

ABSTRACT

Triple play services offered by the Fiber to the Home (FTTH) is helping sales of the apartments because buyers want to live in high technology with comfortably. FTTH network analysis was needed before the network was sold to the user to see whether the network has been implemented already in use or is not feasible. Gateway apartments are apartments located in the Bandung City and has been implemented by the FTTH network. The central is STO Ahmad Yani. The apartment owners want to be marketed to costumers. However, there has been no specific analysis of the network that has been built on an apartment. To that end, the authors would like to assist in analyzing the optical link networks in order to market the apartments that have been determined according to the standard.

The analysis will be carried out in this thesis is the value of Link Power Budget, Rise Time Budget, Signal to Noise Ratio (SNR), Bit Error Rate (BER) and Power Penalty. Analysis is conducted by way of further advance study performed data collection on actual field conditions.

Output is obtained which proved that the FTTH network that has been implemented has been feasible to meet the standards set by the PT network. Telkom with BER value that is equal to $1,04003 \times 10^{-17}$, Link Power Budget worth -23,3134 dB, Rise Time Budget worth 0,0090195 ns, SNR is worth 31,06226 dB and Power Penalty worth 1,278 dB. This final project is also expected after the research can provide recommendations for improving the quality of the network on the optical link STO Ahmad Yani to Gateway Apartments.

Keywords: Link Power Budget, Rise Time Budget, SNR, BER, Power Penalty