22-Channel Fiber Bragg Grating Demodulator

We designed and fabricated a high-performance 36-channel AWG, with a channel spacing of 1.6 nm on PLC, thus enabling continuous C-band demodulation, while maintaining high resolution.

The OFSCN® Fiber Bragg Grating Interrogator is an industrial-grade demodulation unit designed to provide high-precision wavelength measurements for various fiber optic sensing ...

A demodulation algorithm is vital for a fiber Bragg grating (FBG) sensing system. In this paper, a novel demodulation algorithm based on the variable-step-size method and cross-correlation algorithm is ...

A novel approach to fibre Bragg grating spectra processing is proposed. The method is based on the use of nonlinear filtration and raising the ...

In this article, a tracking-based high-speed demodulation method for FBG sensing systems based on the wavelength-tunable laser is proposed. The wavelength-tunable laser only ...

In this paper, a photoelectric conditioning circuit for fiber Bragg grating demodulation is designed. The experimental results show that this method can accurately demodulate fiber Bragg ...

The study reveals that this AWG-based FBG demodulation scheme exhibits notable advantages including structural simplicity and superior demodulation accuracy, demonstrating ...

A novel approach to fibre Bragg grating spectra processing is proposed. The method is based on the use of nonlinear filtration and raising the spectrum value to the second power.

Fiber Bragg gratings are reflective structures in the core of an optical fiber with a periodic or aperiodic perturbation of the effective refractive index.

A high speed quasi-distributed demodulation method based on the microwave photonics and the chromatic dispersion effect is designed and implemented for weak fiber Bragg gratings (FBGs).

It has high temperature measurement accuracy, short response time, anti-electromagnetic interference, electrical insulation, and intrinsic safety. It has the characteristics of explosion-proof, so it can be ...

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