ISI

Outline

The new Intersymbol interference (ISI) experiment consists of expanding the ISI experiment and the crosstalk experiment on the original board. ISI distortion is a result of previous symbols interfering with the current symbol. Crosstalk is another form of signal distortion that happens when the nearby traces interfere with each other. Since often there are multiple factors that may affect signals simultaneously our focus is to provide with an experiment that will allow to show each type of interference individually and simultaneously. The experiment will have more than one way of introducing timing and patterns signals to it.

The new ISI experiment consists of expanding the ISI experiment and the crosstalk experiment on the original board. We will include on the board a clock and a LSFR to generate the patterns needed to do the experiment and analyze interesting patterns.

Because the LSFR is constantly changing a oscilloscope with persistence mode is needed to observe the changes. Since one the goal is to provide an experiment accessible to all levels we added inputs where the LSFR can be omitted and the experiment can be done using the a function generator to observe the patterns.