FACULTY OF ELECTRICAL ENGINEERING

UNIVERSITI TEKNOLOGI MARA

JOHOR

FINAL REPORT:

GUITAR AUDIO AMPLIFIER

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ABSTRACT

Guitar audio amplifier is project related with electronic amplification system with combination of basic electronic component such as resistor, capacitor, diode, switch and transistor. Besides, this project also uses Integrated Circuit (IC) for its amplifier component. This project was proposed to design simple guitar amplifier that consist of three main part of circuit, pre amplifier circuit, power supply circuit and power amplifier circuit. Study show that this guitar amplifier should be able to produce sound or actually amplify it by choosing whether bass, treble or trouble.

CHAPTER 1
INTRODUCTION

1.1 Background of Study

Audio amplifier is an electronic amplifier that amplifies low-power audio signal, that range between 20-20 000 Hz as human range of hearing. For common audio amplifier have amplifier circuit as main circuit that contain IC amplifier such as TL072 for amplifier purpose, also contain power supply circuit in order to control supply in amplifier circuit.

As earlier audio amplifier used vacuum tube, known as valve, some of this amplifier type achieved notably high quality. In modern technology for audio amplifiers used solid state device like transistor, but still some who prefer tube based amplifier and the valve sound. Audio amplifier is based on transistor are more practical with the wide availability of inexpensive transistors.

Design parameters of audio amplifier are frequency response, gain, noise, and distortions, these are interdependent, increase the gain often leads to undesirable increases in noise and distortion. While negative feedback actually reduces the gain, it also reduces distortion. Most audio amplifiers are linear amplifiers operating in class AB.