

Institute of Engineering & Management
Department of Computer Science & Engineering
Communication Engineering Laboratory for 2nd year 4th semester 2017
Code: CS 491

Date: 18/9/18

ASSIGNMENT-1

Experiment Name: Sine wave in three different frequencies

Objective: Generating three sine waves in three different frequencies and displaying it in DSO

Theory: A function generator is usually a piece of electronic test equipment or software used to generate different types of electrical waveforms over a wide range of frequencies. Some of the most common waveforms produced by the function generator are the sine, square, triangular and saw-tooth shapes.

A digital storage oscilloscope (often abbreviated DSO) is an oscilloscope which stores and analyses the signal digitally rather than using analog techniques.

A waveform is the shape and form of a signal such as a wave moving in a physical medium or an abstract representation. Here we are working with three waveforms mainly sine wave, square wave, and triangular wave.

A sine wave or sinusoid is a mathematical curve that describes a smooth repetitive oscillation.

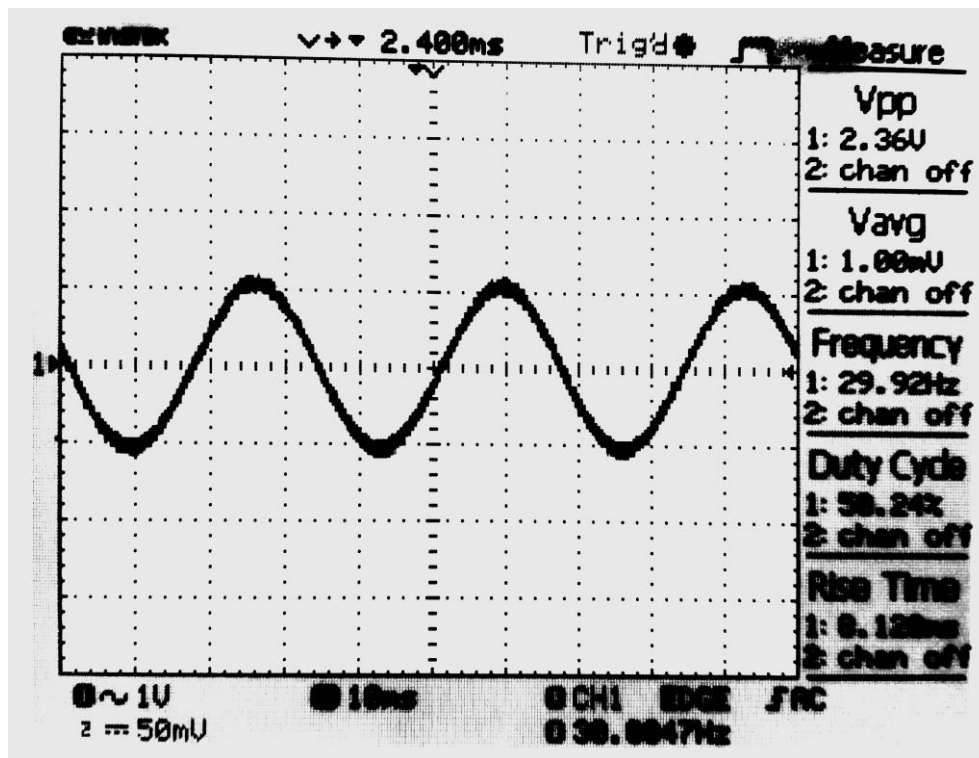
We are generating these three waveforms using function generator and displaying them in the DSO (Digital Storage Oscilloscope) for different frequencies.

Observation Table:

Sine Wave:

Function Generator		Oscilloscope		
Frequency	Volt(V)	frequency	V _{pp} (V)	V _p (V)

Waveforms:



Sine wave

Discussion: From this experiment we learned how to use a function generator to generate sine waves of different frequencies and amplitudes and also how to display the wave in DSO