

Filter-based WDM Device (FWDM)

The filter wavelength division multiplexer series are based on environmentally stable thin film filters technology. The devices combine or separate light at different wavelength in a wide wavelength range. They offer very low insertion loss, low polarization dependence, high isolation and excellent environmental stability. These components have extensively used in EDFAs, raman amplifier, fiber sensor system, WDM networks and fiber optics instrumentation.

Product Name: Filter-based WDM Device (FWDM)

Features

- ◆ Based on thin film filter technology and high wavelength stability
- ◆ Low polarization dependent loss and high channel isolation
- ◆ Flat and wide passband
- ◆ Compact size and upgrade port is optional
- ◆ Epoxy free optical path and excellent reliability
- ◆ Telcordia GR-1221-CORE qualified and RoHS compliant



Applications

- WDM system
- CATV system
- Telecommunication network system
- Metro/Access networks
- EDFA
- Fiber optic instruments
- Transmitters and fiber lasers
- Single direction/Bi-direction transmission
- Line monitoring
- FTTX

Specifications (T=23°C)

| Parameter | | | Unit | Value | | | | | | | |
|---|-----------------------|--------------------|-----------|--|--------------|---------------|---------------|--------------------|------------------------------|---------------|---------------|
| Central Wavelength | | | nm | 850/ 1310 | 980/ 1550 | 1310/ 1550 | 1480/ 1550 | 1310/1490/ 1550 | C/L Band | 1310/ 1625 | 1550/ 1625 |
| Wavelength | Type 1 | Passband | nm | 850± 50 | 980± 40 | 1310± 40 | 1450~ 1490 | 1310±40 1490±10 | 1528~ 1563 | 1310 ±40 | 1550 ±40 |
| | | Reflective Band | | 1310 ±50 | 1550 ±40 | 1550± 40 | 1530~ 1580 | 1530~1580 | 1570~ 1610 | 1625 ±10 | 1625 ±10 |
| | Type 2 | Passband | | 1310 ±50 | 1550 ±40 | 1550± 40 | 1530~ 1580 | 1530~1580 | 1570~ 1610 | 1625 ±10 | 1625 ±10 |
| | | Reflective Band | | 850± 50 | 980± 40 | 1310± 40 | 1450~ 1490 | 1310±40 | 1490± 10 1528~ 1563 | 1310 ±40 | 1550 ±40 |
| Insertion Loss | Pass Channel | | dB | ≤0.6 | | | | | | | |
| | Reflective Channel | | | ≤0.4 | | | | | | | |
| Isolation | Pass Channel | | nm | Standard ISO≥30, High ISO≥40 | | | | | | | |
| | Reflective Channel | | | Standard ISO≥13, High ISO≥18 | | | | | | | |
| Flatness | | | dB | ≤0.3 | | | | | | | |
| Directivity | | | dB | ≥50 | | | | | | | |
| Return Loss | | | dB | ≥45 | | | | | | | |
| PMD | | | ps | ≤0.10 | | | | | | | |
| PDL | | | dB | ≤0.10 | | | | | | | |
| Insertion Loss Temperature Sensitivity | | | dB/° C | ≤0.005 | | | | | | | |
| Wavelength Temperature Shifting | | | nm/° C | ≤0.002 | | | | | | | |
| Fiber Type | | | - | 50/125 or 62.5/125 Multimode fiber, SMF-28e Single mode fiber, HI1060 Fiber | | | | | | | |
| Max. Power Handling | | | mW | ≤500 | | | | | | | |
| Operation Temperature | | | °C | -10~+70 | | | | | | | |
| Storage Temperature | | | °C | -40~+85 | | | | | | | |
| Package Dimension | | | mm | Φ5.5×34 (Φ0.25 fiber), Φ5.5×38(Φ0.9 fiber) | | | | | | | |

Ordering Information

| FWDM | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|------|--------------------------|--|---------------------------|---------------------------|--------------------------|--------------------------|
| FWDM | Port Type | Pass/ Reflective Channel | Fiber Type | Pigtail Type | Pigtail Length | Connector |
| | 2=1X2 Device | 85/13=T850/R1310 13/85=T1310/R850 | SM=SMF-28 E | 01=Bare fiber 09=900um | 0.5=0.5m 10=1.0m | NA=None FP=FC/PC |
| | 3=1X3 Device | 98/15=T980/R1550 15/98=T1550/R980 | M5=MM50/ 125 | loose tube 90=900um | 15=1.5m 20=2.0m | FA=FC/APC SP=SC/PC |
| | | 13/15=T1310/R1550 15/13=T1550/R1310 | M6=MM62.5/ 125 | tight buffer 20=2.0mm | customized | SA=SC/APC LP=LC/UPC |
| | | 14/15=T1480/R1550 15/14=T1550/R1480 | H10=HI 1060 customized | Cable 30=3.0mm | | LA=LC/APC MU=MU/UPC |
| | | 34/5=T1310+1490/R1550 5/34=T1550/R1310+1490 | | Cable | | S= customized |
| | | C/L=TC/RL L/C=TL/RC | | | | |
| | | 13/16=T1310/R1625 16/13=T1625/R1310 | | | | |
| | | 15/16=T1550/R1625 16/15=T1625/R1550 | | | | |
| | | customized | | | | |