

Short-Length FBG

Alxenses's short-length FBG is fabricated based on advanced FBG fabrication technique and production facilities. The Bragg wavelength and length of the FBG can be controlled precisely while maintaining high reflectivity and side-lobe suppression ratio.

The standard length of short-length FBG is 3mm and can be customized to various lengths upon request. The short-length FBG allows smaller form-factor housing to be used for FBG packaging that is necessary when sensor size is a concern. Short-length FBG is suitable for building small sensors for temperature and strain measurements and compact sensor arrays for distributed monitoring applications.

Features

- Short length
- Low insertion loss
- Multiplexing of FBG sensors in single fiber

Applications

- Small form-factor sensor packaging

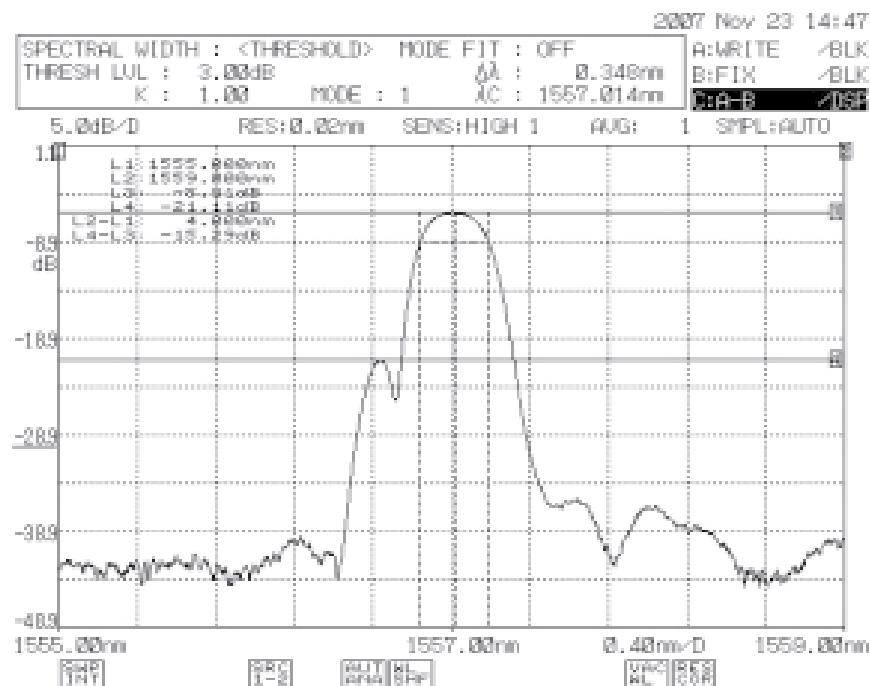
Notes

- In general, the bandwidth becomes wider when the length of FBG gets shorter.

SPECIFICATIONS

Short length FBG

Parameter	Values				Units
Center Wavelength	1510~1590				nm
FBG Profile	Apodized				nm
Wavelength Tolerance	+/-0.3				nm
Bandwidth at 3dB	<= 0.7	<= 0.7	<= 0.3	<= 0.3	nm
FBG length	3	5	10	15	mm
Reflectivity	>= 70%	>= 75%	>= 90%	>= 90%	--
Side Lobe Suppress Ratio (SLSR)	>= 15				dB
Recoating	Acrylate / Polyimide				--
Proof Test	>= 100				kpsi
Fiber Type	SMF-28 / Polyimide Fiber				--
Fiber Termination	Bare Fiber, FC/UPC, FC/APC				--
Pigtail length	1m (Typical)				m
Operating Temperature	SMF-28 Fiber: -5 ~ +80 Polyimide Fiber: -40 ~ +300				°C °C
Storage Temperature	SMF-28 Fiber: -40 ~ +80 Polyimide Fiber: -40 ~ +300				°C °C



Short Length FBG Enquiry Form

Parameter	Units	Standard Specification				Customized Specification
Center Wavelength	nm	1510~1590				
Type of FBG	--	Apodized				
Wavelength Tolerance	nm	+/- 0.3				
Bandwidth at -3dB	nm	<=0.7	<=0.7	<=0.3	<=0.3	
FBG length	mm	3	5	10	15	
Reflectivity	--	>= 70%	>= 75%	>= 90%	>= 90%	
SLSR - Side Lobe Suppression Ratio	dB	>= 15				
Proof Test	kpsi	>= 100				
Pigtail length	m	1m / Customized length				
Fiber Type	--	SMF-28 / Polyimide Fiber				
Connector type: Please specify	--	Customized				
Recoating Materials	--	Customized				
A: Acrylate						
B: Polyimide						