## Manual Grating-Based Fiber Optic Tunable Filter

 (patent pending)
## Product Description

## Features

- Extremely low insertion loss
- Wide Tune Range
- High off-band suppression
- Uniform bandwidth
- High tuning resolution
- Compact and cost-effective


## Applications

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

Agiltron’s Manual Grating-Based Fiber Optic Tunable Filter provides a simple way to adjust the center wavelength of narrow band over wide band. Wavelength tuning is achieved by rotating a grating using a micrometer.
Based on a proprietary optics, Agiltron offers extremely low insertion loss, high stability, polarization independent operation, and high off-band suppression. It is tunable continuously over a wide spectral range. The device presents a most cost-effective solution for OEM applications from fiber optic networks to fiber sensing interrogation.


## Performance Specifications

| Parameter | Min | Typical | Max | Unit |
| :--- | :---: | :---: | :---: | :---: |
| Wavelength Tuning Range | $1060 \pm 15$ | $1500 \pm 20$ | $2000 \pm 20$ | nm |
| Tuning Resolution | - | 0.02 | - | nm |
| Insertion Loss* | 1.1 | - | 1.6 | dB |
| Bandwidth @-3dB | - | 0.25 | - | nm |
| Bandwidth @-20dB | - | 0.75 | - | nm |
| Polarization Dependent Loss | - | 0.25 | - | dB |
| Extinction Ratio (PM fiber | - | 20 | - | dB |
| only) | - | 45 | - | dB |
| Off-Band Suppression | - | - | 0.5 | ps |
| Polarization Mode Dispersion | 40 | - | - | dB |
| Return Loss | - | - | 500 | mW |
| Optical Power Handling (CW) | 0 | 20 | 60 | ${ }^{\circ} \mathrm{C}$ |
| Operating Temperature | -10 |  | 70 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature |  |  |  |  |
| Dimension |  |  |  |  |

## Manual Grating -based Fiber Optic Tunable Filter

Mechanical Dimensions (mm)


## Spectrum




## Ordering Information

| FOTF- | 03 | $\square$ | 1 | 2 | $\square$ | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Type | Wavelength | Config. | Package | Fiber Type |  | Fiber Length | Connector |
|  |  | $\begin{aligned} & 1060 \mathrm{~nm}=1 \\ & 1310 \mathrm{~nm}=3 \\ & 1550 \mathrm{~nm}=5 \\ & 1600 \mathrm{~nm}=6 \\ & 2000 \mathrm{~nm}=2 \end{aligned}$ |  |  | $\begin{aligned} & \text { SMF-28 =1 } \\ & \text { Panda PM1550 =5 } \end{aligned}$ | 900um loose tube=3 Special=0 | $\begin{aligned} & 0.25 m=1 \\ & 0.5 m=2 \\ & 1.0 \mathrm{~m}=3 \\ & \text { Special }=0 \end{aligned}$ | $\begin{aligned} & \text { None }=1 \\ & \text { FC } / \mathrm{PC}=2 \\ & \mathrm{FC} / \mathrm{APC}=3 \\ & \mathrm{SC} / \mathrm{PC}=4 \\ & \mathrm{SC} / \mathrm{APC}=5 \\ & \mathrm{ST} / \mathrm{PC}=6 \\ & \mathrm{LC}=7 \\ & \text { Special }=0 \end{aligned}$ |

