

## 509nm High Power Polarization Insensitive Optical Isolator

509nm High Power Polarization Insensitive Optical Isolator is a fiber passive component built with TGG crystal, it allows light signal to be delivered in one forward direction and avoid the back reflection light, it's widely used in Quantum Communication, fiber optic sensor system to protect the light source and lower down the system optical signal noise. if need pulse type please contact us to confirm.

### Application:

Quantum Communication  
Fiber Optic Sensor  
Fiber Laser  
Lab & Research

### Features:

High Isolation  
High Power  
Low Insertion Loss  
High Reliability



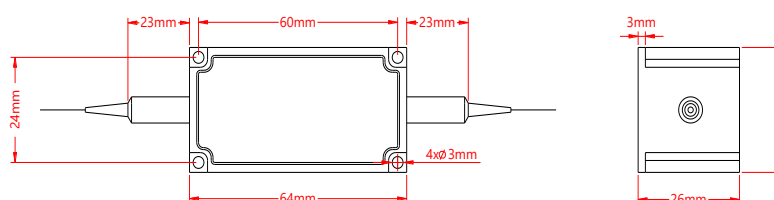
### Specification:

| Parameter                        | Symbol    | Value               | Unit |
|----------------------------------|-----------|---------------------|------|
| Center Wavelength                | $\lambda$ | 509                 | nm   |
| Bandwidth                        | BW        | $\pm 5$             | nm   |
| Typ. Insertion Loss              | IL        | 1.2                 | dB   |
| Max. Insertion Loss              | IL        | 1.5                 | dB   |
| Typ. Peak Isolation              | Iso       | 25                  | dB   |
| Min. Isolation                   | Iso       | 22                  | dB   |
| Max. Polarization Dependent Loss | PDL       | 0.2                 | dB   |
| Min. Return Loss                 | RL        | 45                  | dB   |
| Max. Optical Power (CW)          | P         | 1, 2 or customized  | W    |
| Max. Peak Power                  | P         | 5 or customized     | kW   |
| Max. Tensile Load                |           | 5                   | N    |
| Fiber Type                       |           | Nufern 460-HP fiber | -    |
| Operating Temperature            | T         | +10~50              | °C   |
| Storage Temperature              | T         | 0~60                | °C   |
| Package Dimension                |           |                     | 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):

**HPIISO-WWW-HH-J-LL-CC**

| WWW           | HH             | J                    | LL           | CC           |
|---------------|----------------|----------------------|--------------|--------------|
| Wavelength    | Handling Power | Fiber Jacket         | Fiber Length | Connector    |
| 509 - 509nm   | 01 - 1W        | B - 250um Bare Fiber | 05 - 0.5m    | NE - None    |
| 510 - 510nm   | 02 - 2W        | 9 - 900um Loose Tube | 10 - 1.0m    | FA - FC/APC  |
| 520 - 520nm   | SS - Specify   | 2 - 2mm Loose Tube   | 15 - 1.5m    | FU - FC/UPC  |
| 532 - 532nm   |                | 3 - 3mm Loose Tube   | 20 - 2.0m    | SA - SC/APC  |
| SSS - Specify |                |                      | SS - Specify | SU - SU/APC  |
|               |                |                      |              | LA - LC/APC  |
|               |                |                      |              | LU - LC/UPC  |
|               |                |                      |              | SS - Specify |