Electrically Tunable Fiber Optic Filter

(patent pending)

Product Description

Based on a proprietary thin film cavity filter technology, Agiltron offers Fiber Optic Tunable Filters with central wavelengths of 1060nm, 1310nm, 1550nm and 2000nm. It is tunable continuously over a wide spectral range up to 80 nm. The wavelength tuning is actuated by driving a build-in precise stepper motor through interface of USB or RS232.

Agiltron's unique high reliability and low insertion loss design presents a most cost-effective solution for OEM applications from fiber optic networks to fiber sensing interrogation.

Features

- Compact and Low Cost
- Wide Tune Range
- Wide Wavelength Coverage
- Low IL and PDL

Applications

- DWDM networks
- Fiber Sensing
- ASE control
- Tunable Fiber Laser

Performance Specifications

Parameter		Min	Typical	Max	Unit
Center Wavelength		350		2400	nm
Tuning Range[1]		-	+ - 30	+ - 50	nm
Tuning Resolution		-	0.1	-	nm
Insertion Loss [2]		1.5	2	3.5	dB
Bandwidth @-3dB		-	1	1.2	nm
Bandwidth @-20dB		-	10	-	nm
Off-Band Suppression		-	30	-	dB
PDL (SM fiber only)		-	0.15	0.35	dB
PMD (SM fiber only)		-	-	0.5	ps
Extinction Ratio (PM fiber only)		18	23	-	dB
Return Loss		40	-	-	dB
Optical Power Handling (CW)	Standard version	-	0.5		W
	High power version		10		W
Operating Temperature		0	20	60	° C
Storage Temperature		-10	-	70	° C

Note: * Excluding connector loss.

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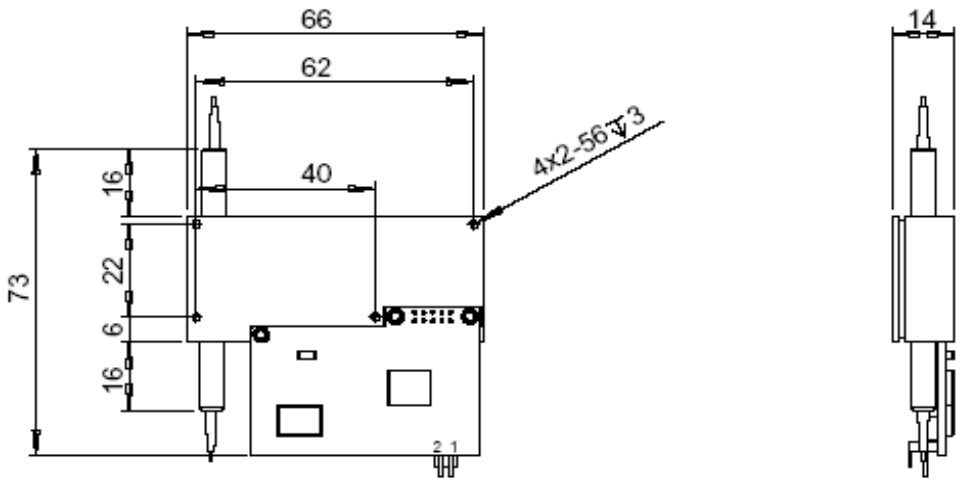
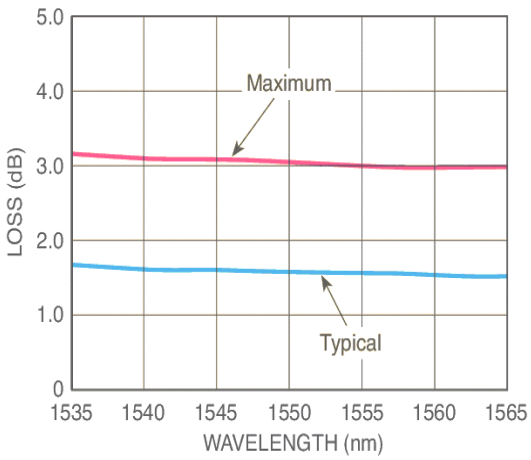
Motorized Etalon-Based Fiber Optic Tunable Filter

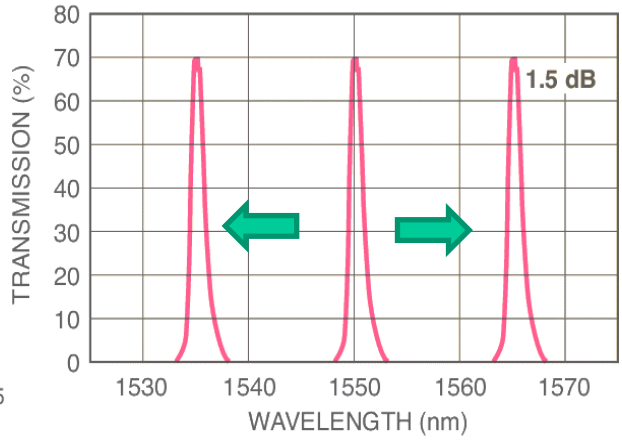
Mechanical Dimension (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Typical Transmission Curve





Electrical Driving

Agiltron provides communication protocols and a computer control kit with USB or RS232 interface and Windows™ GUI.

Connector Pin Definition:

Power	Pin 1	GND
	Pin 2	5V

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Ordering Information

FOTF-	0 1	☐	☐	2	☐	☐	☐	☐
	Type	Wavelength	Power	Pack	Fiber Type		Fiber Length	Connector
		2100± 60nm=1 2000± 50nm= 2 1960± 40nm= 4 1850± 50nm= A 1620± 40nm = 7 1550± 40nm = 5 1550± 50nm = 9 1480± 40nm =8 1310± 40nm =3 1060± 40nm = 6 1005± 45nm = B Special = 0	Standard = 1 High Power=2		SMF-28 = 1 HI1060 = 2 PM980 = 3 PM1550 = 4 SM1950 =5 PM1950 =6 Special = 0	Bare fiber=1 900um tube=3 Special=0	0.25m= 1 0.5m = 2 1.0 m= 3 Special =0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0

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