

# 1310/1550 High Power Dual Stage Optical Isolator

(patent pending)

## Product Description

The OIHP Series 1310/1550 high power dual stage optical isolator is designed for high power applications by guiding light at 1310/1550 nm in the normal direction while minimizing back reflection and back scattering in the reverse direction for any state of polarization. Employing Agiltron's proven advanced micro optics design, it features low insertion loss, high power handling, high isolation, compact structure, and high stability. These Telcordia qualified components have excellent characteristics, making them an ideal choice for application in fiber amplifier systems, pump laser diodes and optical fiber sensors.



## Performance Specifications

| OIHP Dual Stage   |        | Specification    | Unit               |
|---|--------|------------------|--------------------|
| Operation Wavelength ( $\lambda_o$ )                                  | 1310   | 1310 $\pm$ 15    | nm                 |
|   | C Band | 1528 ~ 1564      |                    |
|   | L Band | 1570 ~ 1605      |                    |
| Typical Insertion Loss (Over $\lambda_o$ , 0-70°C, SOP, no connector) |        | $\leq$ 0.7       | dB                 |
| Maximum Insertion Loss (Over $\lambda_o$ , 0-70°C, SOP, no connector) |        | $\leq$ 0.9       | dB                 |
| Minimum Isolation (Over $\lambda_o$ , 0-70°C, SOP)                    |        | $\geq$ 35        | Typ $\geq$ 42 * dB |
| Minimum Peak Isolation (Over $\lambda_o$ , 23°C, SOP)                 |        | $\geq$ 42        | Typ $\geq$ 52 * dB |
| Polarization Dependant Loss   |        | $\leq$ 0.15      | dB                 |
| Polarization Mode Dispersion  |        | $\leq$ 0.05      | ps                 |
| Return Loss (Minimum, Input/Output)                                   |        | $\geq$ 55/50     | dB                 |
| Operating Temperature   |        | 0 ~ +70          | °C                 |
| Storage Temperature   |        | -40 ~ +85        | °C                 |
| Optical Power Handling  |        | 5 or 10 **       | W                  |
| Package Dimensions  |        | LxWxH=61X9.2X9.2 | mm                 |
| *At central wavelength  |        |                  |                    |
| **It is strongly recommend to put a fan aside for heat dissipation.   |        |                  |                    |

## Features

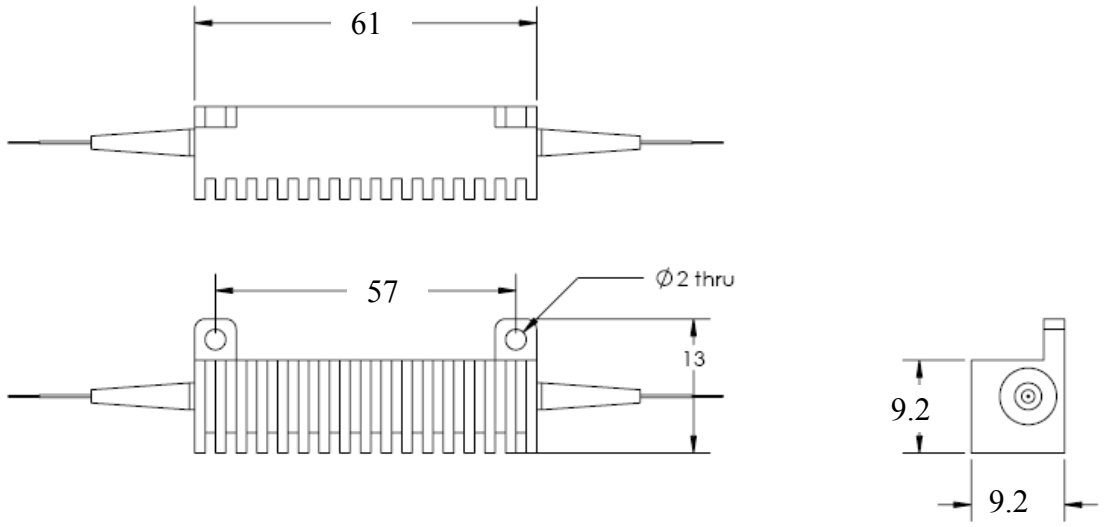
- Low Insertion Loss
- High Power Handling
- High Isolation
- Low PDL
- High Reliability
- Low Cost

## Applications

- Optical Fiber Amplifier
- Pump Laser Source
- Fiber Optic Sensor
- Instrumentation

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## Mechanical Dimensions



## Ordering Information

| OIHP- | 20            | <input type="checkbox"/>                    | <input type="checkbox"/>             | 3       | <input type="checkbox"/> | <input type="checkbox"/>                         | <input type="checkbox"/>                 | <input type="checkbox"/>   |
|-------|---------------|---|--------------------------------------|---------|--------------------------|--|--|--|
|       | Type          | Wavelength                                  | Grade                                | Package | Fiber Type               |  | Fiber Length                             | Connector  |
|       | 20=Dual stage | 3=1310<br>C=C Band<br>L=L Band<br>0=Special | 0=Special<br>5=5 watts<br>6=10 watts |         | 1=SMF-28<br>0=Special    | 1=Bare Fiber<br>3=900µm Loose Tube<br>0= Special | 1=0.25m<br>2=0.5m<br>3=1.0m<br>0=Special | 1=None<br>2=FC/PC<br>3=FC/APC<br>4=SC/PC<br>5=SC/APC<br>6=ST/PC<br>7=LC<br>0=Special |