

Abstract

Fiber To The Home (FTTH) internet access network is internet access provided from the central provider to the user area using optical fiber supported using GPON (Gigabit Passive Optical Network) technology to provide data services needed by users. The need for internet services in this era is very much needed by the user, with very fast internet access services. This research was conducted to meet the needs of internet services in Sukamanah Village, Rangkasbitung District with this research it can make easier for people to enjoy internet services provided by PT Telkom as an internet service provider in Indonesia by adjusting internet needs that area affordable for the user. Literature studies conducted and fields surveys by the author, to determine and find out the need that are tailored to the conditions of the user in the research location. The need for internet services in Sukamanah Village is known to be 718 customer ports that must be built, with the price of the internet package that the user wants is Rp 200.000/mount. From the calculation of the power link budget that has been carried out, for internet needs in locations that are known to have met the requirements to get a downlink of 20,18837 dB and uplink value of 16,68247 dB for the value of the margin daya on the downlink 6,81163 dBm and for power margin in the uplink 10,31753 dBm.

Keywords: FTTH, GPON, Network, Downlink, Uplink