

## Small O-band MEMS tunable optical filter

1290-1320nm



### ● 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-1290-1-FA

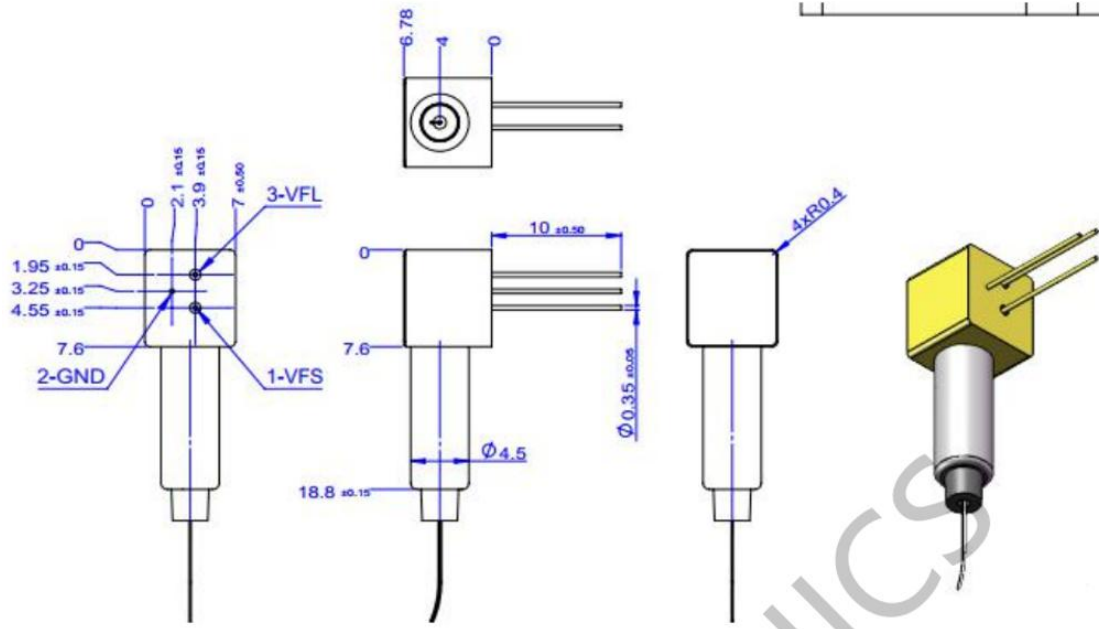
- **Application area**

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

- **Core parameters**

Bandwidth	Tuning Range	Connector Type
1nm	1290-1320nm	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) @0dB		<1.5 (typical <1)		dB
Center frequency polarization dependent loss @0dB		<0.5		dB
Bandwidth @3dB		1.0-1.4		nm
Bandwidth @20dB		2.6-3.6		nm



Parameters	Index		Unit
	Max.	Min.	
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: 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: 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