

## 1542nm High Power Multimode 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                       | Value                                       |   |
|--|----------------------------|---|---|
| Center Wavelength                        | nm                         | 1542  |   |
| Min. Pass Band Width @ 0.5dB             | nm                         | 0.12, 0.3, 0.7, 5.0, 12., 17                |   |
| Insertion Loss over Pass Band Wavelength | dB                         | ≤1.2  |   |
| Stop Wavelength (ASE)                    | 0.12nm Bandwidth           | nm  | 1500~1541.4 & 1542.6-1600   |
|  | 0.3nm Bandwidth            | nm  | 1500~1541 & 1543-1600   |
|  | 0.7nm Bandwidth            | nm  | 1500~1540.5 & 1543.5-1600   |
|  | 5nm Bandwidth              | nm  | 1500~1537 & 1547-1600   |
|  | 12nm Bandwidth             | nm  | 1500~1529 & 1555-1600   |
|  | 17nm Bandwidth             | nm  | 1500~1527 & 1557-1600   |
| 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                         | ≥30   |   |
| Fiber Type                               | Input&Output               | -   | 50/125um (OM2) or 62.5/125um (OM1) MM Fiber<br>50/125um OM3 MM Fiber (3) or OM4 MM Fiber(4)<br>105/125um MM Fiber, NA=0.12(D), 0.15(B), 0.22(A) |
|  | ASE Guide Out (Y/X Type)   | -   | Same Fiber  |
| Fiber Tensile Load                       | N                          | 5   |   |
| Max. Optical Power (CW, ASE+Signal)      | W                          | 1, 2, 3, 5, 10, 15, 20, 30, 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: 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 10dB lower.
  - Specifications are tested at low order modes.
  - 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.
  - Package size may be different for different optical power and configurations.

### ORDERING INFORMATION (PN)

| FMBP-1542-NN(C) (C) - (C) (C) - HP NN -(NN) -(C) C C NN -CC/CCC |                   |           |                  |                          |               |                 |               |                        |               |              |                         |
|---|-------------------|-----------|------------------|--------------------------|---------------|-----------------|---------------|------------------------|---------------|--------------|-------------------------|
| Bandwidth   | 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  | B=Backward        | I=High    | Y=Same Fiber     | Y=Same Fiber             | 1= 1W         | 1= 1W           | M=Metal Box   | 5= 50/125um MM Fiber   | B= Bare fiber | 05=0.5m      | N=Without Connector     |
| 07=0.7nm  | T=Two-way         | Isolation | N=None           | Blank for None or D Type | 5= 5W         | 5= 5W           | H=H Box       | 6= 62.5/125um MM Fiber | L= Loose Tube | 10=1.0m      | FC/APC=FC/APC Connector |
| 50=5nm  | Blank for Forward | Blank for | Blank for D Type |                          | 10=10W        | 10=10W          | Blank for SST | 3= OM3 MM Fiber        | 2= 2mm Cable  | 15=1.5m      | LC/PC=LC/PC Connector   |
| 170=17nm  |                   | Standard  |                  |                          | 20=20W        | Blank for 300mW |               | A= 105/125um, NA=0.22  | 3= 3mm Cable  | 20=2.0m      | SC/UPC=SC/UPC Connector |
|   |                   |           |                  |                          |               |                 |               | B=105/125um, NA=0.15   |               |              |                         |