OTF-980

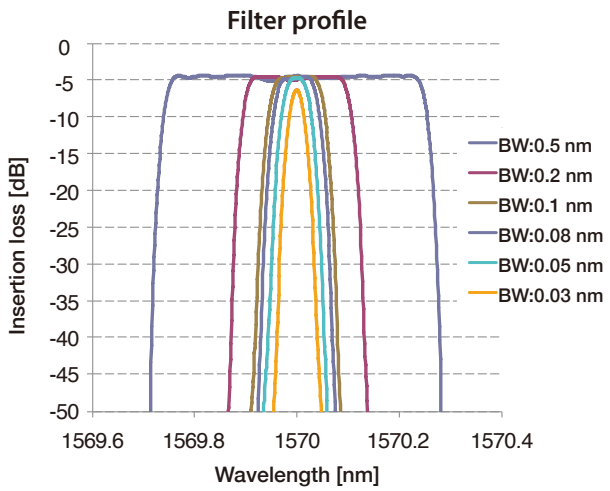
Adjustable Bandwidth Tunable Filter

Touchscreen

Product Overview

The OTF-980 is a versatile programmable optical tunable filter that allows simultaneous and independent tuning of center wavelength and bandwidth over C & L bands. The OTF-980 is built with novel free-space optics combined with an ultra-fine tuning mechanism to ensure precise filter control and a flat-top passband shape. There are three versions available with different transmission bandwidth and slope shape with the ultrafine-plus(0.05 to 3nm bandwidth) having the steepest filter slope (1000 dB/mm). An integrated power meter monitors power at the output and features an automatic peak search function. GPIB, Ethernet and USB interfaces with the industry standard SCPI command set allows users to have full remote control and measurement automation. The OTF-980 is controlled via the front panel touchscreen.

Measurement Data



Features

- Center wavelength & bandwidth can be tuned independently
- Flat-top filter shape with steep filter slope:
  Ultrafine-Plus : 0.05 to 3 nm, 1000 dB/nm
  Ultrafine : 0.08 to 4 nm, 500 dB/nm
  Standard : 0.1 to 15 nm, 200 dB/nm
- Wavelength tuning range: 85 nm in C&L-band
- O-band is available upon request
- Peak search function
- Touchscreen and GPIB / Ethernet / USB interfaces

Applications

- 100 Gb/s, 400 Gb/s transmission test
- Adjustable and adaptive DWDM, OFDM channel filtering
- ASE noise filtering
- Next generation bundle wavelength OXC

Specifications

Category	Parameter		Unit	Performance		
				Standard	Ultrafine	Ultrafine-Plus
Wavelength Characteristics	Wavelength Range		nm	1525 to 1610		
	Accuracy		nm	±0.05 (typ. ±0.03)		
	Repeatability *1		nm	±0.01 (typ. ±0.005 *4)		
	Setting Resolution		nm	0.001		
Filter	Bandwidth @-3dB		nm	0.1 to 15	0.08 to 4	0.05 to 3
	Accuracy		nm	±0.05 (typ. ±0.03)		
	Repeatability *1		nm	±0.01		
	Setting Resolution		nm	0.001		
	Filter slope *2 (typ.)		dB / nm	200	500	1000
Power Characteristics	Maximum Input Power *3		dBm	+27		
	Insertion Loss	Bandwidth ≧ 0.2 nm	dB	5 *5, 6 (typ. 3.5)		6 *5, 7 (typ. 5)
		Bandwidth < 0.2 nm	dB	7 *5, 6 (typ. 5.5)		8 *5, 7 (typ. 7)
	Crosstalk (typ.)		dB	50		
	Polarization Dependent Loss (typ.)		dB	0.2		
	Peak Search Function (Option)		-	Yes		
Interface	Communication		-	GP-IB (IEEE488.2), USB & Ethernet		
	Display		-	5.6 inch resistive touch-screen (res. 640 x 480)		
	Optical Fiber		-	SMF		
	Optical Connector		-	FC or SC		
	Optical Polish		-	SPC or APC (Angled PC)		
Environmental Conditions	Operating Temperature		°C	15 to 35		
	Operating Humidity		%	< 80		
Power Supply	Voltage		V	AC100 to 240 ±10%		
	Frequency		Hz	50 / 60		
	Power Consumption		VA	100		
Others	Dimensions (W) x (D) x (H)		mm	210 x 350 x 133		
	Weight		kg	8.5		

*1: Temperature 25 ±1 °C.
*2: Between -3 and -40 dB for bandwidth@-3dB >0.2 nm.
*3: In case of peak search option, input power range is available from -30 dBm to +20 dBm.
*4: When using peak search function, the wavelength repeatability improves to ±0.005 nm (typ.).
*5: In case of peak search option, the insertion loss increases by 0.5 dB.
*6: The insertion loss at (1525 nm to 1530 nm) wavelength range may increase by 1 dB.
*7: The insertion loss at (1525 nm to 1530 nm) wavelength range may increase by 0.5 dB.

Ordering Code

OTF-980 - A - B - C - D - E - F

- F: Peak Search: **0**: None / **1**: Peak Search (Standard)
- E: Connector Polish: **SP**: SPC / **AP**: APC (Angled PC)
- D: Connector Type: **F**: FC / **S**: SC
- C: Fiber Type: **S**: SMF
- B: Bandwidth Type: **S**: Standard / **U**: Ultrafine / **P**: Ultrafine-Plus
- A: Wavelength Range: **1**: 1525 to 1610 nm / **2**: Other

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