

Compact tunable filter

Key design features include:

- Compact, high performance Fabry-Perot Etalon *tunable filter* with low insertion loss and high contrast ratio
- Good wavelength stability and narrow spectral width, suitable for Telecom, optical sensing, and spectroscopy
- Built-in internal and external wavelength control.
- Operating at C-band

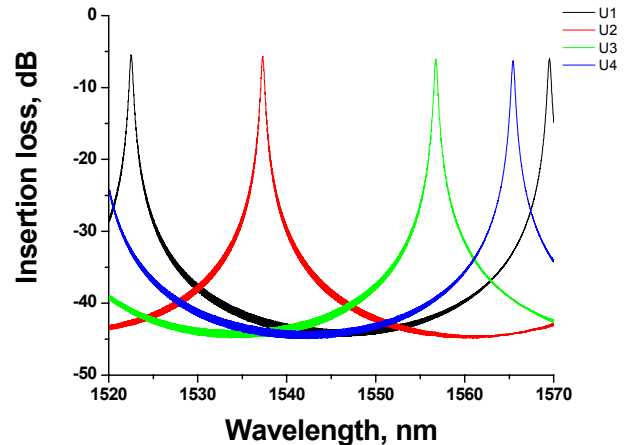
ODB-3 is compact tunable filter, operating within optical “C”-band, designed for different laboratory and industrial applications demanding high-resolution and low insertion loss (Telecom, Optical sensing, Raman spectroscopy, wavelength conversion, etc.)

Central wavelength of the filter can be continuously tuned using internal controller or an external voltage source (DAC). Light to and from tunable filter is delivered through low reflectivity FC/APC optical connectors.

The tunable filter has good stabilization of internal components and wavelength tuning circuits. Optional accessories allow control of input/output polarization, high-speed time-resolved measurements and transition from the fiber to free space optics using a compact fiber lens collimator with adjustable focus.

Specifications:

Description	Min	Typical	Max	Unit
Operating wavelength range	1520-1570			nm
Bandwidth (BW @ 3dB) at 1555 nm	0.4	0.47	0.5	nm
Finesse	100	120	130	-
Insertion loss at 1555 nm @ 25C, dB	2.8	3.0	5	dB
Return loss, dB	>40	55	60	dB
Free spectral range (FSR), nm	50	56.4	70	nm
Dimensions	130 × 130 × 50			mm
Tuning voltage per FSR	9	9.25	12	V
Maximum voltage	15			V
Polarization dependant loss	<0.1	0.15	0.25	dB
Number of optical outputs	1	1	2	-
Connector type	FC/APC			
Fiber type	9/125/900			um
Operating temperature	15	25	35	°C



Typical band-pass spectra of ODB-3 operating at different external wavelength control