

Encoder And Decoder Modules Of OCDM System Using Fiber-Bragg Grating (FBG) For Metro Area Network

Abstract

Encoder and decoder modules of OCDM system using Fiber Bragg Grating (FBG) is presented in this paper. In OCDM system, the unique code sequence is formed by using spectral components which are inherently arranged. This is done by multiplexing the Bragg wavelengths from an array of FBGs. The effects of FBG as encoder and decoder modules to the system performance are studied. The code used in this project is double weight (DW) code. The simulation results show the better Bit Error Rate (BER) performance for FBG on encoder and decoder modules at different bit rate. The performance of the OCDM system is improved because the total power loss can be reduced and this can be clearly seen in the result.

Author Keywords

Component; DWcode; Fiber-Bragg Grating (FBG); OCDM