

9. 0.500087, 2301

13. 21447.035 μm^2 , 728ps

19. 3.66608 x 10⁻³ W

24. 20686.788 μm^2 , 0ps

29. 1.95052 x 10⁻³ W

30. many of flip-flops are clock gated

40. 3.35192 x 10⁻³ W

report.power					
~/lab08/Exercise/Synthesis					
Instance: /SET					
Power Unit: W					
PDB Frames: /stim#0/frame#0					
Category	Leakage	Internal	Switching	Total	Row%
memory	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
register	7.52493e-07	1.35986e-03	1.49707e-04	1.51032e-03	45.06%
latch	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
logic	2.43493e-06	7.72648e-04	9.84325e-04	1.75941e-03	52.49%
bbox	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
clock	0.00000e+00	0.00000e+00	8.21930e-05	8.21930e-05	2.45%
pad	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
pm	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
Subtotal	3.18742e-06	2.13251e-03	1.21622e-03	3.35192e-03	100.00%
Percentage	0.10%	63.62%	36.28%	100.00%	100.00%

42. $1.67130 \times 10^{-3} \text{ W}$

report.power					
~/lab08/Exercise/Synthesis					
Instance: /SET					
Power Unit: W					
PDB Frames: /stim#0/frame#0					
Category	Leakage	Internal	Switching	Total	Row%
memory	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
register	7.87273e-07	8.66957e-04	7.31805e-05	9.40925e-04	56.30%
latch	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
logic	2.02932e-06	2.21015e-04	3.32121e-04	5.55165e-04	33.22%
bbox	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
clock	7.05780e-08	9.24613e-05	8.26743e-05	1.75206e-04	10.48%
pad	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
pm	0.00000e+00	0.00000e+00	0.00000e+00	0.00000e+00	0.00%
Subtotal	2.88717e-06	1.18043e-03	4.87976e-04	1.67130e-03	100.00%
Percentage	0.17%	70.63%	29.20%	100.00%	100.00%

43. many of flip-flops are clock gated

report.clock_gating			
~/lab08/Exercise/Synthesis			
Generated by: Genus(TM) Synthesis Solution 20.10-p001_1			
Generated on: Apr 26 2023 11:18:37 pm			
Module: SET			
Technology libraries: slow 1.0			
physical_cells			
Operating conditions: slow			
Interconnect mode: global			
Area mode: physical library			
Summary			
Category	Number	%	Average Toggle Saving %
Total Clock Gating Instances	15	100.00	-
RC Clock Gating Instances	15	100.00	43.06
Non-RC Clock Gating Instances	0	0.00	0.00
RC Gated Flip-flops	106	69.28	51.61
Non-RC Gated Flip-flops	0	0.00	0.00
Total Gated Flip-flops	106	69.28	-
Total Ungated Flip-flops	47	30.72	-
Enable not found	40	85.11	-
Register bank width too small	7	14.89	-
Total Flip-flops	153	100.00	-
Multibit Flip-flop Summary			
Width	Number	Bits	RC Gated Ungated
1-bit	153	153	106 (69.28%) 47 (30.72%)