

ABSTRACT

Abstract – Fusion splicing is a permanent splicing where the bond between fibers is achieved by joining two fibers from core to core and from cladding to cladding. The fusion method takes place by heating the ends of the fibers to be joined and then joining the two fibers together. The success of a fiber optic connection lies in its low power loss and high bandwidth connection. This study discusses the analysis of the total attenuation loss in the Optical Distribution Cabinet (ODC) to the Optical Distribution Point (ODP) with measurements using an Optical Power Meter and calculations using the Power Link Budget method. This data collection was taken at Citra Garden 6 Housing, West Jakarta. From the results of measurements and calculations of ODC-CKG-FKW with 3 ODP, the highest attenuation results are obtained at ODP FKW/D02/35, namely the total attenuation of 10.94 dB with the power input on the OLT Feeder cable -6.85 and the power output on the ODP splitter using distribution cable is -17.79, while the total attenuation using the Power Link Budget calculation is the largest in ODP FKW/D02/34 which produces a total attenuation of 12.31 dB with a distance of 0.621 km. From the results of this analysis, it can be concluded that the channel from ODC-CKG-FKW to ODP FKW/D02/34, FKW/D02/35, and ODP FKW/D02/36 is good and appropriate because the attenuation obtained from field measurements is smaller than calculated on PowerLink Budget.

Keywords : Damping, Optical Fiber, ODC, ODP, OPM, Power Link Budget.