

[OENTF-100]

Narrow Bandwidth Optical Tunable Filter

Features:

- TEM₀₀ beam profile
- Narrow bandwidth
- Wide tuning range: from 1525-1610nm
- SM or PM-fibers
- High out-band suppression
- Low PDL and insertion loss variation

Applications:

- DWDM systems
- Narrow linewidth laser
- Optical sensing

Product description:

O/E Land's new product **OENTF-100** is a narrow-band tunable optical filter with an impressive bandwidth of less than 3.3 GHz, designed for high-precision filtering in photonics applications. This tunable filter allows selective wavelength transmission within an extremely narrow range, making it ideal for dense wavelength division multiplexing systems (DWDM), optical sensing, and high-resolution spectroscopy. Its applications extend to laser linewidth narrowing, where precise frequency selection is required, and advanced telecommunications systems, where isolating specific channels improves signal quality.

The filter's narrow bandwidth and tunability provide an essential tool for both research and industry, enhancing performance in fields that demand high spectral selectivity. **OENTF-100** series can tune the wavelength over the C- and L-band ranges. A software user interface allows changing the transmission center wavelength and controlling the operation of the filter.

Product specifications:

Parameter	Unit	Parameters		
Model		OENTF-100 Narrow Bandwidth Tunable Filter		
Type		C-band	L-Band	C+L Band
Operating wavelength range	nm	1525-1565	1570-1610	1525-1610
Tuning range (max)	nm	< 40	< 40	< 85
Wavelength tuning resolution	nm	< 0.03		
FWHM Bandwidth	GHz	< 3.3		
Out-of-band suppression	dB	> 40		
Insertion loss	dB	< 6		
Optical power (max)	mW	< 500		
Fiber type		SM; PM		
Fiber termination		Fiber pigtail; Fiber connectors: FC; SC; ST		
Control interface		Included, via USB port		

Ordering number for OENTF-100:

Model	Wavelength range WL (-)	Tuning Range (TR) (nm)	Fiber type (FT)	Connector (C)	Fiber Length (FL)
OENTF-100-WL-TR-FT-C-FL	C: C-Band L: L-Band CL: C+L Band	Specify; up to max for the range	SM: single mode PM: Polarization-maintaining	FC/PC C1 FC/APC C2 SC/PC C3 SC/APC C4 LC/PC C5 LC/APC C6	Default: 1 m Custom: specify value
Example:	OENTF-100-CL-70-SM-C1-1				