Key Features

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

Applications

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

1030nm Polarization Maintaining Filter Coupler (1x2/2x2)

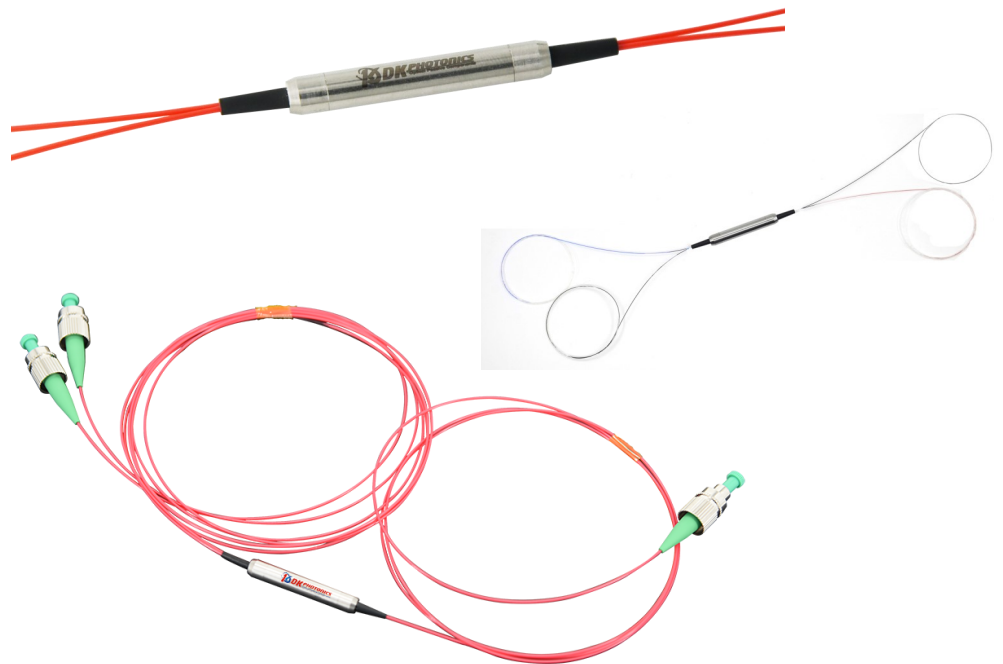The Polarization Maintaining Filter Coupler is a polarization maintaining coupler which splits the light from the input PM fiber into two output PM fibers. The PM Filter Coupler supports the lightwave of each polarization to work, without blocking any polarization. The rugged stainless-steel package 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.

The PM Filter Coupler can be used to split high power linearly polarized light into multiple paths without perturbing the line are state of polarization (SOP). 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.

For more Info

Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

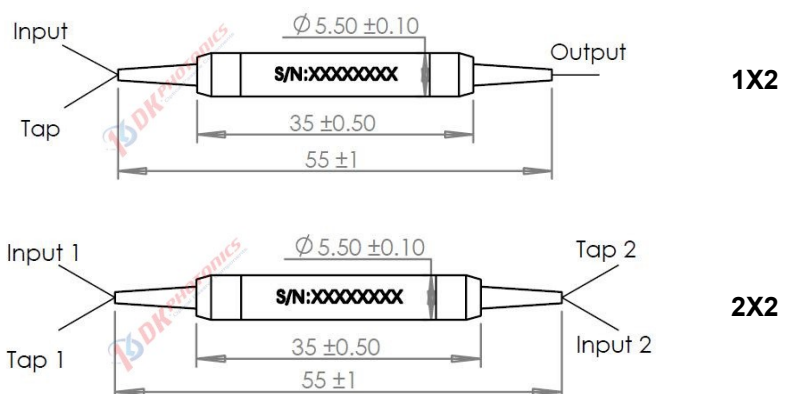E-mail: sales@dkphotonics.com

https://www.dkphotonics.com
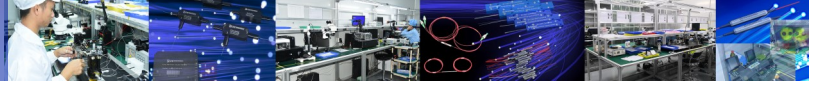
Add.:

4F, Bldg. 18, Qinghu Industrial Park,

Dahe Road, Longhua Dis.,

Shenzhen, China 518109

Package Dimension:

*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.

1030nm Polarization Maintaining Filter Coupler (1x2/2x2)

Performance Specifications

Parameter		Unit	Values	
Configuration		-	1x2	2x2
Center Wavelength		nm	1030	
Operating Wavelength Range		nm	±20	
Tap Coupling Ratio		%	1±0.5%, 5±1.0%, 10±2.0%, and 50%	
Max. Insertion Loss		dB	IL related to CR	
Max. Excess Lose		dB	0.8	1.2
Uniformity(Only for 50/50)		dB	0.5	0.8
Mini. Extinction Ratio	Type B(Both of axis working)	dB	20	18
Return Loss		dB	≤50	
Max. Power Handling		W	0.5, 1, 2, 5	
Max. Tensile Load		N	5	
Fiber Type		-	1060-XP or PM980-XP Panda fiber for tap port	
			PM980-XP 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	

1. Above specifications are for device without connector. All parameters are tested at room temperature.

2. If tap port coupling ratio is ≤ 5%, ER will be 2dB lower; for ≤1% tap port, ER is out of concern.

3. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower. The default connector key is aligned to slow axis. Power transmits through the connector less than 2W.

4. For >10W high power applications, we will use heat sink package, contact DK Photonics for details.

5. If there is pulse application, please be sure to inform us of pulse energy and peak power.

Order information   P/N: PMFC-①-②-③-④-⑤-⑥-⑦-⑧-⑨

When you inquire, please provide the correct P/N number according to our ordering information and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250μm bare fiber pigtail.

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Port	Operating Wavelength	Power Handling	Axis Alignment	Coupling Ratio	Fiber Type for Tap Port	Pigtails Diameter	Fiber Length	Connector
102:1x2 202:2x2	30:1030nm XX: Others	L:<0.5W 1:1W 2:2W	B: Both axis working	50:50/50 40:40/60 30:30/70 20:20/80 10:10/90 01:1/99 XX: others	0:SM Fiber 1: PM Panda fiber X: Others	25:250μm bare fiber 90:900μm Loose Tube XX: Others	08:0.8m 10:1.0m XX: Others	00: None FP: FC/PC FA: FC/APC SP: SC/PC LA: LC/APC XX: Others

Part Number Example: PMFC-102-30-2-B-50-1-90-10-FA

Description: 1030nm Polarization Maintaining Filter 1x2 Coupler - 2W, both axis working, 50:50 coupling ratio, 1.0m PM Panda Fiber with 0.9mm OD loose tube, and FC/APC connectors at all ports.

Ordering Information for Custom Parts

If you need to customize other specifications, please provide detailed description for your requirement.