1103nm 3-port PM Optical Circulator for Pulse Power

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

Center Wavelength nm 1103 Bandwidth nm +/-5 Insertion Loss (1→2, 2→3) (Typ.) dB 2.1 Isolation@ 23°C (Typ.) dB 23 (3→2, 2→1) (Min.) dB 18 Cross Talk dB ≥50 Optical Return Loss dB ≥50 Extinction Ratio (Typ.) dB 20 (Min.) dB 18 Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Parameter		Unit	Value		
Insertion Loss (1→2, 2→3) (Typ.) dB 2.1 (Max.) dB 2.7 Isolation@ 23°C (Typ.) dB 23 (3→2, 2→1) (Min.) dB 18 Cross Talk dB ≥50 Optical Return Loss dB ≥50 Extinction Ratio (Typ.) dB 20 (Min.) dB 18 Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Center Wavelength		nm	1103		
Insertion Loss (1→2, 2→3) (Max.) dB 2.7 Isolation@ 23°C (Typ.) dB 23 (3→2, 2→1) (Min.) dB 18 Cross Talk dB ≥50 Optical Return Loss dB ≥50 Extinction Ratio (Typ.) dB 20 (Min.) dB 18 Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Bandwidth		nm	+/-5		
(Max.) dB 2.7 Isolation@ 23°C (Typ.) dB 23 (3→2, 2→1) (Min.) dB 18 Cross Talk dB ≥50 Optical Return Loss dB ≥50 Extinction Ratio (Typ.) dB 20 (Min.) dB 18 Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Incortion Loss (1-)	(Typ.)	dB	2.1		
(3→2, 2→1) (Min.) dB 18 Cross Talk dB ≥50 Optical Return Loss dB ≥50 Extinction Ratio (Typ.) dB 20 (Min.) dB 18 Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Insertion Loss (172,	(Max.)	dB	2.7		
$ \begin{array}{c cccc} Cross Talk & dB & \geq 50 \\ \hline Optical Return Loss & dB & \geq 50 \\ \hline Extinction Ratio & (Typ.) & dB & 20 \\ \hline (Min.) & dB & 18 \\ \hline Polarization Alignment & - Slow Axis \\ \hline \hline PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L) \\ \hline \end{array} $	Isolation@ 23°C (Typ.)		dB	23		
Optical Return LossdB≥50Extinction Ratio(Typ.)dB20(Min.)dB18Polarization Alignment-Slow AxisPM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	(3 → 2, 2 → 1) (Min.)		dB	18		
Extinction Ratio (Typ.) dB 20 (Min.) dB 18 Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Cross Talk		dB	≥50		
Extinction Ratio (Min.) dB 18 Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Optical Return Loss		dB	≥50		
Polarization Alignment - Slow Axis PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)	Extinction Patio	(Typ.)	dB	20		
PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)		(Min.)	dB	18		
	Polarization Alignmen	t	-	Slow Axis		
F1				PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)		
Fiber Type - 10/125um PMDC Fiber (V)	Fiber Type		-	10/125um PMDC Fiber (O), 15/130um PMDC Fiber (W)		
20/130um PMDC Fiber (Q) or 25/250um PMDC Fiber (R)				20/130um PMDC Fiber (Q) or 25/250um PMDC Fiber (R)		
Fiber Tensile Load N 5	Fiber Tensile Load		N	5		
Max. Average Optical Power mW 300	Max. Average Optical	Power	mW	300		
Max. Peak Power for Pulse kW 0.1, 1, 2, 3, 5, 10, 15, 20	Max. Peak Power for I	Pulse	kW	0.1, 1, 2, 3, 5, 10, 15, 20		
Operating Temperature °C 0~50	Operating Temperatu	re	°C	0~50		
Storage Temperature °C -40~85	Storage Temperature		°C	-40~85		
Package Dimension Stainless Steel Tube (SST) mm ©5.5x ¹ 35	Packago Dimonsion	Stainless Steel Tube (SST)	mm	^Ø 5.5x [∟] 35		
Package Dimension Metal Box mm L120xW12xH10		Metal Box	mm	^L 120x ^W 12x ^H 10		

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. The devices can only work in slow axis and fast axis is blocked.
- 4. Only guarantee 1W continuous wave (CW) power thru testing for connectors added.
- 5. 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

ORDERING INFORMATION (PN)

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FPCR-	NNNN	-3H NN	P NN	- (<mark>C</mark>)	C	С	NN -	CC/CCC	
	Center Wavelength	Average Power	Peak Power	Package	Fiber Type	Fiber Sleeve	Fiber Length	Connector Type	
	1103=1103nm	03=300mW	<mark>01</mark> =100W	M=Metal Box	2=PM980Fiber	B= Bare Fiber	05=0.5m	N=Without Connector	
			<mark>1</mark> = 1kW	<i>Blank</i> for SST	E=PM1060L Fiber	L= Loose Tube	10=1.0m	FC/APC=FC/APC Connector	
			5 =5kW		Q=20/130 PMDC Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector	
			10=10kW		R=25/250 PMDC Fiber	3= 3mm Cahle	20=2 0m	SC/IIPC=SC/IIPC Connector	



