

1550nm Polarization Maintaining 3-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-1550-A-3-PA

● Application area

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

● Core parameters

Central wavelength	Fiber type
1550nm	PM1550

● General Parameters

Parameters

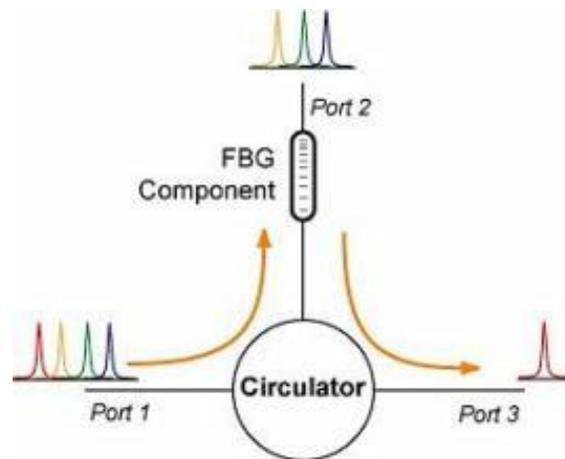
Parameter	Value
Central wavelength(nm)	1550 or 1310
Bandwidth range(nm)	± 30
Insertion loss(dB)	≤ 1.20
Port and operating mode	3 port, (Port 1→2, 2→3)
Isolation(dB)	≥ 30
Directivity(dB)	≥ 40
Return loss(dB)	≥ 40

Parameter	Value
Extinction ratio(dB)	20dB
Withstand power(mW)	≤500
Tensile load	5N
Polarization-dependent loss	0.1dB
Fiber type	PM1550
Operating temperature(°C)	0~-70
Storage temperature(°C)	-40~85
Packaging size(mm)	∅ 5.5×68(P1) ; 90x20×9.5(P2)

Note:

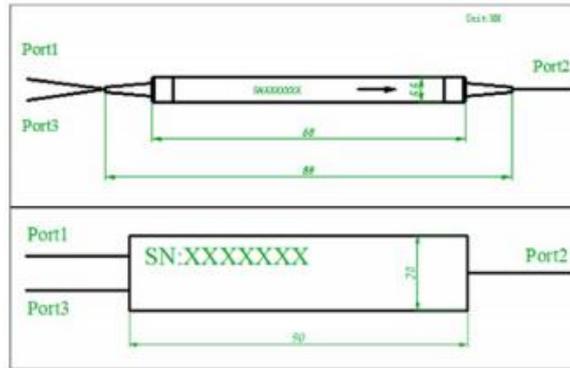
***All parameters are measured without connectors**

***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