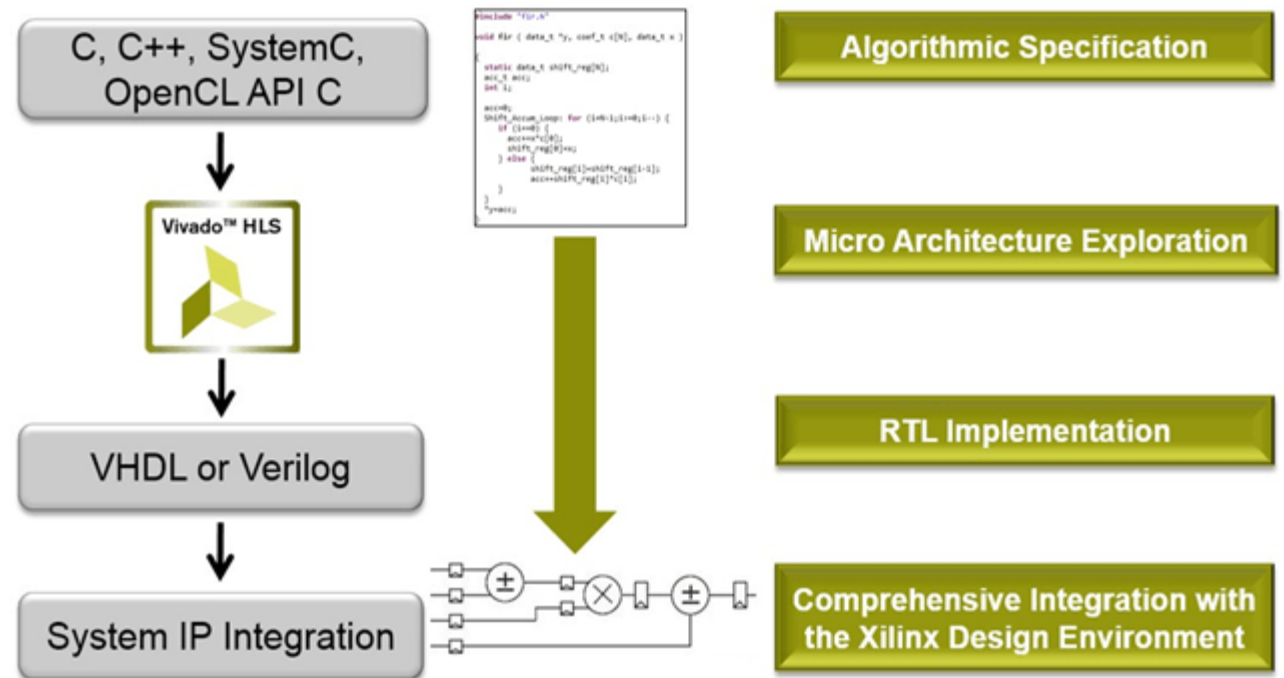


# Vivado HLS: up/down converters, IQ frequency and phase modulation

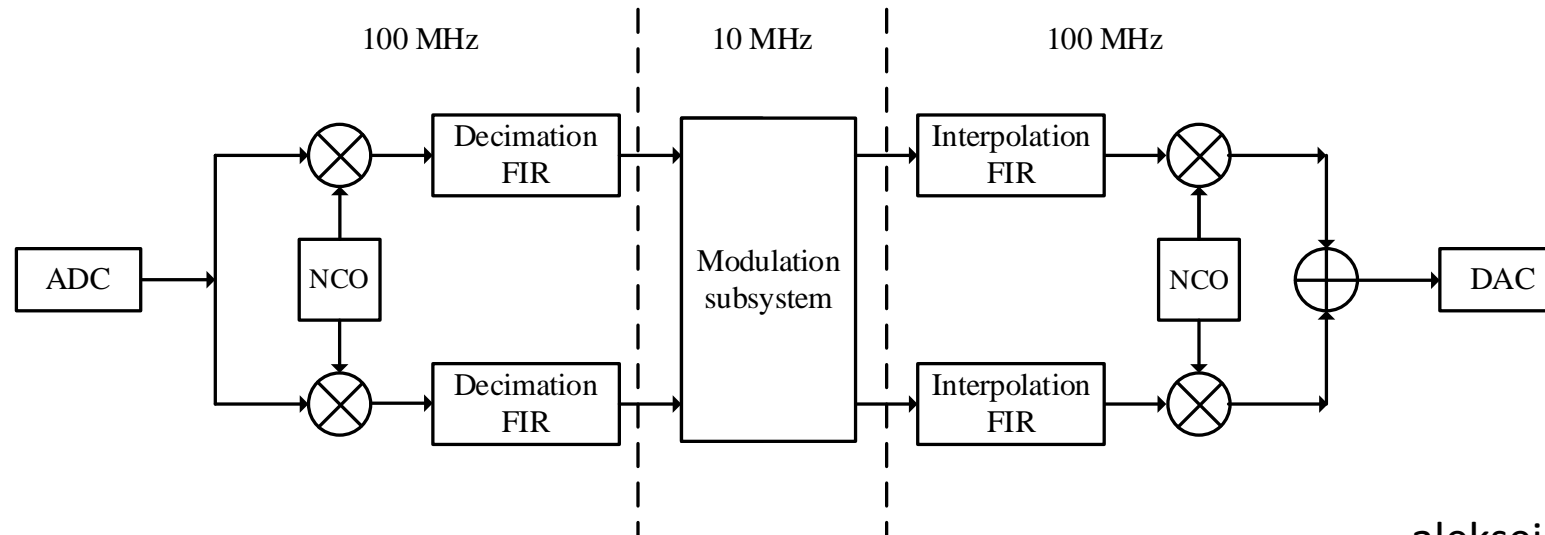
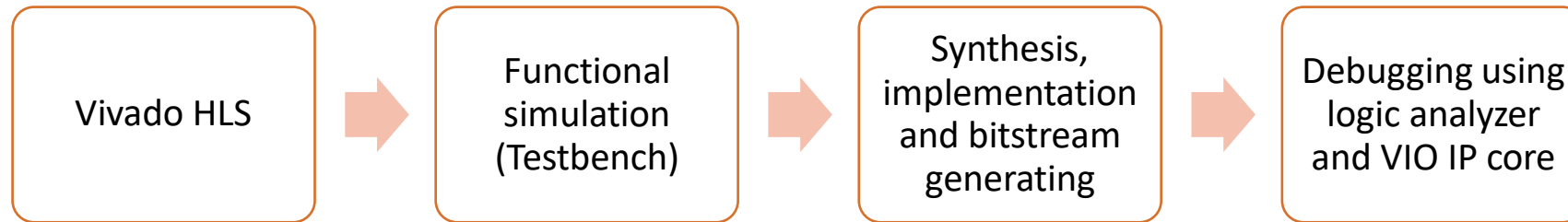
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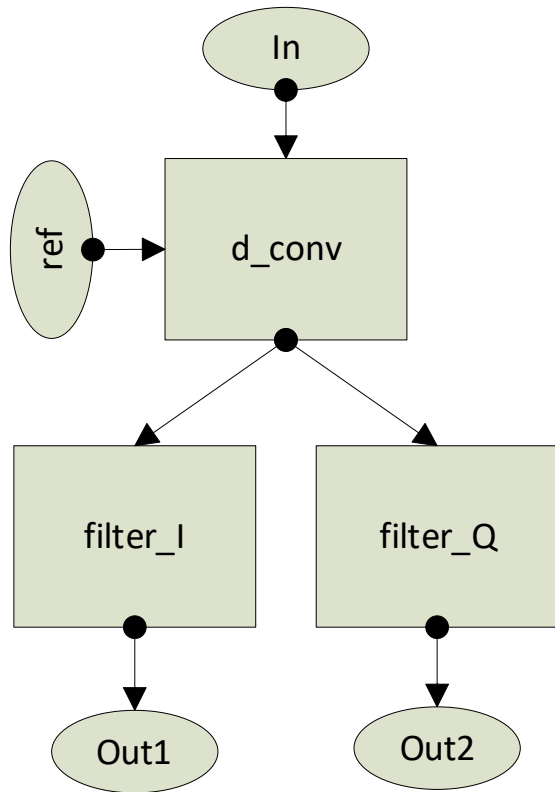
# AGENTA

1. Vivado HLS: up/down converter, frequency/phase modulator
2. HDL design and implementation (Verilog) of digital system

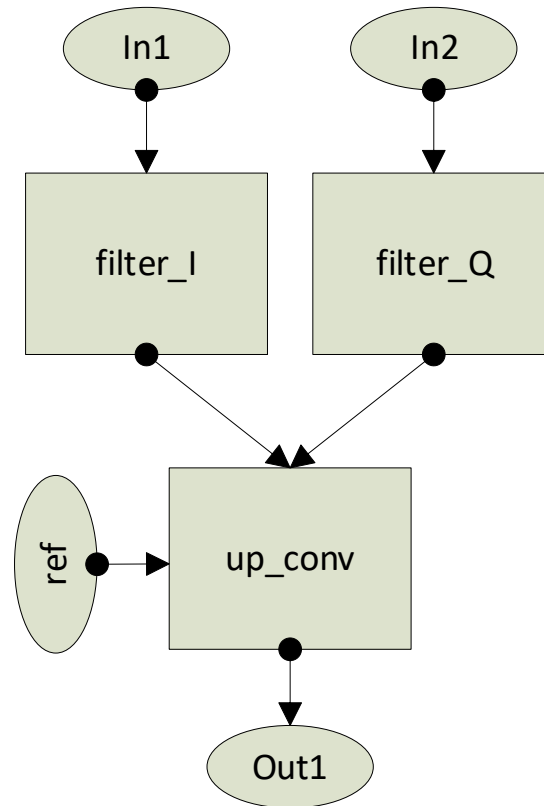
## DESIGN FLOW



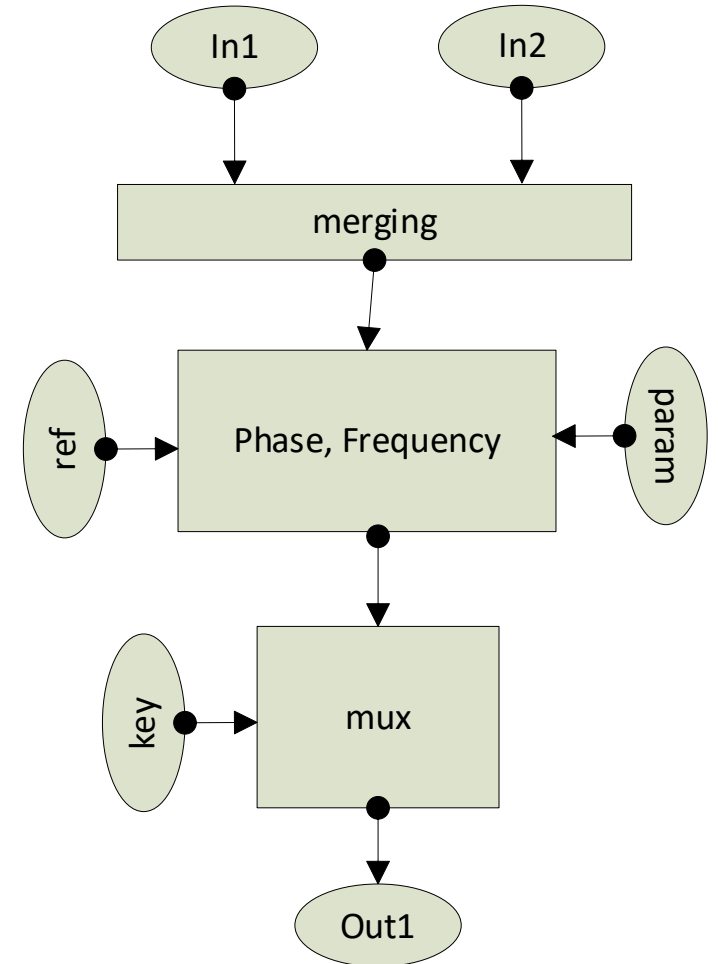
# Vivado HLS modules: simulation, optimization, IP exporting



IQ demodulator



IQ modulator



Frequency, Phase modulator

# Hardware design with Vivado HLS IP cores

