

Description

The T97 is a large core singlemode fiber (SMF) based Fiber Bragg Grating (FBG) for commercial use in High Power (HP) Laser applications up to 2000 Watts for signal light and 3000W for pump light.

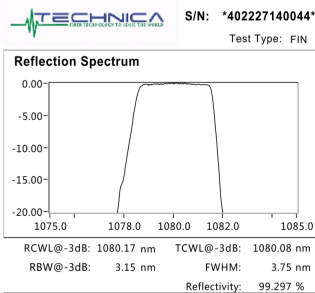
Available in a wide range of optical specifications. The T97 High Power FBG uses proprietary laser inscription and heat dissipative packaging based on advanced technology. Small-size and robust design for commercial applications. The T97 FBG handling and installation is fast, easy and intuitive. However, caution must be taken during installation as this is a directional device. Delivers the advantages inherent to all FBG based sensors.

The T97 series HP FBGs can be customized upon request to fit a wide range of specifications. Inquire with us about high-power FBGs in OEM fibers, with OEM coatings, and in OEM packaging.

Key Features

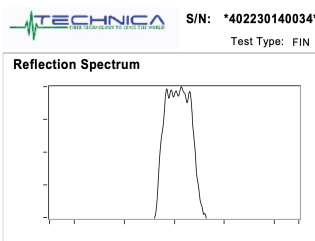
Effective cooling architecture.

The T97 packaged sensor is able to effectively use its heat dissipative micro-mechanical structure to keep operating temperatures low. Rigorous testing shows that temperatures remain below 40 degrees Celsius when used in a pump circuit. Also, the wavelength change with temperature is $<0.015 \text{ nm/DegC}$.



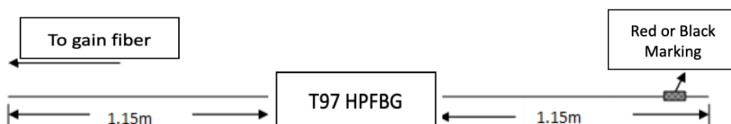
Excellent wavelength control.

Technica manufactures the T97 line of High Power FBGs ensuring excellent accuracy and repeatability during volume production. Understanding the applications for these HP FBGs, Technica aims to provide tight tolerances that meet or exceed the most demanding customer specifications.



HP FBGs manufactured and sold by Technica under International License from Raytheon.

Parameter	Specifications
High Reflection FBG (HR)	
Reflection BW (FWHM)	3.0±0.3nm
Reflectivity %	≥99.5
Apodization dB	>20dB
Low Reflection FBG (OC)	
Reflection BW (FWHM)	1.0 ± 0.2nm
Reflectivity %	10% +/- 2%
Apodization dB	>10dB
Other Specifications	
Wavelengths / Tolerance	1064nm, 1080nm, 1310nm, 1510-1590nm +/- 1nm
HR/OC Wavelength matching difference	<0.2nm
Power handling capability signal light, pump light	2000W, 3000W
Fiber Type	BrightCore GE20/400, other options
Recoating	Low index polymer
Pigtails length	>1m, other options
Heat Dissipative Packaging (W x L x H)	4mm x 50mm x 3mm



Note: The red mark is high reflection, the black mark is low reflection, and the marked end is the output direction of signal light.

Applications in Industrial Lasers, Medical Equipment, Chemical Processes, 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.