

Experiment 6

The Oscilloscope

by
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Introduction:

This lab was done to become familiar with the oscilloscope. To do this we first learned about the buttons then took voltage measurements, observed waves, and even compared two waves at the same time. We also completed an in lab worksheet which further help familiarize us with the oscilloscope.

Data Analysis:

This experiment had no calculations. The only information included taking measurements of voltage, wave period, and frequency. We also have a few images of the graphs which are shown below.

Figure 1: Square Wave

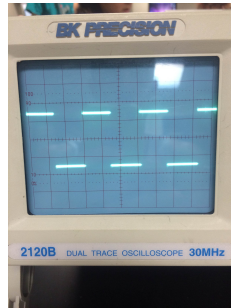


Figure 2: Super Postioned Waves

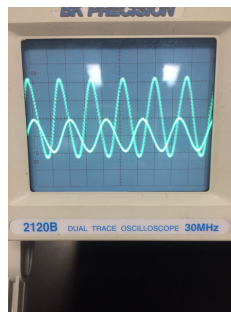


Figure 3: Beats

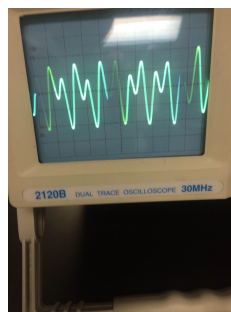


Table of Results:

Experimental: N/A	Theoretical: N/A
Discrepancy: N/A	Percent Difference: N/A

Discussion (Questions):

For a DC voltage trace it should look like a straight line. If you were to pull out the horizontal position knob the trace would look dimmer and it would stretch. A trace would be more accurate if it has less frequency and a larger voltage. If we were using a DC power supply instead of a signal generator it would read double the value of the signal generator. The peak to peak voltage you measured would be the same if you were using a DC power supply or signal generator. The phase relationship between all voltages measured in the previous procedures is that they are all equal even though some are square and some are sine waves.

Conclusion:

This section is omitted.