

Description

The T50 Wavelength Locker Fiber Bragg Grating (FBG) is available in single or twin configurations based on our customers' locking requirements for EDFA pump lasers. Also commonly used in WDM systems for DFB lasers stabilization, in the optical circuits of tunable lasers, and for Raman system in-fiber resonators.

Using an external cavity forming FBG will precisely lock pump laser diodes by feeding back a small portion of the laser signal for control. This type of control, in turn, significantly improves the pump laser power and wavelength output accuracy and reliability. Specifically, the T50 eliminates the pump laser's spectral mode hopping and reduces the power intensity fluctuations due to temperature variations and pump driving current changes greatly improving the pump laser's performance. Twin FBG configurations significantly further improve the output spectral characteristics of uncooled pump lasers.

The FBG specifications listed herein represent the most popular wavelength locker configurations. Many optical and physical variations are available.

Key Features

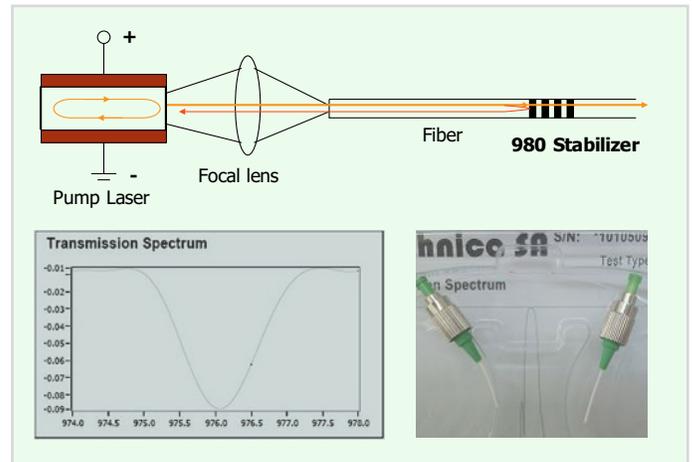
Excellent wavelength control. Technica manufactures the T50 line of Wavelength Locker FBGs by using its wide collection of phase masks to ensure excellent accuracy and repeatability during volume production as well as for making research type runs. Phase mask technology is the manufacturing process of choice when ultimate intrinsic built-in repeatability is required.

High side lobe suppression ratio (SLSR). The T50 is produced using high-accuracy feedback control so that each grating is ideally exposed for yielding the required specifications.

Telcordia and ROHS compliant. Designed to be a reliable plug-in component for WDM and other systems, our T50 is compliant with the requirements of many international standards bodies. In addition to meeting ROHS and exceeding Telcordia compliance requirements, the T50 FBGs pass other standards as well. Inquire about compliance with standards within your application, industry, and/or country.

Low cost and long lifetime. The T50 series of FBGs are designed as a core element for telecom, sensing, test and measurement instrumentation, and research environments that require both the availability of low-cost FBGs in volume and stable operation for highly accurate measurements over the long-term.

Proven field performance. The T50 has been in production for several years and has received excellent customer feedback.



FBGs manufactured and sold by Technica under International License from United Technologies Corporation, Inc.

Parameter	Specifications
Center Wavelength	970nm - 990 nm 1460nm - 1490nm or custom, +/-0.25nm
Reflectivity %	0.5% to 10%, or custom
Bandwidth (FWHM)	0.05 nm to 2.2 nm, +/-0.01
Grating Profile	Uniform w SLSR>10dB, or Apodised w SLSR>25dB
Tensile Strength	> 150 kpsi
Fiber length	2.0 m, or custom
Fiber Type	Corning HI980/PM980, Corning HI1060 Corning SMF-28 / Panda PM, or equivalents
Fiber Coating	Acrylate
Fiber Bend Radius	>17mm, or custom
Optical Connector	FC/UPC, FC/APC, custom

Applications in Telecom, Sensing, Test & Measurement Instrumentation, and Research

Technica undertakes a rigorous development process before products release. The company is also firmly committed to continuous improvements after release to insure performance to the highest standards, hence, specifications are subject to update without notice.

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