

# 1942nm Fiber Brag Grating

## Description

The Fiber Brag Gratings (FBGs) can be FBG mirrors which are based on the reflective properties of the FBGs written in the core of an optical fiber waveguide. The FBGs' principal application is to use a high and low reflector to form a stable laser cavity having the lasing wavelength selected by the low reflector.

Lightcomm FBGs have been customized to address the specific requirements of high efficiency and low noise laser applications.

## Key Features

- \* Single mode or double clad fiber available
- \* In house fiber
- \* High power application

## Applications

- \* Fiber Laser
- \* Fiber Sensor

## Specifications

Parameters	Type	CFBG	
		High reflectivity	Output Coupler
Center Wavelength <sup>1</sup> @3 dB (nm)		1942±0.4	1942±0.4
Reflection Bandwidth @ 3 dB (nm)		1.2±0.2	0.3±0.1
Reflectivity <sup>2</sup> (%)		≥99	10±3
Side-mode Suppression (dB)		≥10	≥15
Wavelength Mismatch (OC relative to HR)		≤0.3	
Thermal Slope <sup>3</sup> ( °C/W)		≤0.050	
Fiber Type		Nufern-FUD-4070-SM-GDF-10/130-15FA	
Wavelength dependence with temperature (pm/°C)		<15	
Power Handling (W)		100	
Operating Temperature (°C)		+10~+50	
Storage Temperature (°C)		-5~+60	
Dimensions(mm)		70*12*8	

1- Optical measurements are performed at nominal operating temperature (22°C), referenced to vacuum.

2-LP01's Peak reflectivity is estimated from the measured transmission spectrum.

3-Thermal slope is the coefficient of temperature elevation relative to the injected pump power.

4-Heatsinking is required.

## Ordering Information

CFBG-XXXX- XX/XX- XX/XX- X- X -XXXX-XX

