Abstract

Dispersion is the most important factor which determines the data rate and the maximum repeater distance spacing in a fiber optical link. In this paper, investigation has been done on performance of Fiber Bragg Grating as a technique to compensate chromatic dispersion in a 100 km long fiber optic link using different modulation formats such as RZ and NRZ modulation formats and different values of transmission power levels. It was observed that RZ modulation format showed a better performance with a maximum value of Q-factor of 54.5192 than NRZ modulation format which obtained maximum Q-factor value of 31.4792.

General Term

Performance Analysis, Dispersion compensation, Fiber Bragg Grating

References
Index Terms

Computer Science  Communications

Keywords

Fiber Bragg Grating; RZ; NRZ; Q-factor; power levels.