

### **ABSTRACT**

*Technology that is advancing currently gives a huge impact in the field of information and communication technology, due to the demand of society to get practical, easy, and efficient services are increasing. The increasing demand of customers (users) for information and communication services in the form of the internet (data), telephone (voice), and television have led to the need for devices that support all these demands. One of the developing telecommunications technologies is fiber optics. Fiber optic is a transmission strand made of glass that is used to transmit the pulse of light over distances. Certainly, in the internet network, there are also supporting components that have different functions and roles, one of which is the SFP module in the fiber optic router device. Small form-factor pluggable (SFP) is a specification for manufacturing new modular optical transceivers. The device is designed for use with small form factor (SFF) connectors, and offers high speed and physical compactness. They are hot-swappable. SFP transceivers are expected with high data rates up to five gigabits per second (5 Gbps), and possibly higher. Because SFP modules are easily interchangeable, electro-optic networks or fiber optic can be upgraded and maintained more easily compared with traditional soldering modules..*

*Keywords: fiber optic, internet, SFP (Small form-factor pluggable), tranceiver*