

ABSTRACT

Tamansari Panoramic apartment was one of the apartments located in the city inhabited by the urban community. Telecommunication technology developments make the public want to get access of information and communication. To get a perfect service required is appropriate a media. Fiber-optic technology as current technology will be used to create a network of FTTB in order to meet the needs for information, communication, and multimedia as well as safeguards for any occupant of the apartment.

PT Jabar Telematika is one of information and communication companies in West Java that also serve the deployment of optical fibre for various needs is selected by the developer of apartments to do network deployment at the apartment. The design of FTTB using GPON technology (Gigabit Passive Optical Network) is selected to provide services to residents in the form of internet access, voice, and multimedia or also commonly called tripleplay. The design begins with doing a survey of the field, define the fiber-optic lines, designing the network then determines the required device specifications and analyze network using PLB and RTB as parameters.

On the design of network FTTB GPON in apartment as measured at the farthest ONT obtained the result value downlink of power link budget 27.046092 dB and for uplink 27.54512 dB. This result it still within tolerance which specified by PT Jabar Telematika at 28 dB. While result are obtained value downlink of rise time budget 0.247923524 ns and for uplink 0.213594382 ns. And This period still in below of value period in NRZ System which is at 0.282 ns for downlink and 0.5833 ns for uplink.

Keyword : FTTB, triple play, GPON, Power link budget dan rise time budget.