

## Key Features

- High isolation
- Low insertion loss
- Cost Effective
- Excellent environmental stability and reliability

## 500~1100nm TGG Based Optical Isolator

The TGG Based Optical Isolator is characterized with low insertion loss, high isolation, high return loss, excellent environmental stability and reliability. It has been widely used in lasers, transmitters and other fiber optics communication equipment to suppress back reflection and back scattering.

DK Photonics offers a large selection of polarization insensitive or polarization maintaining fiber-in to fiber-out isolators. These devices can handle powers rang from 300mW to 150W or other on request, and have center operating wavelengths ranging from 500nm to 2100nm.

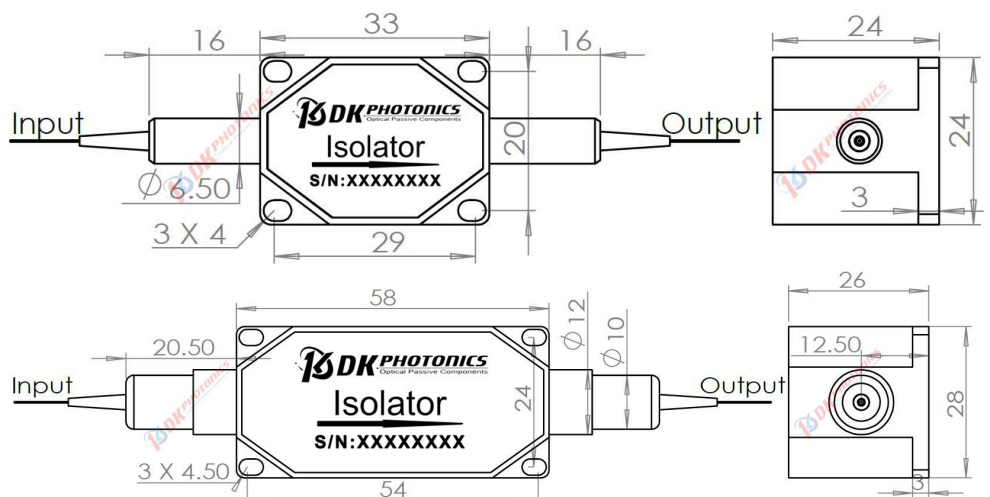
If you do not see a standard isolator that meets your needs, we welcome the opportunity to review your desired specification and quote a custom isolator. Requests for custom fiber pigtails, different wavelengths and handling power of operation or other specific needs will be readily addressed.

## Applications

- Fiber Optic Amplifiers
- Fiber Optic Laser
- Test and Measurement
- Instrumentation



## Package Dimension:



\*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.

## For more Info

### Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

E-mail: [sales@dkphotonics.com](mailto:sales@dkphotonics.com)

<https://www.dkphotonics.com>

Add.:

4F, Bldg. 18, Qinghu Industrial Park,

Dahe Road, Longhua Dis.,

Shenzhen, China 518109



## Performance Specifications

## 500~1100nm TGG Based Optical Isolator

| Parameters                               | Unit | Values           |                 |                    |         |                              |            |
|--|------|------------------|-----------------|--------------------|---------|------------------------------|------------|
| Central Wavelength                       | nm   | 532              | 635, 680        | 780, 808, 850, 930 | 980     | 1030                         | 1064, 1080 |
| Operating Wavelength Range               | nm   | ±5               | ±5              | ±10                |         | ±10                          |            |
| Typ. Peak Isolation                      | dB   | 30               | 30              | 30                 | 30      | 33                           | 33         |
| Min. Isolation in Band (at 23°C)         | dB   | 25               | 25              | 25                 | 25      | 26                           | 26         |
| Typ. Insertion Loss                      | dB   | 1.8              | 1.6             | 1.0                | 0.8     | 0.6                          | 0.8        |
| Max. Insertion Loss (at 23°C)            | dB   | 2.0              | 2.0             | 1.5                | 1.2     | 1.0                          | 1.2        |
| Max. PDL(for SM fiber)                   | dB   |                  | 0.20            |                    |         | 0.15                         |            |
| Min. Return Loss                         | dB   |                  |                 | 45                 |         |                              |            |
| Maximum Power Handling (continuous wave) | W    | 0.05             | 0.1             | 0.5, 1, 2, 5, 10   |         | 0.5, 1, 2, 5, 10, 20         |            |
| Max. Peak Power for ns Pulse             | kW   | /                | /               | 1, 5, 10           |         | 1, 5, 10                     |            |
| Max. Tensile Load                        | N    |                  |                 | 5                  |         |                              |            |
| Fiber Type                               | -    | 460-HP, or other | 630-HP or other | 780-HP, or other   | 1060-XP | 1060-XP, 10/125 SC, or other |            |
| Operating Temperature                    | °C   |                  |                 | 0 ~ + 70           |         |                              |            |
| Storage Temperature                      | °C   |                  |                 | -40 ~ +85          |         |                              |            |
| Dimensions                               | mm   |                  | 33x24x24        |                    |         | 58x28x26                     |            |

1. Above specification are for device without connector and may change without notice.
2. IL is 0.3 dB higher and RL is 5 dB lower for each connector added.
3. The pass optical power is 2 W only for connector added.

## Order information

P/N: ISO -①-②-③-④-⑤-⑥-⑦

When you inquire, please provide the correct P/N number according to our ordering information, and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250μm bare fiber pigtail. For high power applications, we recommend direct splicing without connectors.

| ①          | ②             | ③                  | ④   | ⑤                    | ⑥            | ⑦              |
|------------|---------------|--------------------|---|----------------------|--------------|----------------|
| Wavelength | Optical Power | Power Type         | Fiber Type  | Pigtails Diameter    | Fiber Length | Connector Type |
| 532:532nm  | S:<0.1W       | P: Pulsed          | XX/XX/XX/XX (core/clad/core NA/clad NA) or fiber name | 25:250μm bare fiber  | 10:1.0m      | 00: None       |
| 635:635nm  | L:<0.5W       | C: Continuous Wave |   | 90:900μm Loose Fiber | XX: Other    | FP: FC/PC      |
| 68:680nm   | 1:1W          |                    |   | XX: Others           |              | FA: FC/APC     |
| 85:850nm   | 3:3W          |                    |   |                      |              | XX: Others     |
| 78:780nm   | 5:5W          |                    |   |                      |              |                |
| XX: Other  | 10:10W        |                    |   |                      |              |                |

**Part Number Example #1:** ISO-98-L-C-06X-90-10-FA

**Description:** TGG Based 980nm Optical Isolator, 0.5W power handling, continuous wave power, 1060-XP fiber, with 0.9mm OD loose tube, 1.0m length fiber pigtails, FC/APC connectors at all ports.

## Ordering Information for Custom Parts

If you need to customize other specifications, please provide detailed description for your requirement.