

## 980/1550/1590nm WDM/Isolator PM Hybrid Filter

### FEATURES

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

### APPLICATIONS

- Broadband Systems
- Optical Amplifying Systems
- Telecommunication Networks
- Metro Networks
- CATV Networks



### SPECIFICATIONS

| Parameters                                      |                             | Unit | Single Stage  | Dual Stage |
|---|-----------------------------|------|---|------------|
| Signal Wavelength Range $\lambda_1$             |                             | nm   | 1530-1570 (C-Band)<br>1570-1610 (L-Band)  |            |
| Pump Wavelength Range $\lambda_2$               |                             | nm   | 960-990   |            |
| Insertion Loss                                  | Signal Channel@ $\lambda_1$ | dB   | ≤1.3  | ≤1.4       |
|   | Pump Channel@ $\lambda_2$   | dB   | ≤0.8  |            |
| Signal Isolation (Signal Channel@ $\lambda_1$ ) |                             | dB   | ≥28   | ≥45        |
| Wavelength                                      | Signal Channel@ $\lambda_2$ | dB   | ≥30   |            |
| Isolation                                       | Pump Channel@ $\lambda_1$   | dB   | ≥12   |            |
| Optical Return Loss                             |                             | dB   | ≥45   |            |
| Extinction Ratio                                |                             | dB   | ≥18   |            |
| Work Mode                                       | S Type                      | -    | Can only work in Slow Axis  |            |
|   | F Type                      | -    | Can Work Both in Slow Axis and Fast Axis  |            |
| Fiber Type                                      | Common & Signal Port        | -    | 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) |            |
|   | Pump Port                   | -    | Same Fiber, Corr. SM Fiber, PM980 Fiber or HI1060 Fiber   |            |
| Fiber Tensile Load                              |                             | N    | 5   |            |
| Max. Optical Power (CW)                         |                             | mW   | 300   |            |
| Operating Temperature                           |                             | °C   | 0~70  |            |
| Storage Temperature                             |                             | °C   | -40~85  |            |
| Package   | Stainless Steel Tube (SST)  | mm   | (Ø)5.5x35   |            |
| Dimension                                       | Metal Box                   | mm   | (L)120x(W)12x(H)10  |            |

- Note:**
- Specifications are for device without connectors; Specifications may change without notice.
  - To add connectors, IL is 0.5dB higher, RL is 5dB lower, ER is 2dB Lower, Connector key is aligned to slow axis.
  - 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)

| Signal                  | Stage          | Pump Type  | Work Mode | Pump Fiber       | Comm Fiber     | Package       | Fiber Type          | Fiber Sleeve  | Fiber Length   | Connector Type          |
|-------------------------|----------------|------------|-----------|------------------|----------------|---------------|---------------------|---------------|----------------|-------------------------|
| <b>FPHW-98(C)C</b>      | <b>C</b>       | <b>-C</b>  | <b>C</b>  | <b>(C)</b>       | <b>-(C)</b>    | <b>C</b>      | <b>C</b>            | <b>NN</b>     | <b>-CC/CCC</b> |                         |
| <i>Wavelength</i>       | S=Single Stage | F=Forward  | S=S Type  | Y=Same Fiber     | P=PM980 Fiber  | M=Metal Box   | 2=PM1550Fiber       | B= Bare fiber | 05=0.5m        | N=Without Connector     |
| <i>L-Band</i>           | D=Dual Stage   | B=Backward | F= F Type | P=PM980 Fiber    | Blank for Same | Blank for SST | 0=10/125 PMDC Fiber | L= Loose Tube | 10=1.0m        | FC/APC=FC/APC Connector |
| <i>Blank for C Band</i> |                |            |           | H=HI1060 Fiber   | Fiber          |               | T=12/130 PMDC Fiber | 2= 2mm Cable  | 15=1.5m        | LC/PC=LC/PC Connector   |
|                         |                |            |           | S=Corr. SM Fiber |                |               | G=25/300 PMDC Fiber | 3= 3mm Cable  | 20=2.0m        | SC/UPC=SC/UPC Connector |