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Embedded System Design 4840

Project Proposal

by

Prakash GS <pg2132>

Devyani Gupta <dg2168>

Vijayarka Nandikonda <vn2107>

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MANIC

Music All Night In Columbia!!!

We propose to build an MP3 player, using the existing onboard sound processing peripherals.

The following is a sequence of events that we will be implementing:

- 1) Reading the song from serial port and buffering it in SDRAM.
- 2) Decompress the MP3 encoded file.
- 3) Use a digital-to-analog converter to get analog output.
- 4) Possible amplification of the final analog signal.
- 5) Display the file ID and details on the LCD monitor.

We will be using the following on-board peripherals:

- 1) AK4565 20bit codec.
- 2) Onboard SDRAM.
- 3) The amplification is done using the codec-PGA.

Future Work:

- 1) After all the above mentioned steps, we might provide a Graphic Equalizer.
- 2) We would like to use onboard push buttons to implement the effects of 'PAUSE' 'PLAY', 'STOP'.