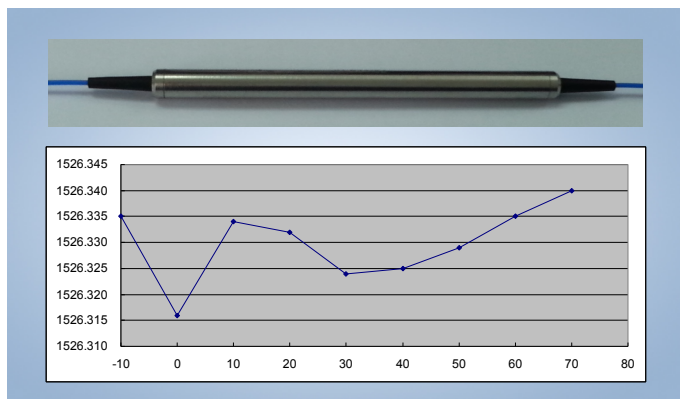


Description

The TWR50 is a Wavelength Reference consisting of a Fiber Bragg Grating (FBG) encapsulated in a package that contains advanced materials effective at providing passive temperature compensation by matching the CTE of the FBG's fiber. Code share with T95 FBGs.

The TWR50 FBG is embedded in single-mode (SM) fiber. Typically, when changes of temperature occur and the fiber FBG expands, the center wavelength of the FBG shifts as well. In the case of this Athermal Packaged FBG, the compensation material bonded to and surrounding the FBG fiber shrinks proportionally to the expansion of the FBG fiber to yield a passively temperature compensated FBG device. Our precision athermal packaging yields excellent wavelength stability over the temperature range of interest. Available in standard and mini packaging and in a wide range of optical specifications.

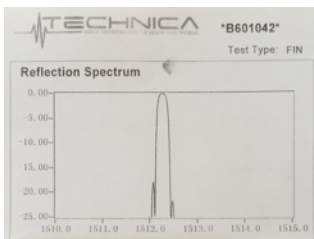
The TWR50 FBG is designed to make handling and installation fast, easy and intuitive. It delivers the many advantages inherent to all FBG based devices.



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

Key Features

Temperature Stability and Low Insertion Loss. The precision made FBG written into the fiber is packaged together with the compensating material by using carefully selected bonding materials to yield a low-loss, stable & reliable device used industrially.



Standard and Mini Packaging and Wide Range of Optical Specifications. Technica specializes in the development and production of FBGs and availability has now expanded to a wide range of optical specifications in the TWR50 athermal packages. Well suited for projects that include the need for a stable wavelength reference device as a stand alone component, or to be used in tandem with absolute wavelength reference devices such as gas cells. The TWR50 is a rugged low-cost Athermal Packaged FBG with stable operation for highly accurate long-term use. Inquire with us about custom packaging options for integration into customer designs.



Proven field performance. The TWR50 Athermal FBG has been in production for several years and continues to receive excellent customer feedback. Currently installed in various applications with practically no returns since its initial release.

Parameter	Specifications
Wavelengths / Tolerance	1530 to 1625 nm, +/-0.5; 980, 1060, 1310nm, other
Reflection BW (FWHM)	> 0.2nm
Insertion Loss	< 0.2 dB
SLSR	> 15 dB
PDL	< 0.1 dB
Thermal Stability	< 0.08 nm , from -5°C to 70°C
Fiber Type	SMF28 and compatibles
Fiber Coating	Acrylate, polyimide, gold
Device Dimensions	Standard: Dia: 6.5 mm, Length: 64 mm + booths Mini: Dia: 4.5 mm, Length: 46 mm + booths
Pigtails Termination	Double-Ended Device: 1 m on each side (or custom) Single-Ended Device: 1m on one side (or custom)
Fiber Bend Radius	>17mm, other options
Optical Connectors	FC/APC, LC/APC, ST/APC, SC/APC, other options

Applications in Communications, Test and Measurement Instruments, 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.

Technica Optical Components / 3657 Peachtree Rd, Suite 10A, Atlanta, 30319, USA, info@technicasa.com, www.technicasa.com