

FIBER BRAGG GRATINGS (FBG)

ATHERMAL PACKAGED FBG



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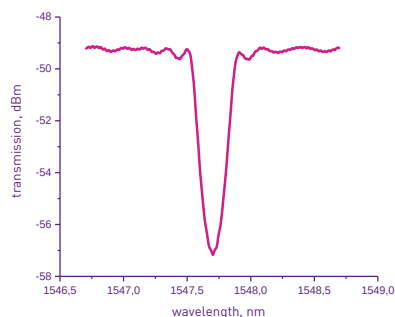
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ARTICLE GTL-FBG-AP-850

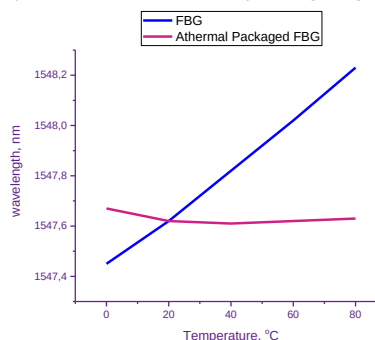
Fiber Bragg Gratings are sensitive to changes in temperature. Their thermo sensitivity is about 6.7 ppm/°K (+0.11 pm/°K at wavelength 1550 nm). Athermal packaged FBG is intended for passive compensation of FBG thermal sensitivity by expansion coordination of case elements and FBG wavelength shift under the influence of temperature. It allows customers to achieve all advantages of Fiber Bragg Gratings, while preserving high wavelength stability in the wide temperature range.



Typical FBG's reflection spectrum



FBG's central wavelength variation with temperature for unpacked and athermal packaged gratings



FBG CHARACTERISTICS	GTL-FBG-AP-850	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, 780, 794, 797, 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
Thermal Wavelength stability (0 ÷ +70 °C), nm	< 0.16	
Reflectivity, %	5 ÷ 99	2 ÷ 5 custom request
Bandwidth (WFHM), nm	0.05 ÷ 1.2	custom request
FBG Length, mm	1 ÷ 20	custom request
SLSR, dB	~ 8	custom request
FBG Pigtail Length, m	≥ 0.5	or custom
Tensile Strength, kpsi	> 100	
Optical Connector	Bare fiber, FC/APC, LC/APC	or custom
Package dimensions (LxWxH),mm	66 x 18 x 12	

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.