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I-MON 835 OEM

Interrogation monitors for 835 nm FBC sensor systems

Cost efficient, high-resolution spectrometers ideally suited for OEM Integrators of FBG sensing systems

> The I-MON 835 Series Interrogation Monitors offer real-time spectrum monitoring of Fiber Bragg Grating (FBG) sensors in the 835 nm wavelength range. High spectrometer resolution combined with broad wavelength range provides high-resolution interrogation monitors allowing measurement of a large number of FBG sensors.

A direct interface to the diode array detector offers OEM integrators a cost efficient solutions for building their FBG sensing systems.

Features		
High measurement frequency		
Broad wavelength range		
High resolution		
Large dynamic range		
Compact size		
No moving parts		

Operating principle

The Ibsen I-MON Interrogation Monitors build on patented (*) Ibsen high-resolution spectrometer technology, utilizing Ibsen fused silica transmission gratings. The I-MON splits the wavelength spectrum spatially to allow for parallel

(*) US patents no's.: 6,842,239 and 6,978,062

Applications Stand-alone Interrogation monitor and/or OEM Interrogation monitor modules: - Vibration analysis - Temperature measurements - Pressure monitoring - Strain measurements

processing of the individual FBG sensor peaks. The FBG sensor peaks are measured by a diode resolution spectrometer modules on more than array.

I-MON Developer's Kit

The I-MON 835 OEM is available as a Developer's Kit including software providing plug-and-play operation.

About Ibsen Photonics

Ibsen Photonics is building its portfolio of high 20 years of experience in diffractive optics. Ibsen Photonics also has a leading position within phase masks for FBG manufacturing, holographic fused silica transmission gratings, and spectrometers.

Ibsen Photonics welcomes partnerships with original equipment manufacturers based on the Ibsen high resolution spectrometer technology. Ibsen Photonics is a privately held company.

Specifications

Parameter	Unit	I-MON 835 OEM
Max no. of FBG's and spacing		> 45 at 1200 pm
Wavelength range	nm	810 - 860
Wavelength fit resolution	pm	< 0.5*
Repeatability (over any pol state)	pm	3 (5 max.)
Wavelength linearity	pm	3 (typ.)
Wavelength drift	pm/ ^o C	1 (3 max.)**
Dynamic range	dB	30*
Input optical power range	dBm	-80 to -20*
Measurement frequency	kHz	> 100*
Interface		Direct interface to CCD array
Temperature range	٥C	0 - 70
Size	mm	23 x 58 x 76

(*) Depending on customer electronics

(**) Note that by applying temperature control or temperature correction the wavelength accuracy over the entire temperature range can be improved.

Specifications are subject to change without prior notice. Design and specifications can be modified to suit a range of customer requirements



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