Abstract

The requirement of high bandwidth, high flexibility, high mobility and high data rate at lower cost can be met with a real convergence of radio over fiber (RoF) and orthogonal frequency division multiplexing (OFDM) techniques. This paper compares the results of OFDM as a modulation for radio over fiber in passive optical network (PON) for 288km single mode fiber with that of dispersion compensator fiber. The four optical network units (ONUs) are connected by using 1:4 ratio passive optical splitter. A laser source of 1550 nm, bit rate of 10 Gbits/sec is used to simulate the system.

**Index Terms**

Computer Science  
Signal Processing

**Keywords**

RoF  OFDM  PON  QAM.