

## IXC-MIR-2000-HP

### HIGH POWER FIBER BRAGG GRATINGS @ 2 $\mu$ m

#### FBG MIRRORS FOR HIGH POWER FIBER LASER APPLICATION



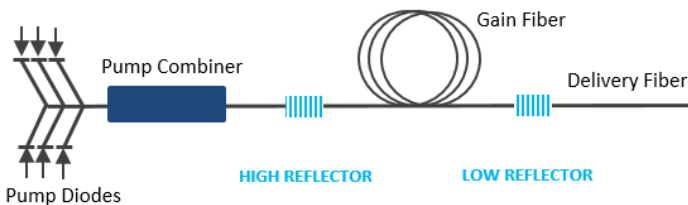
#### DESCRIPTION

- Cavity mirrors based on Fiber Bragg Grating (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.
- FBG specifically designed for high power handling.
- Optimized FBG writing process

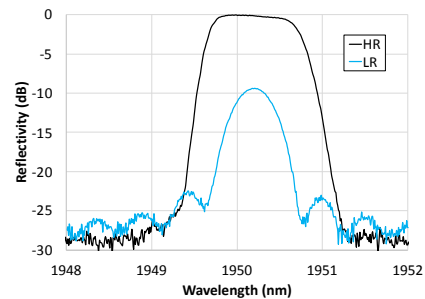
#### KEY FEATURES & BENEFITS

- 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

#### HIGH POWER FIBER LASER CONFIGURATION



#### MATCHED HR/LR SPECTRUM



#### SPECIFICATIONS

Fiber Type <sup>1</sup>	Passive 10/130 $\mu$ m 0.15/0.46NA	
Wavelength Range <sup>2</sup>	1950 and 2050 nm	
Bandwidth (High Reflector / Low Reflector)	HR	LR
Peak Reflectivity	> 99 %	10 - 20 %
Reflection Bandwidth (FWHM)	1 - 3nm	0.3 - 2nm
Wavelength Matching (HR/LR)	< +/- 0.2 nm	
Grating protection <sup>3</sup>	Low refractive index polymer	
Thermal slope (793nm pump, NA < 0.46) <sup>4</sup>	< 0.5 °C/W	
Thermal slope (core signal at 2 $\mu$ m) <sup>4</sup>	< 1 °C/W	
Maximum CW 915nm pump power <sup>4-5</sup> (recoated)	50 W	
Maximum CW 915nm pump power <sup>5</sup> (packaged)	150 W	
Side Mode Suppression Ratio	> 10dB	

- (1) Other types of fiber available upon request (PM fiber, other optical parameters), thermal slope and handling power TBC
- (2) Other wavelengths upon request
- (3) Heat dissipative package upon request
- (4) Determined from suspended fiber in still air (fiber must be maintain <85°C)
- (5) Maximum power derived from intrinsic FBG thermal slope