TFP30 / Athermal Fabry-Perot Etalon

Description

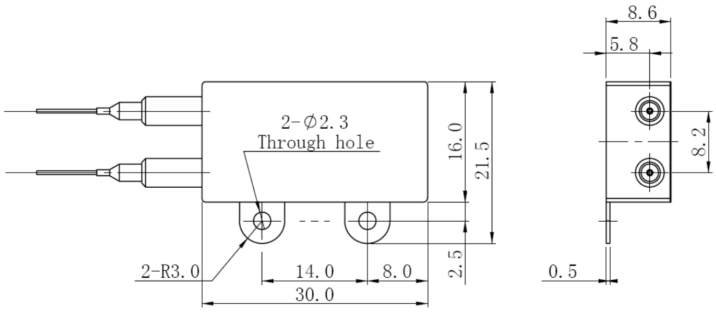
The TFP30 is an Athermal Fabry-Perot Interferometer Etalon consisting of an advanced opto-mechanical design hermetically packaged to yield premium wavelength stability. Used as wavelength reference in the calibration of Optical Spectrum Analyzers, Tunable Lasers, Tunable Filters, Chemical Analysis Systems, and Optical Sensing Systems. Code share with TWR30 Etalons.

The TFP30 Etalon is terminated with single-mode (SM) fiber for easily interfacing to optical instruments or to other optical components. The precision athermal packaging yields excellent wavelength stability despite changes in temperature or humidity. Standardized at 25GHz channel spacing, but also available at 50GHz, 100GHz, and 200Ghz. Designed to make handling and installation fast, easy and intuitive. It delivers the many advantages inherent to all optical devices.

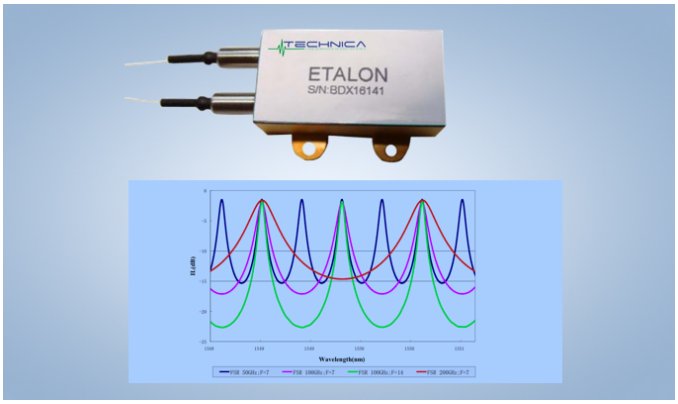
Widely used in optical test and monitoring instruments, the TFP30 is well fit for telecom systems, for medical and pharmaceutical applications, and for optical sensing applications in security, robotics, civil & geotechnical engineering, oil & gas, aerospace, railways, roadways, performance gear, marine vessels & racing yachts, wind turbines and structures, pipelines, nuclear facilities, industrial processes, and for research laboratories worldwide.

Key Features

Premium Wavelength Stability, Low Insertion Loss & PDL. Hermetically packaged and self temperature compensated.



Field Proven and easy to install: The TFP30 Athermal FBG has been in production for several years and continues to receive excellent customer feedback. The device pigtails are on the same side for easy handling and fiber routing. Side screw pads allow for easy installation. 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 TFP30 is a rugged low-cost Athermal Packaged Etalon with stable operation for highly accurate long-term use.



Parameter	Specifications
Wavelengths	1525 to 1625 nm, other options
FSR, Finesse, FWHM, Contrast	25GHz, 7, <5GHz, >13dB or, 25GHz, 14, <3GHz, >16dB or, 50GHz, 7, <10GHz, >12dB or, 50GHz, 14, <6GHz, >16dB or, 100GHz, 7, <16GHz, >13dB or, 100GHz, 14, <9GHz, >18dB or, 200GHz, 7, <32GHz, >13dB or, 200GHz, 14, <18GHz, >18dB
Insertion Loss	< 3 dB
Back Reflection	> 20 dB
PDL, PD Accuracy	0.1 dB, +/- 0.1 GHz
Max Optical Power	500 mW
Thermal Stability	< +/-0.8 GHz (for 25, 50, 100GHz FSR) < +/-1.6 GHz (for 200GHz FSR)
Temperature	-5°C to 70°C operating -40°C to +85°C storage
Device Dimensions (LxWxH)	30x25.5x8.6mm for 25Ghz, 30x21.5x8.6mm for 50, 100, 200Ghz,
Fiber, Protection	SMF28e, 900um tube
Pigtails Termination	1m +/- 0.1m
Fiber Bend Radius	>17mm
Optical Connectors	FC/APC, LC/APC, other options available

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.

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