

## 1700nm High Power 3-port Polarization Insensitive Optical Circulator

1700nm High Power 3-port Polarization Insensitive Optical Circulator is a fiber passive component built with faraday crystal, which can change signal light transmission path, the signal can be delivered from Port 1 to Port 2, the other signal light from Port 2 to Port 3, the high isolation can block the back reflection light. It's widely used in Fiber Amplifier System, Fiber Optic Sensor and Testing System field. The handling power can be up to 10W CW.

### Application:

Fiber Optic Sensor  
Fiber Optic Amplifier  
Coherent Detecting  
Testing System

### Features:

High Power  
High Isolation  
Low Insertion Loss  
High Reliability



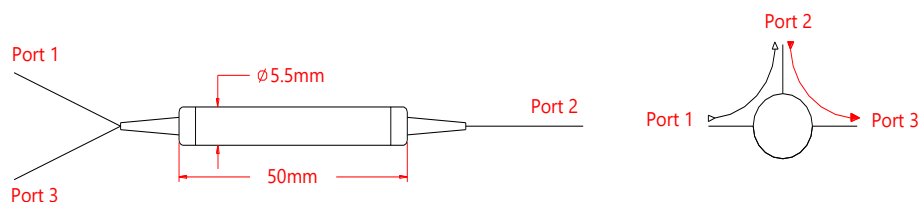
### Specification:

| Parameter                                 | Symbol    | Value                                                | Unit |
|-------------------------------------------|-----------|------------------------------------------------------|------|
| Center Wavelength                         | $\lambda$ | 1700                                                 | nm   |
| Bandwidth                                 | BW        | $\pm 10$                                             | nm   |
| Typ. Insertion Loss (Port 1 to 2, 2 to 3) | IL        | 1.2                                                  | dB   |
| Max. Insertion Loss (Port 1 to 2, 2 to 3) | IL        | 1.5                                                  | dB   |
| Typ. Isolation (Port 2 to 1, 3 to 2)      | Iso       | 35                                                   | dB   |
| Min. Isolation (Port 2 to 1, 3 to 2)      | Iso       | 30                                                   | dB   |
| Max. Polarization Dependent Loss          | PDL       | 0.2                                                  | dB   |
| Max. Polarization Mode Dispersion         | PMD       | 0.1                                                  | ps   |
| Min. Cross Talk                           | Ct        | 50                                                   | dB   |
| Min. Directivity                          |           | 50                                                   | dB   |
| Min. Return Loss                          | RL        | 50                                                   | dB   |
| Max. Optical Power (CW)                   | P         | 1, 3, 5, 10 or customized                            | W    |
| Max. Peak Power                           | P         | 5, 10 or customized                                  | kW   |
| Max. Tensile Load                         |           | 5                                                    | N    |
| Fiber Type                                |           | SMF-28e, SM 1950 or SM-GDF-1550 fiber                | -    |
| Operating Temperature                     | T         | -5~70                                                | °C   |
| Storage Temperature                       | T         | -40~85                                               | °C   |
| Package Dimension                         |           | $\Phi 5.5 \times L50$ or $L90 \times W12 \times H10$ | 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 optical power guarantee.

### Drawing:



### Ordering Information (Part Number):

HPICIR-**WWW-P-HH-FF-J-LL-CC**

| WWW            | P           | HH             | FF               | J                    | LL           | CC          |
|----------------|-------------|----------------|------------------|----------------------|--------------|-------------|
| Wavelength     | Port        | Handling Power | Fiber Type       | Fiber Jacket         | Fiber Length | Connector   |
| 1700 - 1700nm  | 3 - 3 Ports | 01 - 1W        | S1 - SM 1950     | B - 250um Bare Fiber | 05 - 0.5m    | NE - None   |
| 1720 - 1720nm  |             | 03 - 3W        | S2 - SMF-28e     | 9 - 900um Loose Tube | 10 - 1.0m    | FA - FC/APC |
| 1750 - 1750nm  |             | 05 - 5W        | D1 - SM-GDF-1550 | 2 - 2.0mm Loose Tube | 15 - 1.5m    | FU - FC/UPC |
| 1760 - 1760nm  |             | 10 - 10W       | SS - Specify     | 3 - 3.0mm Loose Tube | 20 - 2.0m    | SA - SC/APC |
| 1780 - 1780nm  |             | SS - Specify   |                  |                      | SS - Specify |             |
| SSSS - Specify |             |                |                  |                      |              |             |