Fused Coupler, Polarization Maintaining (PM)

Key Features

- All PM fiber construction
- Low excess loss
- High power handling
- 980, 1064, C, L and S bands available
- Slow axis operation (standard), fast axis operation also available

Applications

- Power monitoring of PM sources
- Coherent communications
- Fiber gyroscopes
- High power fiber lasers
- Fiber amplifiers

The JDSU polarization maintaining (PM) fused coupler, enables the accurate monitoring and splitting of optical signals in polarization maintaining fiber. Manufactured using industry-standard PM fiber, the component is available in any coupling ratio from 1 to 50%.

Based on fused fiber technology, the PM Coupler demonstrates very low loss, high power handling and there is no price penalty for adding a second input port. The center operating wavelength may be chosen from within a wide variety of operating passbands, including 980, 1064, 1310, 14xx, 15xx and 16xx.

In common with all PM components, it is necessary to launch into either the slow or the fast axis to maintain polarization. For the JDSU polarization maintaining (PM) fused coupler, specifications are based on slow axis launch, although fast axis versions are also available upon requested.

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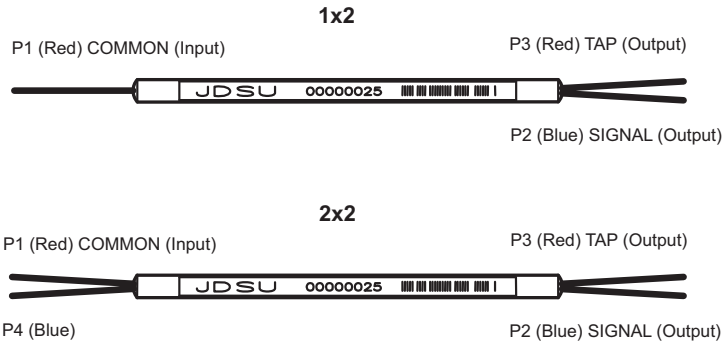
Configuration



Specifications[1]

Parameter	980 nm	1064 nm	1310 nm	14xx nm	15xx nm	16xx nm
Center wavelength range	980 nm	1064 nm	1310 nm	14xx nm	15xx nm	16xx nm
Available wavelength[2]	980 nm	1064 nm	1310 nm	1425 to 1499 nm	1500 to 1599 nm	1600 to 1650 nm
Extinction ratio[3] (coupling ratio = 1/99, coupling ratio tolerance = ±0.5%)						
Grade A	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB
Grade B	17 dB	17 dB	17 dB	17 dB	17 dB	17 dB
Extinction ratio[3] (coupling ratio = 5/95, coupling ratio tolerance = ±1.5%)						
Grade A	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB
Grade B	17 dB	17 dB	17 dB	17 dB	17 dB	17 dB
Extinction ratio[3] (coupling ratio = 10/90, coupling ratio tolerance = ±3.0%)						
Grade A	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB
Grade B	17 dB	17 dB	17 dB	17 dB	17 dB	17 dB
Extinction ratio[3] (coupling ratio = 33/67, coupling ratio tolerance = ±4.0%)						
Grade A	17 dB	17 dB	20 dB	20 dB	20 dB	20 dB
Grade B	15 dB	15 dB	17 dB	17 dB	17 dB	17 dB
Extinction ratio[4] (coupling ratio = 50/50, coupling ratio tolerance = ±5.0%)						
Grade A	17 dB	17 dB	20 dB	20 dB	20 dB	20 dB
Grade B	15 dB	15 dB	17 dB	17 dB	17 dB	17 dB
Excess loss						
Grade A	0.3 dB					
Grade B	0.5 dB					
Return loss/Directivity	50 dB					
Pigtail tensile load	5 N					
Operating temperature	-5 to 75 °C					
Storage temperature	-40 to 85 °C					
Fiber type	Polarization maintaining fiber (industry-standard profile)					

1. All specifications are for operation at room temperature.
2. The center wavelength may be selected from within the available wavelength ranges supplied.
3. Defined for signal path P1-P2.
4. Defined for both signal path P1-P2 and tap path P1-P3.

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-C53150A10 (C-band, 5% Tap, regular housing, 1x2, Channel Center = 1550 nm, A grade, 1 m pigtail, no connector)

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Code	Passband Wavelength
5	980nm
8	1060nm
4	1310
S	14xx
C	15xx
L	16xx

Code	Coupling Ratio[1]
1	1/99
5	5/95
A	10/90
F	33/67
K	50/50

Code	Housing
3	Regular Ø 3x60 mm
5	Ø 0.9 mm fiber Ø 3x76 mm

Code	Configuration
1	1x2
2	2x2

Code	Channel Center[2]
Last two digits of center wavelength For example,	
45	xx45 nm
50	xx50 nm

Code	Grade
A	Grade A
B	Grade B

Code	Pigtail Length[3]
0	0.5 meter
1	1 meter

Code	Connectors[4]
0	NONE
P	FC-APC/PM
R	FC-PC/PM

1. Other coupling ratios available on request.
2. Channel center must be within the wavelength ranges shown in the specifications table.
3. Minimum pigtail length. Other pigtail lengths are available on request.
4. Optical specifications in specification table do not include connector loss. Other connectors available on request.