

## Datasheet

### Passive Splitter/Combiners

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



#### Highlights

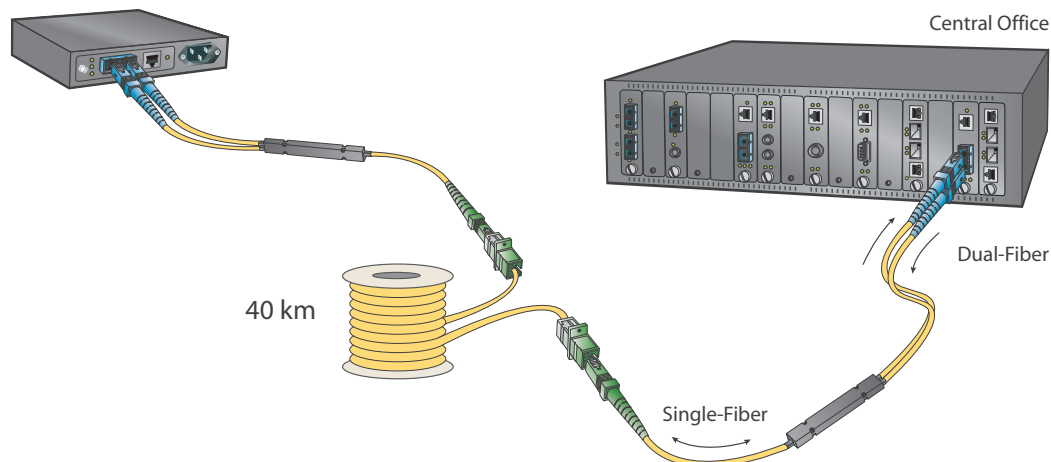
- Double fiber capacity between single-fiber sources
- Transition between dual-fiber and single-fiber
- Protocol and network operation transparency
- Fully passive (no power needed)
- Low insertion loss (3.5 dB maximum per cable)
- APC connectors for low 3.5 dB insertion loss

#### Overview

A Splitter/Combiner cable or module connects 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.





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### Physical Specifications: Modules

<b>Operating Temperature Range</b>	0°C to 50°C (32°F to 122°F)
<b>Storage Temperature</b>	-40°C to 70°C (-40°F to 158°F)
<b>Relative Humidity</b>	85% maximum, non-condensing
<b>Physical Dimensions</b>	25 mm x 75 mm x 175 mm deep (1" x 3" x 7" deep)
<b>Weight</b>	Approximately 213 g (7.5 oz)
<b>Regulatory Compliance</b>	FCC Part 15 (Class A); IC (Class A); EMC Directive: Emission (Class A) and Immunity; RoHS Directive; China RoHS; WEEE Directive

### Physical Specifications: Cables

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

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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

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