Amplitude Sampling Fiber Optic Grating

In this paper, the modeling of optical signals in an OFDR is accomplished via con-sideration of the electric field component of an electromagnetic wave.

A new kind of fiber grating, referred to as the sampled grating, has been developed to solve this problem. Such devices have double periodicity and are also known as superstructure gratings.

The main system is based on amplitude modulation of a self-heterodyne acousto-optic comb that is injected into a random fiber grating. We calibrated the system with a heterodyne ...

This paper presents an innovative and efficient shape-sensing approach for optical fiber Bragg grating (FBG) arrays, employing the dual-comb spectroscopy (DCS) technique for demodulation.

The n=0th diffraction order is also known as the DC term Grating period u0 : spatial frequency Sinusoidal amplitude grating

In this study, we propose a fiber optic positioning system that integrates an incoherent light source, grating arrays, and coding techniques, representing an advancement in the field of ...

This paper reviews the state of the art of fiber Bragg gratings (FBGs) as analog all-optical signal processing units.

This paper presents the design & simulation of an Optical Fiber Bragg Grating (OFBG) sensor for stress, strain measurement and also demonstrates ...

The invention discloses a manufacturing method of a vibration amplitude mask template used for manufacturing a sampling fiber grating, belonging to the optical fiber communication...

However, a superim-posed grating requires multiple exposures during fabrication. In this letter, we show that a purely phase-sampled superstructure grating can provide both dispersion and dispersion-slope ...

We experimentally performed the diffraction experiment on phase and amplitude grating. The experimental result applied to derive expression for compared the intensity formula.

A novel technique to implement a Bragg grating with multi-channel and high channel-count response based on nonuniform amplitude-only sampling is proposed.

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