

ABSTRACT

Information signal propagation, especially television broadcasting (UHF frequency) is purposing in order to make signals can be broadcasted and accepted well. But on a process, a few signals decrease their power because of some event like blocking, scattering and shadowing. To increasing the power, we created a set of equipment that use for increasing the power. This equipment is called Amplifier.

In this Final Task, we will be discussed about design, realization, and implementation of Amplifier for television broadcasting. The amplifier which is design, is kind of Class A Amplifier who has high enough linearity.

This Amplifier design has centre point in design process, simulation, and equipment realization, which is composing the assembly board adaptable with common component. Measuring include power amplification (Gain, Pout/Pin), Linearity, and Input–Output Impedance.

In conclusion, measurements by simulation resulted that gain power is 11,7 dB and BW_{3dB} has measure is 16 MHZ (12% from design), f_c move until 53 MHZ to right side, Linearity is tendency increase. And then, suggestions to develop are using full SMD components to reduce loss and distortion power, using others technique for matching like micro strips, and using others class of amplifier and multilayer amplifier circuits.

Keywords: Amplifier, Television, Class A Amplifier, Gain, Linearity, Impedance