

## 1030nm Polarization Maintaining Optical Circulator (Fast axis blocked)

### Key Features

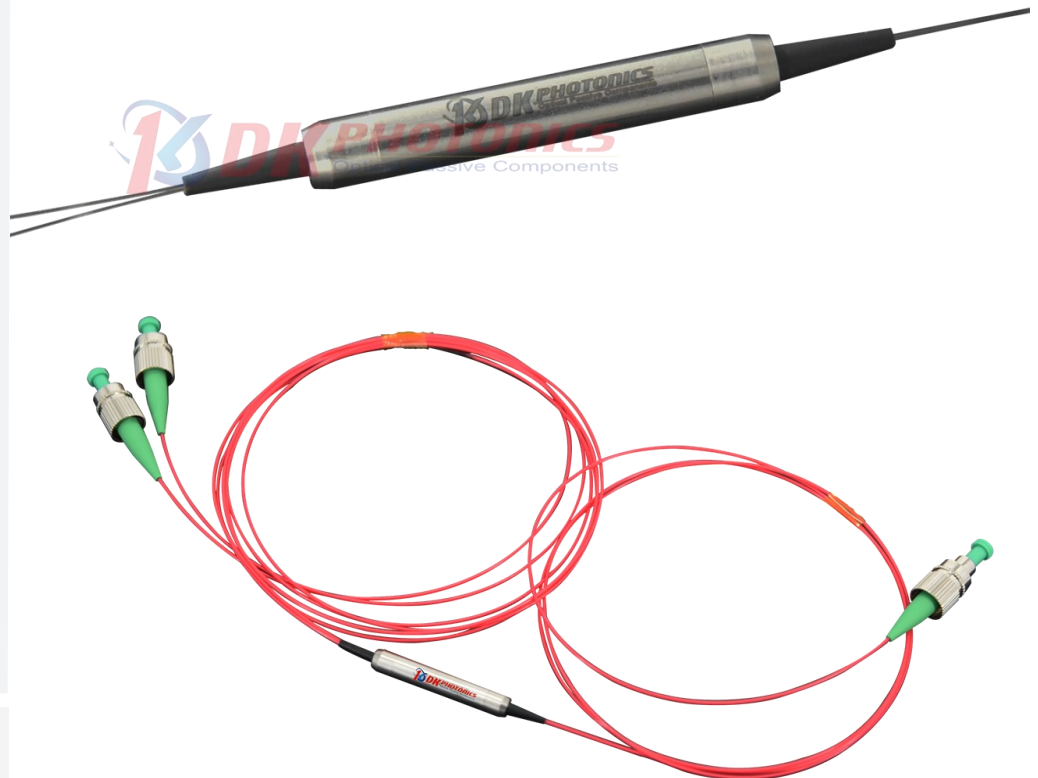
- Compact size
- High Isolation
- High Extinction Ratio
- Low Cost
- High Stability & Reliability

The polarization maintaining optical circulator is a compact, high performance light wave component that routes incoming signals from Port 1 to Port 2, and incoming Port 2 signals to Port 3. So, fiber optic circulators act as signal routers, transmitting light from an input fiber to an output fiber, but directing light that returns along that output fiber to a third port. They perform a similar function as an isolator, protecting the input fiber from return power, but also allowing the rejected light to be employed.

If you do not see a standard Optical Circulator that meets your needs, we welcome the opportunity to review your desired specification and quote a custom circulator. Requests for custom fiber pigtailed, different wavelengths and handling power of operation or other specific needs will be readily addressed.

### Applications

- Fiber Amplifiers
- Fiber Sensor
- Test and Measurement
- Coherent Detecting



## For more Info

### Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

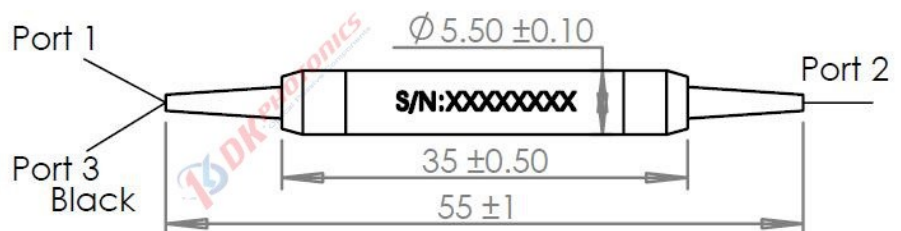
E-mail: [sales@dkphotonics.com](mailto:sales@dkphotonics.com)

<https://www.dkphotonics.com>

Add.:

4F, Bldg. 18, Qinghu Industrial Park,  
Dahe Road, Longhua Dis.,  
Shenzhen, China 518109

### Package Dimension:



The transmission optical path: 1 -> 2, 2 -> 3

\*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 Optical Circulator (Fast axis blocked)

### Performance Specifications

Parameter	Unit	Values
Axis	-	Fast axis blocked
Center Wavelength	nm	1030, 1040
Port	-	3
Isolation level	-	Type B
Operating Wavelength Range	nm	± 5
Min. Isolation at 23°C	dB	20
Typ. Isolation at 23°C	dB	25
Peak Isolation at 23°C	dB	/
Typ. Insertion Loss at 23°C	dB	3.5
Max. Insertion Loss at 23°C	dB	3.8
Min. Extinction Ratio at 23°C	dB	20
Min. Return Loss	dB	50
Min. Cross Talk	dB	50
Max. Power Handling (total input, continuous wave)	mW	50
Max. Tensile Load	N	5
Fiber Type	-	PM980-XP Panda Fiber
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.

2. 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.

3. For 1030nm Circulator, due to high IL, it is recommended to use average power of <50mW, If you need higher handle power, lower IL, please look for our 1030nm High power Circulator. If there is pulse application, please be sure to inform us of pulse energy and peak power.

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

5. For high-power applications, IL and ISO will be slightly worse due to the heat absorbed by the Faraday plate and the temperature rise. But they are all within a reasonable range. For more information, please contact DKP.

### Order information P/N: PMOC-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	Axis	Isolation level	Power Handling	Fiber type	Pigtails Diameter	Fiber Length	Connector
3:3-port	30:1030nm 40:1040nm XX: Others	F: Fast axis blocked	B: Type B	L:<0.05W	P98X:PM980-XP XX: Others	25:250µm bare fiber 90:900µm Loose tube XX: Others	05:0.5m 10:1.0m 15:1.5m XX: Others	00: None FP: FC/PC FA: FC/APC XX: Others

**Part Number Example:** PMOC-3-30-F-B-L-P98X-90-10-FA

**Description:** 1030nm 3-port Polarization Maintaining Optical Circulator, 50mW, Fast axis blocked, Type B, PM980-XP Fiber with 0.9mm OD loose tube, 1.0m length fiber 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.