

1-D median filter using LV FPGA

Median filter is a common non-linear filter for signal processing. It is often used to eliminate the noise in images or other signals, especially the speckle noise or salt and pepper noise. The median filter will smooth the signal while reducing the noise. Since it is a non-linear filter, we can't simply exchange a median filter with the downstream processing step, thus, we have to do it on the FPGA target to save the calculation on host PC. This example shows a prototype of 1-D median filter on FPGA.

The filter will filter the signal point by point, and the "Host test.vi" compares the filter on FPGA and the filter on host to verify the result. The filter in the example is configured as follow: window length is 11, input data type is I24.3.

If you have any problem to run this example or want a reconfigurable median filter, please contact the author.

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