Passive Splitter/Combiners

(Dual-Fiber to Bi-directional Single-Fiber)

HIghlights

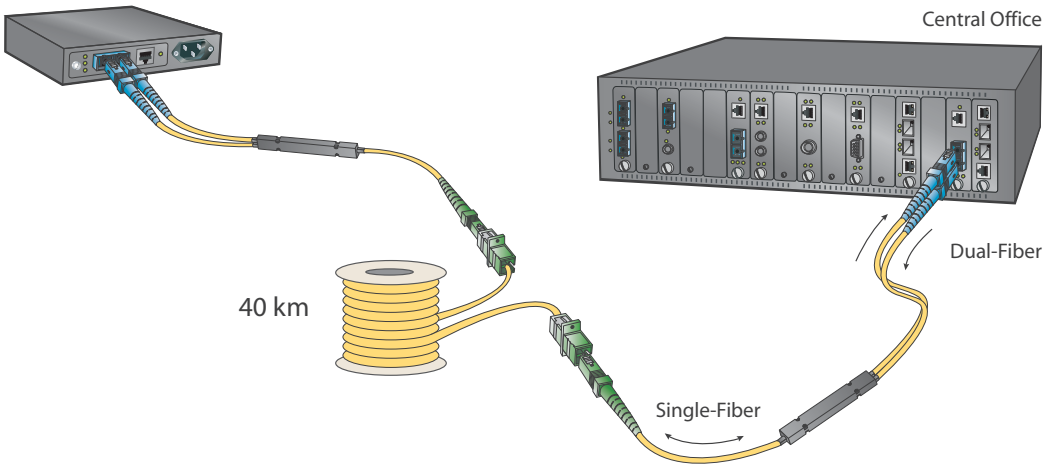
- Double fiber capacity between single-fiber sources
- Transition between dual-fiber and single-fiber
- Protocol and network operation transparency
- Fully passive (no power needed)
- Low insertion loss (3.5 dB maximum per cable)
- APC connectors for low 3.5 dB insertion loss

Overview

A Splitter/Combiner cable of module connect between dual-fiber and single-fiber optical signals, potentially doubling the data capacity of the installed fiber plant. Separate Tx and Rx signals from a dual-fiber optical device using the same wavelength over two fibers can be combined through the Splitter/Combiner onto a single bi-directional strand of fiber for the long and expensive run to the remote site.

Another Splitter/Combiner at the remote site splits and combines the signals for the dual-fiber device at that location.

Splitter/Combiners are fully passive, and they operate at a specific wavelength. They are transparent to networks and protocols. A pair of cables, as in the example above, attenuates an optical signal by no more than 7 dB on either single-mode or multi-mode fiber. Signal reflections are effectively eliminated with angled polished connector (APC) at the single-fiber "common" interface.



Datasheet

Physical Specifications: Modules	
Operating Temperature Range	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°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

Physical Specifications: Cables	
Grade	Super (S)
Typical Excess Loss	0.1 dB
Uniformity, (50:50)	0.6 dB
Thermal Stability (peak-peak)	< 0.2 dB
Polarization Stability	< 0.1 dB
Port Configuration	1 x 2 or 2 x 2
Coupling Ratio	50 : 50
Insertion Loss	3.5 dB
Directivity	> 50 dB (1 x 2)
Reflectance	< -55 dB
Operating Temperature	-40°C to 85°C (-40°F to 185°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	85% maximum, non-condensing

Ordering Information

Model	Function	Connectors Port/Link	Wavelength (nm)	Insertion Loss (dB)
EM316SC/3M	Fiber Optic Splitter/Combiner module, MM	SC/SC-APC	1310	3.5
EM316SC/3M	Fiber Optic Splitter/Combiner module, SM	SC/SC-APC	1310	3.5
EM316SC/3M	Fiber Optic Splitter/Combiner module, SM	SC/SC-APC	1550	3.5
EM316SC/MS	Fiber Optic Splitter/Combiner module, SM	SC/SC-APC	1270-1610	3.5
PASCLCAS/3S	Cable Fiber Optic, Splitter/Combiner, SM	LC-SC/APC	1310 (± 40)	3.5
PASCLCAS/5S	Cable Fiber Optic, Splitter/Combiner, SM	LC-SC/APC	1550 (± 40)	3.5
PASCSCAS/3S	Cable Fiber Optic, Splitter Combiner, SM	SC-SC/APC	1310 (± 40)	3.5
PASCSCAS/5S	Cable Fiber Optic, Splitter Combiner, SM	SC-SC/APC	1550 (± 40)	3.5
PASCSCAS/MS	Cable Fiber Optic, Splitter Combiner, SM	SC-SC/APC	1310 (± 50) & 1550 (± 80)	3.5

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 **info@mrv.com** or call us for assistance.

MRV Los Angeles
20415 Nordhoff Street
Chatsworth, CA 91311
800-338-5316
818-773-0900

MRV Boston
300 Apollo Drive
Chelmsford, MA 01824
800-338-5316
978-674-6800

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

