

1064nm 3 Port Polarization Insensitive Optical Circulator (CIR)

Features

Compact Package
High Isolation & Low Insertion Loss
Low PDL
Telcordia GR-1221 Compliant

Application

Fiber Amplifier
Fiber Laser
OCT equipment
Testing Equipment

Specifications



Parameters	Unit	3 Port, P1 → P2 → P3, P3 → P1
Operating Wavelength (λ_{op})	nm	1064±10nm
Peak isolation	dB	38
Isolation (λ_c , 23°C all sop) ^[1]	dB	≥25
Isolation (λ_{op} , Top, all sop)	dB	≥20
Insertion Loss (λ_{op} , 23°C all sop)	dB	≤2.1 (Typ.1.8)
Polarization Dependent Loss (PDL)	dB	≤0.20
PMD	ps	≤0.1
Directivity (DIR) ^[2]	dB	≥45
Return Loss (RL)	dB	≥50
Max Power Handling CW ^[3]	mW	300
Fiber Type		HI1060
Package Size	mm	34x8.4x8.4
Operating Temperature	°C	0 ~ +70
Storage Temperature	°C	-40 ~ +85

Above data test at room temperature without connectors. With connectors, IL+0.3dB, RL-5dB.

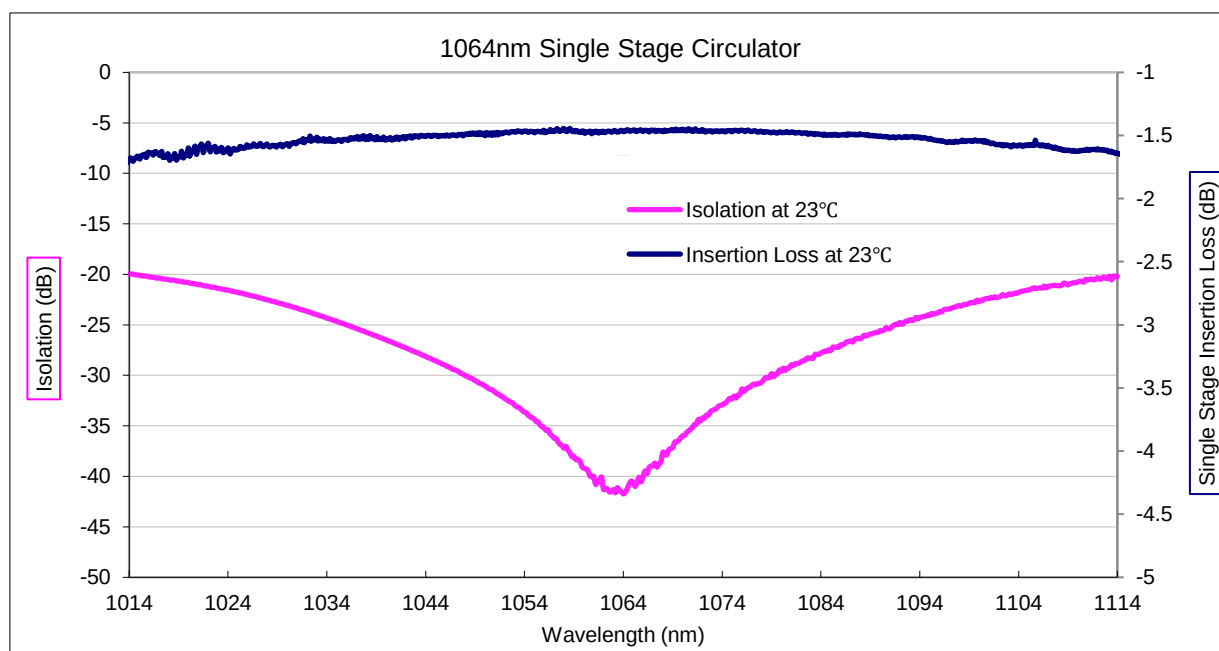
^[1] all sop=all state of polarization.

^[2] $DIR = 10 * \log_{10} (P_{P3} / P_{P1})$, test light input from P1, P=power in mW, test light input from P1.

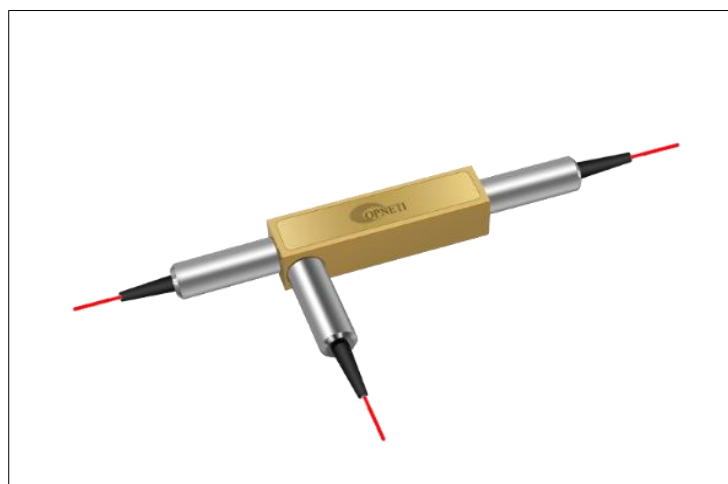
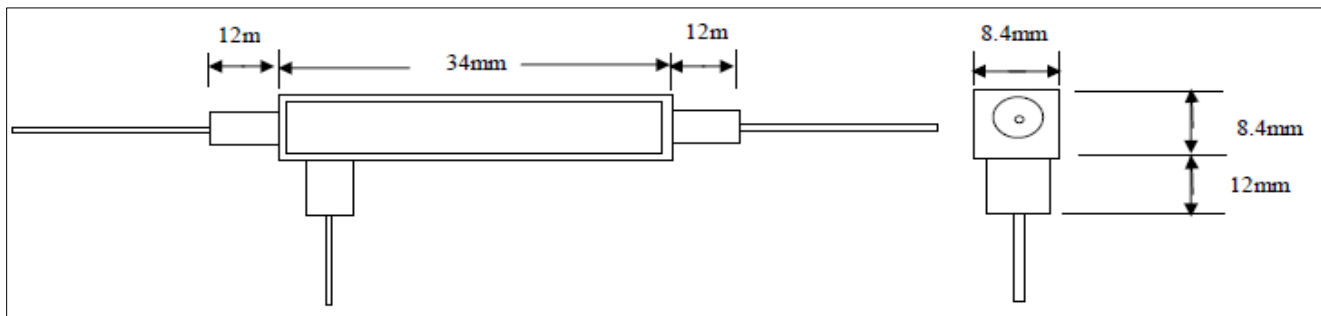
While test DIR, coil P2 fibers 3-5 turns around a 10-30mm diameter loop, this prevents back reflections into output P3, which would significantly lower DIR. If connector is needed at P3, an Angle polished (APC) connector will be recommended.

^[3] Permanent damage may occur if the input power exceeds 300mW. Cannot be used in pulse apps.

Typical Spectrum



Package Information



Ordering Information

CIR- ①-②②②②②-③③③-④-⑤-⑥⑥

①	Type	3=3 Port;
②	Wavelength	1064;
③	Pigtail Type	250=250μm Fiber; 900=900μm Loose Tube;
④	Fiber Type	4=HI1060;
⑤	Fiber Length	1=1m; XX=other;
⑥	Connector	NE=None; FA=FC/APC; FC=FC/UPC; SA=SC/APC; SC=SC/UPC; LC=LC/UPC; XX=Others;