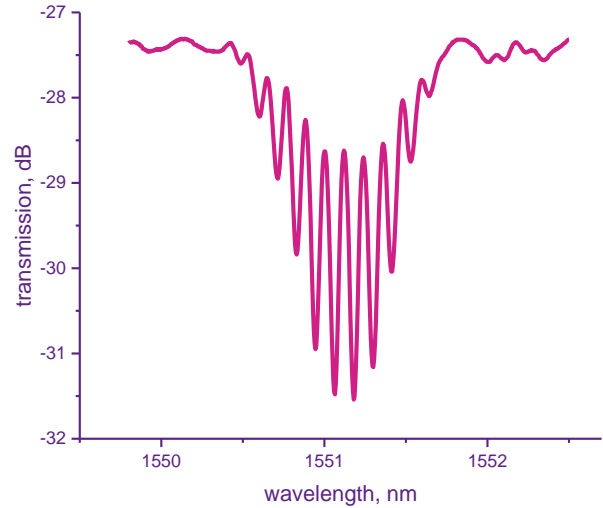


# FBG SPECIFIC APPLICATION TYPE

## ARTICLE GTL-FBG-FPI-810

The Fiber Bragg Grating is one of the most popular elements in field of fiber-optic sensing. For many applications where wants to measure very small temperature or strain changes, acoustic waves the sensitivity can be enhanced by using pairs of FBGs. The fiber Fabry-Perot Interferometer is such pair of FBGs. In this case the small phase shift can be detected. By coating the fiber between the gratings with an electric, magnetic or acoustic enhancing coating can be measured small changes of these fields. For sensing purposes and to evaluate small vibration or acoustic signal via an interferometric method, it is often sufficient to work with alow-finess Fabry-Perot cavity. The transmission spectrum of Fabry-Perot fiber interferometer is presented in the graph.



FBG CHARACTERISTICS	GTL-FBG-FPI-810	TOLERANCE/NOTE
Wavelength range, nm	600 ÷ 2300	± 0.1 ÷ ± 1 custom request
Types of fiber	Single-Mode, PM, Rad resistance	or custom
Reflectivity, %	0.5 ÷ 99	2 ÷ 5 custom request
Bandwidth (WFHM), nm	0.3 ÷ 0.8	custom request
Distance between FBGs, mm	1 ÷ 200	custom request
FBG Pigtail Length, m	≥ 0.5	or custom
FBG inscription thought the fiber protective coating	Acrylate, Polyimide	or custom
FBG Recoating	Acrylate, Polyimide, Aluminium, Copper	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.