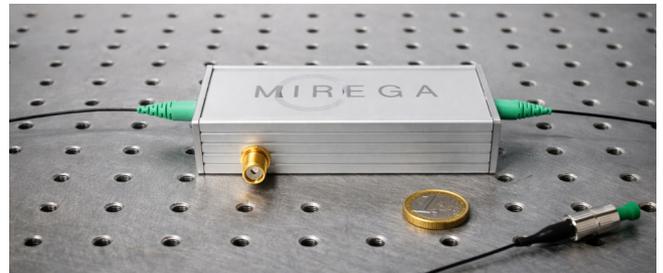


## Fiber Fabry-Perot Tunable Filter

Built on patented technology and more than a decade of academic research, Mirega's fiber-based Fabry-Perot cavity delivers ultra-high spectral selectivity, fast tuning capability, and a wide free spectral range in a compact, fiber-integrated solution for research and OEM applications.



### FINESSE: ABOVE 30 000

Mirega provides filters with an unrivalled wavelength selectivity based on a finesse of above 30 000 and up to 60 000 for custom oem filters !

### FAST TUNING RATE

Need a fast tunable filter ?  
With a first mechanical resonance above 50kHz, speed is not a limit anymore 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 : 700 - 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.

Our laser-machined fiber mirrors achieve ultra-high finesse, enabling extreme spectral selectivity and unmatched wavelength discrimination. This unique performance allows the efficient rejection of unwanted spectral components, delivering superior signal purity and control. This breakthrough technology unlocks new possibilities across photonics, sensing, and spectroscopy.

## STANDARD PERFORMANCE

Optical				
Wavelength range (+/-100nm)	800*	1000*	1560	
Finesse (at center wavelength)	60 000	30 000	20 000*	5 000*   3 000*
Free Spectral Range - FSR (THz)	10THz to 0,3THz			
Filter bandwidth (MHz) - FSR/Finesse**	10MHz to 3,3GHz			
Transmission at extinction	-60 to -80dB			
First mechanical resonance frequency	> 50 kHz			

Electrical	
Tuning voltage / FSR	320 Vpp
Capacitance	< 10 nF

Interfaces	
Fibers	monomode 30cm with 900um jacket
Optical Connections	FC/APC
Electrical Connections	LEMO connector with BNC adapter
Weight	160 g
Dimensions**	10 x 4 x 3 cm

Absolute maximum rating	
Maximum output power ***	from 2 mW to 20 mW
Maximum tuning voltage (peak to peak)	740 Vpp
Operating temperature	10 to 35 °C
Storage temperature	-10 to 55°C

\* Coming soon.

\*\* Example: FSR=1.5 THz, Finesse>30 000 then bandwidth<50 MHz

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

## CUSTOM AND OEM

Custom OEM filters are available upon request.

## ORDERING INFORMATION

Ordering code format: FP-*www*-*ffff*-*FF*

- *www* – Center wavelength (nm)      800 | 1000 | 1560
- *ffff* – Finesse                            60 000 | 30 000 | 20 000 | 5 000 | 3 000
- *FF* – Free Spectral Range (THz)      10 | 1.5 | 0.3