

Dynamics of Chirped RZ Modulation Format in GEAPON Fiber to the Home (FTTH) Network

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Abstract : The work in this paper presents simulative comparison for different modulation formats such as NRZ, Manchester and CRZ in a 100 subscribers at 5 Gbps bit rate Gigabit Ethernet Passive Optical Network (GEAPON) FTTH network. It is observed from the simulation results that the CRZ modulation format is best suited for the designed system. A link design for 1:100 splitter is used as Passive Optical Network (PON) element which creates communication between central offices to different users. The Bit Error Rate (BER) is found to be $2.8535e-10$ at 5 Gbit/s systems for CRZ modulation format.

Keywords : PON , FTTH, OLT, ONU, CO, GEAPON

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