FBG SPECIFIC APPLICATION TYPE

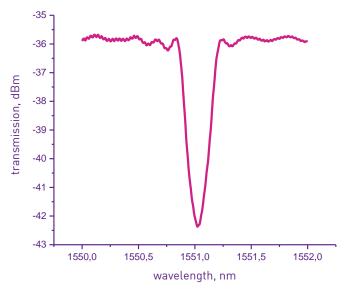
ARTICLE GTL-FBG-HE-810

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

Faber Bragg gratings are sensitive to temperature changes. Hard environment FBGs can be provided as separated or chain of FBGs with different wavelength. Multy 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

FBG HARD ENVIRONMENT





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 | $\pm 0.1 \div \pm 1$ custom request |
| Types of fiber | Single-Mode, PM, Double clad, LMA | or custom |
| Wavelength to quick order, nm | 633, 780, 794, 799, 801, 809, 830, 852, 895, 940, 976, 1030, 1057, 1060, 1064, 1080, 1125, 1150, 1178, 1240, 1270, 1310, 1484, 1510 ÷ 1580, 1650, 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, ℃ | 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.