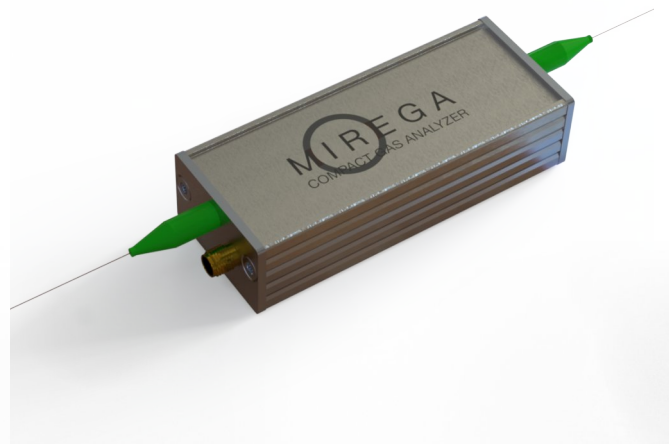


## Fiber Fabry-Perot Tunable Filter

Based on a patented technology and years of research, our technology come from a fiber-based Fabry-Perot microcavity with exceptional properties. Our laser machined-mirrors enable extremely high finesse ( $F > 100.000$ ).

Its unmatched precision allows the filtering of precise wavelengths, eliminating interference like never before. This breakthrough technology empowers innovation across industries by enabling superior optical performance and control.



Mirega's Fiber Fabry-Perot Tunable Filter features unrivalled performances:

### FINESSE: ABOVE 30 000

Mirega provides filters with an unrivalled wavelength selectivity based on a finesse of above 30 000 and up to 100 000 for custom filters !

### FAST TUNING RATE

Need a fast tunable filter ?  
With a first mechanical resonance above 10kHz, speed is not anymore a limit using Mirega's filter.

### FSR: 300 GHz - 10 THz

Mirega provides a very wide range of FSR from 300 GHz to 10 THz as a standard. OEM and custom filters can be provided within an even larger range.

### WAVELENGTH : 500 - 2500 nm

Mirega's custom filters can effectively operate with a large range of 200 nm with the center wavelength that can be chosen from 500 to 2500nm.

## STANDARD PERFORMANCE

Optical			
Wavelength range	1460 - 1660 nm		
Finesse (at center wavelength)	> 30 000		
Free Spectral Range (THz / nm)	10THz / 80nm	1.5THz / 12nm	0.3THz / 2.4nm
Filter bandwidth (MHz / pm)	< 330 / 2,7	< 50 / 0,4	< 10 / 0,08
Transmission at extinction*	< - 80dB		
Maximum output power at resonance**	2 mW		

Electrical	
Tuning voltage / FSR	< +/-220 V
First mechanical resonance frequency	> 10 kHz
Maximum tuning voltage*	+/- 320 V
Capacitance*	< 10 nF

Mechanical and environmental	
Dimension*	10 x 4 x 3 cm
Weight*	160 g
Fibers*	monomode
Operating temperature*	5 to 35 °C
Storage temperature*	-10 to 60°C

\* Not tested and/or by design.

\*\* High finesse may imply high intracavity power, depending on frequency, thermal effect may appear at lower power.

## CUSTOM AND OEM

Custom and OEM filters are available upon request.

Center wavelength	from 500 to 2500 nm
Finesse (at center wavelength)	from 1 000 to 100 000
Free Spectral Range	from 150 GHz to 15 THz

## ORDER TODAY

Need more information?

Quote, technical note, test unit, simulation, external size drawings, 3D files or any other requests, we have more information to share.

Contact us for one-to-one guidance and technical support:

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