

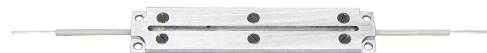
# High Power FBG mirrors for fiber laser cavity

IXC-MIR-2000-HP

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 iXblue 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.

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

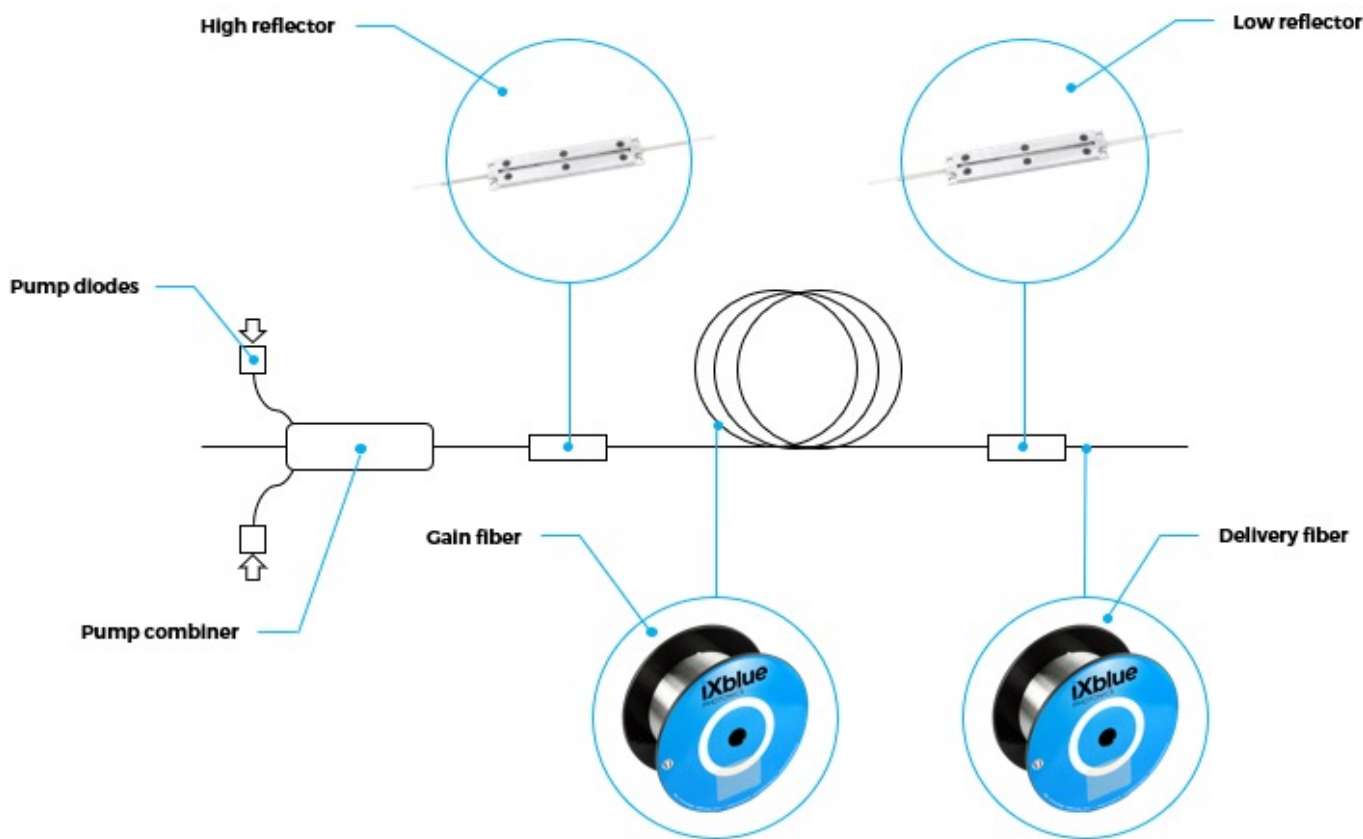


## FEATURES & BENEFITS

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

## APPLICATIONS

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



FBG configuration

# IXC-MIR-2000-HP TECHNICAL SPECIFICATIONS

## PARAMETERS

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

<sup>1</sup> Other center wavelengths upon request

<sup>2</sup> Using multimode pump at 915nm (background loss are equivalent vs 793nm)

<sup>3</sup> Appropriate 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	1 m

## ORDERING INFORMATION

IXC-MIR-①-HP-②-③-④-P

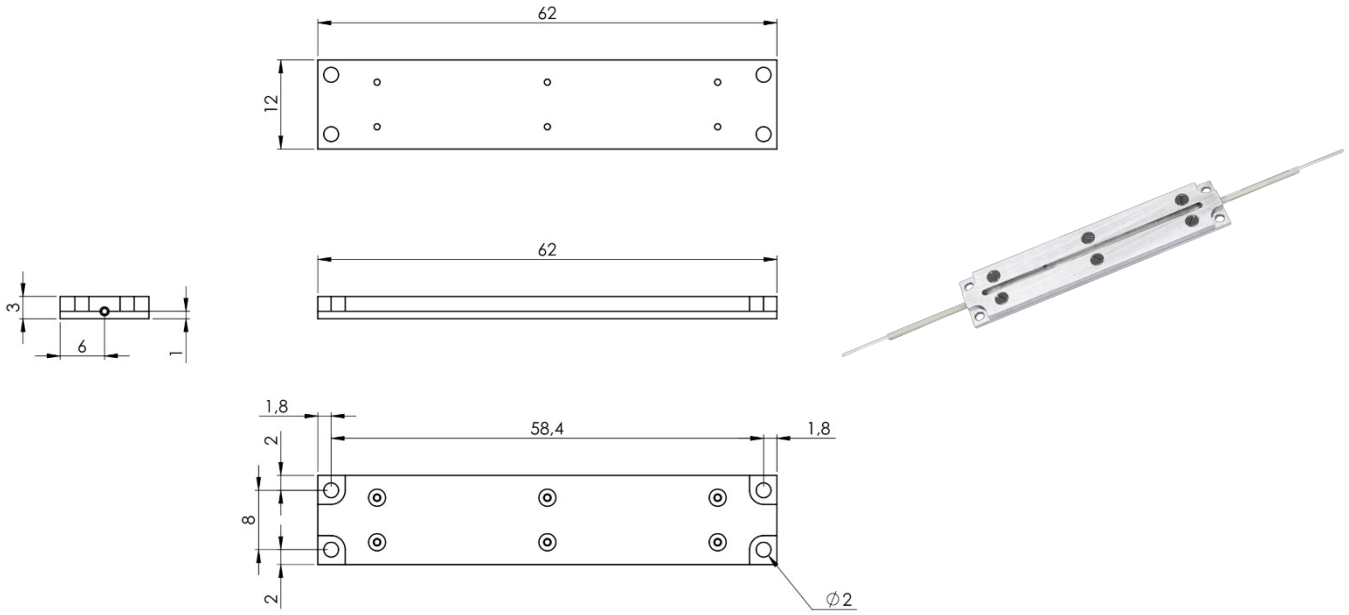
①	Wavelength	②	Fiber type	③	Peak reflectivity	④	FWHM
1910	1910 nm	D	IXF-2CF-PAS-10-130-0.15	HR	≥ 99 %	3	3 nm
1943	1943 nm					2	2 nm
1951	1951 nm			LR20	20 %	1	1 nm
2034	2034 nm			LR10	10 %	0.5	0.5 nm
2051	2051 nm			LR5	5 %	0.2	0.2 nm
2123	2123 nm						

Specifications are subject to change without notice

# IXC-DIS-PKG-v2 TECHNICAL SPECIFICATIONS

## Heat dissipative packaging for high power laser mirror

### PARAMETERS



# IXC-DIS-PKG-v2 TECHNICAL SPECIFICATIONS

## Heat dissipative packaging for high power laser mirror

### PARAMETERS

A0.0 Creation		ROL	05/08/20
INDICE	DESCRIPTION DE LA REVISION	FMD	CREATION VERIFICATION
MATIERE:	$\sqrt{Rg}$	Tol. Gén.:	MASSE:
TRAIEMENT:		FINITION:	PROTECTION:
Division:	PHOTONIQUE	Dissipative package mounting	
Type de plan:	Application Note		
Référence de l'article		Référence du plan	Indice du plan
iXblue		COM2911020	A0.0
Tel: +33 1 30 08 94 50			
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		Echelle	1:1 A3 1/1

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