

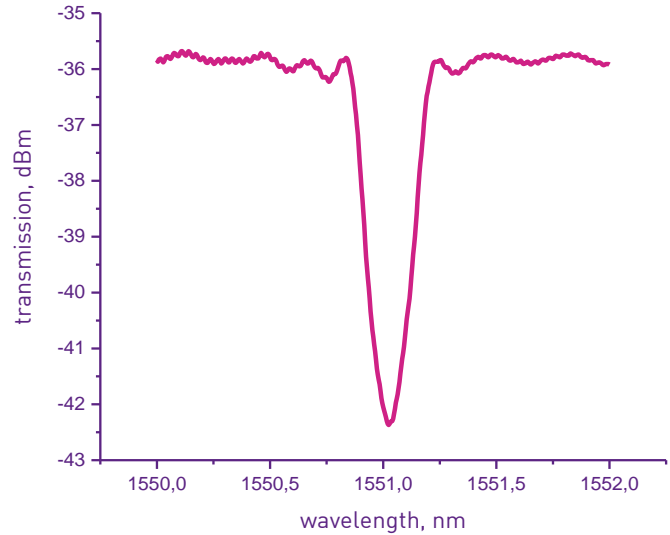
FBG SPECIFIC APPLICATION TYPE

FBG HARD ENVIRONMENT

ARTICLE GTL-FBG-HE-810

Fiber Bragg Gratings have many applications. FBGs can be used like a sensitive element for high temperature measuring.

Fiber Bragg gratings are sensitive to temperature changes. Hard environment FBGs can be provided as separated or chain of FBGs with different wavelength. Multi-points temperature monitoring are available by use of chain FBGs. Different types of single mode optical fibers and fibers coating are using for writable. High temperature acrylate coating fibers applying for temperature range up to 150°C. Polyimide or metal (Cu, Al) coating fibers are used for high temperature application with maximum temperature 300°C and 500°C respectively. With using for protection of a steel tube, it is possible to use FBGs up to 700°C.



FBG CHARACTERISTICS	GTL-FBG-HE-810	TOLERANCE/NOTE
Wavelength range, nm	600 ÷ 2300	± 0.1 ÷ ± 1 custom request
Types of fiber	Single-Mode, PM, Double clad, LMA	or custom
Wavelength to quick order, nm	633, 650, 852, 976, 1030, 1060, 1064, 1063 ÷ 1078, 1080, 1125, 1150, 1510 ÷ 1580, 1551, 1650, 1874 ÷ 1878, 1900, 1908, 1952, 2300	± 0.1 ÷ ± 1 custom request
Reflectivity, %	0.5 ÷ 99	2 ÷ 5 custom request
Bandwidth (WFHM), nm	0.15 ÷ 0.8	custom request
SLSR, dB	~ 8	or custom
Maximum temperature range, °C	Up to 150 (bare fiber or high temperature acrylate coated) Up to 300 (bare fiber or polyimide coated) Up to 500 (bare fiber or aluminium or copper coated) Up to 700 (bare fiber or steel tube)	
FBG Pigtail Length, m	≥ 0.5	or custom
Tensile Strength, kpsi	> 100	
Optical Connector	Bare fiber, FC/APC, LC/APC	or custom

The configuration can be changed at the customer's request. The parameters specified in this specification can be changed in accordance with the terms of reference.