

Fiber Optical Circulator

1310nm, 1550 nm



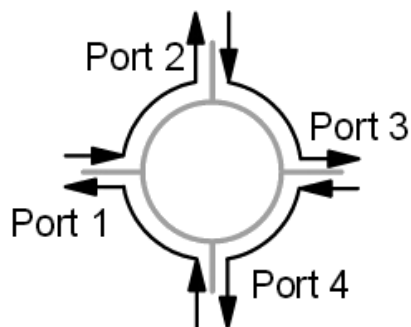
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The OC Series 1310/1550 Optical Circulators are non-reciprocal devices that redirect light at 1310/1550 nm from port-to-port in only one direction while minimizing back reflection and back scattering in the reverse directions for any state of polarization. Employing Agiltron's advanced micro optics design, it features low insertion loss, low polarization sensitivity, high isolation, compact structure, and high stability. The excellent characteristics of this product make it an ideal choice for application in fiber amplifier systems, pump laser diodes, and optical fiber sensors.

It is possible to produce a circulator with complete circulation at an exceptionally high cost.



Features

- Low Insertion Loss
- Low PDL
- High Channel Isolation
- Compact Package
- High Reliability & Stability
- Cost Effective

Applications

- Optical Fiber Amplifier
- Metropolitan Area Network
- Fiber Optic Sensor
- Dispersion Compensation
- Test and Measurement
- Instrumentation

Specifications

OC Series 1310/1550 Circulator		Specifications				Unit
Operating Wavelength	1310	1295 ~ 1325			nm	
	C Band	1530 ~ 1570			nm	
	L Band	1570 ~ 1610			nm	
	C + L	1525 ~ 1610			nm	
Type		3- Port		4- Port		
		1310	C, L	C + L	1310, C, L	nm
Insertion Loss ^[1]	Typical	0.6	0.7	0.7		dB
	Maximum	0.9	1.0	1.0		dB
Isolation (2→1, 3→2, or 4→3) ^[2]		36	30	36		dB
Directivity (1→3 or 2→4)		> 50				dB
Polarization Dependent Loss		< 0.10		< 0.15		dB
Polarization Mode Dispersion		< 0.1				Ps
Return Loss ¹		> 50				dB
Optical Power Handling		< 500				mW
Operating Temperature Range		0 ~ 70				°C
Storage Temperature		-40 ~ 85				°C
Fiber Type		Corning SMF-28				
Fiber Length		> 1				m
Package Dimension		Φ5.5x 58.0(L)		Φ5.5x 65.0(L)		mm

Notes:

- [1] Excluding connectors
- [2] @λop, Top, SOP

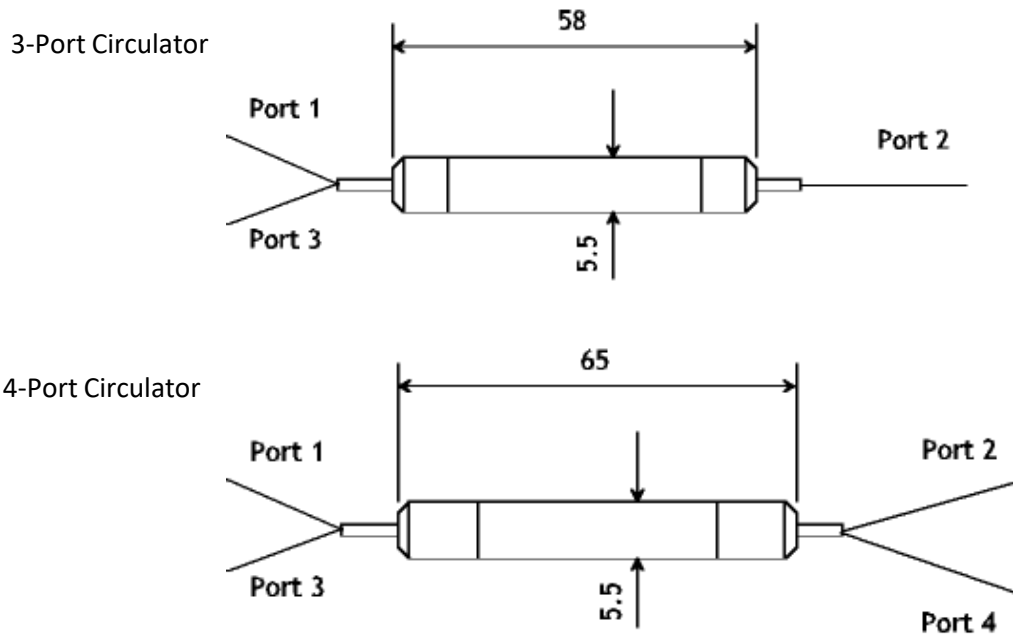
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Mechanical Dimensions (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Loose Tube Color Key

- Port 1 = red 900 μm loose tube
- Port 2 = blue 900 μm loose tube
- Port 3 = white 900 μm loose tube

Ordering Information

Prefix	Type	Wavelength	Grade	Package Type	Fiber Type	Fiber Cover	Fiber Length	Connector
OCPI-	3 Port = 30 4 Port Partial ^[1] = 40 4 Port Full ^[2] = 44 Special = 00	1525~1610 nm = 2 1295~1325 nm = 3 1530~1570 nm = 5 1570~1610 nm = L	Standard = 1 Special = 2	5.5 x 58 = 1 5.5 x 65 = 2 5.5 x 38 = 3 Special = 0	SMF-28 = 1 Special = 0	Bare fiber = 1 900um loose tube = 3 Special = 0	0.25m = 1 0.5m = 2 1.0m = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/UPC = U Special = 0

[1]. 4 Port Partial – 1 to 2, 2 to 3, and 3 to 4.
[2]. 4 Port Full – 1 to 2, 2 to 3 3 to 4, and 4 to 1