

3-Port 1550 or 1310nm Optical Circulator

Features:

- High Channel Isolation
- Low Insertion Loss
- High Return Loss
- Low PDL
- High Stability and Reliability
- Epoxy free optical path

Applications:

- CATV system
- Telecommunication network system
- Metro/Access network
- Optical amplifier
- Wavelength Add/Drop
- Dispersion Compensation

Optical Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Notes
Operating wavelength range	λ_{OP}	1550+/-30 or 1310+/-30			nm	
Insertion loss (1 → 2 or 2 → 3 @ λ_{OP} , T_{OP} , SOP)	IL		0.6	0.9	dB	
IL@1500~1630nm or 1260~1360nm	IL		0.9	1.3	dB	[1]
Isolation (2 → 1 or 3 → 2 within λ_{OP} , 23°C, SOP)	IS	42	50		dB	
IS(2 → 1 or 3 → 2 within λ_{OP} , T_{OP} , SOP)	IS	35	42		dB	[1]
IS@1500~1630nm or 1260~1360nm	IS	27	33		dB	[1]
PDL(1 → 2 or 2 → 3 within λ_{OP} , T_{OP})	PDL		0.1	0.15	dB	[1]
Directivity (1 → 3)	Dir	52			dB	[1]
Return loss	RL	52			dB	[1]
Polarization mode dispersion	PMD			0.1	ps	[1]
Optical power handling	P			500	mW	[1]
Operating temperature range	T_{OP}	-10		70	°C	
Storage temperature	T_{Sto}	-40		85	°C	
Relative humidity (non-condensing)		0		95	%RH	
Fiber type		SMF28e, 250um bare fiber				
Fiber length	L	> 1.0			m	
Connectors		None				
Physical dimensions		$(\phi) < 5.5$; $L < 49$			mm	[2]
Color coding		Port 1: Black, Port 2&3: natural				

1, Guaranteed by design

2, Diameter tolerance $\pm 0.1\text{mm}$