Uniform Fiber Bragg Grating Transmission Matrix

This paper presents the modeling and simulation of an optical fiber Bragg grating for maximum reflectivity, minimum side lobe. Gating length represents as one of the critical parameters in ...

As fiber grating allows considerable amount of energy exchange between different modes of the fiber, couple mode theory which is solved by transfer matrix method is considered as good approximation ...

In this study, a new simulation method is proposed and verified for fiber Bragg grating patterned on polarization maintaining fiber (PM-FBG) using the transfer matrix approach.

The method is an extension of the Coupled Mode Theory and utilizes the equivalent transmission lines in order to simulate any type of grating, with an easy and direct implementation.

In this paper, the effect on the Reflection spectra of FBG is analyzed at the varied grating length. The paper is divided into following sections. Section 2 covers the theory and modeling (coupled mode ...

Bashir Ahmed Tahir: Fiber Bragg grating modeling, Whitaker, "Coupled-Mode Theory of Optical simulation and characteristics with different grating Waveguides", IEEE, Journ. of Ligth.

In this paper, the effect on the reflection spectra of fiber Bragg grating is analyzed at the varied grating length along with the variation of spectral shape with changing refractive index.

The refractive index contrast, as well as the pitch and duty cycle of the grating, can be tailored so that a specific wavelength of light can be reflected while the rest of the spectrum is completely transmitted, ...

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