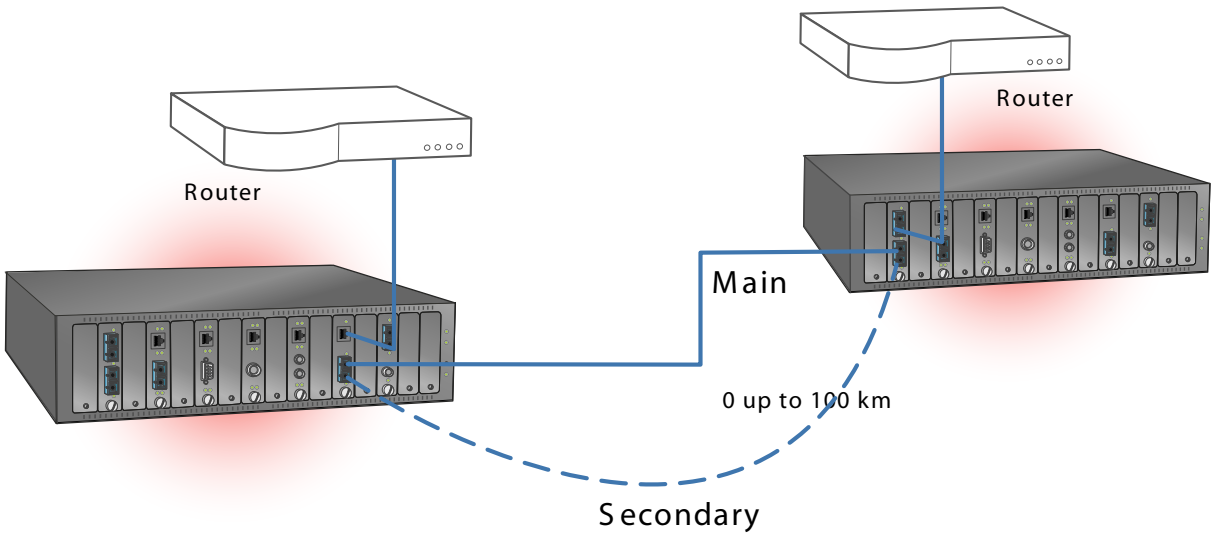
Overview

Fiber Driver™ Self Healing/Redundant Link modules are for mission critical applications that demand maximum uptime. These modules have one copper input and two fiber outputs. One functions as a primary path and the other as a secondary path. In the event of a link loss, the data will be automatically switched from the primary path to the secondary path. The secondary path can also be used for routing based on time of day parameters under the control of the management system.

These modules use a link detect mechanism that switches over to the secondary link in microseconds directed by circuitry on the module itself. Doing this without any OSPF or Spanning Tree induced network topology modification eliminates long reconvergence times and removes the possibility of data loss. If the secondary path fails, an alarm will be generated by the management system indicating that there is no redundancy available. This information is gathered regardless of the status of the network.

Features

- Two redundant, fault tolerant data paths for mission critical applications
- Automatic link switchover in microseconds based on loss of link
- Provides redundancy with conventional Copper to Fiber conversion
- Extend links to over 100 km on Singlemode Fiber
- Compatible with IEEE 802.3 (u) Fast Ethernet standard
- Single Fiber and Dual Fiber options
- Hot swappable
- SNMP managed
- Fits in all Fiber Driver chassis



Datasheet

Self Healing/Redundant Link modules are offered with Dual Fiber and Single Fiber links. This provides the same copper to fiber conversion while gaining link redundancy using the existing fiber pair. Self Healing/Redundant Link Modules help service providers fulfill Service Level Agreements. They are also used in Enterprise networks where the cost of downtime requires redundancy.

For additional information including pricing and availability, contact your MRV Communications sales representative today.

Physical Specifications: Self Healing / Redundant Link Modules

Operating Temperature Range:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-40°C to 95°C (-40°F to 203°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:	120 - 240 g (4.2 - 8.5 oz) depending on configuration
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

Ordering Info

Part Number	Function	Protocol	Connectors* Port/Link	Wavelength Input/Output (nm)	Minimum Loss Budget (dB)	Range** Approx. (km)
EM316F2/M	100Base-TX to FX MM Self Healing	Fast Ethernet	RJ-45/2 LC	UTP/1310	DL	0 - 4
EM316F2/MX	100Base-TX to FX MM Self Healing	Fast Ethernet	RJ-45/2 LC	UTP/1310	DL	2 - 8
EM316F2/S1	100Base-TX to FX SM Self Healing	Fast Ethernet	RJ-45/2 LC	UTP/1310	17	0 - 35
EM316F2/S2	100Base-TX to FX SM Self Healing	Fast Ethernet	RJ-45/2 LC	UTP/1310	24	25 - 50
EM316F2/S3	100Base-TX to FX SM Self Healing	Fast Ethernet	RJ-45/2 LC	UTP/1550	24	50 - 100
EM316F2/S4	100Base-TX to FX SM Self Healing	Fast Ethernet	RJ-45/2 LC	UTP/1550	31	35 - 125
EM316F2SF/S2	100Base-TX to Single Fiber SM Self Healing	Fast Ethernet	RJ-45/2 SC-APC	UTP/1310	18	0 - 35
EM316F2SF/S3	100Base-TX to Single Fiber SM Self Healing	Fast Ethernet	RJ-45/2 SC-APC	UTP/1550	18	25 - 70
EM316F2SF/S4	100Base-TX to Single Fiber SM Self Healing	Fast Ethernet	RJ-45/2 SC-APC	UTP/1550	24	35 - 100
EM316GSH/M	Gigabit Ethernet MM Self Healing	Gigabit Ethernet	DSC/2 LC	850/850	DL	0 - 0.5
EM316GSH/MX	Gigabit Ethernet MM to Extended MM Self Healing	Gigabit Ethernet	DSC/2 LC	850/1310	DL	0 - 6***
EM316GSH/S1	Gigabit Ethernet SM Self Healing	Gigabit Ethernet	DSC/2 LC	850/1310	5	0 - 10
EM316GSH/S2	Gigabit Ethernet SM Self Healing	Gigabit Ethernet	DSC/2 LC	850/1550	8	0 - 30
EM316GSH/S3	Gigabit Ethernet SM Self Healing	Gigabit Ethernet	DSC/2 LC	850/1550	15	30 - 60
EM316GSH/S4	Gigabit Ethernet SM Self Healing	Gigabit Ethernet	DSC/2 LC	850/1550	20	50 - 80
EM316GSFSH/S2	Gigabit Ethernet Single Fiber SM Self Healing	Gigabit Ethernet	DSC/2 SC-APC	850/1310	9	0 - 30
EM316GSFSH/S3	Gigabit Ethernet Single Fiber SM Self Healing	Gigabit Ethernet	DSC/2 SC-APC	850/1550	12	20 - 45
EM316GSFSH/S4	Gigabit Ethernet Single Fiber SM Self Healing	Gigabit Ethernet	DSC/2 SC-APC	850/1550	15	15 - 60
EM316FCSH/M	Fibre Channel MM Self Healing	Fibre Channel	DSC/2 LC	850/850	DL	0 - 0.5
EM316FCSH/MX	Fibre Channel MM to Extended MM Self Healing	Fibre Channel	DSC/2 LC	850/1310	DL	0 - 6***
EM316FCSH/S1	Fibre Channel SM Self Healing	Fibre Channel	DSC/2 LC	850/1310	5	0 - 10
EM316FCSH/S2	Fibre Channel SM Self Healing	Fibre Channel	DSC/2 LC	850/1550	8	0 - 30
EM316FCSH/S3	Fibre Channel SM Self Healing	Fibre Channel	DSC/2 LC	850/1550	15	30 - 60
EM316FCSH/S4	Fibre Channel SM Self Healing	Fibre Channel	DSC/2 LC	850/1550	20	50 - 80
EM316FCSFSH/S2	Fibre Channel Single Fiber SM Self Healing	Fibre Channel	DSC/2 SC-APC	850/1310	9	0 - 30
EM316FCSFSH/S3	Fibre Channel Single Fiber SM Self Healing	Fibre Channel	DSC/2 SC-APC	850/1550	12	20 - 45
EM316FCSFSH/S4	Fibre Channel Single Fiber SM Self Healing	Fibre Channel	DSC/2 SC-APC	850/1550	15	15 - 60

*Default connectors listed, other connectors are optional
**Distances are approximate and assume 9µ SM and 62.5µ MM
***2 km guaranteed. Maximum range is dispersion limited, and depends upon grade and condition of fiber plant used.
DL = Dispersion Limited

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Ordering Info

Part Number	Function	Protocol	Connectors* Port/Link	Wavelength Input/Output (nm)	Minimum Loss Budget (dB)	Range** Approx. (km)
EM316SSH/M	ESCON MM Self Healing	ESCON	DSC/2 LC	1310/1310	NA	0 - 2
EM316SSH/MX	ESCON MM Self Healing	ESCON	DSC/2 LC	1310/1310	DL	2 - 8
EM316SSH/S1	ESCON MM to SM Self Healing	ESCON	DSC/2 LC	1310/1310	17	0 - 35
EM316SSH/S2	ESCON MM to SM Self Healing	ESCON	DSC/2 LC	1310/1310	24	25 - 50
EM316SSH/S3	ESCON MM to SM Self Healing	ESCON	DSC/2 LC	1310/1550	24	50 - 100
EM316SSH/S4	ESCON MM to SM Self Healing	ESCON	DSC/2 LC	1310/1550	29	40 - 110
EM316SSHSF/S2	ESCON Single Fiber MM to SM Self Healing	ESCON	DSC/2 SC-APC	1310/1310	18	0 - 35
EM316SSHSF/S3	ESCON Single Fiber MM to SM Self Healing	ESCON	DSC/2 SC-APC	1310/1550	18	25 - 70
EM316SSHSF/S4	ESCON Single Fiber MM to SM Self Healing	ESCON	DSC/2 SC-APC	1310/1550	24	35 - 100

*Default connectors listed, other connectors are optional
**Distances are approximate and assume 9µ SM and 62.5µ MM
***2 km guaranteed. Maximum range is dispersion limited, and depends upon grade and condition of fiber plant used.

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