

## FIBER BRAGG GRATING

# IXC-CLFO-LN-2-PM

## Single Frequency DFB Laser

For distributed feedback single-frequency fiber laser

Exail's single-frequency fiber lasers are based on UV Bragg grating technology applied to active rare-earth photosensitive fibers. Ultra short cavity length and phase-shifted design permit ultra-narrow linewidth and robust mode-hop-free laser source properties, ideal for various sensor applications.



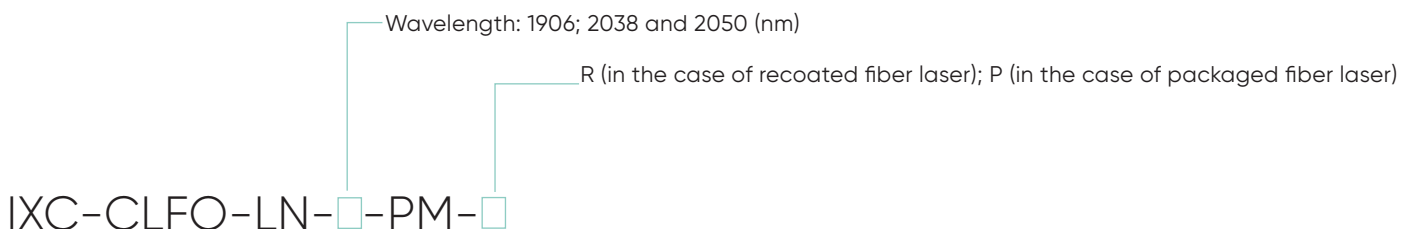
### Benefits & Features

- Narrow-linewidth
- Single longitudinal mode
- Mode-hop-free
- Linear polarization
- Low intrinsic phase noise
- WDM compatible
- Low optical feedback sensitivity
- Wavelength range 2  $\mu\text{m}$

### Applications

- Acoustic sensing
- Hydrophone
- Cold atom
- Interferometry
- Spectroscopy

### Ordering Information



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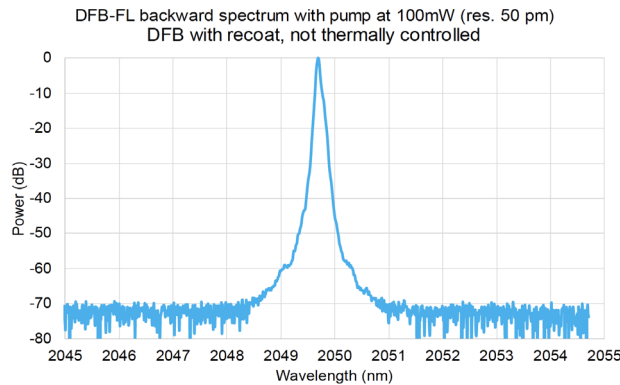
## Single frequency DFB laser sub-assembly, with PM fiber access

### TECHNICAL SPECIFICATIONS

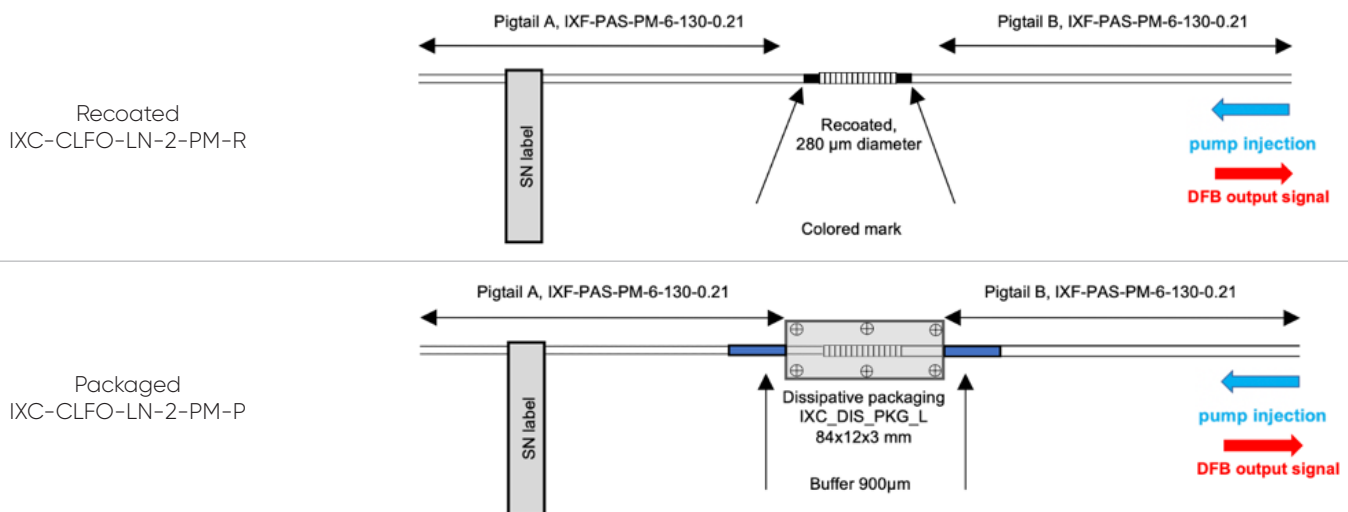
#### Parameters (at 100 mW pump power, backward configuration)

Signal wavelength (ref. to vacuum, fast axis) (nm)	1906; 2038; 2050 (other upon request) at 23°C
Wavelength accuracy (nm)	± 1
Pump wavelength (nm)	1560
Laser threshold (mW)	< 10
Laser power (mW)	> 0.5
PER (linear polarization) (dB)	> 20
Linewidth (kHz)	< 10, typical
Signal to noise ratio (dB)	> 60 (res. 50 pm)
Pigtail fiber and length (m)	IXF-PAS-PM-6-130-0.21, 1

#### DFB-FL Optical Spectrum (example)



#### CLFO configuration



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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