

## 1580 1480nm High Power PM Isolator WDM Hybrid

1580 1480nm High Power PM Isolator WDM Hybrid is a fiber passive component which integrated with the function of WDM and fiber isolator, it can be used for combine signal wavelength and pump wavelength with a high isolation to avoid the backward wavelength, It's widely used in Fiber Laser and Fiber Amplifier application, higher power type is available upon request.

### Application:

Fiber Laser  
Fiber Amplifier  
Testing System  
Lab And Research

### Features:

Compact Package  
High Isolation  
Low Insertion Loss  
High Reliability



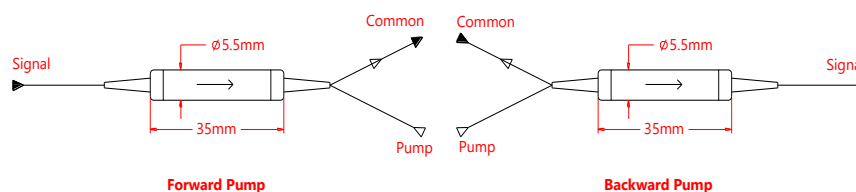
### Specification:

| Parameter                               | Symbol                | Value                                                      |            | Unit |
|-----------------------------------------|-----------------------|------------------------------------------------------------|------------|------|
| Signal Wavelength                       | $\lambda$             | 1580 (1530-1605)                                           |            | nm   |
| Pump Wavelength                         | $\lambda$             | 1480 (1460-1490)                                           |            | nm   |
| Isolator Stage                          |                       | Single Stage                                               | Dual Stage | -    |
| Typ. Peak Isolation (Signal Reflection) | Iso                   | 40                                                         | 55         | dB   |
| Min. Isolation (Signal Reflection)      | Iso                   | 30                                                         | 45         | dB   |
| Max. insertion Loss for Signal          | IL                    | 0.9                                                        | 1.0        | dB   |
| Min. Isolation (Common → Signal @Pump)  | Iso                   | 30                                                         |            | dB   |
| Min. Isolation (Pump → Common @Signal)  | Iso                   | 15                                                         |            | dB   |
| Max. insertion Loss for Pump            | IL                    | 0.6                                                        |            | dB   |
| Min. Extinction Ratio                   | for Fast Axis Blocked | ER                                                         | 22         | dB   |
|                                         | for Both Axes Working | ER                                                         | 20         | dB   |
| Max. Wavelength Dependent Loss          | WDL                   | 0.3                                                        |            | dB   |
| Min. Return Loss                        | RL                    | 50                                                         |            | dB   |
| Min. Directivity                        |                       | 50                                                         |            | dB   |
| Max. Optical Power (CW)                 | P                     | 0.5, 1, 3, 5, 10, 20 or customized                         |            | W    |
| Max. Peak Power                         | P                     | 5, 10 or customized                                        |            | KW   |
| Max. Tensile Load                       |                       | 5                                                          |            | N    |
| Fiber Type                              |                       | PM 1550 for Common & Signal<br>PM 1550 or SMF-28e for Pump |            | -    |
| Operating Temperature                   | T                     | -5~70                                                      |            | °C   |
| Storage Temperature                     | T                     | -40~85                                                     |            | °C   |
| Package Dimension                       |                       | Φ5.5×L35                                                   |            | mm   |

Notice: Above specifications are tested at center wavelength without connector in room temperature @23°C.

For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower. Connectors only 1W CW guarantee.

### Drawing:



### Ordering Information (Part Number):

| HPIW-WWWW-P-S-A-HH-FF-J-LL-CC |              |                  |                       |                |                         |                      |              |              |
|-------------------------------|--------------|------------------|-----------------------|----------------|-------------------------|----------------------|--------------|--------------|
| WWW                           | P            | S                | A                     | HH             | FF                      | J                    | LL           | CC           |
| Wavelength (Signal/Pump)      | Pump Type    | Stage            | Working Axis          | Handling Power | Fiber Type on Pump Port | Fiber Jacket         | Fiber Length | Connector    |
| 5548 - 1550/1480nm            | F - Forward  | S - Single Stage | F - Fast Axis Blocked | Z5 - 0.5W      | S2 - SMF-28e            | B - 250um Bare Fiber | 05 - 0.5m    | NE - None    |
| 5648 - 1560/1480nm            | B - Backward | D - Dual Stage   | B - Both Axes Working | 01 - 1W        | P5 - PM 1550            | 9 - 900um Loose Tube | 10 - 1.0m    | FA - FC/APC  |
| 5748 - 1570/1480nm            |              |                  |                       | 03 - 3W        | SS - Specify            |                      | 15 - 1.5m    | FU - FC/UPC  |
| 5848 - 1580/1480nm            |              |                  |                       | 05 - 5W        |                         |                      | 20 - 2.0m    | SS - Specify |
| 5948 - 1590/1480nm            |              |                  |                       | 10 - 10W       |                         |                      |              |              |
| SSSS - Specify                |              |                  |                       | SS - Specify   |                         |                      |              |              |