

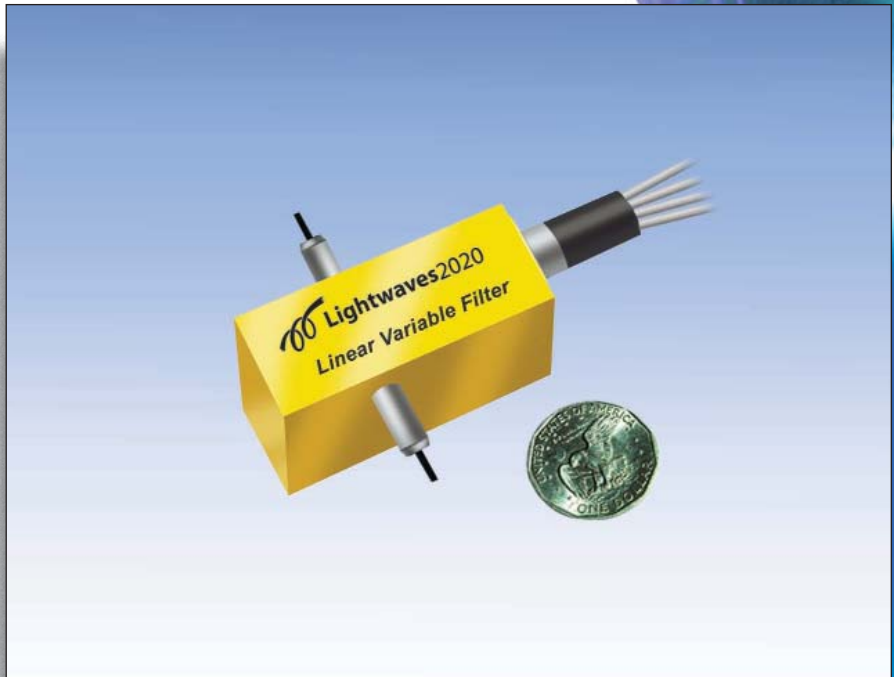
Linear Variable Filter

Features / Benefits

- Up to 40nm wavelength tuning range
- Low & uniform insertion loss
- Low PDL
- High adjacent channel rejection
- Tuning with stepper motor

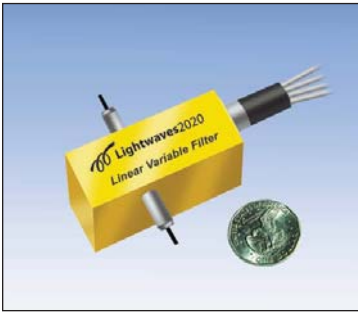
Applications

- Optical testing
- Dynamic channel selection in DWDM network
- Optical performance monitoring
- Noise suppression



Thin-film based tunable filter is an ideal candidate for telecom application, especially for DWDM system, on account of its low insertion loss, flat-top transmission spectrum, and excellent thermal stability. With new masks and the optical monitor system to control the coating uniformity during the whole process, Lightwaves2020 successfully makes high-quality step motor controlled 50GHz Linear Variable Filters (LVF) with high yield.

Excellent thin-film filter quality aside, LVF also has uniform tuning spectrum over the operation wavelength range and small package size. The vibration-free package and electronics control circuit is also provided. The wavelength setting repeatability is $< \pm 50\text{pm}$. Undoubtedly, Lightwaves2020's thin-film based tunable filter family is best solution for DWDM system application.



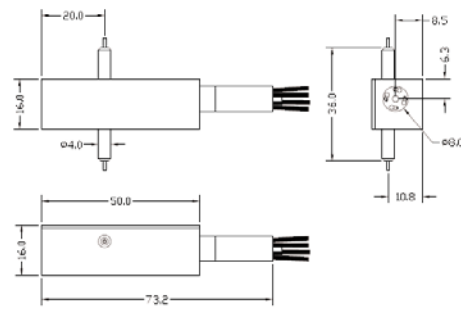
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Specifications

Parameters	Unit	C-band	Liband
Nominal Wavelength	nm	1530-1565	1570-1605
Maximum Insertion Loss	dB	< 3.5	
PDL	dB	< 0.2	
-0.5dB Bandwidth	nm	> 0.15	
-20dB Bandwidth	nm	< 0.85	
Maximum Back-reflection	dB	< -40	
Maximum Chromatic Dispersion	ps/nm	± 100	
CW Temperature Stability	pm/°C	< 1.0	
Wavelength Tuning Resolution	pm	10 (Typical)	
Wavelength Setting Error	pm	≤ ±50	
Wavelength Repeatability	pm	≤ ±20	
Tuning Voltage	VDC	0 - 5	
Tuning Speed	s	<5 for full-band tuning	
Operating Temperature	°C	0 - 70	
Storage Temperature	°C	-40 - 85	

Parameters are specified for the whole wavelength range over all polarization states and operating temperature range and excluding connectors, unless otherwise specified.

Dimensions



Units: mm

Ordering Information

T O T F L S 0 1 0 0 0

Tuning Type
 L = Linear type

Control Type
 S = stepper motor

Filter Type
 0 = 50GHz
 1 = 100GHz

Channel Number
 e.g. 01 = 1 channel

Fiber Length
 1= 1.0m
 5= 1.5m

Pigtail Type
 0= 250µm bare fiber
 1= 900µm loose tube

Connector
 0= None
 1= FC/UPC
 2= FC/APC
 3= SC/UPC
 4= SC/APC
 5= LC/UPC
 6= MU/UPC

* This product information is subject to change without notice



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