



Manual Etalon-Based Fiber Optic Tunable Filter

Product Description

Based on a proprietary thin film cavity filter technology, we produce Fiber Optic Tunable Filters with central wavelengths of 1060nm to 2050nm. Other center wavelength can also be made. It is tunable continuously over a wide spectral range up to 100 nm with a 1nm peak bandwidth. Longer center wavelength has larger tuning range. The wavelength tuning is made by manually rotating a precise micrometer. Our unique high reliability and low insertion loss design presents a most cost-effective solution for OEM applications from fiber optic networks to fiber sensing interrogation.

The current standard configurations are in volume production thus having low cost benefit. Other wavelength is available that requires extra cost to make the filter.



Performance Specifications

| Parameter | Min | Typical | Max | Unit |
|----------------------------------|--------------------|---------|--------|------|
| Center Wavelength | 350 | | 2400 | nm |
| Tuning Range ^[1] | - | + - 30 | + - 50 | nm |
| Tuning Resolution | - | 0.1 | - | nm |
| Insertion Loss ^[2] | 1.5 | 2 | 3.5 | dB |
| Bandwidth @-3dB | - | 1 | 1.2 | nm |
| Bandwidth @-20dB | - | 10 | - | nm |
| Off-Band Suppression | - | 30 | - | dB |
| PDL (SM fiber only) | - | 0.15 | 0.35 | dB |
| PMD (SM fiber only) | - | - | 0.5 | ps |
| Extinction Ratio (PM fiber only) | 18 | 23 | - | dB |
| Return Loss | 40 | - | - | dB |
| Optical Power Handling (CW) | Standard version | - | 0.5 | W |
| | High power version | | 10 | W |
| Operating Temperature | 0 | 20 | 60 | ° C |
| Storage Temperature | -10 | - | 70 | ° C |

[1]. Longer the wavelength, larger the tuning range

[2]. Smaller the fiber core, higher the loss. The measurement is an integration of the transmission peak using a broadband source. Excluding connector loss

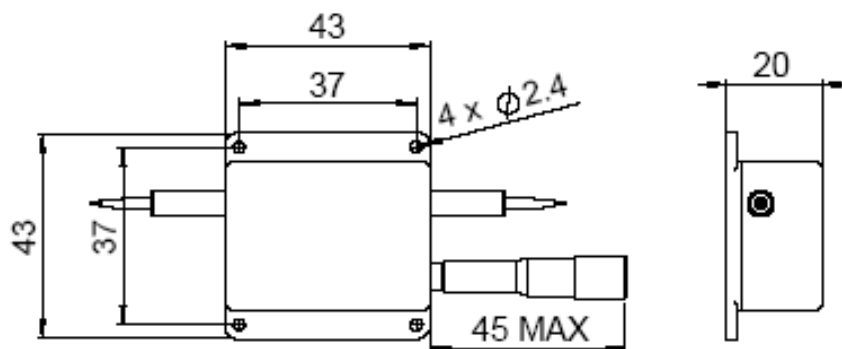
Features

- Compact and Low Cost
- Wide Tune Range
- Wide Wavelength
- Low IL and PDL

Applications

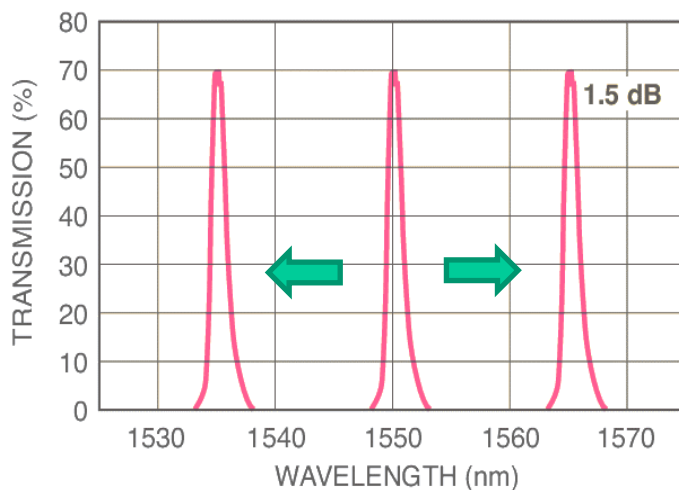
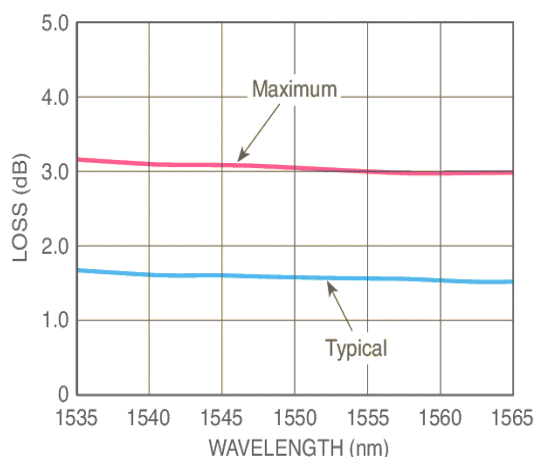
- DWDM networks
- Fiber Sensing
- ASE control
- Tunable Fiber Laser

Mechanical Dimension (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Typical Transmission Curve



Ordering Information

| | | | | | | | | |
|-------|------|--|------------------------------|------|--|---|--|--|
| FOTF- | 0 2 | <input type="checkbox"/> | <input type="checkbox"/> | 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Type | Wavelength | Power | Pack | Fiber Type | | Fiber Length | Connector |
| | | 2100± 60nm=1 2000± 50nm= 2 1960± 40nm= 4 1850± 50nm= A 1620± 40nm = 7 1550± 40nm = 5 1550± 50nm = 9 1480± 40nm =8 1310± 40nm =3 1060± 40nm = 6 1005± 45nm = B Special = 0 | Standard = 1 High Power=2 | | SMF-28 = 1 HI1060 = 2 PM980 = 3 PM1550 = 4 Special = 0 | Bare fiber=1 900um tube=3 Special=0 | 0.25m= 1 0.5m = 2 1.0 m= 3 Special =0 | None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0 |

Red Items require NRE of \$1950 to make the filter