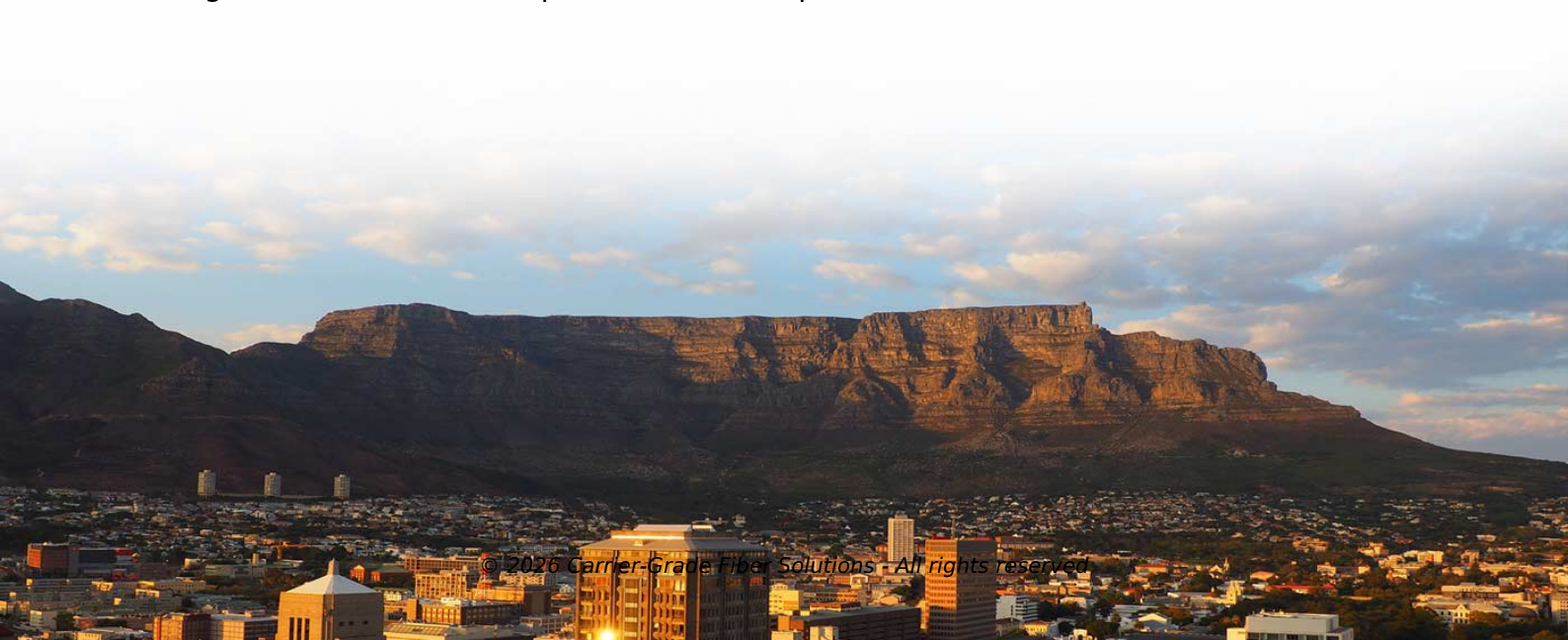


Optisystem simulation of chirped fiber optic gratings



Overview

In this paper, chirped FBG has been studied as a dispersion compensator in an optical communication system for the different lengths of grating and apodization functions. All the simulations are done in OPTISYSTEM 7.0 simulation software at 10 Gbits/sec and 210 km of transmission. OptiSystem is a comprehensive software design suite that enables users to plan, test, and simulate optical links in the transmission layer of modern optical networks. Emerging as a de facto standard over the last decade, OptiGrating has delivered powerful and user friendly design software for. e-mode optical fiber with dispersion, and the compensation through DCF and CFBG is analysed. Is also analysed the CFBG apodized and non-apodized using the program OptiGrating. With the program OptiSystem, is simulated the dispersion compensating of ng (CFBG), OptiGrating, OptiSystem, Dispersion. Fiber Bragg Gratings (FBGs) are one of the most popular technology within fiber-optic sensors, and they allow the measurement of mechanical, thermal, and physical parameters. The hyperbolic tangent function (Tanh) represents the first profile.



Article Content

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A New Proposed Model for Dispersion Compensation

OptiSystem which is a simulation software is used in this study to design and simulate the proposed new model of dispersion compensation. It is a simulation

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Fiber Bragg Grating (FBG) is one of the applicable and important components in optical communication system. In this paper, chirped FBG has been studied as a dispersion compensator in

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f fiber optics allows the possibility of creating phase structures on the core of the fiber. These phase structures are obtained changing constantly the refractive index according to a periodic pattern along

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Chromatic dispersion compensation Apodized chirped bre Bragg grating fi Optisystem demand in internet traf c using optical transmissions. High-speed optical networks are highly affected by fi

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In this paper, chirped fiber Bragg grating has been studied as a dispersion compensator in optical transmission system. Chirped FBG is a very

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Abstract This paper describes the concept and simulation of an fiber Bragg grating. Simulation of the transmission system have been analized using simulator OptiSystem, based on

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These parameters are the most significant performance measurements that impact any optical communication system. The proposed model is simulated via

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Figure. | Proposed chirped fiber Bragg grating simulation model by Opti-System 7 software. Figure. 2 Simulated result of eye-diagram after CFBG

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Keywords: dispersion compensation, fiber optics, Fiber Bragg Grating, Gaussian filter, Optisystem ge data rates and transmission capacity requirements of emerging communication systems. However,

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Fiber Bragg Grating

Fiber Bragg Grating - In the first lesson, you will learn how to design a Fiber Bragg Grating with chirp and apodization. Such a grating finds application in

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Optical Grating Simulation and Design | Software

Optical grating simulation and design programs can be used for a variety of applications, from educational simulations for students to real-world fiber design

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ABSTRACT: In this paper, the optical dispersion of communication system based on Fiber Bragg Grating (FBG) is compensate and implemented using Optisystem 7.0. The FBG components could

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Review of Chirped Fiber Bragg Grating (CFBG) Fiber

Based on this premise, CFBGs have found important applications in healthcare, mechanical engineering, and shock waves analysis, among others.

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Design and evaluation of cascaded chirped fiber Bragg gratings in

A scheme comprising only four optimized linearly chirped fiber Bragg gratings (LCFBGs) is proposed for compensating the dispersion effects in 48×20 Gbps DWDM system. Each grating is

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Abstract—The propagation of pulses in a single-mode optical fiber with dispersion, and the compensation through DCF and CFBG is analysed. Is also analysed the CFBG apodized and non

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This paper discusses on a simulation of a 10 Gbps-single mode optical fiber communication link. In order to achieve effective performance of

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ISSN: 2315-4462

Abstract—In this work, the effects of two apodization functions on the performance of two dispersion compensators, namely, linear and quadratic chirps, based on chirped fiber Bragg grating (CFBG),

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Optimization technology for DCF dispersion

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Simulation of a transmission system to compensate dispersion in an ...

Fiber Bragg Grating (FBG) is one of the applicable and important components in optical communication system, and it first emerged in 1980. In this article, the application of chirped FBG was studied as a

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