

Miniature Polarization Maintaining Optical Circulator

(patent pending)

Product Description

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

Performance Specifications

| OC Series PM 1550 Circulator | Min | Typical | Max | Unit |
|---|---------------------------|---------|-----|------|
| Operation Wavelength | 1310±15, C-Band or L-Band | | | nm |
| Insertion Loss ¹ (1→2, 2→3) | | 0.7 | 1.0 | dB |
| Channel Isolation ² (2→1, 3→2) | 40 | 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 | Slow Axis | | | |
| Optical Power Handling | Maximum: 500 | | | mW |
| Tensile Load | Maximum: 5 | | | N |
| Operating Temperature Range | 0 ~ 75 | | | °C |
| Storage Temperature | -40 ~ 85 | | | °C |
| Fiber Type | Panda PM 1550 | | | |
| Fiber Length | > 1 | | | m |
| Package Dimension | Φ3.8x 34(L) | | | mm |

¹@λ_{op}, Top, SOP , Excluding connectors

²@λ_{op}, Top

³Fast axis alignment available

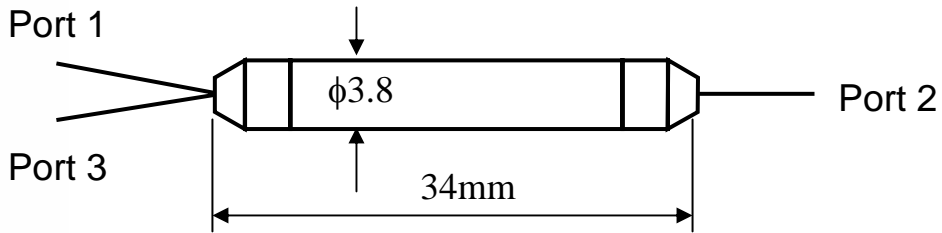
Applications

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



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Mechanical Dimensions (mm)



Ordering Information

| OCPM- | Type | Wavelength | Grade | Package | Fiber | Fiber Length | Connector | |
|---|-------------------------|--|-------------------------|------------------------|---|---|---|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 3 Port=30 Special=00 | 1310=3 1550=5 C band=C L Band=L C+L=2 Special=0 | Standard=1 Special=0 | Ø3.8x34=2 Special=0 | Panda 400um=A Panda 250um=B Panda RC80=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 |