

FIBER BRAGG GRATING

IXC-MIR-2000-HP

High Power FBG Mirrors for Fiber Laser Cavity

Fiber Bragg Grating (FBG) mirrors is a critical component used to design laser cavity and are ideal for high power fiber lasers. Cavity mirrors based on FBG technology are key components for monolithic high brilliance CW fiber lasers. High and Low Reflection (HR/LR) mirrors are written in Exail specialty double-clad optical fiber to promote high performance, robust and reliable single mode Thulium fiber lasers.

High Power FBG mirrors are specifically designed for high power handling, optimized FBG writing process to ensure stability at high optical power.

Exail offers a dissipative package for thermal management of the FBG to ensure stability at high optical power.

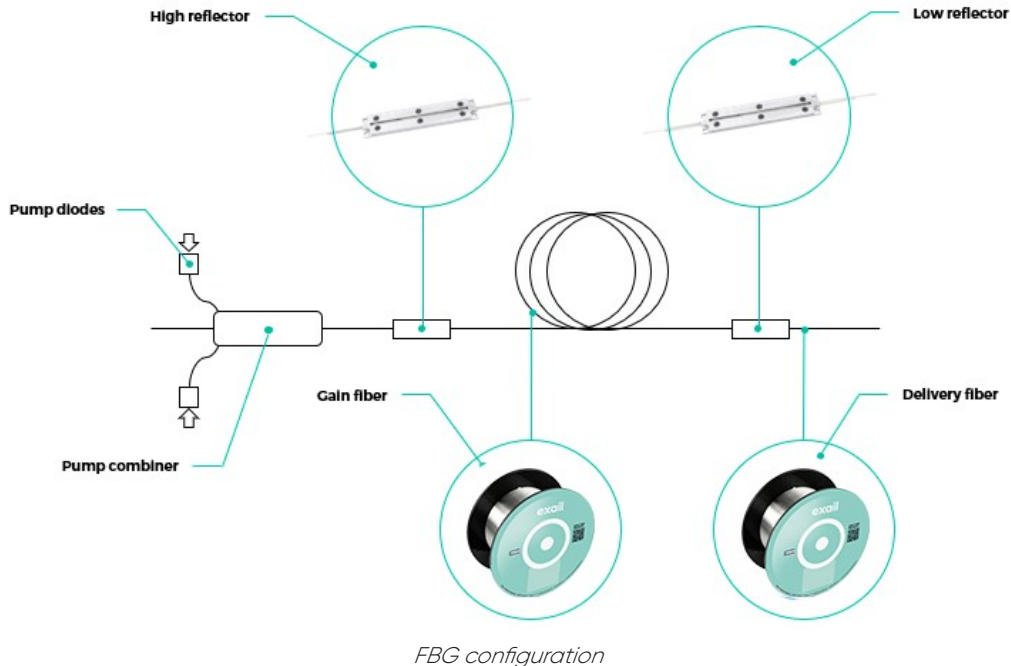


Benefits & Features

- Higher laser efficiency
- Custom design
- Wavelength bandwidth
- Accurate wavelength matching
- Precision matched passive to active Fiber
- Heat Dissipative Package (IXC-DIS-PKG)
- Associated to Exail active fibers

Applications

- High-power fiber laser
- Biomedical
- Industrial
- Non-linear optics



IXC-MIR-2000-HP TECHNICAL SPECIFICATIONS

Parameters

Exail passive optical fiber	IXF-2CF-PAS-10-130-0.15					
Center wavelengths range (ref. to vacuum) (nm) ¹	1910	1943	1951	2034	2051	2123
Center wavelength accuracy (nm)	± 1					
Wavelength matching with HR/LR (nm)	< 0.2					
	HR			LR		
Peak reflectivity (%)	≥ 99			5 - 20		
Peak reflectivity accuracy (%)	± 2					
Reflection bandwidth (FWHM) (nm)	1 - 3			0.3 - 1		
FWHM accuracy (nm)	± 0.2			± 0.1		
Side lobe suppression ratio (dB)	> 20			> 15		
Maximum pump power handling (W) ²⁻³	300					

¹Other center wavelengths upon request

²Using multimode pump at 915 nm (background loss are equivalent vs 793 nm)

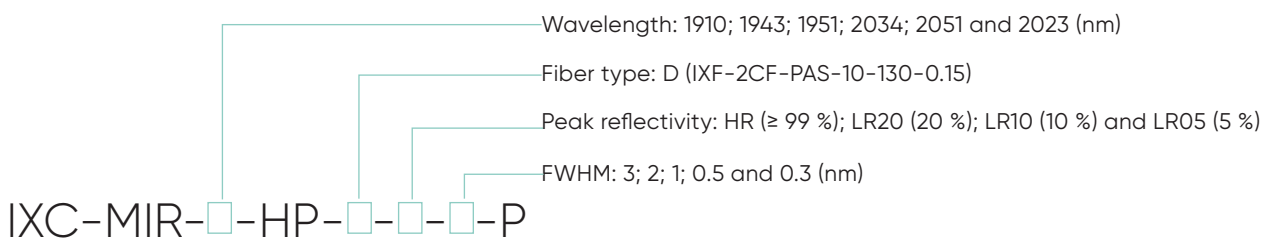
³Appropriate cooling must be applied

Design Parameters

FBG heat dissipative packaging	IXC-DIS-PKG-v2, dim: 62 x 12 x 3 mm
Pigtail length each side A / B (m)	1

(4)

Ordering Information

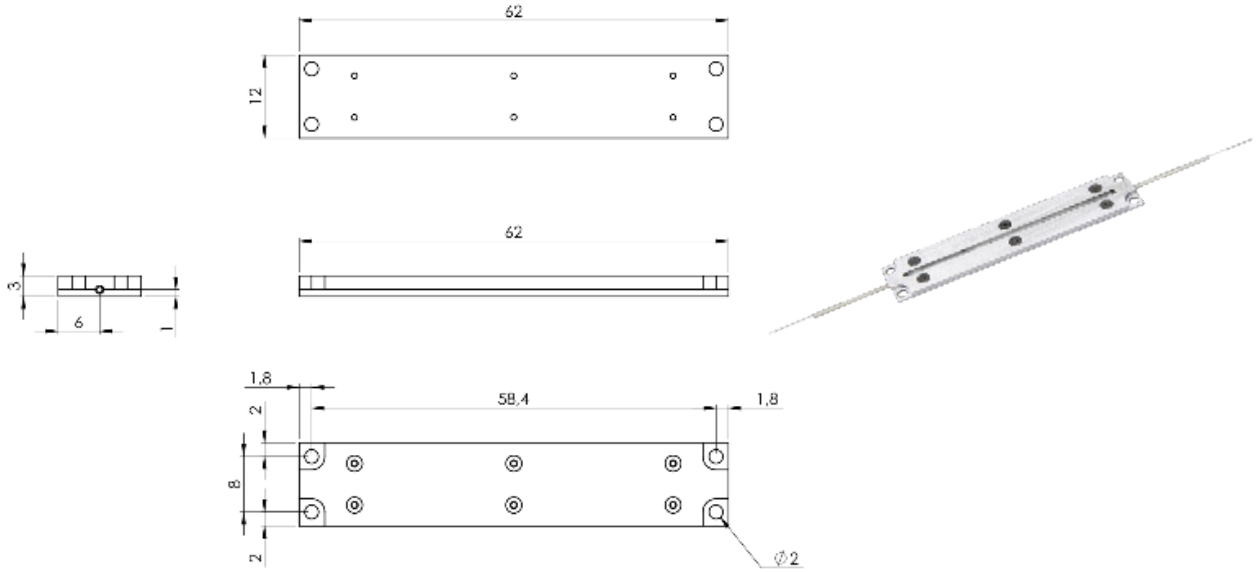


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IXC-DIS-PKG-V2
TECHNICAL SPECIFICATIONS
Heat dissipative packaging for high power laser mirror

Parameters



Configuration

ADJ	Creation	ROL	05/08/20
INDICE	DESCRIPTION DE LA REVISION	FMD	CREATION
MATERIE:	√ R0	Tot. Gén:	MAISE:
TRATTEMENT:	FINITION:	PROTECTION:	
Type de plan: PHOTONIQUE Application Note		Designation: Dissipative package mounting	
ixblue		Reference de l'article: COM2911020	INDICE de plan: A0.0
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Exail reserves the right to change, at any time and without notice, the specifications, design, function or form of its products described herein.

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