1. **OBJECTIVES**

See the requirements document

1. **HARDWARE DESIGN**

See the PCB Artist schematic file

1. **SOFTWARE DESIGN**

No change in software design (call graphs and data flow graphs are the same as those provided in the lab manual).

1. **MEASUREMENT DATA**
2. **ANALYSIS AND DISCUSSION**
   1. **Briefly describe the three errors in a DAC.**

i) Offset Error: The difference between the DAC output and 0V when 0 is applied at the input.

ii) Full-scale Error: The difference between ideal and actual DAC output when max input is applied. Very dependent on Vref stability.

iii) Gain Error: Full-scale Error minus Offset Error. Deviation of input to output slope from ideal value.

* 1. **Calculate the data available and data required intervals in the SSI/DAC interface. Use these calculations to justify your choice of SSI frequency.**
  2. **How is the frequency range of a spectrum analyzer determined?**
  3. **Why did we not simply drive the speaker directly from the DAC? I.e., what purpose is the TPA731?**