

## 1064nm Polarization Maintaining Filter Coupler (1x2/2x2)

### Key Features

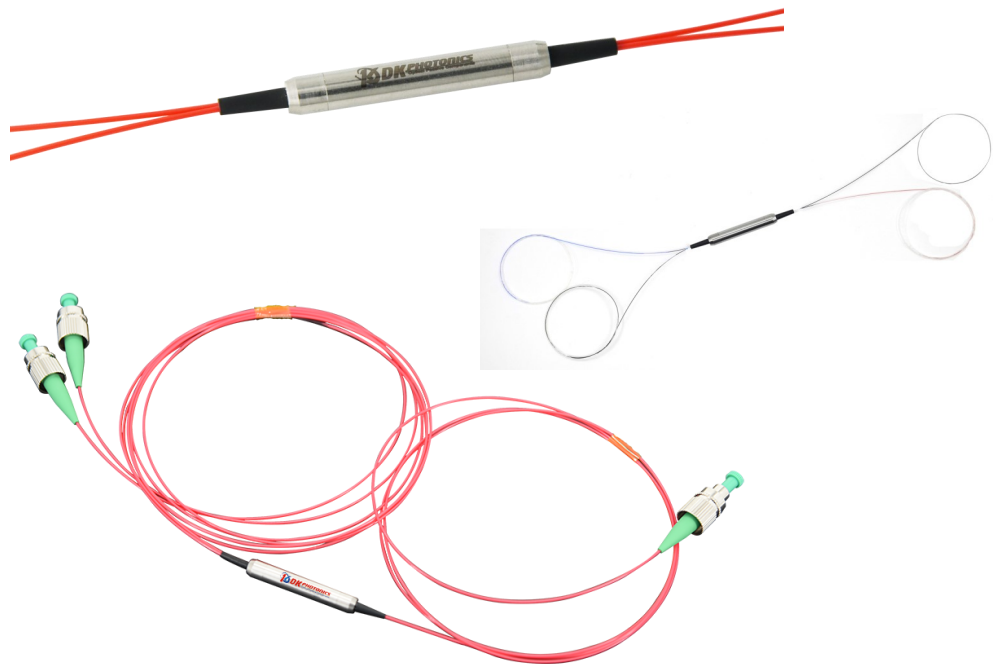
- Low Insertion Loss
- High Extinction Ratio
- Compact In-Line Package
- High Stability and Reliability

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.

### Applications

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



## For more Info

### Please contact us at:

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Fax: +86-755-26746512

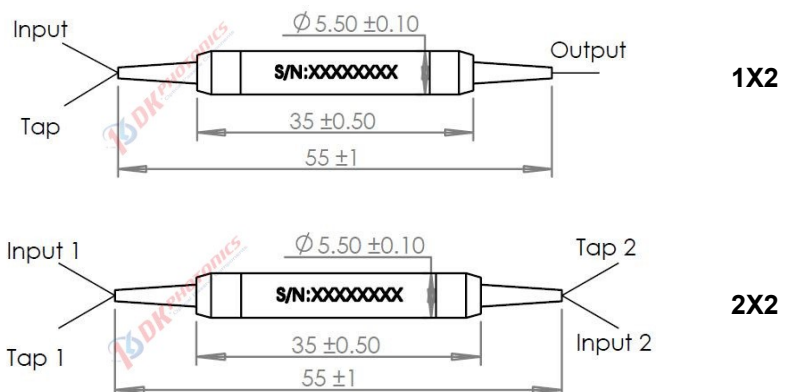
E-mail: [sales@dkphotonics.com](mailto:sales@dkphotonics.com)

<https://www.dkphotonics.com>

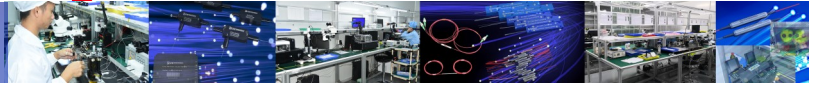
Add.:

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.



## 1064nm Polarization Maintaining Filter Coupler (1x2/2x2)

### Performance Specifications

| Parameter                    | Unit | Values  |     |
|------------------------------|------|---|-----|
| Configuration                | -    | 1x2   | 2x2 |
| Center Wavelength            | nm   | 1064  |     |
| 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       | dB   | 20  | 18  |
| Type B(Both of axis working) |      |   |     |
| 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<br>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  |     |

- Above specifications are for device without connector. All parameters are tested at room temperature.
- If tap port coupling ratio is ≤ 5%, ER will be 2dB lower; for ≤1% tap port, ER is out of concern.
- 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.
- For >10W high power applications, we will use heat sink package, contact DK Photonics for details.
- 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<br>202:2x2 | 64:1064nm<br>XX: Others | L:<0.5W<br>1:1W<br>2:2W | B: Both axis working | 50:50/50<br>40:40/60<br>30:30/70<br>20:20/80<br>10:10/90<br>01:1/99<br>XX: others | 0:SM Fiber<br>1: PM Panda fiber<br>X: Others | 25:250µm<br>bare fiber<br>90:900µm<br>Loose Tube<br>XX: Others | 08:0.8m<br>10:1.0m<br>XX: Others | 00: None<br>FP: FC/PC<br>FA: FC/APC<br>SP: SC/PC<br>LA: LC/APC<br>XX: Others |

**Part Number Example:** PMFC-102-64-2-B-50-1-90-10-FA

**Description:** 1064nm 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.