

ABSTRACT

Information is a necessity for human beings. In communication, humans exchange information to each other. The exchange of such information has changed from time to time. Telecommunication technology is really dominant in the exchange of information. This thing happens because people have ease to exchange information without obstructed by the distance with help from technology. Medium used in technology telecommunications diverse, one of them is satellite.

In general of a satellite communication system, divided into two parts which is part of the earth and space station. In the space, one of the block supporters is a power amplifier. This amplifier is used to amplify the input signal which is still weak from the previous subsystem in order to be strong enough to be transferred to the antenna to transmit.

In this final thesis, it has been realized a power amplifier using an active component of the transistor BFG425W and BFG21W which is working in 2,4 – 2,45 GHz. The gain resulted from the power amplifier in frequency 2,4 – 2,45 GHz is 15,258 - 19,476 dB. On the design of amplifier that has been realized includes determination of input stage device, configuration of circuit, and performance analysis (gain, bandwidth, impedance, and VSWR).

Key words: Telecommunication, Satellite, Power Amplifier