

# ITU Channel Tunable Filter (100GHz/50GHz)

(patent pending)



DATASHEET

BUY NOW



Agiltron's ITU Channel Tunable Filter selectively passes any wavelength channel on the ITU grid via a USB interface with a user friendly GUI. The configurations include up to 12 CWDM channels, 80 WDM channels with 100GHz spacing, and 96 channels with 50GHz spacing.

## Features

- Up to 96 ITU Channel Selection
- High Stability
- Cost-Effective

## Applications

- DWDM networks
- Fiber Sensing
- Test

## Specifications

Parameter	Min	Typical	Max	Unit
Wavelength Tuning Range <sup>[1]</sup>	850		1630	nm
Tuning Resolution		ITU		
Tuning Speed		5	20	ms
Insertion Loss		0	0.5	dB
Bandwidth @-3dB	-	0.7	0.25	nm
Bandwidth @-20dB	-	0.75	-	nm
Polarization Dependent Loss	-	0.25	-	dB
Off-Band Suppression	-	45	-	dB
Polarization Mode Dispersion	-	-	0.5	ps
Return Loss	40	-	-	dB
Optical Power Handling (CW)	-	-	500 <sup>[2]</sup>	mW
Operating Temperature	0	20	60	°C
Storage Temperature	-10		70	°C
Fiber		SM28		

### Notes:

[1]. The transmission is only the wavelength band on the ITU grids, lights between the ITU are blocked.

**Note:** The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

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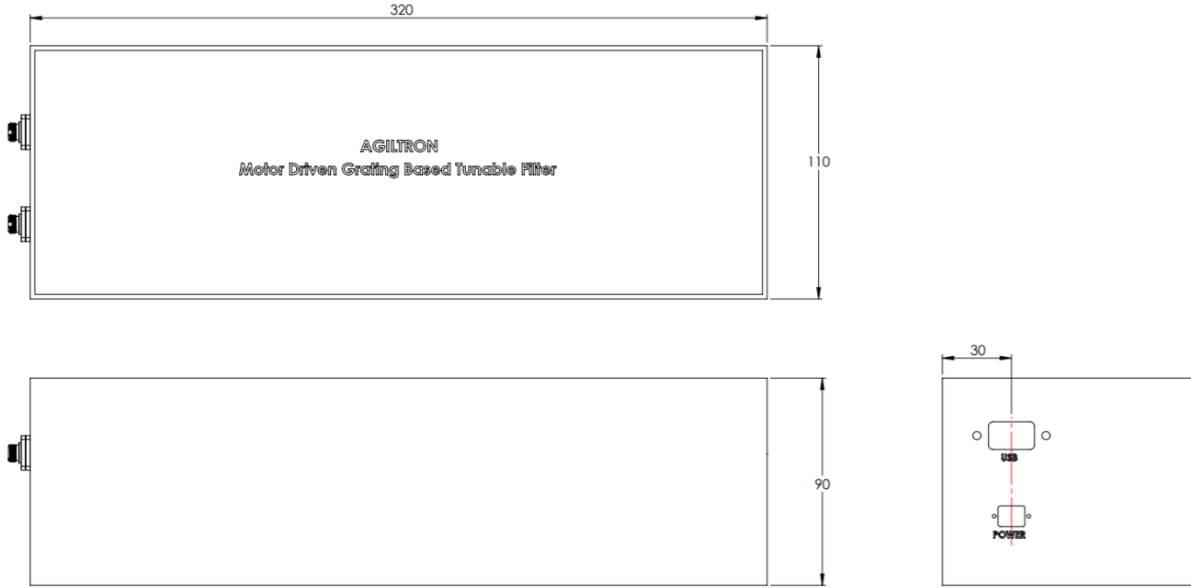
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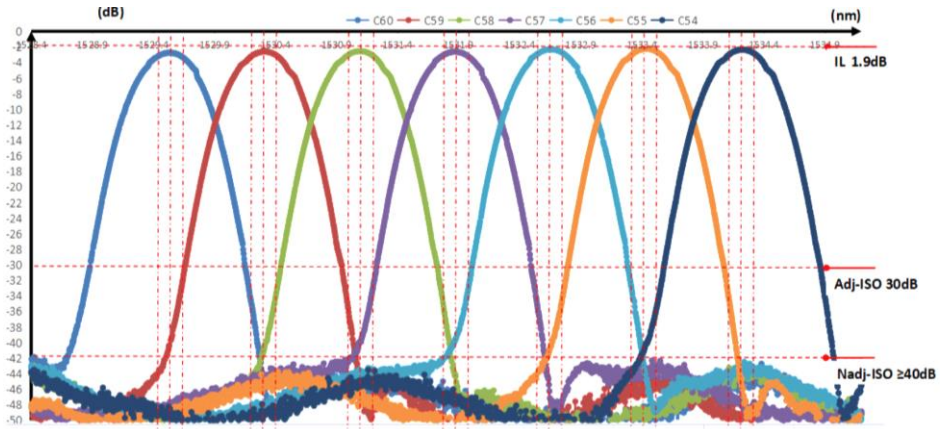
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### Mechanical Dimension (mm)



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

### Spectrum



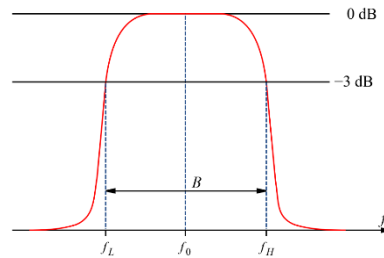
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### Bandwidth Definition



### Ordering Information

Prefix	Wavelength	Wavelength Spacing	Channel	Type	Fiber Type	Fiber Cover	Fiber Length	Connector
<b>FITU-</b>	C-Band=C L-Band= L	CWDM =2 WDM100GHz=1 DWDM50GHz=5	8= 08 16 =16 40 = 40 48 = 48 60 = 60 96 =96	B-grade = 1 A-grade = 2	SMF-28 = 1	900um loose 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/PC = 7 Special = 0

### How to test the insertion loss of a tunable optical filter

The filter only works in a specific range. Beyond this range, extra peaks may show. These peaks can be blocked with special order. Please follow these instructions to do an optical insertion loss test:

1. Connect a broadband fiber-coupled laser source to OSA, sweep one time over the specified range of the tunable filter, and then fix the curve in Trace A as a reference.
2. Connect the broadband laser source to the fiberoptic tunable filter fiber as input, then connect the other fiber port of the tunable filter as the output to the OSA.
3. Set OSA Trace B as 'write,' Trace C as 'Calculate: B-A.' Auto sweep Trace C from the specific range. Tune the micrometer to shift the peak at a different wavelength. Use 'Peak search' to record IL at a different wavelength."