

ABSTRACT

PT. Telkom as one of telecommunication provider in Indonesia always put consumers' satisfaction and pleasant aspect of communication as the main priority in serving. To assure the efficiency of communication connection, PT. Telkom always tried to provide and use good quality telecommunication devices that can be rely on. One of those devices is *Radio Microwave Digital type SDH Radio Alpha 155*. Before being used, the specification and feasibility of the device are tested. Then, it will be evaluated to meet the required standard defined by RisTi Division.

In this final assignment, experimentation and calculation analysis will be done. The experimentation parameters here are transmission power, frequency, frequency's stability, spurious emission, receiver sensitivity, and jitter. The experimentation focuses on some parameters that affect *Radio Microwave Digital type SDH Radio Alpha 155* feasibility to define the compatibility and specification level.

The results of experimentation and calculation showed that the Operational's Parameter, Radio Intreface, and Base Band Interace were fulfilled the defined specification. Therefore, the radio device has met the proper standard so it can be marketed or used by PT. Telkom.