DK PHOTONICS
Optical Passive Components

1030nm 3 port Polarization Insensitive Optical Circulator

Key Features

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

Applications

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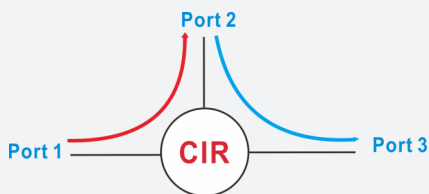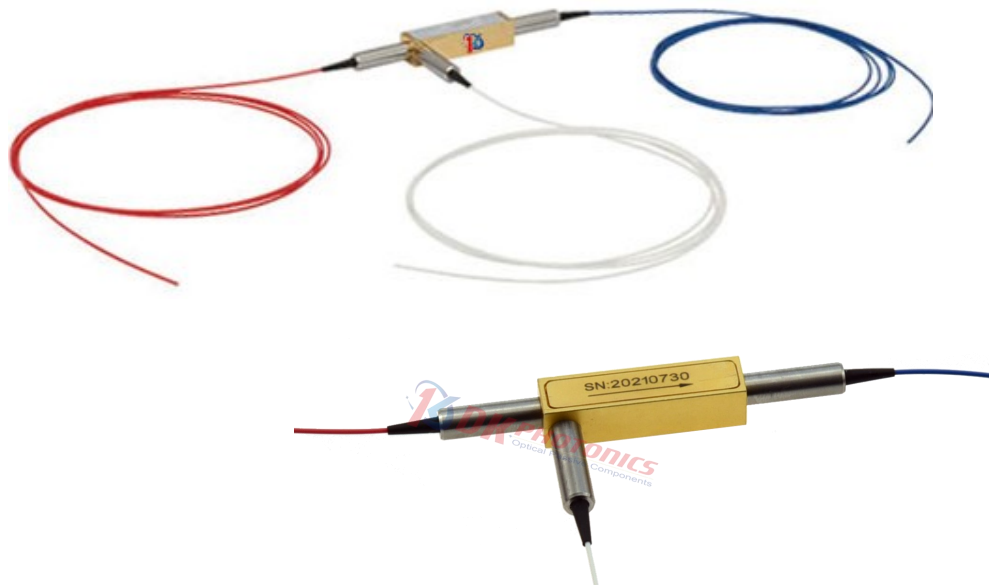- Test and Measurement
- Instrumentation

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, optical time domain reflectometer (OTDR) measurements.

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.

For more Info

Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

E-mail: sales@dkphotonics.com
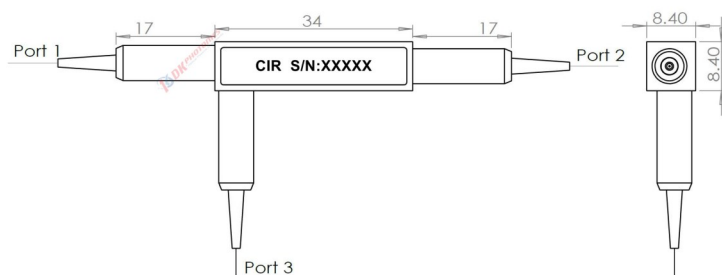
https://www.dkphotonics.com

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 3 port Polarization Insensitive Optical Circulator

Performance Specifications

Parameter	Unit	Values
Center Wavelength	nm	1030
Grade	-	P Grade
Operating Wavelength Range	nm	± 5
Min. Isolation at 23℃	dB	20
Typ. Isolation at 23℃	dB	23
Typ. Insertion Loss at 23℃	dB	3.5
Max. Insertion Loss at 23℃	dB	3.8
Min. Cross Talk (Port 1->Port 3)	dB	45
Max. Polarization Dependent Loss,23℃	dB	0.15
Min. Return Loss	dB	50
Max. Power Handling (total input, continuous wave)	mW	50
Max. Tensile Load	N	5
Fiber Type	-	1060-XP fiber
Operating Temperature	℃	-5 to +70
Storage Temperature	℃	-40 to +85
Package Dimensions	mm	(L)34×(W)8.4×(H)8.4

1. Above specifications are for device without connector.

2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower.

3. For this 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 TGG based Circulator.

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

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
Port	Grade	Operating Wavelength	Power Handling	Fiber Diameter	Fiber Length	Connector
3:3-port	P: P grade	30:1030nm XX: Others	L: low power	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 SA: SC/APC LA: LC/APC XX: Others

Part Number Example : PIOC-3-P-30-L-90-10-00

Description: 1030nm Polarization Insensitive Optical Circulator, P Grade, 50mW power handling, 1060-XP fiber, with 0.9mm OD loose tube, 1.0m length fiber pigtails, and no connectors at all ports.

Ordering Information for Custom Parts

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