

Mini Optical Tunable Filter

Optoplex Mini Wideband Tunable Optical Filters (TOF) is specially designed for ASE noise filtering in transceivers to improve the OSNR performance.

The mini TOF features with low insertion loss and a very compact size, fitting into various transceivers for noise suppression.

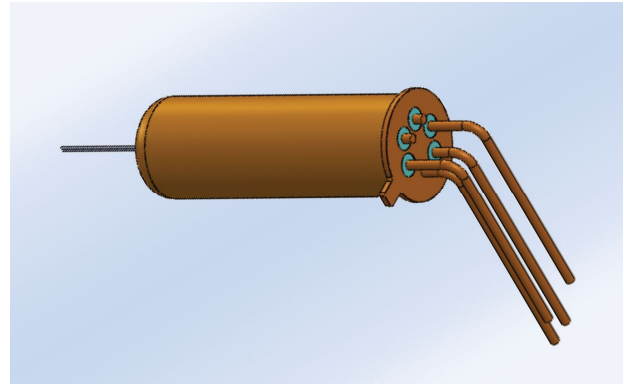


Figure 1 – Mini TOF

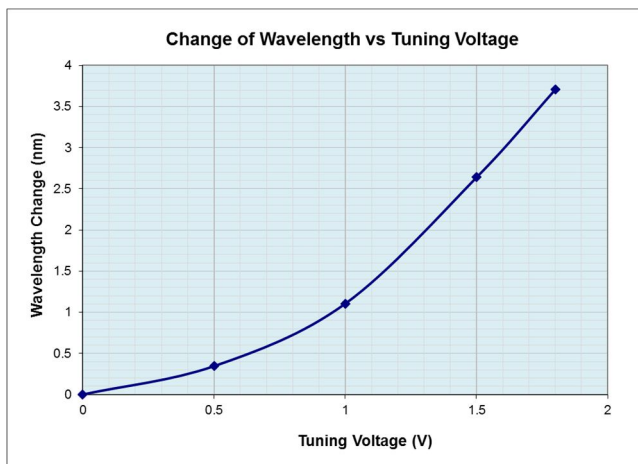


Figure 2 - Etalon thermal tuning curve

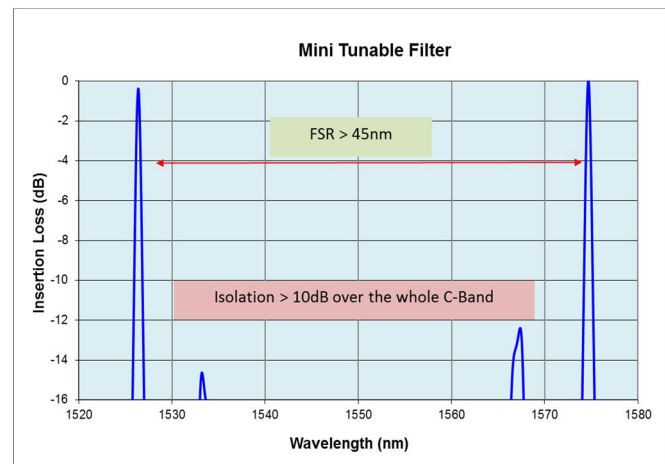


Figure 3 - Mini tunable filter output spectrum

Features

- Small Form Factor
- More than 5THz tuning range (C-band)
- 3dB BW: 50 ~ 60GHz
- Insertion Loss < 5dB
- Power Consumption < 300mW

Applications

- ASE noise filtering in transceivers.
- Single channel ASE noise suppression
- Other noise filtering applications

Performance Specification

Parameter	Conditions	Unit	Min	Typ	Max
Wavelength Tuning Range	C-Band	THz		6	
Bandwidth ¹ @ 3.0 dB		GHz		50	
Side-mode Suppression Ratio	At side lobes' peak	dB	8	10	
Insertion Loss		dB		4.0	5.0
Polarization Dependent Loss	Over ITU±5 GHz	dB		0.3	0.5
Return Loss		dB	20		
Tuning Time ²	Any to any channel	sec		3	5
Heater Resistance		Ohm	15	20	50
Voltage Range per Heater		V			2.3
Power Consumption per Heater	Maximum over temperature	mW			150
Optical Power	Single Channel	dBm			15
	All Channels				23

