I. Introduction

The purpose of this lab is to complete an analog circuit design cycle. This cycle starts with a simulated design and is completed with laboratory verification of the physical hardware.

II. Specifications

The amplifier will be a common-emitter/common-source amplifier. You may select either CMOS or Bipolar transistors for your design. State your reasons for your selection. The amplifier needs to provide a gain of 10 V/V (20 dB) over the frequency range of 20 Hz to 20 kHz into a load impedance of 10kΩ. This is a line level load that is used for studio audio applications (Hi-Z). The input and output should both be AC coupled.

III. Deliverables

Provide simulation data that proves the performance of your circuit. Then build the circuit and provide laboratory data that verifies your performance.