

F-P Based Scanning Filter Technology

Introduction

This new type Fabry-Perot Based Scanning Filter (FPSF) is based on Optoplex proprietary fiber optical Fabry-Perot Etalon technology. It offers F-P based scanning filter with central wavelength at 1060nm, 1310nm, 1550nm or other customized wavelength. It can be tuned manually or automatically by scanning over a wide spectral range from 10nm to 100nm with bandwidth from 0.05nm to 1.0nm. FPSF features less than 3dB insertion loss and as high as 1kHz scanning frequency. Its unique high reliability and low insertion loss design presents the most cost-effective solution for OEM application from telecommunication to fiber sensing interrogation.



Figure 1, Schematic drawing of FPSF

Applications

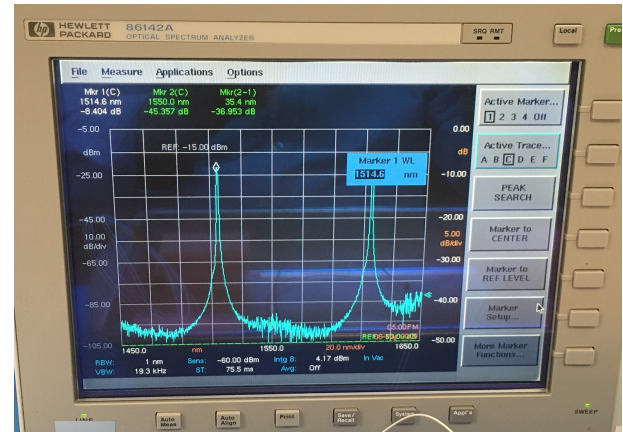
- Remote Sensing
- Telecommunication
- Optical spectrum Analyzer

Key Features and Benefits

- Low Insertion Loss: <3dB
- Narrow linewidth: 0.05nm
- Compact size
- Wide tuning range: C-, L-, C+L band
- High sweep frequency: >100Hz
- High OSNR: >25dB

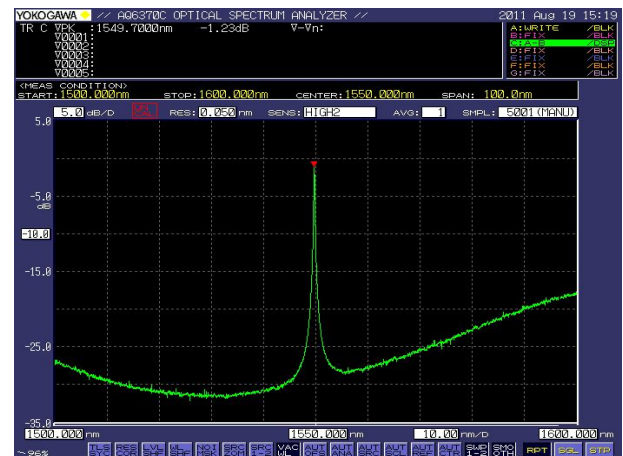
Free Spectrum Range

Free Spectrum Range (FSR): 10nm to 100nm



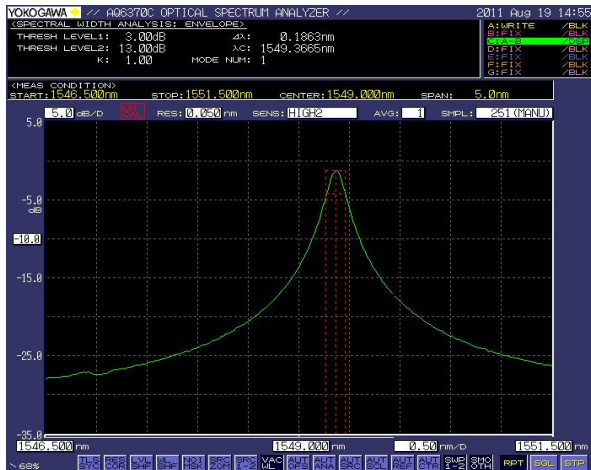
Optical OSNR and Insertion Loss

OSNR is larger than 20dB, 3dB down Insertion Loss <3dB



Spectrum linewidth

Narrow linewidth: < 0.1nm



Ordering Information

Below is the general ordering information for Optoplex's standard FPSF.

Custom design and manufacturing are available upon request. Contact Optoplex for details.

Contact Information

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FOTF standard product specification

Parameter	Rating
Central Wavelength	1550nm
Free Spectrum Range	10nm-100nm
Linewidth	0.1nm-0.4nm
Insertion Loss	<3dB
OSNR	25dB
PDL	<0.2dB
PMD	<0.2ps
Mode	TEM ₀₀
Maximum Input Power	100mw
Maximum Scanning Frequency	~100Hz

Sales

sales@optoplex.com

Technical Support

support@optoplex.com