

# 1650nm PM Optical Isolator

## FEATURES

- High Isolation
- Low Insertion Loss
- Epoxy-Free Optical Path
- High Reliability and Stability
- Low Profile Packaging

## APPLICATIONS

- Fiber Optic Amplifiers
- Fiber Optic Instruments
- WDM Systems
- Transmitters and Fiber Lasers
- CATV Networks



## SPECIFICATIONS

| Parameter                                      | Unit                       | Single Stage  | Dual Stage                               |
|--|----------------------------|---|--|
| Center Wavelength ( $\lambda_c$ )              | nm                         | 1650  |  |
| Isolation ( $\lambda_c \pm 5\text{nm}$ , 23°C) | dB                         | $\geq 20$   | $\geq 40$                                |
| Insertion Loss ( $\lambda_c$ , 23°C)           | dB                         | $\leq 0.8$  | $\leq 1.1$                               |
| Insertion Loss ( $\lambda_c$ , 0-50°C)         | dB                         | $\leq 1.0$  | $\leq 1.4$                               |
| Optical Return Loss (Input/Output)             | dB                         | 50/50   | 50/50                                    |
| Extinction Ratio                               | dB                         | $\geq 20$   |  |
| Working Mode                                   | S Type                     | -   | Can only work in Slow Axis               |
|  | F Type                     | -   | Can work both in Slow Axis and Fast Axis |
| Fiber Type                                     | -                          | PM1550 Panda Fiber, 10/125um PMDC Fiber (O)<br>12/130um PMDC Fiber (T), 20/130um PMDC Fiber (Q)<br>25/250um PMDC Fiber (R), 25/300um PMDC Fiber (G) |  |
| Fiber Tensile Load                             | N                          | 5   |  |
| Max. Optical Power (CW)                        | mW                         | 300   |  |
| Operating Temperature                          | °C                         | 0~50  |  |
| Storage Temperature                            | °C                         | -40~85  |  |
| Package  | Stainless Steel Tube (SST) | mm  | ( $\Phi$ )5.5x35                         |
| Dimension                                      | Metal Box-M                | mm  | (L)120x(W)12x(H)10                       |

- Note:**
1. Specifications are for device without connectors; Specifications may change without notice.
  2. To add connectors, IL is 0.3dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.
  3. Devices for higher optical power or with other type fiber or consigned fiber are also available; Devices can only work in the core of Double Cladding (DC) Fiber, Cladding Power must be stripped before connecting the device.

## ORDERING INFORMATION (PN)

|                          |   |                 |             |                |                      |                     |                     |                          |
|--------------------------|---|-----------------|-------------|----------------|----------------------|---------------------|---------------------|--------------------------|
| <b>FPIS-NNNN</b>         | - | <b>C</b>        | <b>C</b>    | - ( <b>C</b> ) | <b>C</b>             | <b>C</b>            | <b>NN</b>           | - <b>CC/CCC</b>          |
| <i>Center Wavelength</i> |   | <i>Stage</i>    | <i>Type</i> | <i>Package</i> | <i>Fiber Type</i>    | <i>Fiber Sleeve</i> | <i>Fiber Length</i> | <i>Connector Type</i>    |
| 1650-1650nm              |   | S= Single Stage | S= S Type   | M= Metal Box   | 2= PM1550 Fiber      | B= Bare Fiber       | 05= 0.5m            | N= Without Connector     |
|                          |   | D= Dual Stage   | F= F Type   | Blank for SST  | 0= 10/125 PMDC Fiber | L= Loose Tube       | 10= 1.0m            | FC/APC= FC/APC Connector |
|                          |   |                 |             |                | T= 12/130 PMDC Fiber | 2= 2mm Cable        | 15= 1.5m            | LC/PC= LC/PC Connector   |
|                          |   |                 |             |                | R= 25/250 PMDC Fiber | 3= 3mm Cable        | 20= 2.0m            | SC/UPC= SC/UPC Connector |