

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

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

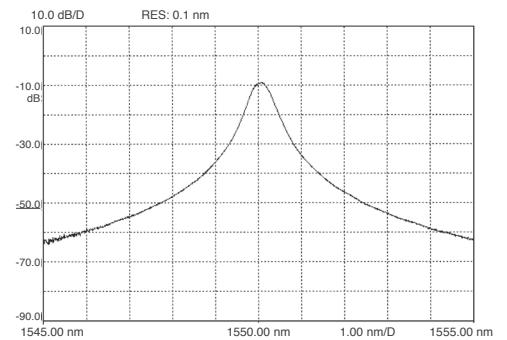
Applications

- ▶ 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

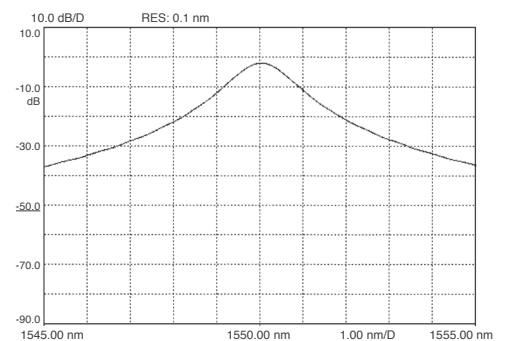


Table1. Optical Specifications

Parameter	Units	Performance			
Wavelength range	nm	1530 to 1610	1530 to 1570 or 1570 to 1610	1270 to 1350	1510 to 1630
Tuning range	nm	80	40	80	120
Insertion loss	dB	Ref. Table 2		Ref. Table 3	
Bandwidth @ -3 dB	nm	Ref. Table 2		Ref. Table 3	
Bandwidth @ -20 dB	nm	Ref. Table 2		Ref. Table 3	
PDL	dB	< 0.1 (single stage) / < 0.2 (double / triple stage)			
Return loss	dB	> 45			
Operating Temperature	°C	0 to +70			
Dimensions (Width x Depth x Height)	mm	171 x 38 x 38			

Table2. Filter Selection

Bandwidth Type	03			04			06		
	S1	S2	S3	S1	S2	S3	S1	S2	S3
Bandwidth @ -3 dB (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 @ -20 dB (nm)	< 3.8	< 1.5	< 1.2	< 5.0	< 1.7	< 1.2	< 7.5	< 2.4	< 1.5
Insertion Loss (dB)	< 3.0	< 5.5	< 7.0	< 3.0	< 5.0	< 6.5	< 2.0	< 3.0	< 4.0

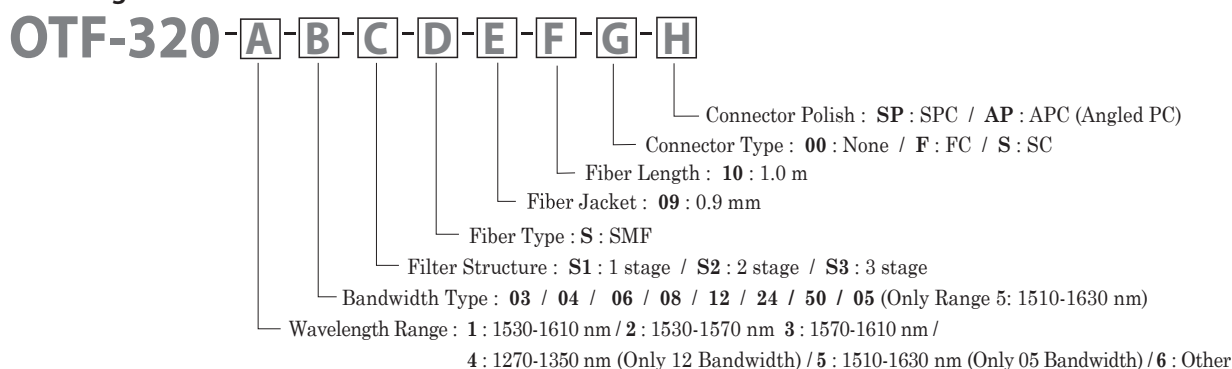
Bandwidth Type	08			12			24			50
	S1	S2	S3	S1	S2	S3	S1	S2	S3	S1
Bandwidth @ -3 dB (nm)	0.95 ± 0.1	0.65 ± 0.1	0.5 ± 0.1	1.3 ± 0.1	0.9 ± 0.1	0.7 ± 0.1	2.9 ± 0.3	1.95 ± 0.3	1.5 ± 0.3	5.5 ± 1.0
Bandwidth @ -20 dB (nm)	< 9.8	< 3.0	< 2.2	< 15.0	< 4.5	< 3.0	< 32.0	< 10.0	< 6.5	< 60(Typ.)
Insertion Loss (dB)	< 2.0	< 2.5	< 3.0	< 1.5	< 2.0	< 2.5	< 2.0	< 2.0	< 2.5	< 2.9

Table3. Filter Selection

Filter Type	05 (1510-1630 nm)			12 (1270-1350 nm)		
	S1	S2	S3	S1	S2	S3
Bandwidth @ -3 dB (nm)	0.5 ± 0.1	0.35 ± 0.1	0.3 ± 0.1	1.3 ± 0.15	0.9 ± 0.1	0.7 ± 0.1
Bandwidth @ -20 dB (nm)	< 5.0	< 1.7	< 1.2	< 15.0	< 4.5	< 3.0
Insertion Loss (dB)	< 5.0	< 7.0	< 8.5	< 2.5	< 3.0	< 3.5

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

Ordering Code



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