

Part 1					
Wp = 2.869um					
rise	= 1.131154e-09 targ= 6.559129e-09 trig= 5.427975e-09				
delay	= 6.544815e-10 targ= 1.090675e-08 trig= 1.025227e-08				
fall	= 1.131290e-09 targ= 1.583901e-09 trig= 4.526109e-10				
Part 2					
Cases	Body Bias NMOS	Body Bias PMOS	Peak Charging Current	Peak Discharging Current	Delay Time
1	0.3 V	3.0 V	-4.34E-19	4.33E-19	1.40E-10
2	0.1 V	3.2 V	-4.34E-19	4.33E-19	1.37E-10
3	0V	3.3 V	-4.34E-19	4.33E-19	1.35E-10
4	-0.5 V	3.8 V	-4.34E-19	2.17E-19	1.23E-10
5	-1.0 V	4.3 V	-2.17E-19	2.17E-19	1.16E-10
Part 3					
Case 1	NMOS	As the body bias is greater than 0V, it will take higher voltage values to turn on NMOS			
	PMOS	As the body bias is lower than 3.3V, it will take lower voltage values to turn on PMOS			
Case 2	NMOS	As the body bias is just larger than 0V, it will take slightly higher inputs to turn on NMOS			
	PMOS	As the body bias is just smaller than 3.3V, it will take slightly lower inputs to turn on NMOS			
Case 4	NMOS	As the body bias is less than 0V, it will take lower values of inputs to turn on NMOS			
	PMOS	As the body bias is larger than 3.3V, it will take higher values of inputs to turn on PMOS			
Case 5	NMOS	As the body bias is very low as compared to 0V, it will take very low values of inputs to turn on NMOS			
	PMOS	As the body bias is very high as compared to 3.3V, it will take very high values of inputs to turn on NMOS			
Part 4					
Case 2 will be the best substrate voltages for NMOS and PMOS in the low power mode when performance is not the main criteria					

Charging Current vs Cases

Cases	Charging Current
1	-4.34E-19
2	-4.34E-19
3	-4.34E-19
4	-4.34E-19
5	-2.17E-19

Discharging Current vs Cases

Cases	Discharging Current
1	4.33E-19
2	4.33E-19
3	4.33E-19
4	2.17E-19
5	2.17E-19

Delat Time vs Cases

Cases	Delat Time
1	1.40E-10
2	1.37E-10
3	1.35E-10
4	1.23E-10
5	1.16E-10

