ABSTRACT

In middle 2014, PT Telkom and PT INTI cooperate in the implementation of TITO project, namely the implementation of FTTH project to existing housing in Bandung, one of them in the housing around the Cipaku Indah. FTTH network in the Cipaku Indah including new because previously they use copper network, but there is no specific analysis related performance FTTH network that has been implemented in the housing. To the authors would like to help analyze the network performance of the new optical link.

In this thesis analyzed the performance FTTH network STO Cipaku Beautiful Gegerkalong to housing based on several parameters: Link Power Budget, Rise Time Budget, Signal to Noise Ratio (SNR), Bit Error Rate (BER) and analyze directly the problems that occur in the field. In the FTTH network in Cipaku Indah has been installed GPON devices, such as 1 ODC, 54 ODP and 227 ONT with total of 227 customers

The test results proved that the link is implemented FTTH networks have been feasible to meet the standards set by the network of PT Telkom with BER value that is equal to $1,04003 \times 10^{-17}$, Link Power Budget worth -23.3134 dB, Rise Time Budget worth 0.2503 ns, SNR worth 28.175 dB. Based on the survey to user there is attenuation by 3 to 4 dB which occurs due to the separation of 0,3 mm between the two different types of connectors between the indoor drop cable with rosette box.

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