

Fiber Bragg Grating for broadband filter

IXC-BBF

Well know-how FBG manufacturing process, gives to iXblue capabilities to produce various filters on several in house optical fibers.

Broadband Filters (BBF) are based on a custom-made inscription technic using non periodic refractive index modulation along the fiber. Called chirped FBG, these designs are attractive for various industrial applications, mainly when wide spectral bandwidths are required

With high reflectivity and bandwidths up to 90nm these filters can be supplied packaged (athermal and/or tunable) or with acrylate recoat.

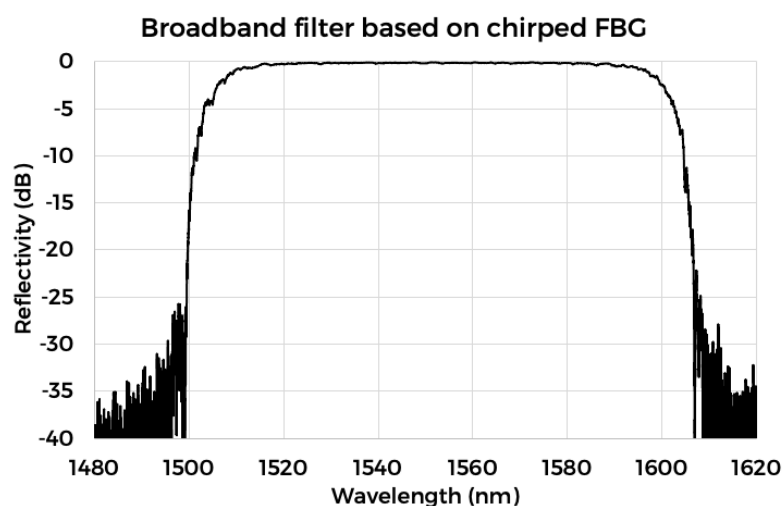


FEATURES & BENEFITS

- Wide bandwidth filters on C & L bands
- Customized spectral shaping
- High reflectivity and low insertion loss
- Supplied on various fiber types

APPLICATIONS

- Wavebands demultiplexing
- ASE source filtering, gain flattening (GFF)
- Sensors
- Fiber-optic gyroscope



Typical chirped FBG response

IXC-BBF TECHNICAL SPECIFICATIONS

PARAMETERS

iXblue passive optical fiber type, <u>FT</u>	SM, PM, Cladding Mode Free (CMF), other ¹
Center wavelengths bands, <u>CW</u> ²	C, L or C + L
Reflectivity, <u>R</u>	50 to > 95 %
Reflected bandwidth (FWHM), <u>B</u>	2 to 90 nm
FBG packaging, <u>P</u>	Acrylate recoat, athermal, tunable
Pigtail length each side	1 m
Optical connectors <u>CC</u>	FC/APC, FC/PC, SC/APC, SC/PC (0.9 mm buffered fiber)

¹ Refers to photosensitive fibers

² Reference to vacuum, slow axis for PM fibers

ORDERING INFORMATION

IXC-BBF-①-②-③-④-⑤-⑥

①	Center Wavelength CW	②	Fiber type, FT	③	Reflectivity, R	④	FWHM, B
	C to L band range	<u>S</u> <u>M</u>	Single mode		50 to > 95 %		2 to 90 nm
		<u>P</u> <u>M</u>	Polarization Maintaining				
		<u>C</u> <u>M</u> <u>F</u>	Cladding Mode Free				
		<u>O</u>	To be specify				
⑤	Packaging CW	⑥	Optical connectors, CC				
<u>R</u>	Recoat	<u>F</u> <u>A</u>	FC/APC				
<u>A</u>	Athermal + Tunable	<u>F</u> <u>P</u>	FC/PC				
<u>I</u>	Tunable only	<u>S</u> <u>A</u>	SC/APC				
		<u>S</u> <u>C</u>	SC/PC				

Specifications are subject to change without notice