

Fused Coupler, PM Combiner



Key Features

- Low insertion loss
- High power handling
- Proven reliability
- 9xx, 14xx and 15xx variants

Applications

- Erbium doped fiber amplifiers (EDFAs)
- Raman amplifiers
- Coherent optical communications

The JDSU Fused Coupler, PM Combiner enables the efficient combination of two orthogonally polarized sources of light at the same wavelength such that they are output through the same, single fiber output. In optical amplifiers this provides a doubling of pump power whilst ensuring pump redundancy should a pump failure occur. Applications include high power optical amplifiers and undersea systems. All ports consist of polarization maintaining fiber.

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Specifications

Parameter		980 nm	S band	C band	L band
Operating wavelength range ¹		980 nm	1440 to 1475 nm	1528 to 1563 nm	1570 to 1605 nm
Insertion loss (fast axis) ²					
Grade M	Maximum	0.40 dB	0.40 dB	0.50 dB	0.50 dB
Grade W	Maximum	0.60 dB	0.60 dB	0.70 dB	0.70 dB
Housing option		B			
Dimensions (Ø x L) for 1x2 and 2x2		3.0 x 71 mm			
Insertion loss (slow axis) ²					
Grade M	Maximum		0.35 dB		
Grade W	Maximum		0.40 dB		
Return loss/Directivity	Minimum		50 dB		
TDL	Typical		0.15 dB		
Pigtail tensile load	Maximum		5 N		
Optical power handling	Maximum		4 W		
Fiber type		All ports PM fiber			
Pigtail		Primary-coated fiber			
Operating temperature range		-5 to 75 °C			
Storage temperature range		-40 to 85 °C			

1. The center wavelength may be selected from within the operating wavelength ranges supplied.

2. Insertion loss over operating channel bandwidth (not including TDL or connector losses).

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Sample: FFP-SM3245E10 (S band, PM Combiner Grade M, regular housing, 2x2 Channel Center = 1445 nm, Telecoms PM Fiber 400 μ m buffer, 1 m pigtail, no connector)

FFP- 3 	
Code	Passband Wavelength
S	980 nm
C	C band
L	L band
S	S band
Code	Device Type
M	PM Combiner Grade M
W	PM Combiner Grade W
Code	Housing
3	3.0 ($\varnothing$) x 71 (L) mm primary-coated fiber
Code	Configuration
1	1x2
2	2x2
Code	Channel Center¹
Last two digits of center wavelength, for examples:	
45	1445 nm
50	1550 nm
Code	Fiber Type
E	Telecoms PM fiber 400 μ m buffer
F	Telecoms PM fiber 250 μ m buffer
G	980 nm PM fiber 250 μ m buffer
Code	Pigtail Length² (Minimum)
0	0.5 meter
1	1 meter
Code	Connectors³
0	NONE
P	FC-PM/APC
R	FC-PM/PC

1. Channel center must be within the selected passband wavelength.
2. Minimum pigtail length. Other pigtail lengths available on request.
3. Insertion loss in specification table does not include connector loss. Other connectors available on request.

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