Inter-FBG Fiber Sensor Interrogating System
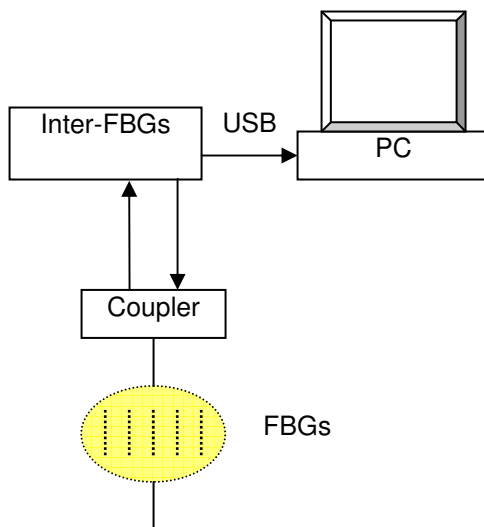
DESCRIPTIONS

Inter-FBGs is a serial of low-cost, high performance fiber Bragg grating interrogation systems for various engineering and civil applications. It is a compact, PC-based, high accuracy, large dynamic range measurement instrument that provides FBG sensors measurement ability and accuracy optical spectrum analyzing ability. The system includes an external device, PC based application software and optional high performance laptop. The user can choose 1310nm, 1480nm and 1550nm spectrum ranges. With build-in laser source, no additional light source needed.
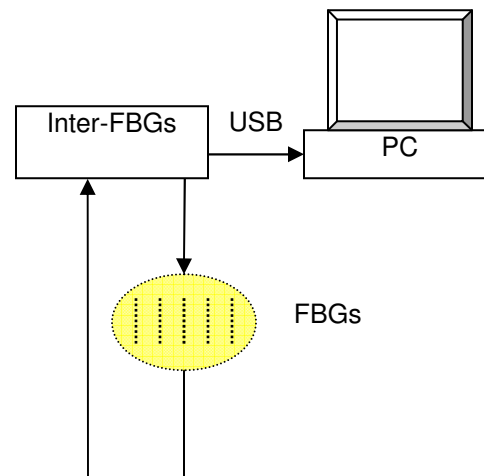
FEATURES

- Simultaneously monitor up to 5 FBG sensors per channel.
- 1, 2, 4, 8 channels optional.
- Spectrum measurement over 5.0nm with 10pm Scan-to-scan repeatability.
- Both refluence and transmission measurements are available.
- High power for long distance measurement
- 40dBm dynamic range.
- Display and storage measured FBG sensor central wavelengths.
- Display tension, pressure, temperature and other parameters in text and history curves.
- USB interface between the device and PC
- 12V DC power supplier available for field test applications
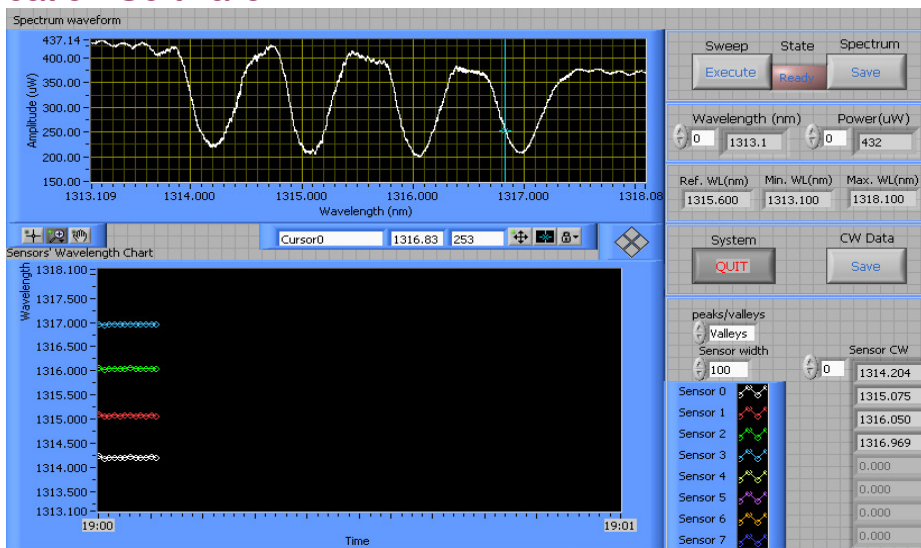

Reflection Measurement

Transmission Measurement

O/E LAND INC.

Inter-FBG Fiber Sensor Interrogating System

Specifications

PARAMETER	SPECIFICATIONS	UNIT
Optical Channel number	1, 2, 4, 8	--
Maximum FBG sensors	5 per channel	--
Spectrum wavelength band	1310 or 1480 or 1550	nm
Buildin laser output power	1.0 ~ 20.0	mW
Wavelength range	5.0	nm
Scan-to-scan repeatability	Typ. 10	pm
Wavelength resolution	1	pm
Dynamic range	40	dBm
Scan speed	1	Minute
Scan method	Single or Auto Timing	
Typical grating configuration	Reflectivity: 90%, BW: 0.25nm	
Optical Connector	FC/APC	
Electric interface	USB	--
Operation temperature	0 ~ 40	^{o}C
Storage temperature	-5 ~ 65	^{o}C
Power supply	AC 100~240V, or DC 12V	--
Dimension	255 x 245 x 110 (W x D x H)	mm

Application Software

Ordering Information: Part number **OEFSS-200X-YYYY**

X: A: standard software with only wavelength display
         B: wavelength, temperature and strain display
YYYY: 1300: 1310nm range
       1480: 1480nm range
       1500: 1550nm range