

ABSTRACT

The very rapid development of technology in today's era is very influential in the field of information and communication technology, because people's desire to get practical, easy, and efficient services is increasing. The increasing needs of customers (users) for information and communication services in the form of internet (data), telephone (voice) and television have led to the need for devices that support all these requests. One of the developing telecommunications technologies is fiber optics. Optical fiber is a transmission line made of glass that is used to transmit light signals from one place to another. The light source used is usually a laser or LED. This cable is approximately 120 micrometers in diameter. This type of optical fiber is available in single mode and multimode types. Fusion splicer or known as a tool to connect optics is one of the tools used to connect an optical fiber core, where the fiber is made of glass, and implement an electrical power that has been converted into a laser-shaped media. In general, the fiber optic cable structure consists of Tube and Fiber (or the general term in the field is called "core"). In addition, it is also necessary to troubleshoot if there is a disturbance on the network. One measurement is one step in solving problems in fiber optic networks. Measurements can be made on one side or two sides, depending on the data required. From the measurement results, several important data can be obtained, such as cores that are in poor condition, the position of the fiber optic connection, whether or not the condition of the adapter is good, and the most important thing is checking the quality of the optical cable that must meet the standards.

Keywords: Fiber optic, fusion splicer, single mode, multimode, core, troubleshoot