Abstract

In this paper, a fiber optic communication system has been employed using 10G/2.5G asymmetric XGPON architecture. In this system bidirectional optical fiber has been employed for upstream and downstream data transmission. The system performance has been investigated for non-return-to-zero (NRZ) and return-to-zero (RZ) data formats by varying the length of the fiber for co-existed GPON and XG-PON system. The results have been compared for NRZ and RZ formats for upstream and downstream data in terms of Q value and eye opening. It has been observed that RZ modulation format is superior compared to conventional NRZ modulation.

References

Performance Analysis of 10G/2.5G Asymmetric XGPON Transmission using RZ and NRZ Data Formats

- Yuanqiu Luo, Frank Effenberger, and Bo Gao "Transmission Convergence Layer Framing in XG-PON1", Huawei Technologies USA.

Index Terms

Computer Science Communications

Keywords

XG-PON GPON data formats NRZ RZ