

SIMPLE PC - DRIVEN FUNCTION GENERATOR

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ABSTRACT

This report is divided into chapters discussing the topics related to the project done.

Chapter 1 - covers the topic on introduction of the function generator. This chapter also discuss the importance of using function generator.

Chapter 2 - deals with the explanation of the block diagram. The explanation is about the main part of the Personal Computer and Function Generator.

Chapter 3 - present the project Personal Computer PC Driven Function Generation and its Operation.

Chapter 4 - Discussion and conclusion of the project presented.

Finally the appendices shown the data about the characteristic, function, operation rating, application etc. for the most IC that we used for this project.

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1.0 INTRODUCTION

In electronic engineering we often use signal generator that generate certain waveform to test circuit.

A knowledge of how a circuits behaves at various frequency will enable us to predict how it will response to a complex input signal. Hence there is a need to have a wave generator which is capable of supplying complex waveforms over a range of frequency with a variable amplitude. Most common signal generator provide a sinusoidal, triangular, sawtooth, and squarewave waveform. In this project all the common waveform can be generated as well as any other complex waveforms that can be dreamt of.

1.1 GENERAL

Here's a simple and low cost little unit which lets you use your personal computer to generate signals with almost any conceivable waveform. It hocks up to the computer via a standard Centronics-type parallel printer port, making it compatible with almost any kind of computer. Building and using it will also give you valuable insight into the growing trend towards computer-driven test instruments, too.

Generating a signal with a sine or square waveform is not terribly difficult, nor is it hard to produce one with a triangular or sawtooth waveform. But apart from these, things can become a bit messy.

The traditional ways of generating these kinds of waveform have involved either shaping and gating circuits operating on standard waveforms, or playing back what are effectively recordings of the desired waveform. The second of these methods is the one most often used nowadays as