Performance Analysis of DPSK Fiber Optic Communication System

Abstract: In this paper, performance analysis of radio over fiber (ROF) system has been proposed to analyze the performance of the system using differential phase shift keying method.

The closed form expressions for the bit error rate, ergodic channel capacity and the outage probability together with their asymptotic performance at high received signal-to-noise ratio are derived to study ...

The performance of the transmission system is evaluated using OptiSystem Version-10 in terms of max. Q-factor, min. bit error rate, eye height, threshold and decision inst. The performance of the system ...

DPSK or OOK system. Q-factor is not a reliable performance measure, especially for DPSK system (23 dB OSNR error). In CRZ-DPSK or CRZ-OOK system, noise can be modeled as additive non-white ...

The effectiveness of various optical differential phase modulations on wavelength conversion is analysed. NRZ-DPSK/DPSK, 33%RZ-DPSK, 50%RZ-DPSK and 67%RZ-DPSK/CSRZ-DPSK are ...

Explore the design and performance of a Radio over Fiber system using DPSK modulation, analyzing key metrics like BER and quality factor.

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MIT Lincoln Laboratory developed the multi-rate DPSK format, which uses a single, easy-to-implement transmitter and receiver design to achieve free-space optical communications (FSOC) over a wide ...

In this paper, the performance analysis of On-Off Keying (OOK), Pulse Position Modulation (PPM), Differential Phase Shift Keying (DPSK), Quadrature Amplitude Modulation (QAM), ...

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