Guitar effects implemented on FPGA board

ECE641 Final Project Presentation

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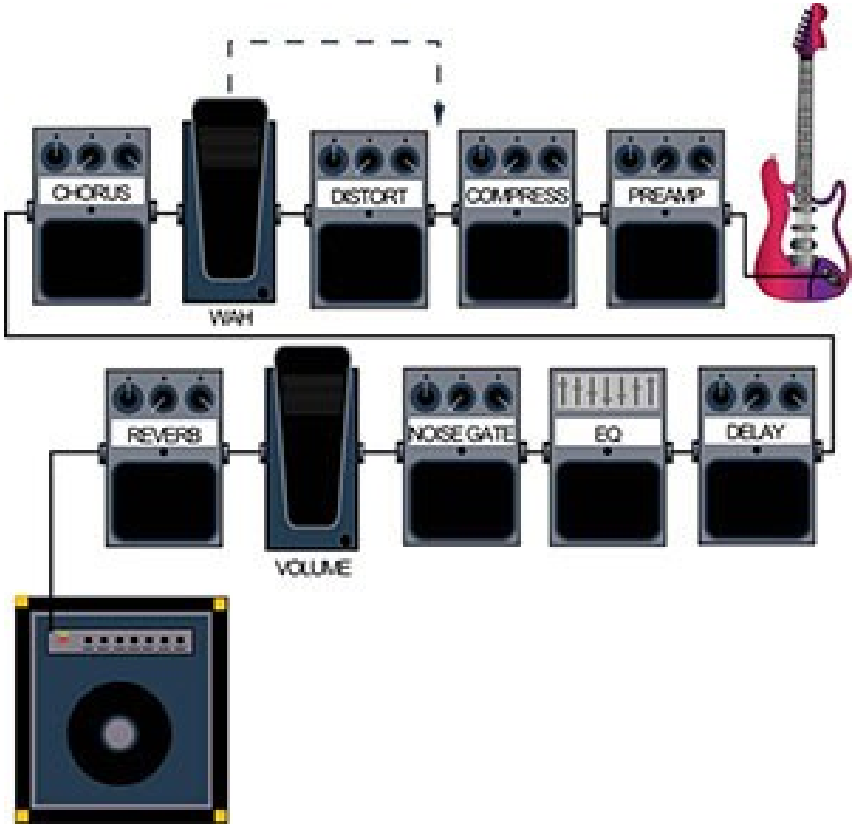
- Introduction
- Object
- Implementation method
- Result

What is a guitar effect?

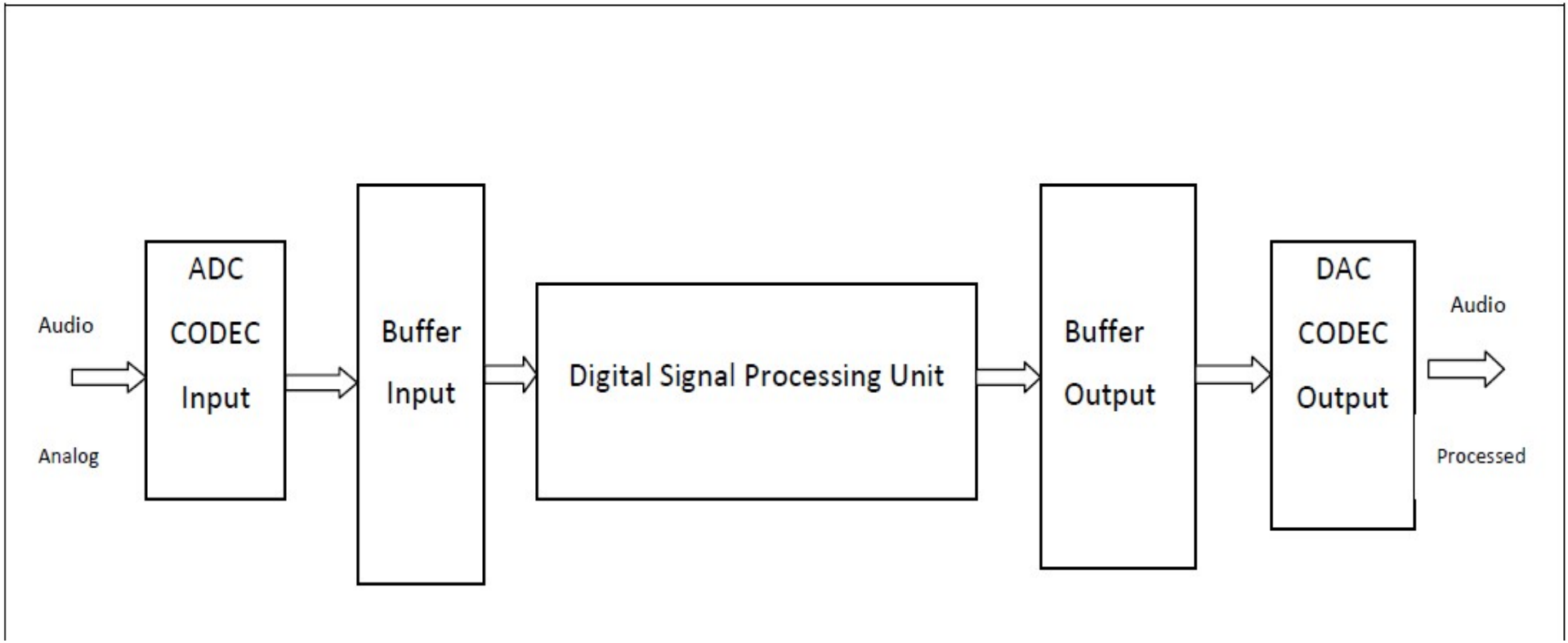
- A device used to produce specific sound effect when playing electrical guitar.

- The heart of digital signal processing

- Connect amplifier with guitar



GUITAR EFFECT CONSTRUCTION



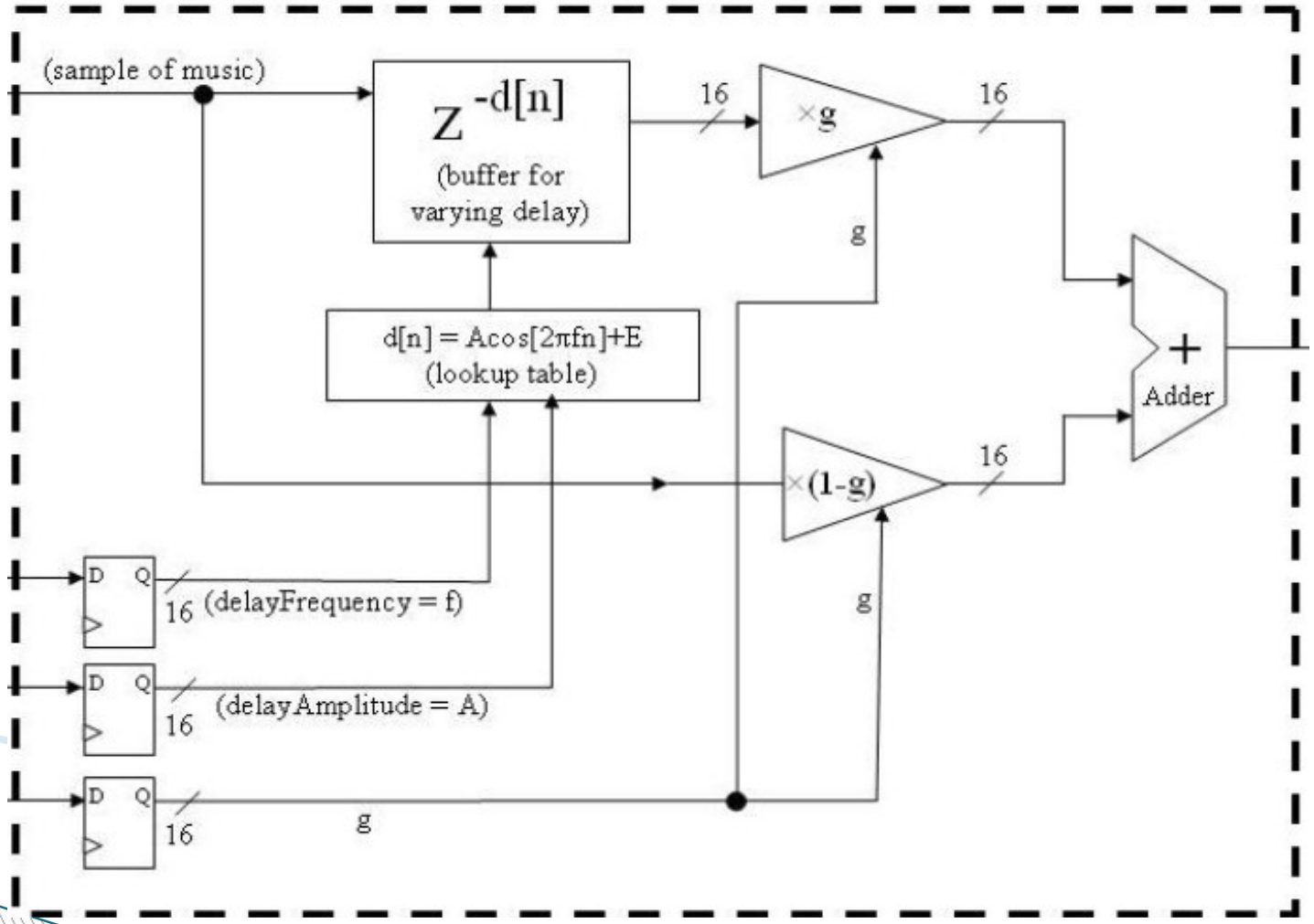
Chorus

- Chorus is a kind of delay by which the delay time is modulated.

- A mix processing of original and modulated sound



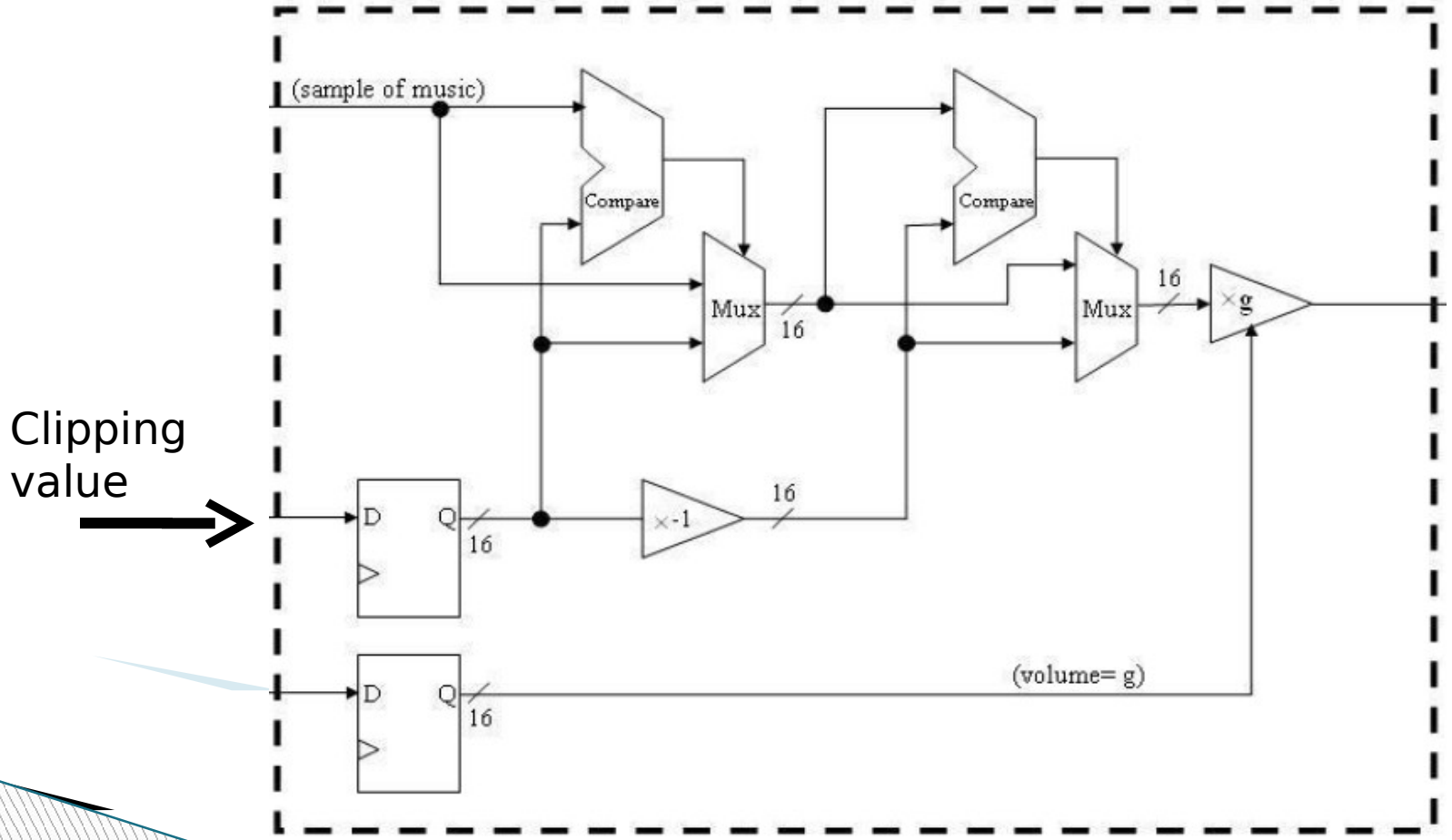
Chorus Block Diagram



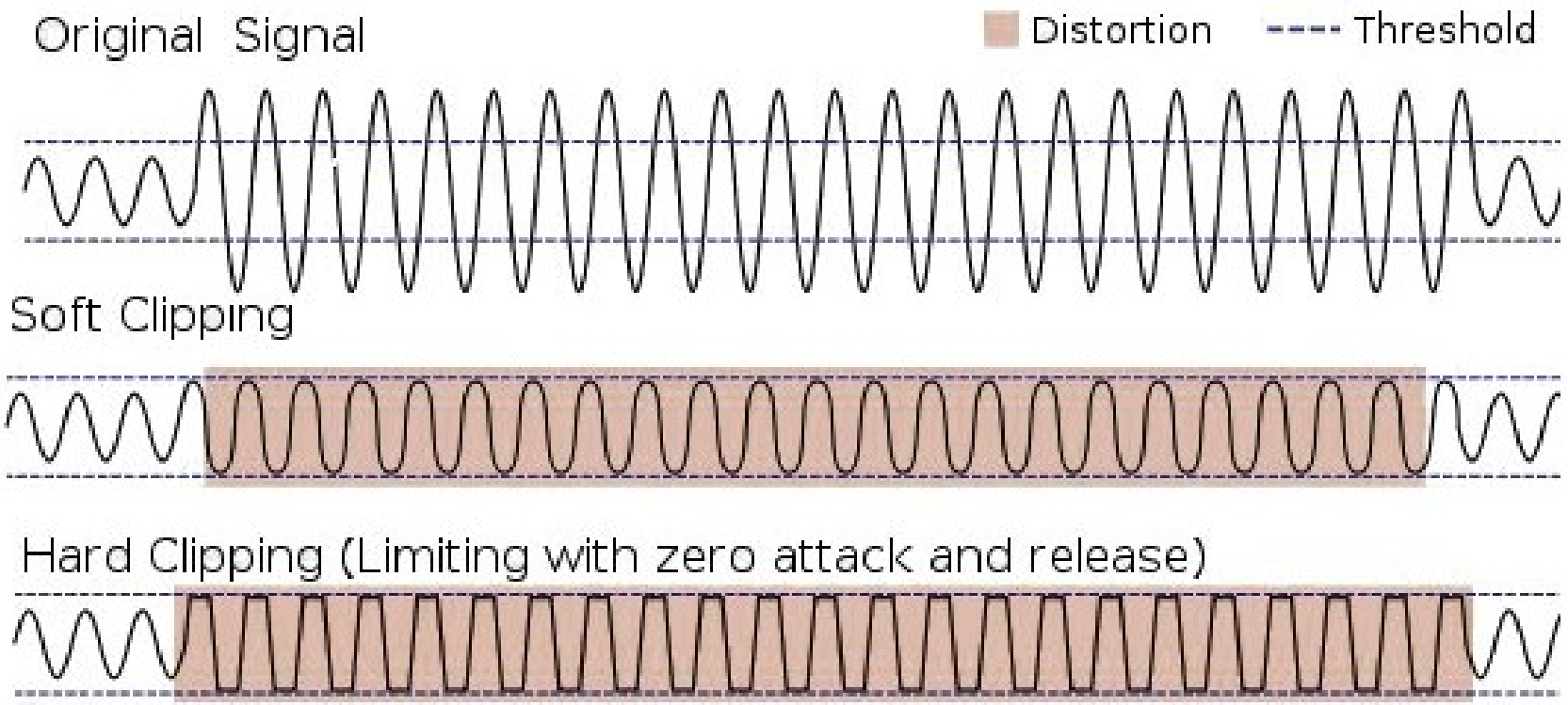
Distortion

- Distortion can be created by compressing the peak of sound waveform.

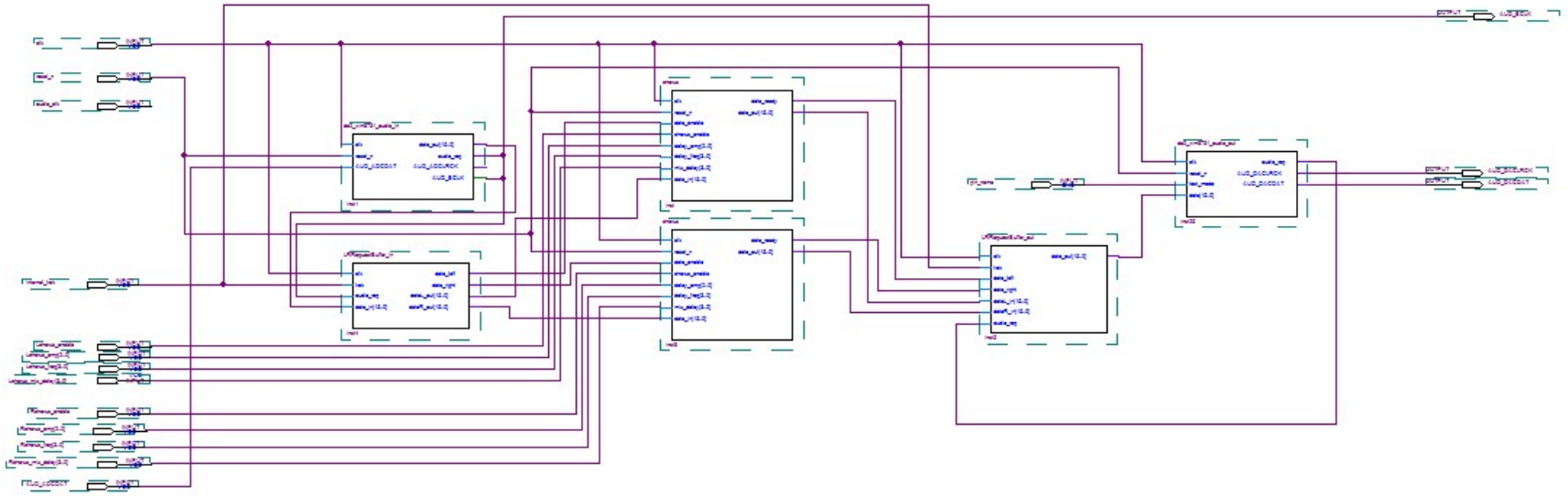
Distortion Block Diagram



Distortion waveform



Guitar effect block diagram



Result

- Chorus effect

- Thank you!

Any Questions?