

## 2050nm 3 port Polarization Insensitive Optical Circulator

### Key Features

- Low Insertion Loss
- High Isolation
- Low PDL
- High Stability and Reliability
- Cost Effective

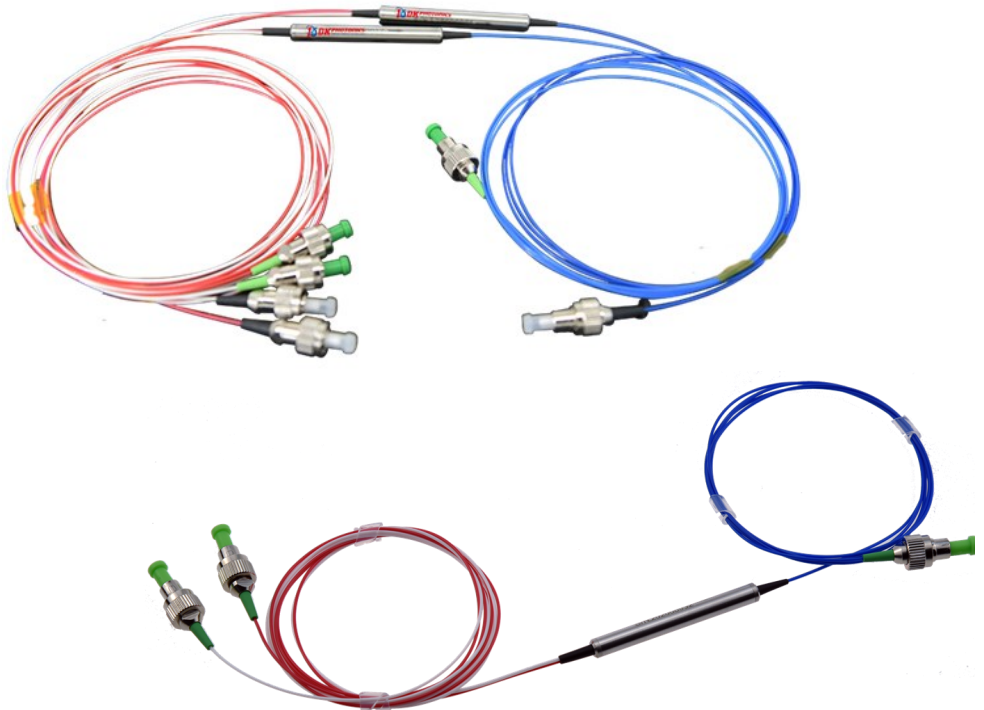
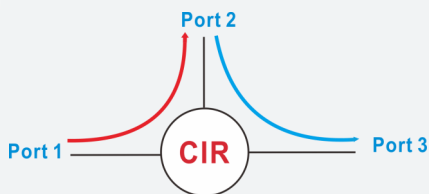
The 3 port Polarization Insensitive Optical Circulator is a compact, high-performance light-wave component that routes incoming signals from Port 1 to Port 2, and incoming Port 2 signals to Port 3. So fiber optic circulators act as signal routers, transmitting light from an input fiber to an output fiber, 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.

The fiber optic circulator utilizes proprietary designs and metal bonding micro-optics packaging. It's a compact, high-performance component, with high isolation, low insertion loss, low PDL, high stability and reliability. It is widely used in combination with fiber gratings and other reflective components in WDM systems, wavelength add/drop, high speed systems, bi-direction communication systems, dispersion compensation.

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 pigtails, different wavelengths and handling power of operation or other specific needs will be readily addressed.

### Applications

- WDM Systems
- Optical Fiber Amplifier
- Pump Laser Source
- Fiber Optic Sensor
- Test and Measurement
- Instrumentation



## 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>

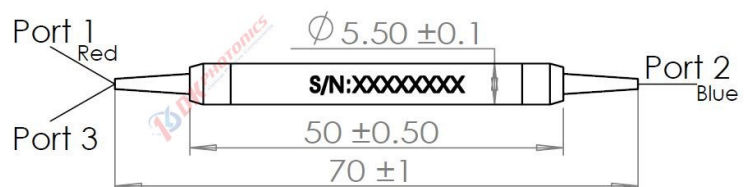
Add.:

4F, Bldg. 18, Qinghu Industrial Park,

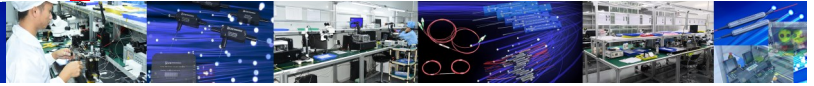
Dahe Road, Longhua Dis.,

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.



## 2050nm 3 port Polarization Insensitive Optical Circulator

### Performance Specifications

Parameter	Unit	Values
Center Wavelength	nm	2050
Grade	-	P Grade
Operating Wavelength Range	nm	± 30
Min. Isolation at 23°C	dB	20
Typ. Isolation at 23°C	dB	25
Typ. Insertion Loss at 23°C	dB	1.2
Max. Insertion Loss at 23°C	dB	1.5
Min. Cross Talk (Port 1->Port 3)	dB	45
Max. Polarization Dependent Loss,23°C	dB	0.15
Min. Return Loss	dB	50
Max. Power Handling (total input, continuous wave)	mW	500
Max. Tensile Load	N	5
Fiber Type	-	SMF-28e(default) or SM1950 fiber
Operating Temperature	°C	-5 to +70
Storage Temperature	°C	-40 to +85
Package Dimensions	mm	Ø5.5 x L50

- Above specifications are for device without connector.
- For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower.

### Order information P/N: PIOC-①-②-③-④-⑤-⑥-⑦-⑧

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
Port	Grade	Operating Wavelength	Power Handling	Fiber Type	Pigtails Diameter	Fiber Length	Connector
3:3-port	P: P grade	1950:1950nm	L: low power	S28: SMF-28e	25:250µm bare fiber	05:0.5m	00: None
		2000:2000nm		S19: SM1950	90:900µm Loose Fiber	10:1.0m	FP: FC/PC
		2050:2050nm			XX: Others	15:1.5m	FA: FC/APC
		XX: Others				XX: Others	LA: LC/APC

**Part Number Example:** PIOC-3-P-2050-L-S19-90-10-FA

**Description:** 2050nm Polarization Insensitive Optical Circulator, P Grade, 500mW power handling, SM1950 fiber, with 0.9mm OD loose tube, 1.0m length fiber pigtails, 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.