

Fiber Bragg grating demodulator malfunction

Using numerical simulations, we evaluate the performance of eight most typical demodulation algorithms with this model. We show that different algorithms should be used within ...

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 paper, ultra-weak fiber Bragg grating (UWFBG) array has been proposed to generate strong and controllable reflections while providing acceptable insertion loss.

A dispersion compensation fiber (DCF) changes the beat frequency within the FBG wavelength range. With a crossing microwave sweep, all wavelengths of cascade FBGs can be quickly decoded by ...

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.

Despite their intensive usage, these sensors suffer from significant limitations due to transmission losses and susceptibility to the electro-magnetic interference, making their employment challenging or ...

Frequently Asked Questions on Fiber Bragg Grating Technology & Systems Optical sensors based on Fiber Bragg Gratings (FBG) are becoming increasingly popular. They are easy to install, immune to ...

Simulation and experimental findings demonstrate that FMD can effectively eliminate the information of environmental noise and temperature, and greatly retain vibration information. In the ...

Here, by applying the coupled-mode theory, influences of FBG design parameters such as grating length, refractive index modulation depth, and apodization type on the dual-grating ...

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 ...

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

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