

BaySpec's WaveCapture® FBGA Interrogation Analyzer is an integrated spectral engine simultaneously covering multiple wavelengths for precise and Rapid Fiber Bragg Grating (FBG) sensor system measurements.

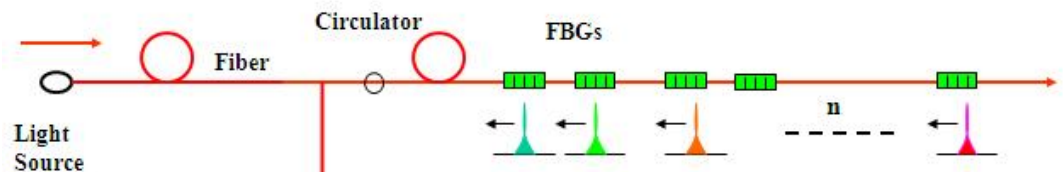
The device covers wide wavelength ranges and provides simultaneous measurements at very fast response rates and excellent wavelength resolution. High reliability (MIL STD 810F shock and vibration) is achieved through a rugged mechanical design with no moving parts. Periodic calibration is not required. High speed Input/output (I/O) is achieved through the use of USB2.0 communications (serial communications also supported at lower speeds).

The WaveCapture® FBGA Series employs a highly efficient Volume Phase Grating (VPG®) as the spectral dispersion element and an ultra-sensitive InGaAs array detector as the detection element, thereby providing high-speed parallel processing and continuous spectrum measurements. As an input, the device uses a tapped signal from the main data transmission link through a single mode fiber, then collimating it with a micro lens. The signal is spectrally dispersed with the VPG®, and the diffracted field is focused onto an InGaAs array detector. The control electronics read out the processed digital signal to extract required information. Both the raw data and the processed data are available to the host.

Key Features

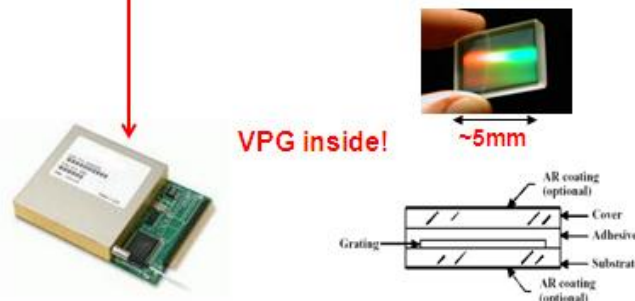
- Wide wavelength range
- Ultra-fast response time (up to 5kHz)
- Excellent wavelength repeatability and resolution
- Athermal design enabling battery-operated portable operation
- High reliability for use in harsh environment
- Compact, card-mountable design

Fiber Bragg Grating (FBG) Sensing



Consider using with:

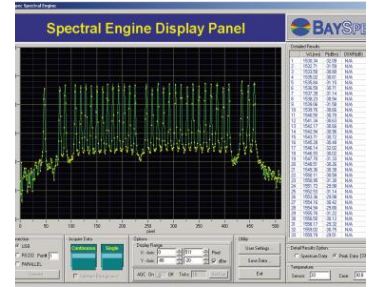
- Mini-Wide Light Sources
- ASE Light Sources
- Fiber-optic Bundles & Accessories



Specifications	Data	Unit
Standard Wavelength Ranges*	Standard: 1525-1565 Extended: 1510-1590	nm
Wavelength Repeatability	± 5	pm
Wavelength Readout Resolution	1	pm
Minimum Detectable Wavelength Change	± 1	pm
Frequency response time (typ.)	Standard: ~5 Hz (RS232/USB1.1) Fast: ~5 kHz (USB2.0)	
Channel Input Power Range	-60 to -20 or specify	dBm
Power Resolution	0.1	dB
Size	96 x 68 x 15.8	mm ³
Interface	RS232 or USB (Fast board USB only)	
Operating Temperature	-5 to +70	°C
Software	BaySpec's Sense 2020 evaluation software included, SDK for development	

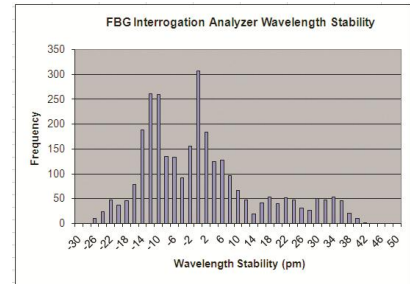
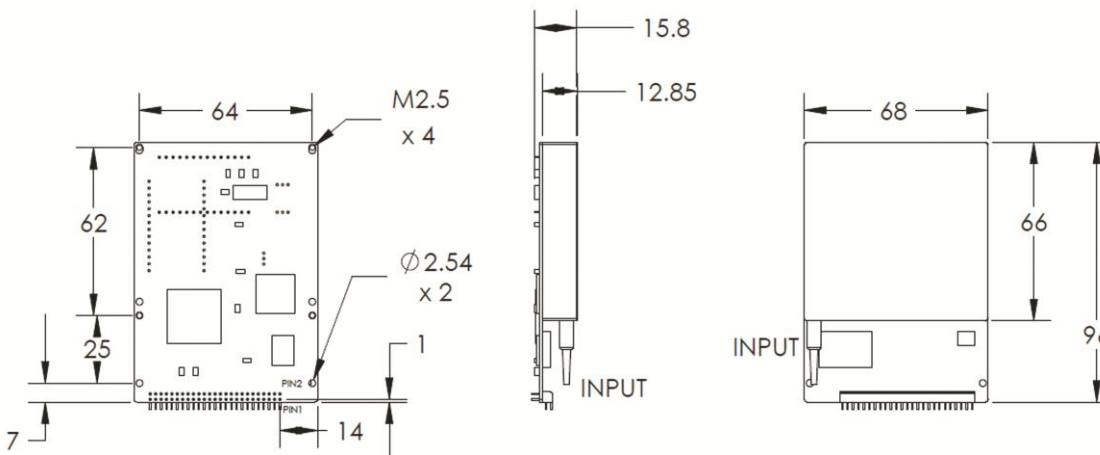
* Other wavelengths available upon request

Sense 2020 Software



BaySpec's Sense 2020 software included, a Windows-based package with flexible data acquisition, processing and output functionality

BaySpec SDK, a software development kit for new applications development and integration into to your host software systems.



Order Info for Part Number:

FBGA - [] - [] [] [] [] - [] [] [] [] - [] []

Frequency Response
Specify response time:
S Standard (~5Hz)
F Fast (~5kHz)

Starting Wavelength
Specify the starting wavelength i.e. :
1280 1280.00nm
1525 1525.00nm
1510 1510.00nm

Ending Wavelength
Specify the ending wavelength i.e. :
1320 1320.00nm
1565 1565.00nm
1590 1590.00nm

Code Connector Type
NC No connector
FA FC/APC
FP FC/PC
SA SC/APC
SP SC/PC
LA LC/APC
LP LC/PC
XY TBD

Or specify

Or specify

Note: standard length 1.0m

