Creating an FM transmitter on FPGA with Python/Amaranth

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slides and references at
https://github.com/oscimp/amaranth_twstft

Outline

1. FM Modulation

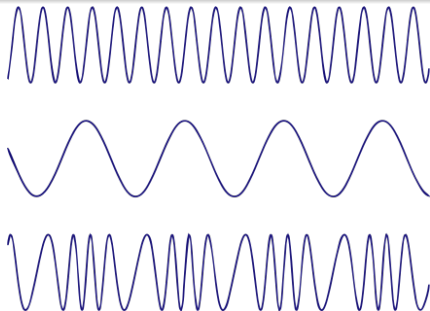2. Amaranth implementation of the FM transmitter

Outline

FM modulation concept

- Radio signal carrying information through the variations of its frequency

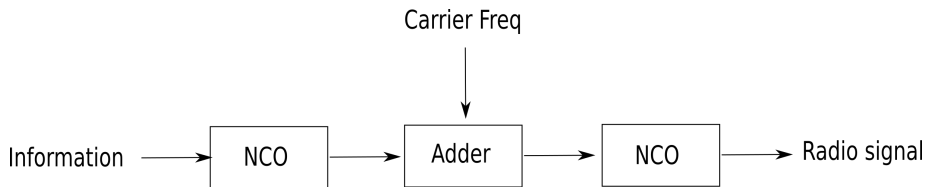$$sig(t) = A\sin\left(\omega_{carrier}t + \delta\sin\left(\omega_{modulating}t\right)\right)$$

Outline

Architecture to describe

In the end...

- FM modulation principle
- Describing a FPGA version of an FM transmitter