

XFA

Tunable Filter with Fixed Bandwidth

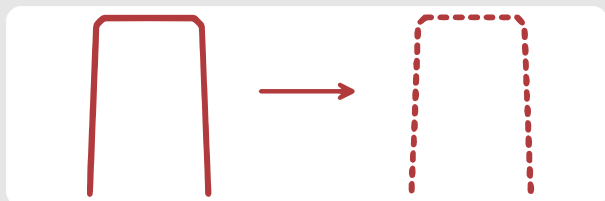
Yenista is renowned for its tunable filter technology that provides the best optical properties for telecom applications. The XFA is electronically controlled and wavelength tuning ranges from 1450 nm to 1650 nm. The bandwidth is factory-set and can be selected at purchase between 50 pm and 800 pm with respect to the center wavelength.



Key Features

Fixed Bandwidth Flat-top Filter

The bandwidth of the XFA filters can be selected at purchase between 50 pm and 800 pm. The filter has a flat-top profile with minimal ripple, less than 0.2 dB.



Wavelength Tuning

Ultra-sharp Filter Edges

The XFA uses **Yenista's** patented quadruple pass technology. This creates extremely sharp filter edges with slopes of 500 dB/nm. Single or groups of narrowly spaced DWDM channels or coherent super-channels can be selected with ease.

High Isolation

In addition to the sharp filter edges, **Yenista's** quadruple pass technology achieves higher isolation than conventional double-pass filters. Isolation is typically 60 dB.

High Accuracy & Repeatability

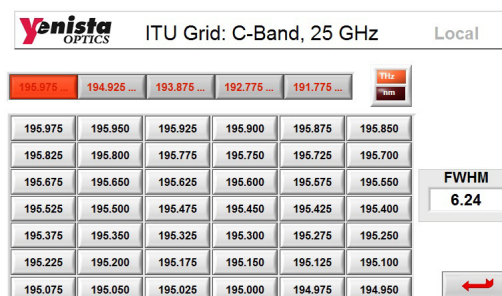
High resolution translation stages are used for wavelength control. This ensures the XFA can be set accurately and repeatedly over time.

200 nm Wavelength Range

The XFA has a very wide wavelength range and covers the key telecom wavelengths from 1450 nm to 1650 nm.

Easy-to-Use Software

The XFA is operated through its 7-inch touch screen to drive all operations. It enables fast setup with a complete set of functions such as sequence execution, ITU Grid selection, custom grid generation



XFA – ITU Grid Selection

Applications

DWDM Channel Selection

Low dispersion, steep edges and high isolation mean that DWDM channels, or even coherent superchannels with spacing down to 10 GHz, can be separated with ease. BER tests have never been so good!

Variable OSNR Source

A variable OSNR source typically consists of an ASE source combined with a variable attenuator. Adding the XFA with a flat-top bandwidth enables consistent noise loading for all DWDM wavelengths.

R&D of Modulation Formats

The XFA is perfect for the filtering and analysis of sub-bands of complex modulations formats.

Pulse Shaping

Wide bandwidth flexibility enables the filter to be used for pulse shaping of femtosecond lasers.

Specifications

Optical Characteristics	Wavelength range	1450–1650 nm
	Wavelength resolution	1 pm
	Wavelength accuracy*1	±30 pm
	Insertion loss*2*3	5 dB (4.5 dB typical)
	Polarization dependent loss*3*4	±0.2 dB
	Wavelength tuning speed	1 s
Optical Bandwidth (FWHM) (selected at order time)	Minimum bandwidth (FWHM)	50 pm
	Maximum bandwidth (FWHM)	800 pm
	FWHM accuracy	±10 pm
Optical Bandwidth Shape	Out-of-band suppression (crosstalk)*5	40 dB (60 dB typical)
	Flatness*6	0.2 dB
	Filter edge roll-off*7	500 dB/nm typical
Interfaces	Display	7 inch resistive touch-screen (res. 800x480)
	Communication interfaces	USB-B, Ethernet (x2), RS-232C, GPIB*8
	Display and other interfaces	DVI-I (x1), USB 2.0-A (x4), PS/2 (x2)
	Optical fiber type	SMF or PMF
	Connector type	FC/PC or FC/APC
Operating Conditions	Temperature range	15 to 35 °C
	Maximum optical input power	30 dBm
	Power Supply	100–240 V (50–60 Hz)
Size & Weight	Dimensions (W x D x H)	254 x 385 x 154 mm
	Weight	7.0 kg

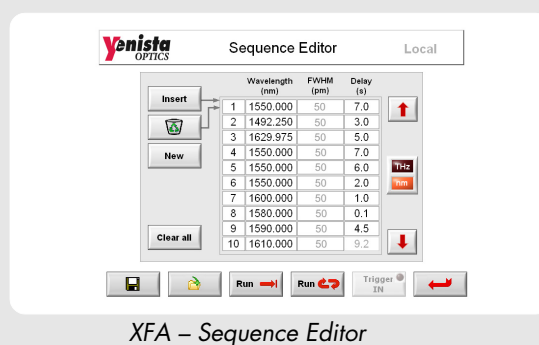
All specifications are given at 21°± 3°C after 30 minutes warm-up.

- *1: With "Backlash Suppression" setting enabled.
- *2: From 1500 to 1600 nm & FWHM >60 pm.
- *3: At lowest FWHM the insertion loss is 7 dB typical.
- *4: At 1500, 1550 and 1600 nm, FWHM > 100 pm.
- *5: Measured 1 nm away from the -3 dB points.
- *6: Centered width of FWHM - 150 pm. For 150 pm < FWHM < 650 pm.
- *7: Between -3 and -40 dB for FWHM <800 pm.
- *8: GPIB is supported as an option through an external RS-232/GPIB converter.

Advanced Features & Performance



Easy access to optical connectors for cleaning. Easing maintenance and enabling the lowest losses to be maintained.



Yenista OPTICS

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Information and specifications are subject to change without notice
 XFA_DS_2.1v1.1 (2016-8)