

Dec12-04 Ultrasound Brain Imaging System

Weekly Report - 7 (Feb 28 – Mar 5)

Group Members: Justin Batcheler, Jon Driggs, Francis Ferrer, Allen Kellar, Richard Page, Amairani Tapia

Faculty Advisor and Client: Dr. Timothy Bigelow

Accomplishments of the last week

- Jon:
 - Spoke with National Instruments and received a quote for a system that would be capable of the waveform generation and acquisition that we need. However, the cost of the system is too large. I am working with a local NI representative to explore other options.
- Everyone:
 - Found Cadence files for different components of the ultrasound. Currently working on getting working simulations for these components.

Plan for coming week

- Have a working simulation of one channel.
- Look into an alternative hardware solution as the current one is too expensive.

Pending issues

- N/A

Individual contributions – identify specific tasks accomplished

- Richard, Amairani and Allen:
 - Imported Cadence files from Texas Instruments for the high voltage switching transistor and variable gain amplifier.
 - In process of getting a working simulation of high voltage pulse generator.
- Justin and Francis:
 - Continue to work on the design of the T/R switch.
- Jon:
 - Working on uploading models into Cadence OrCAD for simulation. Also continuing to improve the design of the high-voltage switching circuitry.

Meetings

- Group meeting on Wednesday with everyone in attendance except for Justin.
- Group meeting on Sunday with everyone in attendance.
- Group meeting on Monday with everyone in attendance.
- Bigelow was out of town so we did not have a meeting this week.

Hours

- Below are the hours worked for each member.

Justin	Jon	Francis	Allen	Richard	Amairani
6	12	8	7	8	7