Abstract

In this report, the demonstration of a cost effective bidirectional WDM-PON architecture supporting symmetric data rate for both point-to-point and broadcasting services are presented. To decrease the network cost and increase the end user data rate, utilizing RZ-DPSK for point-to-point (P2P) data and intensity modulation (IM) for broadcast data in downlink direction. Single feeder fiber is used in colorless WDM PON architecture supporting both 10 Gbps point-to-point and 10 Gbps broadcast services data. Error free transmission is achieved with low BER and eye diagrams are verified through simulation at a distance of 25 Km.

References

network for residential condominium”, IEEE 14th International Joint Conference on Computer Science and Software Engineering (JCSSE), July 2017, Thailand.


Index Terms

Computer Science

Communications
Keywords

Passive Optical Network (PON); Wavelength-division Multiplexing (WDM); Differential Phase Shift Keying (DPSK); Bit Error Rate (BER); Intensity modulation (IM); On Off Keying (OOK).