Transpose Architecture

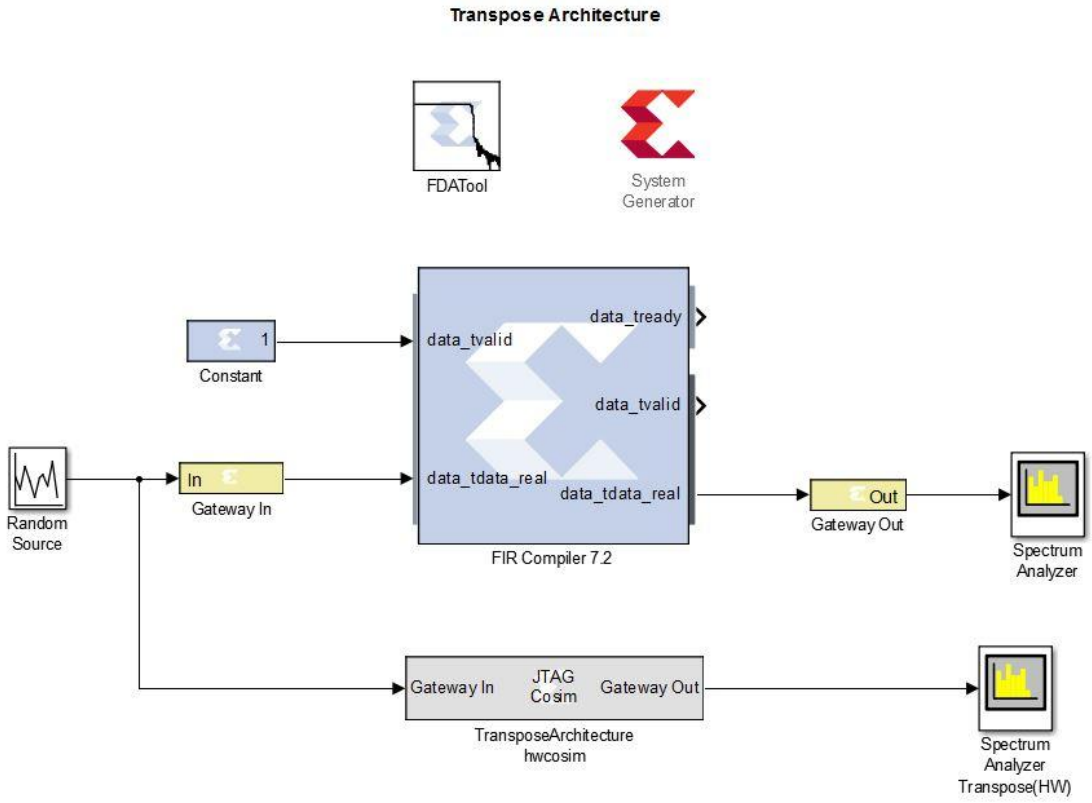


Figure 1: Transpose Architecture Design

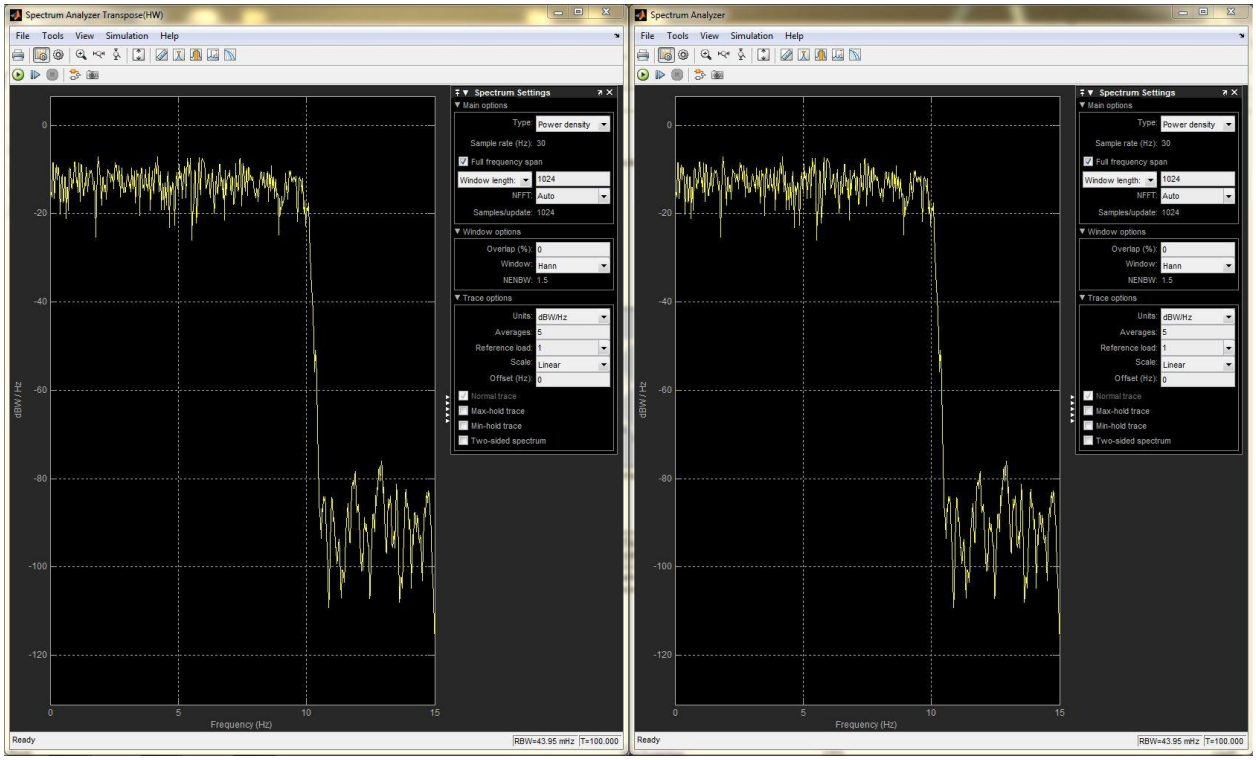
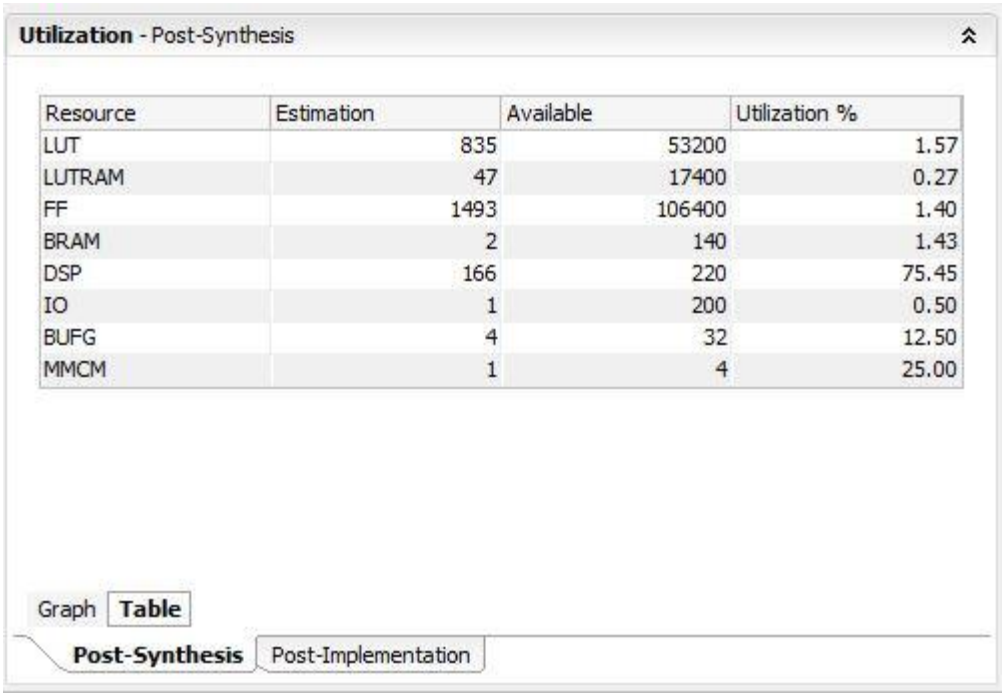


Figure 2: Frequency Response of LPF with or without Hardware.



Resource	Estimation	Available	Utilization %
LUT	835	53200	1.57
LUTRAM	47	17400	0.27
FF	1493	106400	1.40
BRAM	2	140	1.43
DSP	166	220	75.45
IO	1	200	0.50
BUFG	4	32	12.50
MMCM	1	4	25.00

Figure 3: Post Synthesis Hardware Utilization (Table)

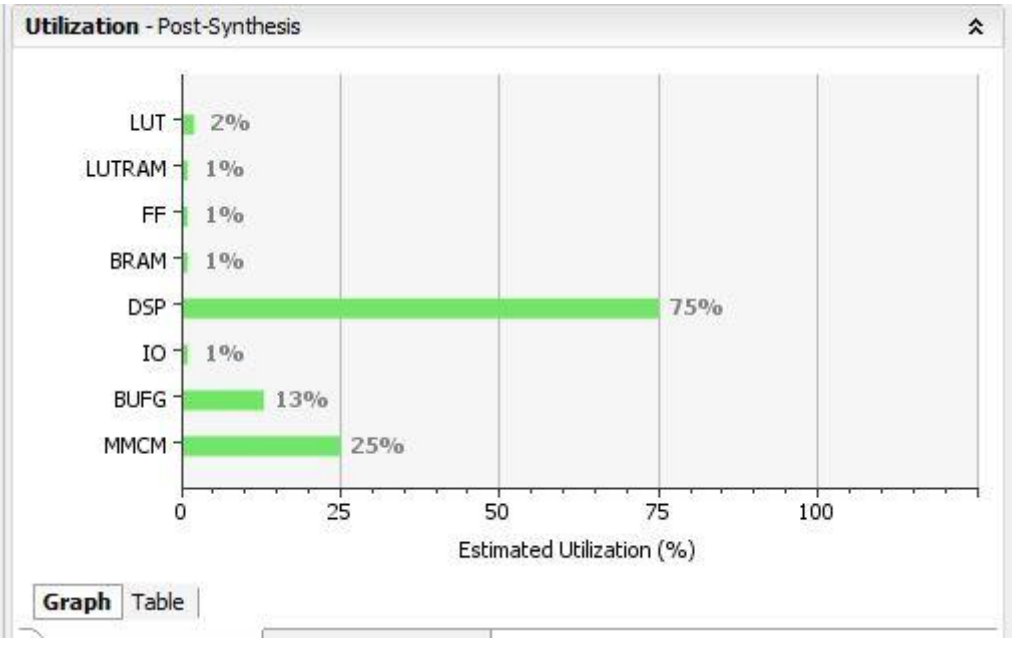
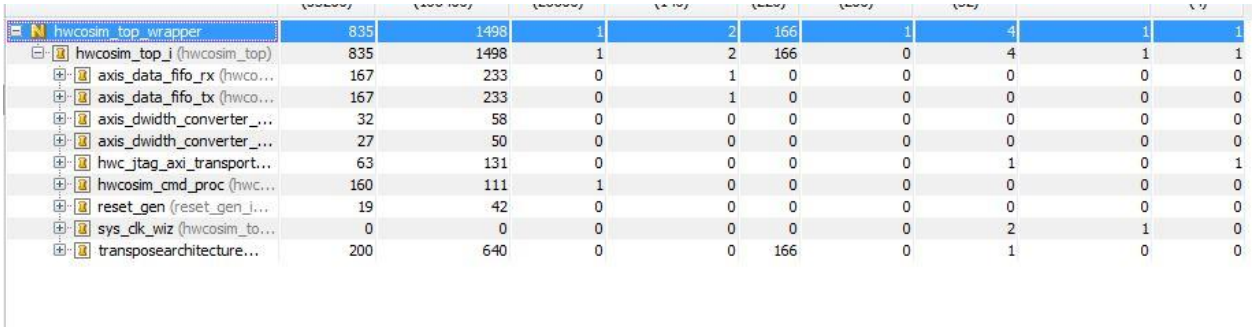


Figure 4: Post Synthesis Hardware Utilization (Graph)



hwcosim_top_wrapper	835	1498	1	2	166	1	4	1	1
hwcosim_top_i (hwcosim_top)	835	1498	1	2	166	0	4	1	1
axis_data_fifo_rx (hwco…	167	233	0	1	0	0	0	0	0
axis_data_fifo_tx (hwco…	167	233	0	1	0	0	0	0	0
axis_dwidth_converter_…	32	58	0	0	0	0	0	0	0
axis_dwidth_converter_…	27	50	0	0	0	0	0	0	0
hwc_jtag_axi_transport…	63	131	0	0	0	0	1	0	1
hwcosim_cmd_proc (hwc…	160	111	1	0	0	0	0	0	0
reset_gen (reset_gen_i…	19	42	0	0	0	0	0	0	0
sys_clk_wiz (hwcosim_to…	0	0	0	0	0	0	2	1	0
transposearchitecture…	200	640	0	0	166	0	1	0	0

Figure 5: Hardware Utilization Report