

## 1551nm PM Bandpass Filter for Pulse Power

### FEATURES

- High Isolation
- Low Insertion Loss
- High Reliability and Stability
- Various Bandwidth
- High Optical Power

### APPLICATIONS

- Broadband Systems
- Optical Amplifying Systems
- Telecommunication Networks
- Laser Systems
- Research Labs



### SPECIFICATIONS

| Parameters                               |                            | Unit | Standard   | High ER Type |
|--|----------------------------|------|--|--------------|
| Center Wavelength                        |                            | nm   | 1551   |              |
| Min. Pass Band Width @ 0.5dB             |                            | nm   | 0.12, 0.3, 0.7, 2.5, 3.5, 6.5, 16  |              |
| Insertion Loss over Pass Band Wavelength |                            | dB   | ≤1.0   | ≤1.2         |
| Stop Wavelength (ASE)                    | 0.12nm Bandwidth           | nm   | 1500~1550.4 & 1551.6~1600  |              |
|  | 0.3nm Bandwidth            | nm   | 1500~1550 & 1552~1600  |              |
|  | 0.7nm Bandwidth            | nm   | 1500~1549.5 & 1552.5~1600  |              |
|  | 2.5nm Bandwidth            | nm   | 1500~1548 & 1554~1600  |              |
|  | 3.5nm Bandwidth            | nm   | 1500~1547 & 1555~1600  |              |
|  | 6.5nm Bandwidth            | nm   | 1500~1545 & 1557~1600  |              |
| Stop Wavelength (ASE) Isolation          | Standard                   | dB   | ≥25  |              |
|  | High Isolation             | dB   | ≥45  |              |
| ASE Direction                            |                            | -    | F: Forward, B: Backward, T: Two-way  |              |
| Configuration                            |                            | -    | D: 2-port, Y: 3-port, X: 4-port  |              |
| Optical Return Loss                      |                            | dB   | ≥50  |              |
| Extinction Ratio                         |                            | dB   | ≥18  | ≥20          |
| Fiber Type                               | Input&Output               | -    | PM1550 Panda Fiber or 10/125um PMDC Fiber NA=0.08 (O)<br>10/130um PMDC Fiber NA=0.15 (O2) or 12/130um PMDC Fiber (T)<br>25/250um PMDC Fiber (R) or 25/300um PMDC Fiber (G) |              |
|  | ASE Guide Out (Y/X Type)   | -    | Same Fiber, Corr. SM Fiber or MM Fiber   |              |
| Fiber Tensile Load                       |                            | N    | 5  |              |
| Max. Average Optical Power (ASE+Signal)  |                            | W    | 0.3, 0.5, 1, 2, 3, 5, 10, 15, 20, 30, 40, 50, 60, 80, 100  |              |
| Max. Peak Power for pulse                |                            | kW   | 0.1, 1, 2, 3, 5, 10, 15, 20  |              |
| Max. ASE Average Power                   |                            | W    | 0.3, 0.5, 1, 2, 3, 4, 5, 10  |              |
| Operating Temperature                    |                            | °C   | 0~70   |              |
| Storage Temperature                      |                            | °C   | -40~85   |              |
| Package Dimension                        | Stainless Steel Tube (SST) | mm   | ∅5.5xL35 (≤5W); ∅6.0xL50 (5~10W)   |              |
|  | Metal Box                  | mm   | H: L90x <sup>W</sup> 12x <sup>H</sup> 10 (>10W); M: L120x <sup>W</sup> 12x <sup>H</sup> 10 (≤10W)  |              |

- Note:**
- Specifications are for device without connectors; Specifications may change without notice.
  - To add connectors, IL is 0.3dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.
  - High ER type can only work in slow axis; Suggest to use Y/X type or H Box if blocked optical power is ≥1W.
  - Only guarantee 1W continuous wave (CW) power thru testing for connectors added.
  - 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.
  - Package size may be different for different optical power and configurations.

### ORDERING INFORMATION (PN)

**FPBP-1551-NN(C)(C)(C) - (C) (C) -H NN PNN -(NN) - (C) C C NN -CC/CCC**

| Bandwidth | Type      | ASE Type          | ASE Iso          | Fwd ASE Fiber            | Dwd ASE Fiber     | Average Power | Peak Power | ASE Power       | Package       | Fiber Type          | Fiber Sleeve  | Fiber Length | Connector Type          |
|-----------|-----------|-------------------|------------------|--------------------------|-------------------|---------------|------------|-----------------|---------------|---------------------|---------------|--------------|-------------------------|
| 03-0.3nm  | R-High ER | B-Backward        | I-High           | Y-Same Fiber             | Y-Same Fiber      | 03-300mW      | 01-100W    | 1- 1W           | M-Metal Box   | 2-PM1550Fiber       | B- Bare fiber | 05-0.5m      | N-Without Connector     |
| 07-0.7nm  | Blank for | T-Two-way         | Isolation        | S-Corr. SM Fiber         | S-Corr. SM Fiber  | 1- 1W         | 1- 1kW     | 5- 5W           | H-H Box       | 0-10/125 PMDC Fiber | L- Loose Tube | 10-1.0m      | FC/APC-FC/APC Connector |
| 35-3.5nm  | Standard  | Blank for Forward | Blank for        | N=None                   | A=105/125um Fiber | 5- 5W         | 10- 10kW   | 10-10W          | Blank for SST | T=12/130 PMDC Fiber | 2- 2mm Cable  | 15-1.5m      | LC/PC-LC/PC Connector   |
| 160-16nm  |           | Standard          | Blank for D Type | Blank for None or D Type |                   | 20-20W        | 20-20kW    | Blank for 300mW |               | G=25/300 PMDC Fiber | 3- 3mm Cable  | 20-2.0m      | SC/UPC-SC/UPC Connector |

