

Femtosecond FBG

Femtosecond FBG is optical fiber with periodic changes in the core refractive index made by Femtosecond laser direct inscribing without stripping the fiber coating. It is a passive filter that can measure temperature, strain, stress, vibration, speed, acceleration and other variables in extreme and harsh environments with its excellent high temperature resistance and tensile resistance. It can be customized according to customer required parameters.

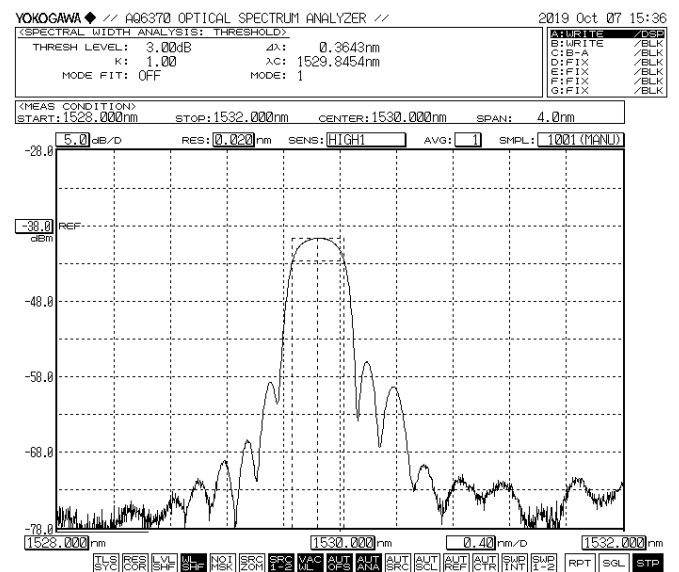
Key Features

- More stable: Quartz FsFBG can be stable at 1000°C for a long time
- More durable: no need to strip fiber coating, and recoating
- More flexible: no phase mask, no Hydrogen loading required

Applications

- Building Structural Health Monitoring
- Energy monitoring
- Biomedical monitoring

Specifications



Parameter	Unit	Value
Center Wavelength	nm	1460 ~ 1640
FBG Profile	--	Apodized
Wavelength Tolerance	nm	+/-0.5
FBG Length	mm	≤5
Reflectivity	%	≥50
Bandwidth (FWHM)	nm	≤0.5
SLSR	dB	≥10
Tensile Strength	kpsi	≥100
Fiber Type	--	SM fiber, bend-insensitive fiber, Polyimide fiber, radiation-hardened fiber, Sapphire fiber, etc.
Pigtail Length	m	Standard 1m both ends, or custom
Optical Connector	--	Bare Fiber, FC/APC, SC/APC, or custom
Operating Temperature	°C	-80 ~ +1000