

Final Project Check Off Sheet

Project Title: Wireless Audio Effects

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TA Signature/Date:

System Level

Be able to input an audio signal from an external audio source, compress it, wirelessly transmit the signal, and listen to the decompressed audio output.

Allow the user to change different frequency components of the audio signal being output.

Verify the integrity of audio output by making sure the output is at least 75% similar to a simulated output from MATLAB

(Lohith)

Demonstrate the ability to compress and decompress an audio signal using 1D Modified DCT and its inverse by comparing output of testbench modules to that of a numerical simulation in MATLAB

Verify the functionality of Compression/Decompression modules by passing an audio signal through both modules and verifying the integrity of the output signal.

(Rahul)

Be able to send the audio signal to the FFT module and then through the IFFT module to reconstruct the signal at the other end, thereby creating an audio loopback.

Be able to incorporate frequency domain effects, such as adjusting the treble and bass components of the audio signal, in between the FFT and IFFT modules

(Spyridon)

Be able to wirelessly transmit and receive data (e.g., ASCII characters)

Be able to detect and correct errors (within some bound) using forward error correction.