Thin-Film Filter Based Tunable Filter Module

NEW

Optical Tunable Filter
OTF-320

The OTF-320 is a manually tunable optical filter that features a wavelength indicator. Tuning is achieved by rotating a dial on the side of the unit, and the meter on the top of the unit provides the wavelength reference. A wide choice of tunable filter wavelength range and profile are available from santec's selection of thin-film based filters.

Features

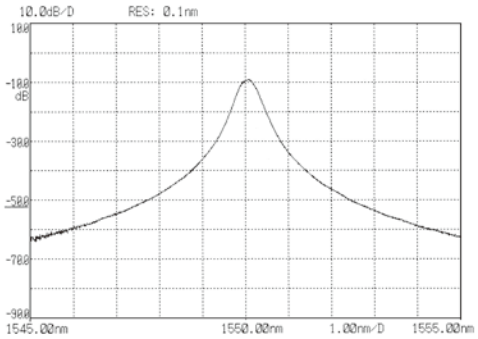
- 80nm tuning range
- Excellent transmission characteristics and low PDL and PMD over whole tuning range
- Analog wavelength indicator
- Wavelength tuning knob with lock function

Applications

- DWDM transmission systems
- ASE noise suppression
- Incoherent light source
- Fiber sensing

Measurement Data

Bandwidth Type: 003
Filter Structure: S2



Bandwidth Type: 012
Filter Structure: S2

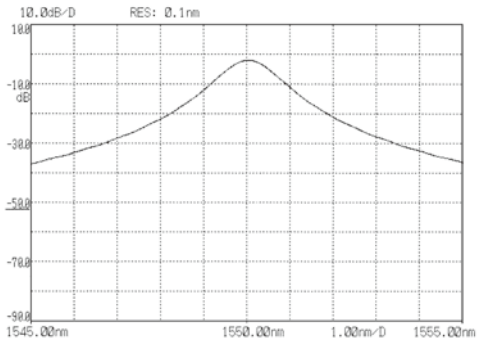


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Table1. Optical Specifications

Parameter	Units	Performance	
Wavelength range	nm	1530 to 1610	1530 to 1570 or 1570 to 1610
Tuning range	nm	80	40
Insertion loss	dB	Ref. Table 2	
Bandwidth @-3dB	nm	Ref. Table 2	
Bandwidth @-20dB	nm	Ref. Table 2	
PDL	dB	<0.1 (single stage) / <0.2 (double / triple stage)	
Return loss	dB	>45	
Operating Temperature	ºC	0 to +70	
Dimentions (Width x Height x Depth)	mm	171x38x38	

Table2. Filter Selection

Bandwidth Type	03			04			06		
Filter Structure	S1	S2	S3	S1	S2	S3	S1	S2	S3
Insertion loss (*1) (dB)	<3.0	<5.5	<7.0	<3.0	<5.0	<6.5	<2.0	<3.0	<4.0
Bandwidth@ -3dB (nm)	0.4±0.1	0.3±0.1	0.25±0.1	0.5±0.1	0.35±0.1	0.3±0.1	0.7±0.1	0.5±0.1	0.4±0.1
Bandwidth@ -20dB(nm)	<3.8	<1.5	<1.2	<5.0	<1.7	<1.2	<7.5	<2.4	<1.5

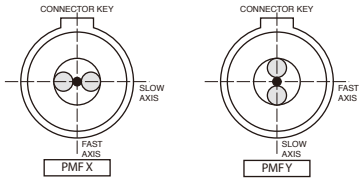
Bandwidth Type	08			12			24		
Filter Structure	S1	S2	S3	S1	S2	S3	S1	S2	S3
Insertion loss (*1) (dB)	<2.0	<2.5	<3.0	<1.5	<2.0	<2.5	<2.0	<2.0	<2.5
Bandwidth@ -3dB (nm)	0.95±0.1	0.65±0.1	0.5±0.1	1.3±0.1	0.9±0.1	0.7±0.1	2.9±0.3	1.95±0.3	1.5±0.3
Bandwidth@ -20dB(nm)	<9.8	<3.0	<2.2	<15.0	<4.5	<3.0	<32.0	<10.0	<6.5

*1: When PMF is specified, the insertion loss increases by 0.5dB.

Ordering Code

OTF-320-A-B-C-D-E-F-G-H

- H: Connector Polish : **SP** : SPC / **AP** : APC (Angled PC) / **X** : SPC (PMF X) / **Y** : SPC (PMF Y)



- G: Connector Type : **00** : None / **F** : FC / **S** : SC
- F: Fiber Length : **10** : 1.0 m
- E: Fiber Jacket : **09** : 0.9mm
- D: Optical Fiber : **S** : SMF / **P** : PMF
- C: Filter Structure : **S1** : 1 stage / **S2** : 2 stage / **S3** : 3 stage
- B: Bandwidth Type : **03** / **04** / **06** / **08** / **12** / **24**
- A: Wavelength Range : **1** : 1530-1610nm / **2** : 1530-1570nm / **3** : 1570-1610nm / **4** : Other

Please contact Santec's customer service to discuss any special requirements.

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