

## 1545nm High Power PM Bandpass Filter

### 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                    | 1545   |              |
| Min. Pass Band Width @ 0.5dB             |                            | nm                    | 0.12, 0.3, 0.7, 3.0, 4.0, 5.0, 11, 33, 40  |              |
| Insertion Loss over Pass Band Wavelength |                            | dB                    | ≤1.0   | ≤1.2         |
| ‘Stop Wavelength (ASE)                   | 0.12nm Bandwidth           | nm                    | 1500~1544.4 & 1545.6~1600  |              |
|  | 0.3nm Bandwidth            | nm                    | 1500~1544 & 1546~1600  |              |
|  | 0.7nm Bandwidth            | nm                    | 1500~1543.5 & 1546.5~1600  |              |
|  | 3nm Bandwidth              | nm                    | 1500~1542 & 1548~1600  |              |
|  | 4nm Bandwidth              | nm                    | 1500~1541 & 1549~1600  |              |
|  | 5nm Bandwidth              | nm                    | 1500~1540 & 1550~1600  |              |
|  | 11nm Bandwidth             | nm                    | 1500~1536 & 1554~1600  |              |
|  | 33nm Bandwidth             | nm                    | 1500~1521 & 1569~1600  |              |
| 40nm Bandwidth                           | nm                         | 1480~1518 & 1572~1600 |  |              |
| Stop Wavelength (ASE)                    | Standard                   | dB                    | ≥25  |              |
| Isolation                                | 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. Optical Power (CW, ASE+Signal)      |                            | W                     | 1, 2, 3, 5, 10, 15, 20, 30, 40, 50, 60, 80, 100  |              |
| Max. ASE Optical Power (CW)              |                            | 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: L90xW12xH10 (>10W); M: L120xW12xH10 (≤10W)  |              |

- 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. High ER type can only work in slow axis; Suggest to use Y/X type or H Box if blocked optical power is ≥1W.
  4. Only guarantee 1W continuous wave (CW) power thru testing for connectors added.
  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 size may be different for different optical power and configurations.

### ORDERING INFORMATION (PN)

| FPBP-1545-NN (C) (C) (C) - (C) (C) -HP NN - (NN) -(C) C C NN - CC/CCC |           |                   |                  |                          |                   |               |                 |               |                     |               |              |                         |
|---|-----------|-------------------|------------------|--------------------------|-------------------|---------------|-----------------|---------------|---------------------|---------------|--------------|-------------------------|
| Bandwidth   | Type      | ASE Type          | ASE Iso          | Fwd ASE Fiber            | Bwd ASE Fiber     | Optical 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      | 1~1W          | 1~1W            | M=Metal Box   | 2=PM1550Fiber       | B= Bare fiber | 05=0.5m      | N=Without Connector     |
| 40~4nm  | Blank for | T=Two-way         | Isolation        | S=Corr. SM Fiber         | S=Corr. SM Fiber  | 5~5W          | 5~5W            | H=H Box       | 0=10/125 PMDC Fiber | L= Loose Tube | 10=1.0m      | FC/APC=FC/APC Connector |
| 50~5nm  | Standard  | Blank for Forward | Blank for        | N=None                   | A=105/125um Fiber | 10~10W        | 10~10W          | Blank for SST | T=12/130 PMDC Fiber | 2= 2mm Cable  | 15=1.5m      | LC/PC=LC/PC Connector   |
| 110~11nm  |           | Standard          | Blank for D Type | Blank for None or D Type |                   | 20~20W        | Blank for 300mW |               | G=25/300 PMDC Fiber | 3= 3mm Cable  | 20=2.0m      | SC/UPC=SC/UPC Connector |

