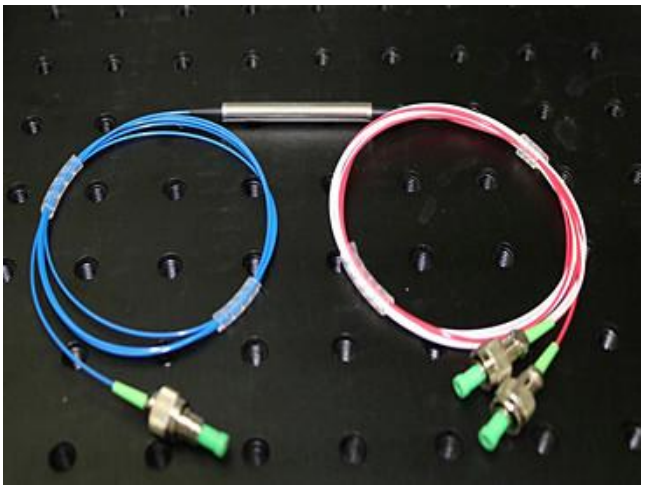
1310nm Polarization Maintaining 4-Port Fiber Circulator



Product Description

Polarization Maintaining (PM) Fiber Optic Circulators are irreversible, unidirectional, three-port devices that are widely used in a wide range of optical devices and applications. Our PM optical circulators are available with center wavelengths of 1064, 1310 (O-band), or 1550 nm (C-band). In addition, these PM optical circulators are available with connectorless, FC/PC, or FC/APC connectors. Optical circulators are three-port devices that can only propagate light in one direction. A signal input at port 1 will be output at port 2, and a signal input at port 2 will be output at port 3, with

very little loss. Light input at port 2 will be lost when it is output at port 1, and light input at port 3 will be lost when it is output at both ports 1 and 2. Optical circulators are irreversible optical devices. Due to their high isolation and low insertion loss, fiber optic circulators are widely used in advanced communication systems such as add/drop multiplexers, bidirectional pumping systems, and dispersion compensation devices. High-power fiber circulator is an improved product developed on this basis. Idealphotonics can customize a wide range of wavelengths and can withstand high power, including (850, 980, 1018, 1053, 1064, 1310, 1550, 1650nm, etc. Some wavelength powers can meet 5~10W power and polarization-maintaining (PM) fiber optical circulators.

Product features

Wavelength range: 1525-1610 nm、 Bare fiber, polarization-maintaining fiber with FC/PC connector or FC/APC connector、 Damage threshold 500 mW

Part Number

MP-CIR-1310-A-4-PA

Application area

Differential multiplexing、 Light sensor、 Bidirectional pumping、 Bidirectional signal transmission system、 Coaxial coupling dispersion compensation device

Core parameters

Central wavelength	Fiber type
1310nm	PM1310

General Parameters

Parameters

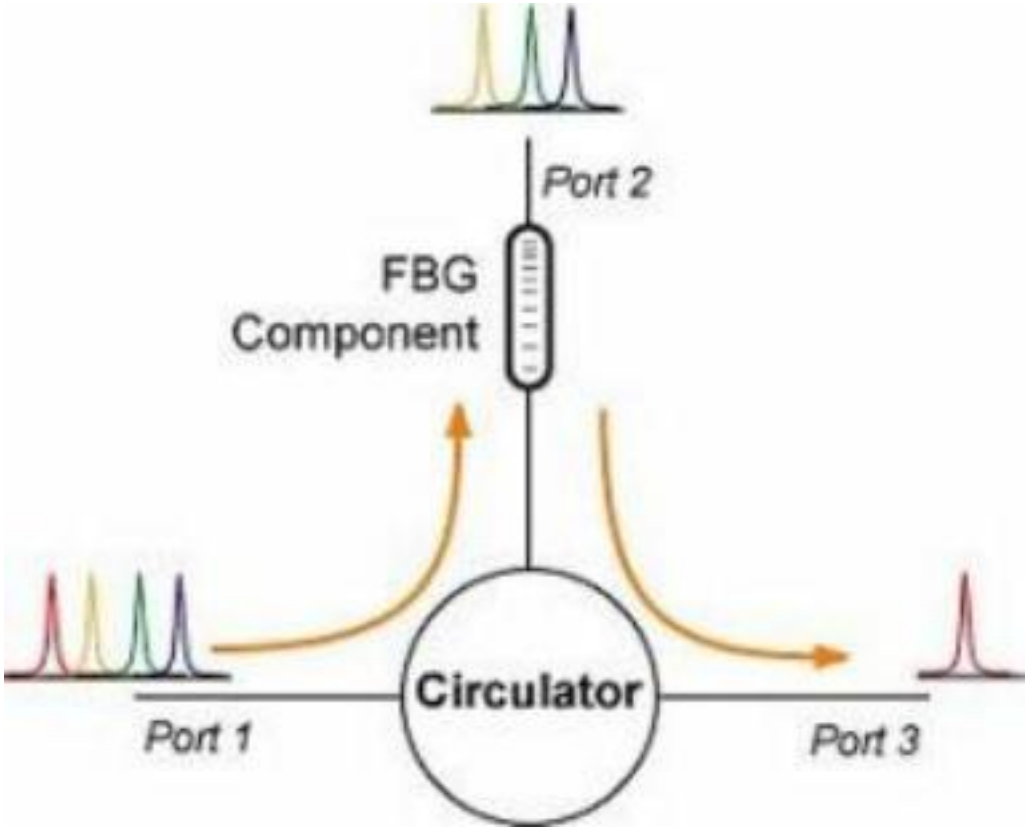
Parameter	Value
Central wavelength(nm)	1550 or 1310
Bandwidth range(nm)	±30
Insertion loss(dB)	⩽1.20
Port and operating mode	3 port，(Port 1→2, 2→3)
Isolation(dB)	⩾30
Directivity(dB)	⩾40
Return loss(dB)	⩾40
Extinction ratio(dB)	20dB
Withstand power(mW)	⩽500
Tensile load	5N
Polarization-dependent loss	0.1dB
Fiber type	PM1550
Operating temperature(℃)	0~-70

Parameter	Value
Storage temperature(℃)	-40~85
Packaging size(mm)	¢5.5×68(P1) ； 90x20×9.5(P2)

Note:

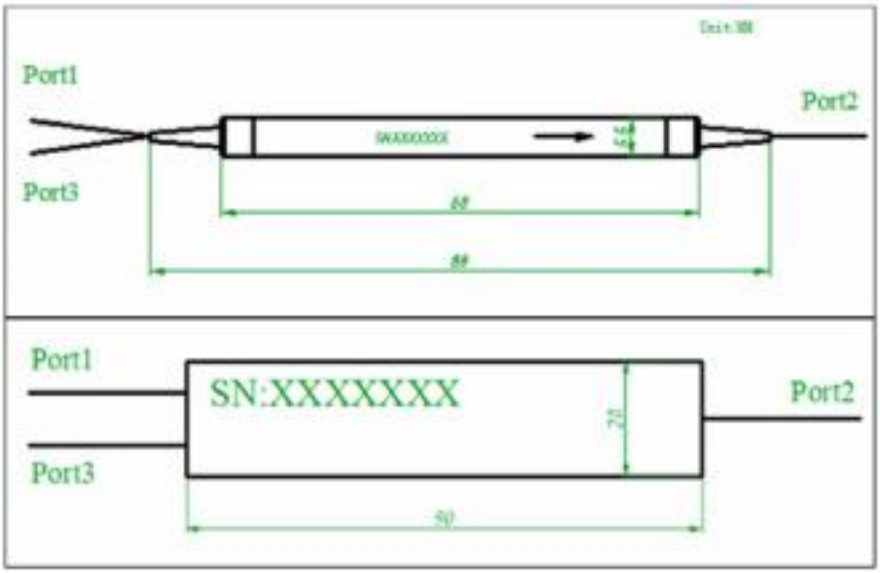
***All parameters are measured without connectors**

***If connectors are added, IL will increase by 0.3dB and RL will decrease by 5dB.**



Circulators are often combined with fiber Bragg gratings to separate optical channels in DWDM systems.

Dimension



Ordering Information

MP-CIR- W□□□□-S○-P▽-☆-△-XX

W□□□□: Wavelength

1310:1310nm

1550:1550nm

0532:532nm

S○: Port Structure

12:1x2(3 port)

22:2x2（4 port）

▽: Package

01: P1(5.5x68mm)

02: P2(90x20x9.5mm)

☆ ： Pigtail Length

05:0.5m

1： 1m

10:10m

△： Loose Tube

B:Bare Fiber

9:900um Loose Tube

20:2mm Loose Tube

30: 2mm Loose Tube

XX: Fiber and Connector Type

SA=SMF-28E+ FC/APC

SP=SMF-28E+ FC/PC

PA=PM Fiber+ FC/APC

PP=PM Fiber+ FC/PC