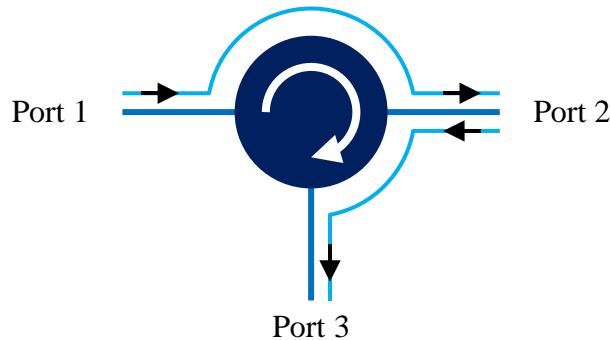


Product: 3 Port Optical Circulator

Part Number	Spec Number	Version	Date
SCIRXXXXXXXXXXXX	S002	Rev 03	02/05/2022

1 Function Diagram

This is optical circulator. The function of 3 port circulator is Port 1 to Port 2, Port 2 to Port 3.



2 Specifications

2.1 Environment Conditions

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
1.	Operating Temperature	Top	0		70	°C	
2.	Storage Temperature	Tstor	-40		85	°C	
3.	Operating Relative Humidity	RHop	5		95	%	[1]
4.	Storage Relative Humidity	RHstor	5		95	%	[1]

Note:

[1] Not to exceed industrial standard of 0.024 kg water per kg of dry air under non-condensing conditions.

2.2 Optical Specifications

2.2.1 O, C, L band

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
5.	Operating Wavelength	O Band	λ_{op}	1290 ~ 1330		nm	
		C Band	λ_{op}	1528 ~ 1565		nm	
		L Band	λ_{op}	1570 ~ 1610		nm	
6.	Insertion Loss (1→2, 2→3) @ λ_{op}	IL			0.8	dB	
7.	Isolation (2→1, 3→2) @ λ_{op}	Iso	35			dB	
8.	Polarization Dependent Loss @ λ_{op}	PDL			0.2	dB	
9.	Directivity (1→3) @23°C	DIR	50			dB	
10.	Return Loss (All Ports) @23°C	RL	50			dB	
11.	Polarization Mode Dispersion	PMD			0.1	ps	G
12.	Optical Power	Pop			500	mW	G

Note:

*Above specifications are for device without connector. IL is 0.3 dB higher, RL is 5 dB lower after connector added.

G: Guaranteed by design.

2.2.2 C+L, 1625 band

Item	Parameters	Symbol	Min	Typ	Max	Units	Note
13.	Operating Wavelength	C+L Band	λ_{op}	1528 ~ 1610		nm	
		1625nm	λ_{op}	1615 ~ 1635		nm	
14.	Insertion Loss (1→2, 2→3) @ λ_{op}	IL			1.0	dB	
15.	Isolation (2→1, 3→2) @ λ_{op}	Iso	30			dB	
16.	Polarization Dependent Loss @ λ_{op}	PDL			0.3	dB	
17.	Directivity (1→3) @23°C	DIR	50			dB	
18.	Return Loss (All Ports) @23°C	RL	50			dB	
19.	Polarization Mode Dispersion	PMD			0.1	ps	G
20.	Optical Power	Pop			500	mW	G

Note:

*Above specifications are for device without connector. IL is 0.3 dB higher, RL is 5 dB lower after connector added.
G: Guaranteed by design.

2.3 Mechanical Specifications

2.3.1 Specifications

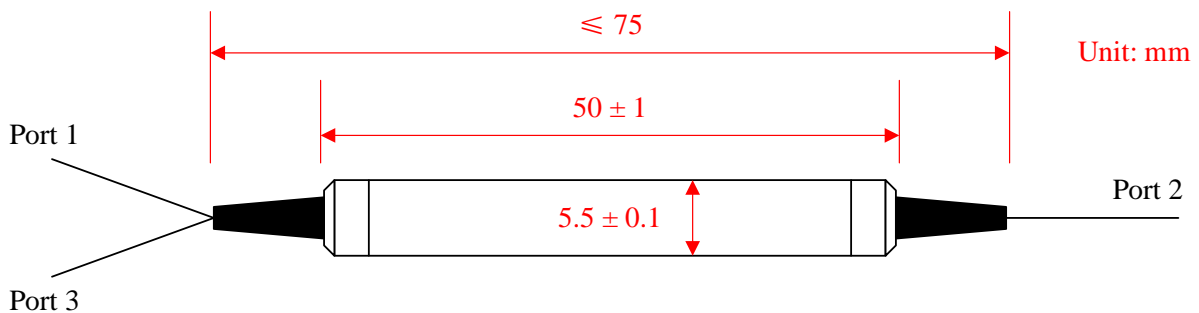
Item	Parameters	Symbol	Min	Typ	Max	Units	Note
21.	Fiber Type			G.657 A1			
22.	Fiber Length			By PN		m	
23.	Fiber Jacket			By PN			[2]
24.	Connector Type			By PN			
25.	Package Dimension			See below for details		mm	
26.	Fiber Color	Port 1		Black			[3]
		Port 2		Natural			
		Port 3		Natural			

Note:

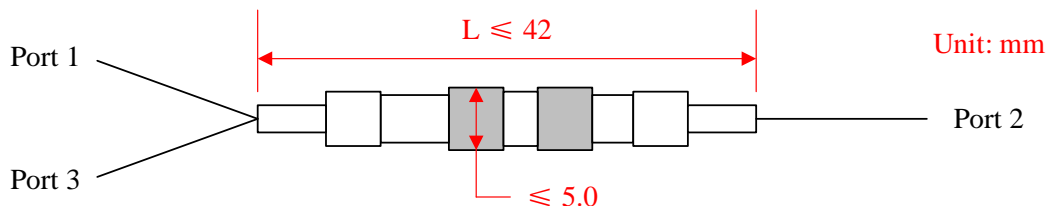
[2] Available in bare fiber or loose tube. Loose tube is only for steel tube packaging.
[3] Mark the bare fiber starting at 10~30cm away from the device body to fiber end.

2.3.2 Drawings

2.3.2.1 Steel tube package



2.3.2.2 Glass tube package



3 Device Label, Delivery Data

Triple-Stone standard format.

4 RoHS

RoHS compliant.

5 Order Information

