SACHIN CHANDANI 20161201 ROHAN SHRIVASTAVA 201431227 EW2 AUDIO AMPLIFIER

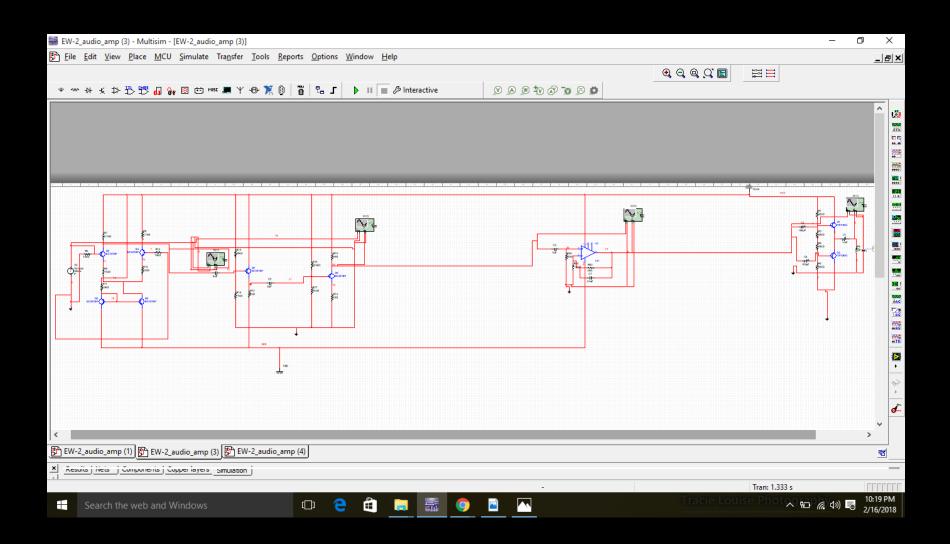
Introduction

An audio power amplifier (or power amp) is an electronic amplifier that reproduces low-power electronic audio signals such as the signal from radio receiver or electric guitar pickup at a level that is strong enough for driving (or powering) loudspeakers or headphones. It is the final electronic stage in a typical audio playback chain before the signal is sent to the loudspeakers and speaker enclosures.

Our circuit consisted of the following main sub sections:-

- Input/Micrphone
 - Gain Stage
- Frequency Filter

Full Audio Amplifier Circuit

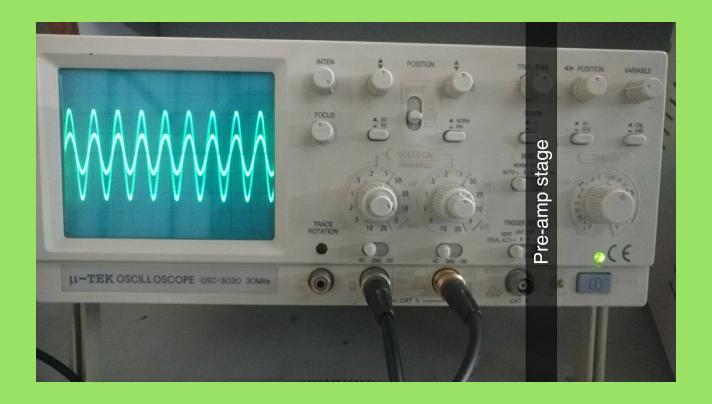


Output

	Input	Output	Gain
Input Stage	-	$10 \mathrm{mV}$	-
Pre-Amplifier	$10 \mathrm{mV}$	$100 \mathrm{mV}$	10
BJT Gain	$100 \mathrm{mV}$	2.5V	250
Filter	2.5V	5V	2
Power Amplifier	5V	5V	1

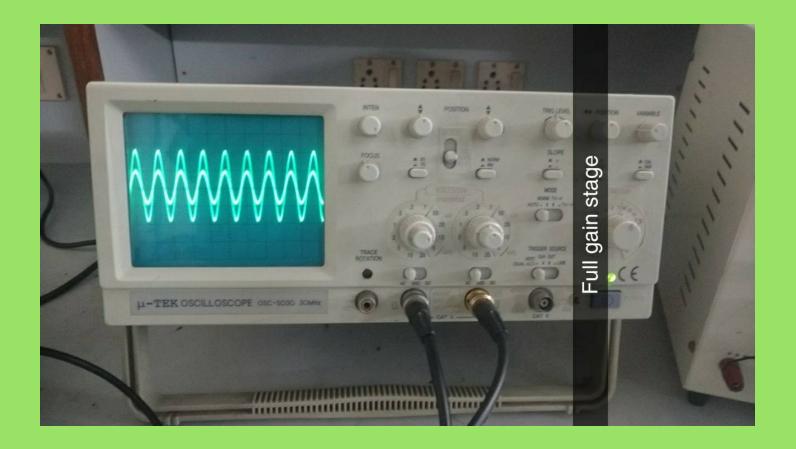
Table 1: Input and Output voltage magnitudes.

Pre Amplification:



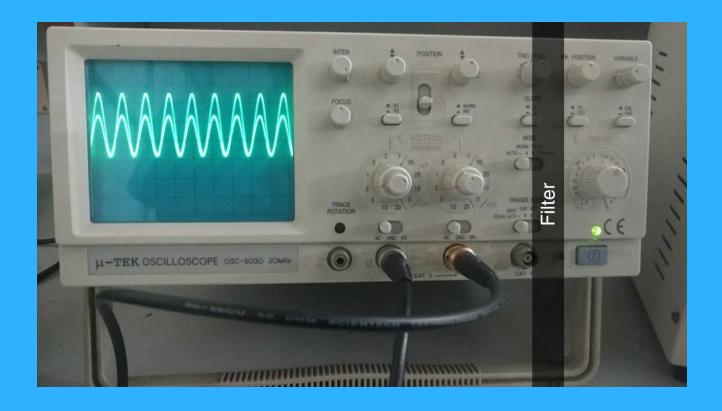
At the end of this stage we get a signal of magnitude 10 times the input

Full Gain Stage:



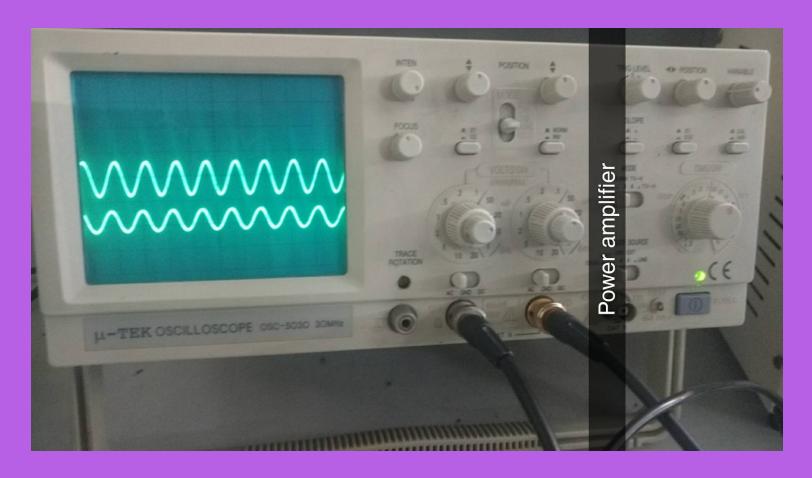
At the end of this stage we get a signal of magnitude 25 times the input.

Filter



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Power Amplification



The output power averages at 1W with the overall voltage gain being 500.

Thank You:)