



Polarization Maintaining Filter Coupler

The Polarization Maintaining Filter Coupler 1310&1550nm is a polarization maintaining coupler which either splits the light from the input PM fiber into two output PM fibers, or combines light signals from two PM fibers into a single PM fiber. The state of polarization can be aligned either with the slow axis or the fast axis of the PM fibers. The device can be used to split high power linearly polarized light into multiple paths without perturbing the line are state of polarization. It can also be used as a power tap to monitor signal power in a PM fiber system without disturbing the linear SOP of light propagating in the PM fiber. Applications include PM fiber interferometers, power sharing in polarization sensitive systems, and signal monitoring in PM fiber systems. The rugged stainless steel package is designed for high optical performance and stability. This compact device offers low excess insertion loss, low back reflection, and high extinction ratio. Split ratios from 1 to 50% are available.



Performance Specifications

Parameter	Values	
	1x2	2x2
Configuration	1x2	2x2
Center Wavelength(nm)	1310 or 1550	
Operating Wavelength Range(nm)	±40	
Tap Ratio(%)	1 ± 0.5%, 5 ± 1.0%, 10 ± 2.0%, and 50%	
Insertion Loss(dB)	IL related to CR	IL related to CR
Excess Lose(dB)	≤0.7	≤1.0
Uniformity(dB)	≤0.6	≤0.8
Extinction Ratio(dB)	≥20	≥18
Return Loss(dB)	≤50	
Optical Power (CW) (mW)	≤300	
Tensile Load(N)	≤5	
Fiber Type	SMF-28 or PM Panda fiber for tap port PM Panda fiber for input & output ports	
Operating Temperature(°C)	-5 to +70	
Storage Temperature(°C)	-40 to +85	
Package Dimensions (mm)	Ø5.5 x L35	

*Above specifications are for device without connector.

*For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower.

*The PM fiber and the connector key are aligned to the slow axis and fast axis is blocked.

Features

- ◆ Low Insertion Loss
- ◆ High Extinction Ratio
- ◆ Compact In-Line Package
- ◆ High Stability and Reliability

Applications

- ◆ Fiber Optic Instruments
- ◆ Fiber Sensors
- ◆ Coherent Detecting
- ◆ Research

Order information

PMFC-①①①-②②-③③-④-⑤⑤-⑥⑥-⑦⑦

①①①	②②	③③	④	⑤⑤	⑥⑥	⑦⑦
Port	Operating Wavelength	Coupling Ratio	Fiber Type for Tap Port	Fiber Diameter	Fiber Length	Connector
102:1x 2 202:2x 2	13:1310nm 15:1550nm XX:Others	50:50/50 40:40/60 30:30/70 20:20/80 10:10/90 03:3/97 02:2/98 01:1/99 XX: Others	0:SMF-28 1: Panda fiber X:Others	25:250um 90:900um XX: Others	08:0.8m 10:1.0m XX:Others	00:None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC LP: LC/PC LA: LC/APC XX: Others