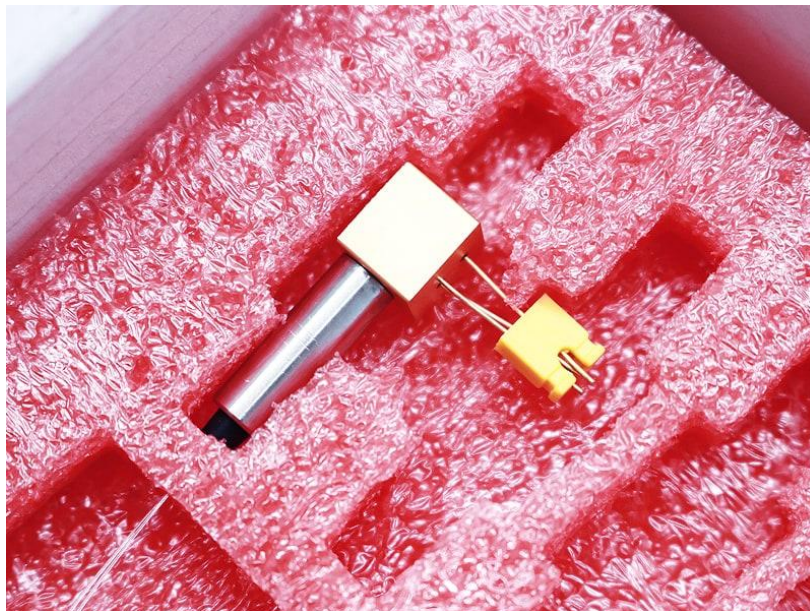


## Small L-band MEMS tunable optical filter

1575-1610nm



- **Product Description**

MEMS tunable filters are based on the principles of MEMS (micro-electromechanical systems) technology and grating technology. They have the characteristics of small size, fast speed, long life, high stability and reliability, and can cover the O-band, C-band or L-band wavelength range. Device scanning range reaches 80nm

- **Product features**

High thermal stability and repeatability, long service life、 Excellent optical performance, low insertion loss, small size 、 3dB bandwidth 1.0-1.4nm(customizable) 、 Customizable (wavelength and attenuation range)

- **Part Number**

MP-WTF-1575-1-FA

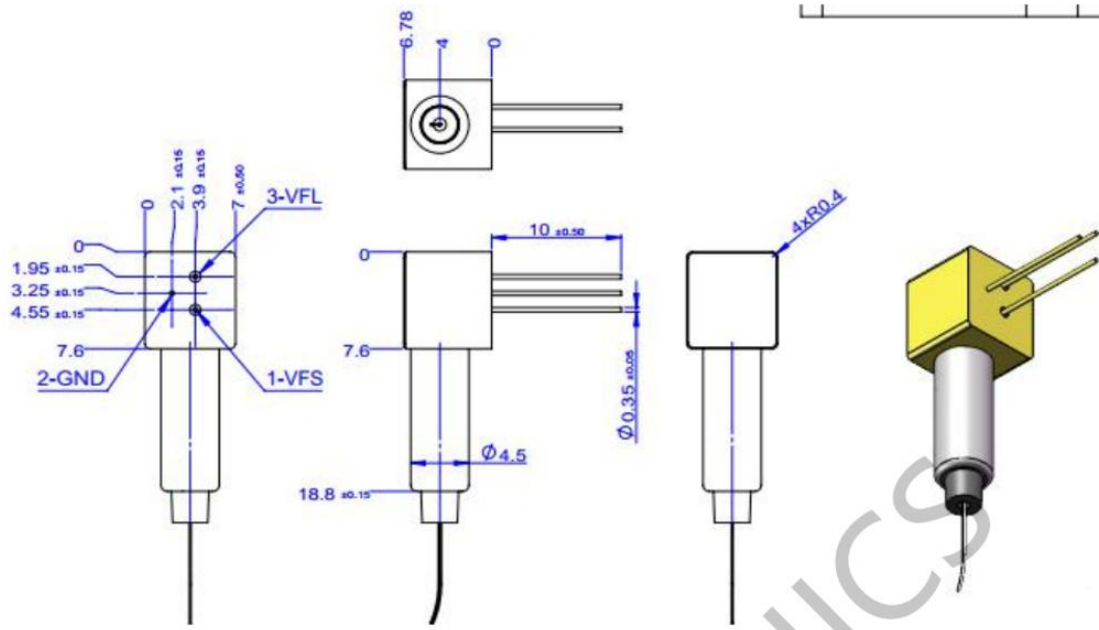
- **Application area**

Optical channel performance monitoring、 Spectral analysis、 ROADM、  
Signal tracking

- **Core parameters**

| Bandwidth | Tuning Range | Connector Type |
|-----------|--------------|----------------|
| 1nm       | 1575-1610nm  | FC/APC         |

## ● Dimension Drawing



## ● General Parameters

### Technical Parameters

| Parameters                           |        | Index             |      | Unit |
|--------------------------------------|--------|-------------------|------|------|
|                                      |        | Max.              | Min. |      |
| Wavelength range                     | O-Band | 1270              | 1350 | nm   |
|                                      | C-Band | 1510              | 1590 | nm   |
|                                      | L-Band | 1550              | 1630 | nm   |
| Insertion loss (IL)                  |        | <4.5(typical<3.5) |      | dB   |
| Response time                        |        | ≤20               |      | ms   |
| Wavelength dependent loss (WDL) @OdB |        | <1.5 (typical<1)  |      | dB   |

| Parameters                                        | Index             |      | Unit   |
|---------------------------------------------------|-------------------|------|--------|
|                                                   | Max.              | Min. |        |
| Center frequency polarization dependent loss @0dB | <0.5              |      | dB     |
| Bandwidth @3dB                                    | 1.0-1.4           |      | nm     |
| Bandwidth @20dB                                   | 2.6-3.6           |      | nm     |
| Return loss (RL)                                  | >40               |      | dB     |
| Side peak suppression ratio                       | ≤30               |      | dB     |
| Lifespan                                          | 1*10 <sup>9</sup> |      | cycles |
| Maximum input optical power                       | 20                |      | dBm    |
| Operating temperature                             | -5                | 70   | °C     |
| Storage temperature                               | -40               | 85   | °C     |
| ESD threshold (HBM)                               | 500               |      | V      |
| DC drive voltage                                  | 0~50              |      | V      |

## Gain characteristic

|      | Definition | Description                                   | Instructions                                                                                                   |
|------|------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| PIN1 | VFS        | Power on for filtering on the short-wave side | 1. Taking O-band TOF as an example:<br>When PIN1&PIN2 is powered, the product works in the 1270nm-1310nm band; |
|      |            |                                               | 2. Power-on range: 0-50V                                                                                       |
| PIN2 | GND        | Grounding                                     |                                                                                                                |
| PIN3 | VFL        | Power on for filtering on the long-wave side  | 1. Taking O-band TOF as an example:<br>When PIN3&PIN2 is powered, the product works in the 1310nm-1350nm band; |
|      |            |                                               | 2. Power-on range: 0-50V                                                                                       |

#### Notes:

1. PIN1 and PIN3 cannot be powered at the same time:
2. Please pay attention to electrostatic protection when storing and operating the product;
3. The product damage voltage is 65V:

### Ordering Info

| Bandwidth | Tuning Range | Fiber Type | Fiber Length | Connector Type |
|-----------|--------------|------------|--------------|----------------|
| 1nm       | 1290-1320nm  | SM,9/125   | 0.5m±5cm     | None           |
| 1.2nm     | 1528-1565nm  | Others     | 1.0m±5cm     | C/PC           |
|           | 1575-1610nm  |            | 1.5m±5cm     | FA/APC         |
|           |              |            | Others       | SC/PC          |
|           |              |            |              | SC/APC         |
|           |              |            |              | LC/PC          |
|           |              |            |              | LC/APC         |
|           |              |            |              | Others         |