

## 1103nm High Power 4-port PM Optical Circulator

## FEATURES

- High Isolation
- Low Insertion Loss
- Epoxy-Free Optical Path
- High Reliability and Stability
- Low Profile Packaging

## APPLICATIONS

- Fiber Optic Amplifiers
- Fiber Optic Instruments
- WDM Systems
- Dispersion Compensation
- Light Routing

## SPECIFICATIONS

Parameter		Unit	Value
Center Wavelength		nm	1103
Operating Wavelength Range		nm	+/-10
Insertion Loss@ 23 °C	(Typ.)	dB	1.0
	(Max.)	dB	1.8
Optical Path	C Type	-	1→2, 2→3, 3→4 (Loss:4→1 is Uncontrolled)
	D Type	-	1→2, 2→3, 3→4, 4→1
	E Type	-	1→2, 2→3, 3→4 (4→1 is Isolated)
Isolation @ 23 °C	(Typ.)	dB	20
	(Min.)	dB	18
Optical Return Loss		dB	≥45
Extinction Ratio		dB	≥18
Work Mode	S Type	-	Can only work in slow axis
	F Type	-	Can work both in Slow and Fast Axis
Fiber Type		-	PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)
			10/125um PMDC Fiber (O), 15/130um PMDC Fiber (W)
			20/130um PMDC Fiber (Q) or 25/250um PMDC Fiber (R)
Fiber Tensile Load		N	5
Maximum Total Optical Power (CW)		W	0.5, 1, 2, 3, 5, 10, 15, 20, 25, 30
Operating Temperature		°C	0~50
Storage Temperature		°C	-20~75

**Note:** 1. Specifications are for device without connectors; Specifications may change without notice.

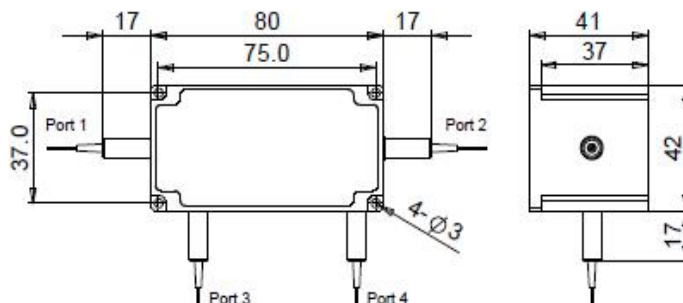
2. To add connectors, IL is 0.5dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.

3. Only guarantee 1W continuous wave (CW) power thru testing for connectors added.

4. Devices for higher optical power or with other type fiber or consigned fiber are also available; Devices can only work in the core of Double Cladding (DC) Fiber, Cladding Power must be stripped before connecting the device.

5. Package size may be different for different optical power, configuration and fiber types.

## PACKAGE DIMENSION



## ORDERING INFORMATION (PN)

<b>FPCR-NNNN</b>	<b>- (C)</b>	<b>(C)</b>	<b>-4HP NN</b>	<b>- (NN/NN)</b>	<b>- (NN)</b>	<b>- C</b>	<b>C</b>	<b>NN</b>	<b>- CC/CCC</b>
<i>Center Wavelength</i>	<i>Work Mode</i>	<i>Optical Path</i>	<i>Optical Power(Total)</i>	<i>Optical Power P2/P3</i>	<i>Optical Power P4</i>	<i>Fiber Type</i>	<i>Fiber Sleeve</i>	<i>Fiber Length</i>	<i>Connector Type</i>
<b>1103-1103nm</b>	<b>F=F Type</b>	<b>D=D Type</b>	<b>05- 500mW</b>	<b>1- 1W</b>	<b>1- 1W</b>	<b>2-PM980Fiber</b>	<b>B= Bare Fiber</b>	<b>05-0.5m</b>	<b>N=Without Connector</b>
<b>Blank for S Type</b>	<b>E=E Type</b>		<b>1- 1 Watts</b>	<b>2- 2W</b>	<b>2- 2W</b>	<b>E-PM1060L Fiber</b>	<b>L= Loose Tube</b>	<b>10-1.0m</b>	<b>FC/APC=FC/APC Connector</b>
		<b>Blank for C Type</b>	<b>5- 5 Watts</b>	<b>5-5W</b>	<b>5-5W</b>	<b>Q-20/130 PMDC Fiber</b>	<b>2- 2mm Cable</b>	<b>15-1.5m</b>	<b>LC/PC=LC/PC Connector</b>
			<b>20- 20 Watts</b>	<b>Blank for P2/3-P1</b>	<b>Blank for None</b>	<b>R-25/250 PMDC Fiber</b>	<b>3- 3mm Cable</b>	<b>20-2.0m</b>	<b>SC/UFC=SC/UFC Connector</b>