

# 1103nm High Power PM Optical Isolator

### **FEATURES**

### **ÅPPLICATIONS**

- High Isolation 0
- Low Insertion Loss
- Epoxy-Free Optical Path
- High Reliability and Stability
- Low Profile Packaging 0
- Metro Networks 0 CATV Networks

Broadband Systems

Optical Amplifying Systems

**Telecommunication Networks** 

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#### **SPECIFICATIONS**

| Parameter                          | Unit                          | Single Stage | Dual Stage D Type  | Dual Stage L Type |     |  |  |
|------------------------------------|-------------------------------|--------------|--|-------------------|-----|--|--|
| Center Wavelength (λc)             |                               | nm           | 1103   |                   |     |  |  |
| Operating Wavelength Range         |                               | nm           | +/-10  |                   |     |  |  |
| Peak Isolation (Typ.)              |                               | dB           | 28   | 46                |     |  |  |
| Min. Isolation (23°C)              |                               | dB           | 22   | 40                |     |  |  |
| Typical Insertion Loss (λc, 23°C)  |                               | dB           | 1.0  | 1.3               | 1.5 |  |  |
| Max. Insertion Loss (λc, 23°C)     |                               | dB           | 1.6  | 1.8               |     |  |  |
| Optical Return Loss (Input/Output) |                               | dB           | 50/50  |                   |     |  |  |
| Extinction Ratio (Min.)            |                               | dB           | 18   |                   |     |  |  |
| Working Mode                       | S Type                        | -            | Can only work in Slow Axis                                 |                   |     |  |  |
|                                    | F Туре                        | -            | Can work both in Slow Axis and Fast Axis                   |                   |     |  |  |
| Configuration                      |                               | -            | Standard: 2-Port; Y Type: 3-Port, Backward Power Guide Out |                   |     |  |  |
| Fiber Type                         | Input&Output                  | -            | PM980 Fiber, PM1060L Fiber (E) or PM1060L-FA Fiber (L)     |                   |     |  |  |
|                                    |                               |              | 10/125um PMDC Fiber (O), 15/130um PMDC Fiber (W)           |                   |     |  |  |
|                                    |                               |              | 20/130um PMDC Fiber (Q) or 25/250um PMDC Fiber (R)         |                   |     |  |  |
|                                    | 3 <sup>rd</sup> Port (Y Type) | -            | Same Fiber or 105/125um MM Fiber                           |                   |     |  |  |
| Fiber Tensile Load                 |                               | Ν            | 5  |                   |     |  |  |
| Maximum Optical Power (CW)         |                               | W            | 1, 2, 3, 5, 10, 15, 20, 30, 50, 60, 80, 100, 150, 200      |                   |     |  |  |
| Max. Backward Optical Power (CW)   |                               | W            | 0.3, 0.5, 1, 2, 3, 5, 10                                   |                   |     |  |  |
| Operating Temperature              |                               | °C           | 0~50   |                   |     |  |  |
| Storage Temperature                |                               | °C           | -20~75   |                   |     |  |  |

Note: 1. Specifications are for device without connectors; Specifications may change without notice.

2. To add connectors, IL is 0.5dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.

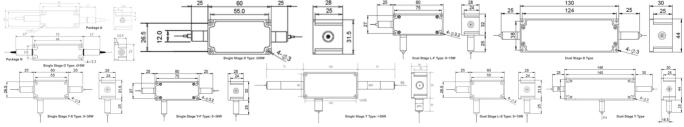
3. Only guarantee 1W continuous wave (CW) power thru testing for connectors added.

4. Suggest to use Y type for >20W Optical Power or continuous backward power of  $\geq$ 2W.

5. 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.

6. Package dimensions may be different for different fiber type, configuration and optical power.

**PACKAGE DIMENSION** 



## **ORDERING INFORMATION (PN)**

| FPIS-NNNN                 | - ( <mark>C</mark> )    | С                      | ( <mark>C</mark> )             | HP NN              | - (NN)                 | - <b>C</b>          | С                          | NN                    | - CC/CCC                |
|---------------------------|-------------------------|------------------------|--------------------------------|--------------------|------------------------|---------------------|----------------------------|-----------------------|-------------------------|
| Center Wavelength         | Stage                   | Туре                   | 3 <sup>4</sup> Port Fiber      | Optical Power      | Backward Power         | Fiber Type          | Fiber Sleeve               | Fiber Length          | Connector Type          |
| <mark>1103-</mark> 1103nm | D=D Type                | <mark>S=</mark> S Type | Y= Same Fiber                  | <mark>1-</mark> 1W | <mark>05=</mark> 500mW | 2-PM980Fiber        | <mark>B=</mark> Bare Fiber | <mark>05=</mark> 0.5m | N–Without Connector     |
|                           | L=L Type                | F= F Type              | A=105/125um Fiber              | <mark>3</mark> =3W | <mark>1</mark> -1W     | E=PM1060L Fiber     | L= Loose Tube              | <mark>10</mark> =1.0m | FC/APC=FC/APC Connector |
|                           | N= Package N            |                        | <mark>S=</mark> Corr. SM Fiber | 10-10W             | <mark>10-</mark> 10W   | Q=20/130 PMDC Fiber | <mark>2=</mark> 2mm Cable  | <mark>15=</mark> 1.5m | LC/PC=LC/PC Connector   |
|                           | <i>Blank</i> for Single |                        | <i>Blank</i> for Standard      | 100-100W           | <i>Blank</i> for 300mW | R=25/250 PMDC Fiber | <mark>3</mark> = 3mm Cable | <mark>20</mark> =2.0m | SC/UPC-SC/UPC Connector |

