GM8050 PC Control Fast High Resolution Fiber Bragg grating sensor demodulation module

Product specification

Overview

GM8050 is a multi-channel, fast and high-resolution fiber grating sensor demodulation module controlled by PC. It can be combined with random configuration software, PC and external equipment to form a Bragg sensor demodulation system and a high-precision spectral analysis system. The demodulation module can be applied to various types of optical fiber sensors, and the system draws a clear and complete spectrum graph according to the response of the grating sensor to different temperature conditions, rather than just displaying the offset of the central wavelength.

The demodulation module of GM8050 fiber Bragg grating sensor temperature measurement system has low cost and high performance, which can be used in various engineering applications and civil applications. The demodulation module is controlled by a PC, which can measure Bragg sensors with high precision and large dynamic range, and also has the ability of high-precision spectral analysis.

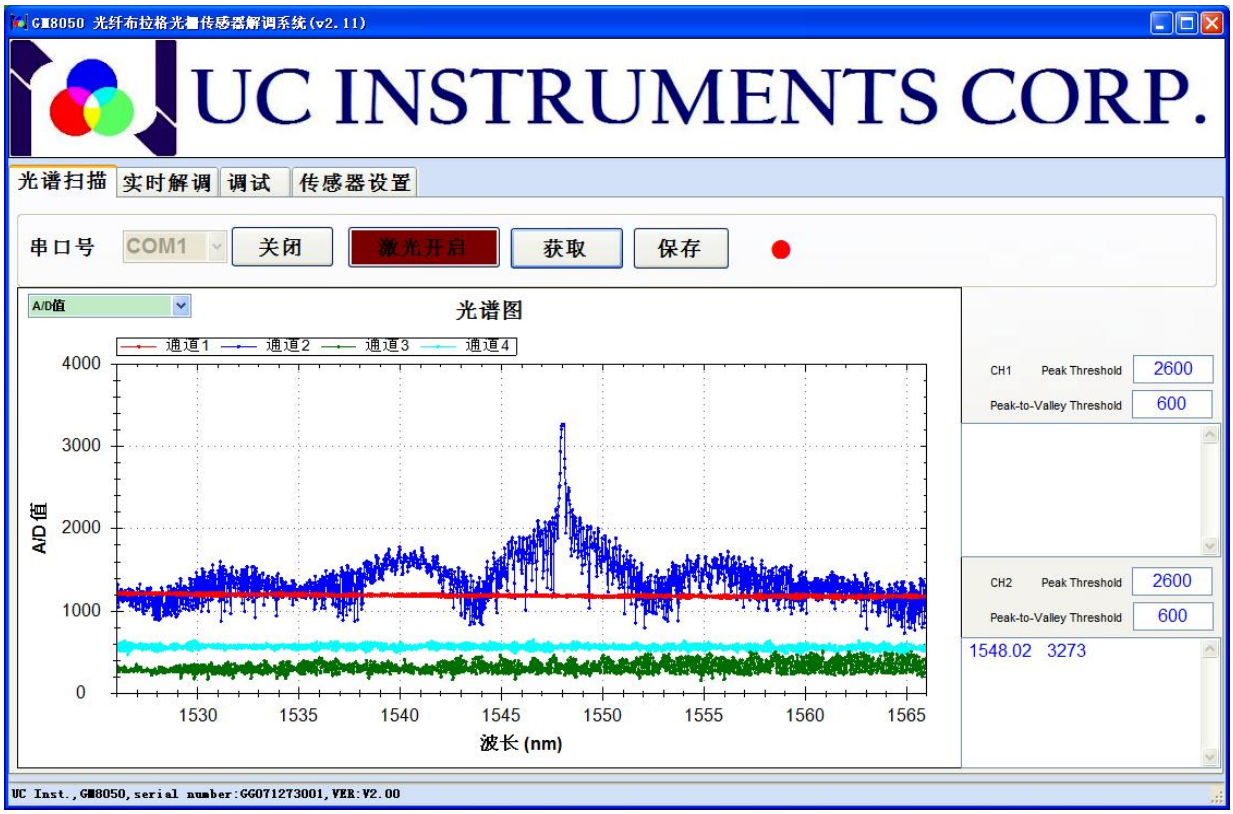
GM8050 has a fully sealed modular structure, which is easy to install and integrate.

Technical Parameter

Product model	**GM8050**
Number of optical channels	Standard: 4-channel/8-channel/16-channel/32-channel, optional 3-channel
Built-in tunable light source wavelength range	40nm: 1528nm ~ 1568nm or 20m: 1535-1555nm
Built-in tunable light source output power	≥ + 10dBm (optional + 13dBm)
Output power of each tunable light source	≥0 dBm
Dynamic range of reflected light detection	60 dB
Demodulation wavelength resolution	0.1 pm
Line width	1 MHz
Demodulation speed (fixed mode)	≤ 2Hz
Real-time output data	Wavelength scanning reflected light spectrum Center wavelength and peak value of FBG sensor
Trigger signal output interface	When the wavelength of the light source is scanned, a pulse trigger signal is output to control an externally expanded multi-channel photoelectric conversion module to synchronously acquire the signal of the FBG sensor.

Optical channel interface	FC/APC Adapter
Communication interface	RS232
Power supply	DC 12V/1A power module (+ 7 ~ 36V power input)
Storage temperature	-10 ~ +80 ℃
Operating temperature	-5 ~ +45 ℃
Overall dimensions	175 X 148 X 63mm (WHD, 4,8 channels), 214 X125X86 (16 channels), 200X270X100 (24,32 channel)

Configure the software spectral scanning interface:



Technical support and services

GM8050 complete machine module does not contain mechanical devices, is not affected by the environment, and can work at a wide range of temperatures. The normal service life of the fast tunable laser source is 20 years.

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right products to meet your application needs. Every instrument we sell is backed by a worldwide warranty that provides a minimum of 12 months of factory warranty.

Our commitment

All measuring instruments and test systems comply with the function and performance specifications described in their documentation. ? We will provide you with qualified products and product operation methods. For use with special functions, we will provide basic measurement assistance.