iXblue PHOTONICS

LASER COMPONENTS®

SELECT
Wavelength **C Band**

Ultra Narrow Bandwidth Filters

In this IXC-FBG-PS design, a Phase Shift (PS) is introduced within the middle of the stop band. This PS will lead to a sharp resonance peak visible in the transmission spectrum response and features less than 1 dB of insertion loss.

Our narrow bandwidth transmission filter IXC-FBG-PS can be used as a narrow band transmission filter in telecom as well as in sensing applications. This product can also be used as a cavities of distributed feedback (DFB) fiber laser.

Applications
- Telecom wavelengths demultiplexing
- Filtering
- High resolution sensing (temperature, strain, ultrasonic waves)

Key Features
- Very narrowband transmission filter lower than 1 GHz bandwidth
- Low insertion loss at resonant peak
- Tailored transmission by changing the location and amount of phase shift
- High temperature stability within a 1 pm/°C

Advantages of dissipative package
- Telecom wavelengths demultiplexing
- Filtering
- High resolution sensing (temperature, strain, ultrasonic waves)

Related Products
- Athermal Fiber Bragg Grating
- DFB single frequency fiber laser
- Custom FBG

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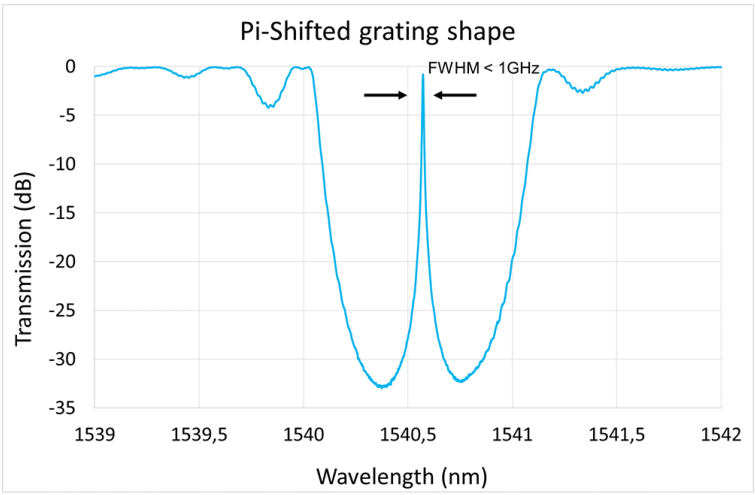
Main specification for IXC-FBG-PS

Product Name	IXC-FBG-PS
Fiber Type	PM Single Mode Fiber
Center Wavelength or resonant peak (CW)	C-Band +/- 0.01 nm
CW referenced to	Vacuum, slow axis
FWHM of resonant peak	<1 GHz (optical resolution 1pm)
In-band loss at 10GHz from resonant peak	>25 dB
Insertion loss at resonant peak	<1 dB
Pigtail length	1 meter, each side of FBG, buffer 900 µm
FBG recoat	high index acrylate
Optical connector	FC/APC, other upon request
Packaging	Athermal packaging

Main specification for Standard Athermal Package

Product Name	IXC-ATH-PKG
Thermal Sensitivity [-5; 70] °C	< 2 pm/°C (<1 high grade)
CW accuracy	+/- 0.01nm (achievable with fine tuning crew)
Wavelength tuning range	+/-100pm from CW
Dimension	55x5x5 mm
Storage temperature	[-40; 80] °C

Typical spectral characteristic (res. 1 pm)



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