# IXC-MIR-2000-HP

## High Power Fiber Bragg Gratings @ 2µm

### FBG mirrors for high power fiber laser application



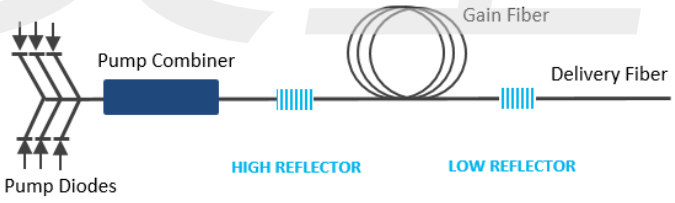
### Description

- 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

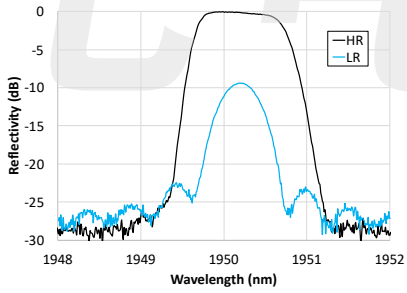
### Key features & benefits

- 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[1] | Passive 10/130µm 0.15/0.46NA | |
| Wavelength Range[2] | 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[3] | Low refractive index polymer | |
| Thermal slope (793nm pump, NA < 0.46)[4] | < 0.5 °C/W | |
| Thermal slope (core signal at 2µm)[4] | < 2.5 °C/W | |
| Maximum CW 915nm pump power[4-5] (recoated) | 50 W | |
| Maximum CW 915nm pump power[5] (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