

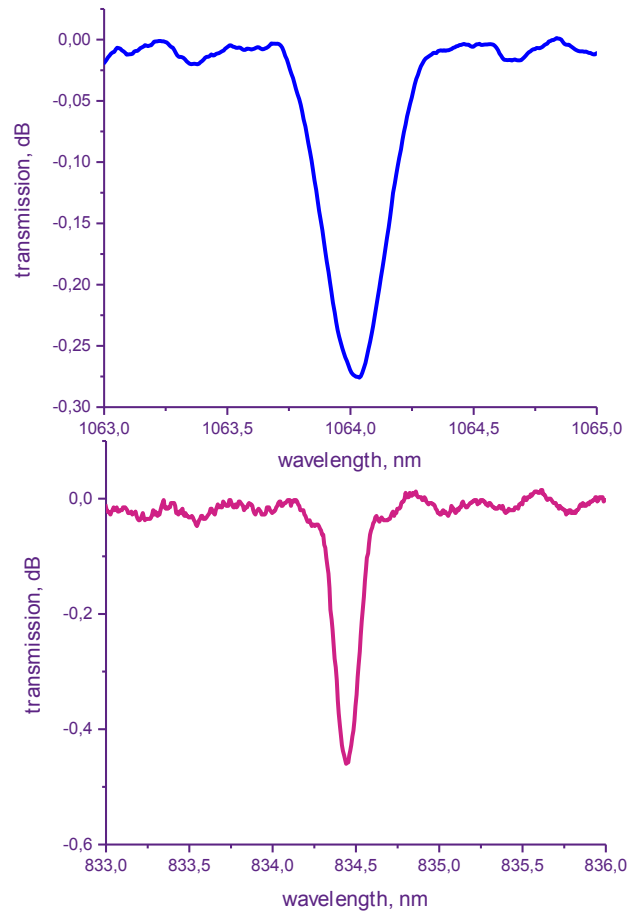
# FBG SPECIFIC APPLICATION TYPE

## FBG WAVELENGTH LOCKER

### ARTICLE GTL-FBG-WL-810

Fiber Bragg Gratings have many applications in optical communication, laser technique and sensing systems. The FBGs are widely used like in-fiber mirrors or optical filters with narrow band optical spectrum. FBGs can be used like a sensitive element for strain and temperature measuring.

The Wavelength Locker FBGs are used as external reflectors for laser diodes. It is easy to stabilize wavelength generation of pump semiconductor lasers and single frequency lasers by using such FBGs. Low reflection gratings with FWHM  $0.3 \div 0.8$  nm and reflectivity  $2 \div 5$  % are ideal for pump power lasers stabilization. Close to semiconductor laser crystals FBGs with FWHM around 0.1 nm and reflection  $10 \div 20$  % are used for creation single frequency sources. We are presented line of the WL FBG with vary accurate wavelength positions up to  $\pm 0.02$  nm. The transmission spectrum of Wavelength Locked FBG for laser diode power and wavelength stabilize is presented in the graph.



FBG CHARACTERISTICS	GTL-FBG-WL-810	TOLERANCE/NOTE
Wavelength range, nm	633, 780, 794, 797, 799, 801, 852, 940, 976, 1030, 1057, 1060, 1064, 1080, 1125, 1150, 1178, 1240, 1270, 1310, 1484, 1510 $\div$ 1580, 1650, 1900, 1908, 1952, 2300	$\pm 0.1 \div \pm 1$ custom request
Types of fiber	Single-Mode, PM	or custom
Reflectivity, %	$2 \div 5 / 10 \div 20$	$0.5 \div 1 / 1 \div 2$
Bandwidth (FWHM), nm	$0.3 \div 0.8$ nm / $0.1 \div 0.15$ nm	custom request
SLSR, dB	$\sim 10$	custom request
FBG Pigtail Length, m	$\geq 0.5$	or custom
FBG Recoating	None, 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.