



- Low Insertion Loss
- High Isolation
- High Extinction Ratio
- High power handling
- Polarization-Insensitive
- High Stability and Reliability

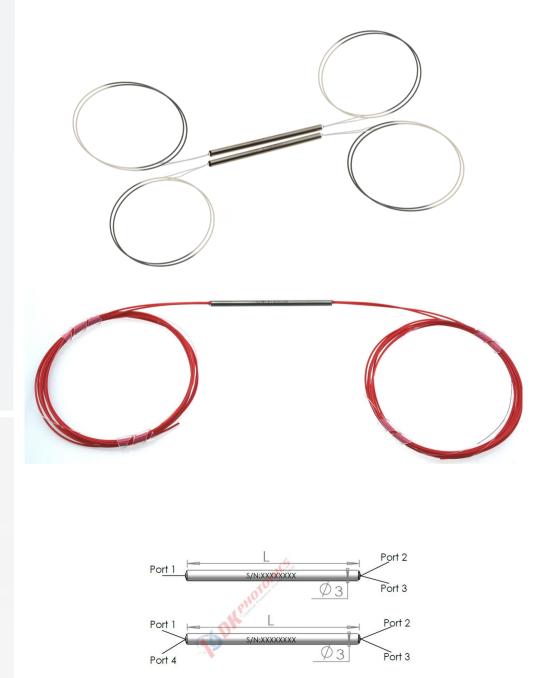
## **Applications**

- Fiber laser
- Fiber amplifier
- Fiber Sensor
- Monitoring in Coherent Systems
- Communications

# 980/1550nm Polarization Maintaining Fused WDM

DK Photonics uses unique fusing technique and polarization maintaining fiber to build the 980/1030nm polarization maintaining fused WDM. It features low excess loss, small size and high polarization extinction ratio. PM fused WDM is widely used for fiber laser, optical sensors and optical gyro.

This product can also be used to multiplex other wavelengths. Including 980/1030 nm (pulsed laser applications) and 1064/1550 nm (Erbium-Ytterbium pumping). Low power (300mW, 500mW) and high power (20W) handling are available. They are ideal for polarization maintaining fiber amplifiers, fiber lasers, and high-speed communication system and instrumentation applications.



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

For more Info

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## 980/1550nm Polarization Maintaining Fused WDM

### **Performance Specifications**

Parameter		Unit	Specifications	
Operating Wavelength		nm	980/1550	
Operating bandwidth		nm	±10/±15	
Max. Insertion Loss	Shorter wavelength	dB	0.60	
	Signal Port	dB	0.5	
Min. Isolation		dB	20	
Min. Extinction Ratio		dB	18	
Min. Directivity		dB	55	
Max. Power Handling		W	2, 5, 10	
Fiber Type		-	PM980 panda fiber or other	
Fiber Pigtail Length		m	1m or custom length	
Port Configuration		-	1x2/2x2	
Operating Temperature		°C	-5 ~ +70	
Storage Temperature		°C	-50 ~ +85	
Package Dimension		mm	$\Phi3.0{\times}54(\text{bare fiber})$ , $\Phi3.0{\times}60(900\mu\text{m}$ loose tube	

1. Other wavelengths can also be customized according to requirements.

2. Above specifications are for device without connector, and the PM fused coupler is both axis working, no axis can be blocked; default test extinction ratio is on the slow axis. All parameters are tested at room temperature at central wavelength only.

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

4. Regarding power, normal fused WDM can handling 1W with connector, <5W with bare fiber output, <10W when spliced. 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: PMFBTWDM-①-②-③-④-⑤-⑥

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
Port	Operating Wavelength	Power Handling	Pigtails Diameter	Fiber Length	Connector
102:1x2 202:2x2	95:980/1550nm XX: Others	L:0.5W 2:2W 5:5W 10:10W	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 XX: Others

Part Number Example: PMFBTWDM-102-95-2-90-10-FA

**Description:** 980/1550nm 1x2 Polarization Maintaining Fused WDM -2W, 1.0m PM980 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.