Abstract

In this paper, Investigation of Q-Factor & Eye diagram in different transmitter and receiver module are shown. For this, 10Gbps optical communication system with fixed bit pattern of 16 bit sequence for iterations are used. For the analysis purpose return to zero (RZ) and non return to zero (NRZ) coding are taken. Here Q-Factor is improved by changing encoding techniques at two different wavelengths of 1310nm & 1550nm.

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**Index Terms**

Computer Science ➔ Communications

**Keywords**

Quality factor, Eye diagram, NRZ, RZ, MZM, EAM, PIN, APD.