Single Mode 3 Ports Polarization Insensitive Optical Circulator

Description

A Single Mode three-port polarization insensitive fiber optic circulator is a multi-port non-reciprocal optical device where light can only propagate in one direction. If a signal is input from port 1, it will output from port 2; conversely, if a signal is input from port 2, it will output from port 3, with very low output loss. However, if light is input from port 2, the loss is significant when outputting from port 1, and similarly, if light is input from port 3, the loss is also significant when outputting from either port 1 or 2.

Firsol can customize fiber optic circulators with different wavelengths, power levels, and fiber types according to user needs. Its products are widely used in fiber lasers, fiber amplifiers, underwater laser communication, fiber optic sensing, scientific research, and other fields.

Features

Low Insertion Loss
High Isolation
High Stability and Reliability
Compact Size

Applications

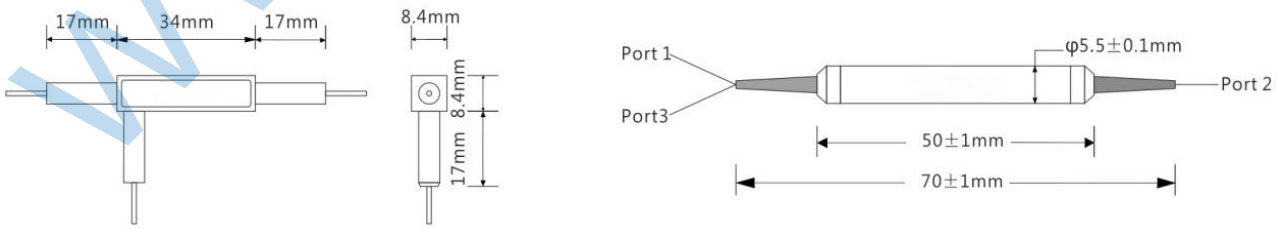
WDM System
Fiber Sensor/Amplifier/Bragg Grating
Chromatic Dispersion Compensation Devices

Specifications

Parameter	Unit	Value				
Center Wavelength	nm	1064	1310/1480/1550	C+L Band	S+C+L Band	1950/2000/2050
Operating Wavelength Range	nm	±5	±30	1528-1610	1460-1625	±30
Peak Isolation	dB	≥28	≥50	≥50		≥25
Isolation	dB	≥22	≥40	≥40		≥20
Insertion Loss	dB	≤2.2	≤0.8	≤0.9		≤1.5
Return Loss	dB	≥50				
Polarization Dependent Loss	dB	≤0.15				
Max Optical Power (CW)	W	0.3	0.5/1/5	0.5/1/2		0.5
Max Peak Power (Pulse)	KW	<10@ns pulse				
Crosstalk	dB	≥45				
Fiber Type	-	Hi1060	SMF-28e			SM1950
Package Dimensions	mm	34 x 8.4 x 8.4	Φ5.5 x L50			
Operating Temperature	°C	-5 to +70				
Storage Temperature	°C	-40 to +85				

Notes: Tested at 25 °C. Data exclude connectors; adding connectors increases insertion loss by 0.3 dB and reduces return loss by 5 dB.

Product Dimensions



Ordering Information

□nm	□W	□	□m	□μm	□
Center Wavelength	**Max Optical Power (CW)**	**Fiber Type**	**Pigtail Length**	**Pigtail Diameter**	**Connector**
1064nm	0.3W	Hi1060	0.5m	250μm Bare Fiber	None
1310nm	0.5W	SMF-28e	1.0m	900μm Loose Tube	LC/UPC
1480nm	1W	SM1950	1.5m		LC/APC
1550nm	5W		2.0m		SC/UPC
C+L Band					SC/APC
S+C+L Band					FC/UPC
1950nm					FC/APC
2000nm					ST/UPC
2050nm					ST/APC