

ABSTRACT

This thesis explores the design planning FTTH networks in Solo area. Fiber to the Home (FTTH) is a format for optical signal transmission from the central provider (provider) to the user area by using an optical fiber as a transmission medium. Technological development is inseparable from the progress of the development of optical fiber technology that can replace the use of copper wires. Options in this optical fiber into a foolproof method for data transmission that is free from interference and fast. And the optical fiber is not light on the problem of electromagnetic interference, temperature changes. This study aims to select and place devices for Fiber Access Local Networks application configuration with Fiber To The Home, and analyze parameters of the transmission link power budget appropriate technical requirements to meet the standards in the area of Solo. At the boundary 7 which has a total of 591 homes. From the planning FTTH design can be seen that in scenario 1: 2 1:16 fewer require equipment such as cable distribution and use of the ODP of 2.94 km by 39 pieces. Which may mean that fewer expenses to be incurred by the company. Other supporting devices listed in the Bill of Quantity to determine the overall device is used. From the link power budget analysis shows that the design of the 3 scenarios 1:32, 1: 4 1: 8, and 1: 2 1:16 meets the standards of good quality.

Keywords: Fiber to the Home, fiber optics, Link Budget, Bill of Quantity