

FIBER BRAGG GRATING

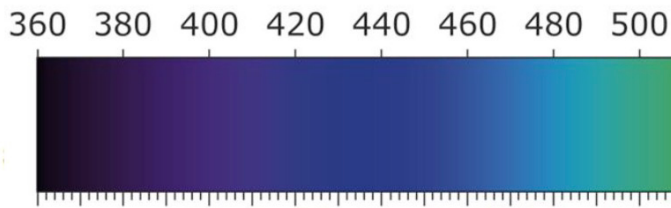
IXC-MIR-UV

Narrow Band Filter at 375 to 500 nm

FBG-based narrowband filters and mirrors in the near-UV and blue are gaining attention for applications like spectroscopy, wavelength reference, laser mode selection, interferometry or other applications requiring a high spectral purity,



A new filter design provides a narrow bandwidth solution and confers a long-term resistance thanks to a new range of solarization-resistant singlemode fibers holding at least 40 mW at 375 nm.

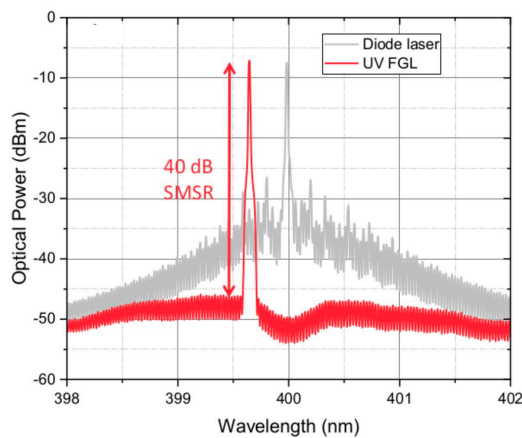


Benefits & Features

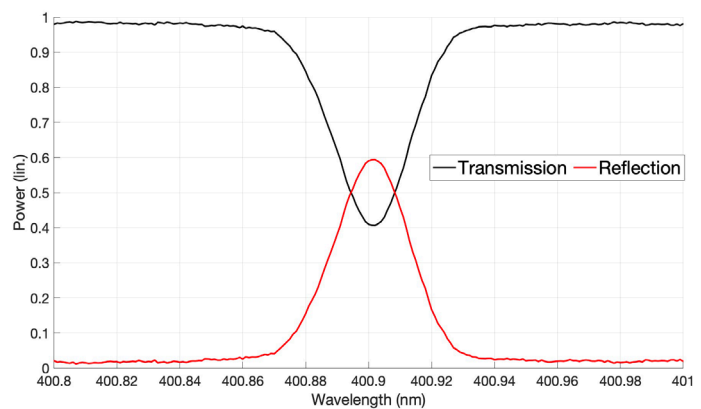
- Narrowband filtering
- Mode selection
- Visible laser stabilization
- Linewidth reduction
- Solarization-resistance
- SM or PM fiber
- Packaging option : bare fiber or athermal package

Applications

- Spectroscopy
- Metrology
- Wavelength standard
- Quantum optics
- Optical clocks
- Cold molecules physics
- Flurescent imaging and optogenetics
- Underwater LIDAR



Longitudinal mode selection in an external cavity diode laser (FBG-ECDL)¹



Optical response of a narrowband filter

¹Sub-MHz linewidth UV laser diode for metrological applications, CLEO®/Europe-EQEC 2023, Oral CB-10.3

IXC-MIR-2000-HP

TECHNICAL SPECIFICATIONS

Parameters

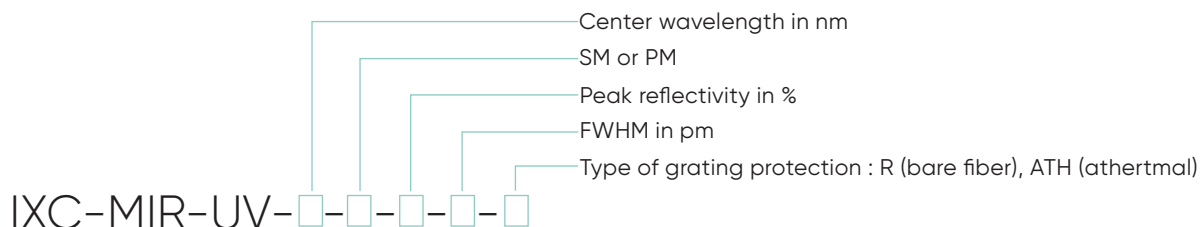
	SM Fiber	PM Fiber
Fiber type ²	IXF-SM-375	IXF-PM-375
Center wavelengths range (nm)		375 - 500
Center wavelength accuracy (nm)		± 0.1
Peak reflectivity (%)		4 to > 90
Reflexion bandwidth (FWHM) (pm)		30 to 200
Power handling (mW)		> 40

² Pure silica core fibers, datasheets available upon request.

Design Parameters

Grating protection (mm ³)	Bare fiber, athermal package 55 x 5 x 5
Fiber tail (m)	1, each side of FBG (typical)

Ordering Information



Other informations are : pigtail lengths

Example : IXC-MIR-UV-402-PM-20-100-ATH for 402 nm 20% 100 pm (FWHM) PM FBG in athermal package

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