ABSTRACT

Technique of switching is a general method, because this method used to power amplifier. By using this method efficiency, it is obatained efficiency power could be higher. Tecnique of switching is able to convert analog input signal into signal pulse with modulation (PWM).

This final project is designed with pulse width modulation method, this method used for reduce the power lost in transistors because the transistors heat, so the efficiency conversion is higher. The input signal is converted in the form of PWM (Pulse Width Modulation) which has been strengthened and then used to activate transistors. The output from the power transistor is filtered with low pass filter (LPF) to recover the input signal has been which strengthened. So the input signal in the form of analog signal has been converted into pulse width modulation is returned again as originally the input signal, with notes the output signal has been strengthened.

Power amplifier that has been designed and implemented in this final project has a high conversion energy. Proven on input signal (sine signal) $2V_{pp}$ s/d $10V_{pp}$, power amplifier is capable of producing high power conversion efficiency is about 94 %. The power loss in the transistor is very small is about 4 %.

Keywords: ***Pulse Width Moddulation (PWM), Power Amplifier, Filter, Op-amp***.