

1310 / 1550 nm Polarization Maintaining Optical Circulator



DATASHEET

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The OC Series 1310/1550 PM Optical Circulator is a non-reciprocal device that maintains polarization while redirecting light at 1310/1550 nm from port-to-port in only one direction while minimizing back reflection and back scattering in the reverse direction. Employing Agiltron's advanced micro optics design, it features low insertion loss, high extinction ratio, high isolation, compact package, and high stability. The excellent characteristics of this product make it an ideal choice for application in fiber amplifier systems, pump lasers, and optical fiber sensors.

Features

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

Specifications

| Parameter | Min | Typical | Max | Unit |
|--|---------------------------|--------------|-----|------|
| Operation Wavelength | 1310±15, C-Band or L-Band | | | nm |
| Insertion Loss ¹ @ λ_{op} , Top, SOP (1→2, 2→3) | | | 0.8 | dB |
| Channel Isolation ² (2→1, 3→2) | 38 | 45 | | dB |
| Wavelength Dependent Loss | | 0.15 | | dB |
| Extinction Ratio | 18 | 22 | | dB |
| Directivity (1→3) | | >50 | | dB |
| Return Loss ¹ | | >50 | | dB |
| Polarization Alignment | Both slow and fast axis | | | |
| Optical Power Handling | | Maximum: 500 | | mW |
| Tensile Load | | Maximum: 5 | | N |
| Operating Temperature Range | | 0 ~ 70 | | °C |
| Storage Temperature | | -40 ~ 85 | | °C |
| Fiber Type | Panda PM 1550 | | | |
| Fiber Length | | > 1 | | m |
| Package Dimension | | ø5.5 x 34(L) | | mm |

Note:

1. Excluding connectors
2. @ λ_{op} , Top, SOP
3. Fast axis alignment available

Applications

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

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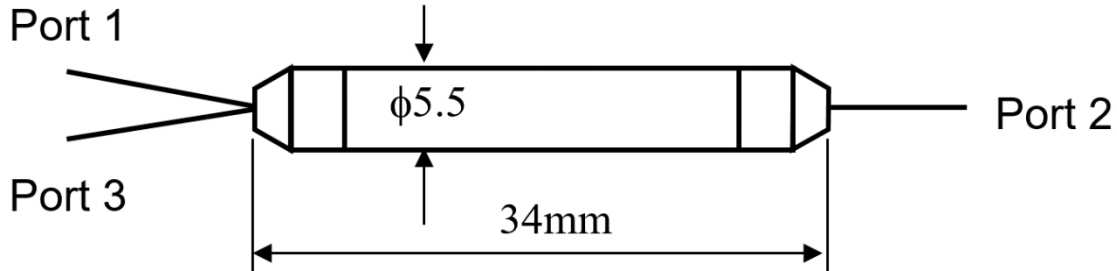
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Mechanical Dimensions (mm)



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

Ordering Information

| Prefix | Type | Wavelength | Grade | Package | Fiber Type | Fiber Cover | Fiber Length | Connector |
|--------|-----------------------------|--|-----------------------------|---|---|---|---|--|
| OCPM- | 3 Port = 30 Special = 00 | 1310 = 3 1550 = 5 C band = C L Band = L C+L = 2 Special = 0 | Standard = 1 Special = 0 | 33 mm = 5 34-39 mm = 2 50 mm = 1 Special = 0 | PM1550 = B Panda 80 = C Special = 0 | Bare fiber=1 900um loose tube=3 Special=0 | 0.25m=1 0.5m=2 1.0 m=3 Special=0 | None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Special=0 |

NOTE:

- PM1550 fiber works well for 1310nm