Christopher Bero

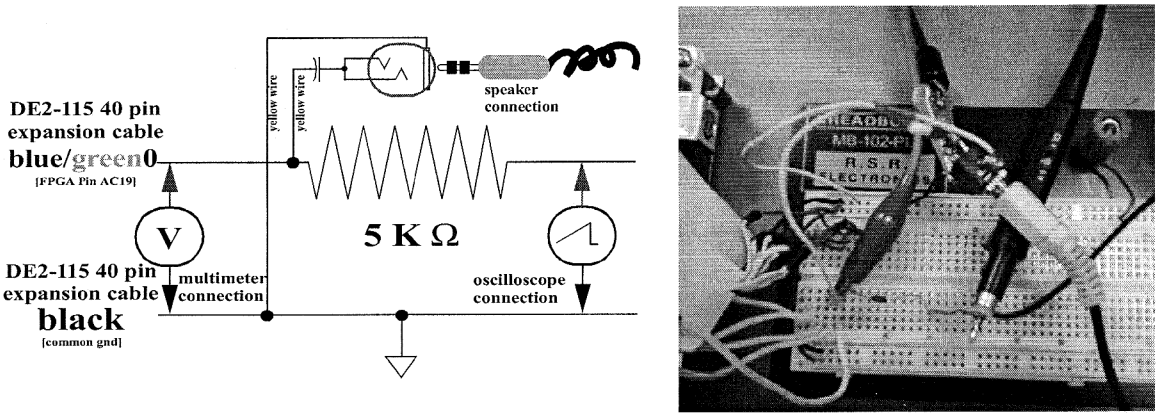


Figure 9: Experimental Setup for Part A of Laboratory -- Detailed View

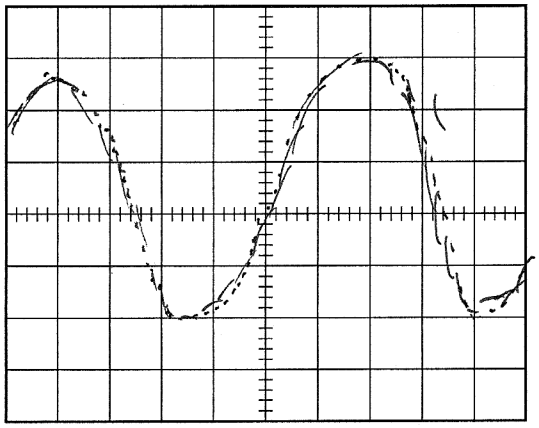
Then experimentally answer the following questions and include them as part of your laboratory report.

- What is the effect of varying the switches SW 17 through SW10?
- What is the effect of varying the switches SW9 through SW0 and KEY3/KEY2?
- What is the slowest Frequency signal that can be produced?
- What is the highest Frequency signal?
- What is the frequency range that produces audio frequency that can be heard through the speaker?
- Set up the switches SW9 through SW0 and KEY3/KEY2 to generate as closely as possible a 1 Khz wave and then complete the following table.

1 Khz Waveform -- Maximum Amplitude

Oscilloscope Settings
Volts per division 500 mV
Time per division 500 μS
Measured (oscilloscope)
Peak-to-Peak Voltage 3.21 V
Frequency 1.002 kHz
Measured (Digital Multimeter)
AC Voltage 1.91 V
DC Voltage 1.62 V

Waveform Sketch



Speaker Observations:

Constant tone, low noise.

Waveform Observations:

A clean sine wave, easily distinguishable on the scope.

if possible adjust time mode so that two complete periods of the waveform are displayed

Other Observations: