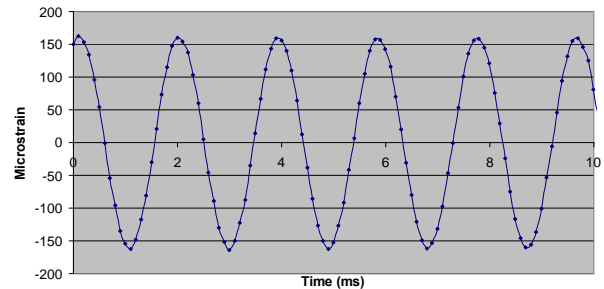




Commercial Grade SmartScan 04

SmartScan is an ultra compact and robust interrogator for dynamic measurement of FBG sensors. This WDM instrument is based on an agile, tuneable laser source that enables high-resolution interrogation at multi-kHz frequencies.

- Multi-kHz Scanning
- Ultra Compact
- Highly Robust Optics
- Wavelength Agile Platform
- Onboard Data Averaging
- All Solid State
- Developed from Flight Tested Wx instrument



### Specifications

Measurement and Processing	SmartScan	SmartScan Lite
Wavelength Range	40 nm (1528 . 1568 nm)	35 nm (1529 . 1564 nm)
Number of Optical Channels <sup>1</sup>	1,2,3,4	
Maximum Number of Sensors / Channel	16	
Scan Frequency (all sensors simultaneously) <sup>2</sup>	2.5 kHz	250 Hz
Scan Frequency (per each sensor in turn) <sup>2</sup>	30 kHz	-
Repeatability <sup>3,4</sup>	< 1 pm	
Wavelength Stability	< 5 pm over operating temperature range, +/- 20 pm over 25 years	
Dynamic Range	27 dB	
Gain Control	9 levels, per channel or per sensor, automatic or user controlled	
Onboard Processing	For conversion of measuring units and interfacing to client systems	
Onboard Data Storage	Via Compact Flash Card <sup>6</sup>	-

Mechanical, Environmental and Electrical	Commercial Grade
Dimensions	140x110x70 mm / 5.5x4.3x2.8+
Weight	0.9 kg / 2 lb
Operating Temperature	-15 to +55 °C / 5 to 131 °F
EMC: Conducted susceptibility and conducted emissions	EN 61000
Comms Interface	Ethernet (UDP-IP), others on request
Data Connector	RJ45 standard
Power Connector	via mains adapter supplied
Optical Connector <sup>5</sup>	FC/APC
Input Voltage	+9 to +36 VDC
Power Consumption	typ 7.5 W, max 8.5 W

<sup>1</sup> 8, 12 and 16-Channel SmartScan products will follow initial 4-channel unit

<sup>2</sup> Faster sampling available at reduced resolution

<sup>3</sup> Measured over 1 minute, standard uncertainty (1 distribution)

<sup>4</sup> Onboard averaging allows 2, 4, or 8 times data reduction, improving repeatability

<sup>5</sup> Connector required to be fitted on cable to mate with unit

<sup>6</sup> For future implementation in 2010

Specifications are subject to change without notice