

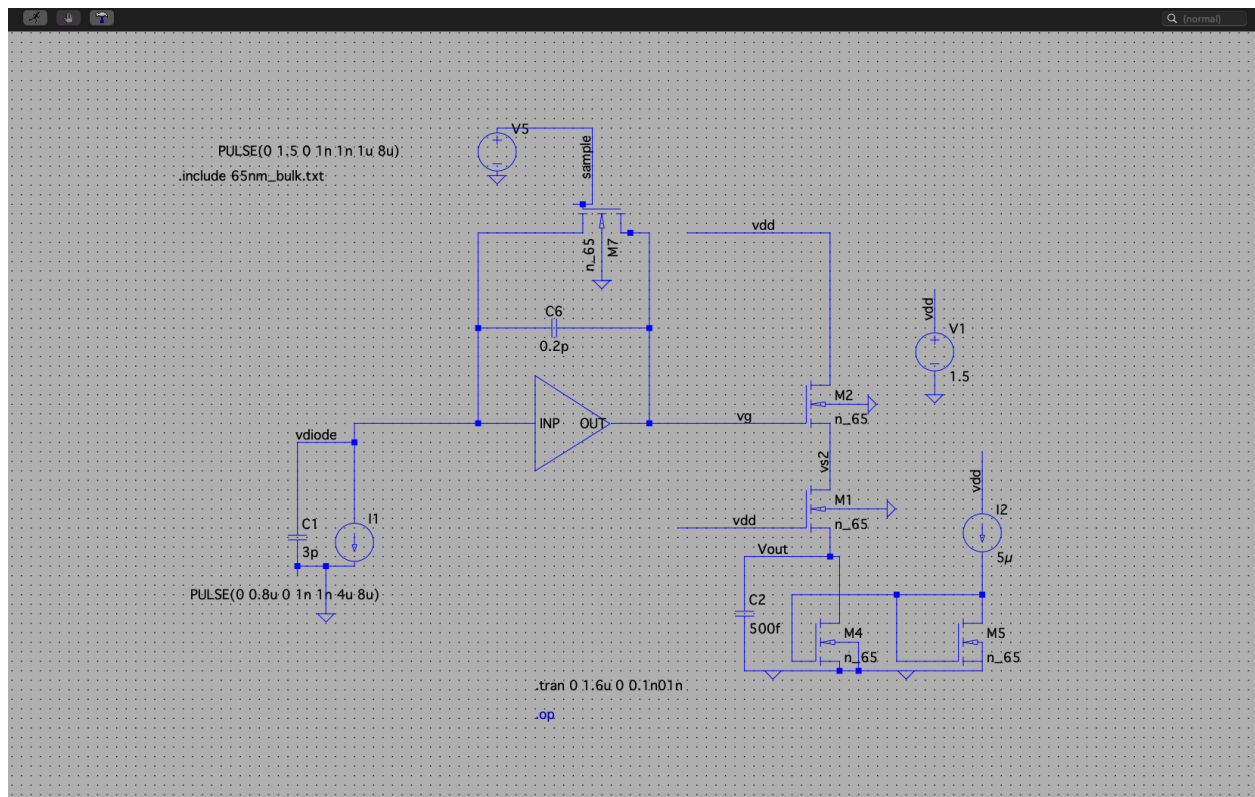
VLSI Summer School Project Documentation 2025

Group Member:Krrish Kumar(23EE10033)

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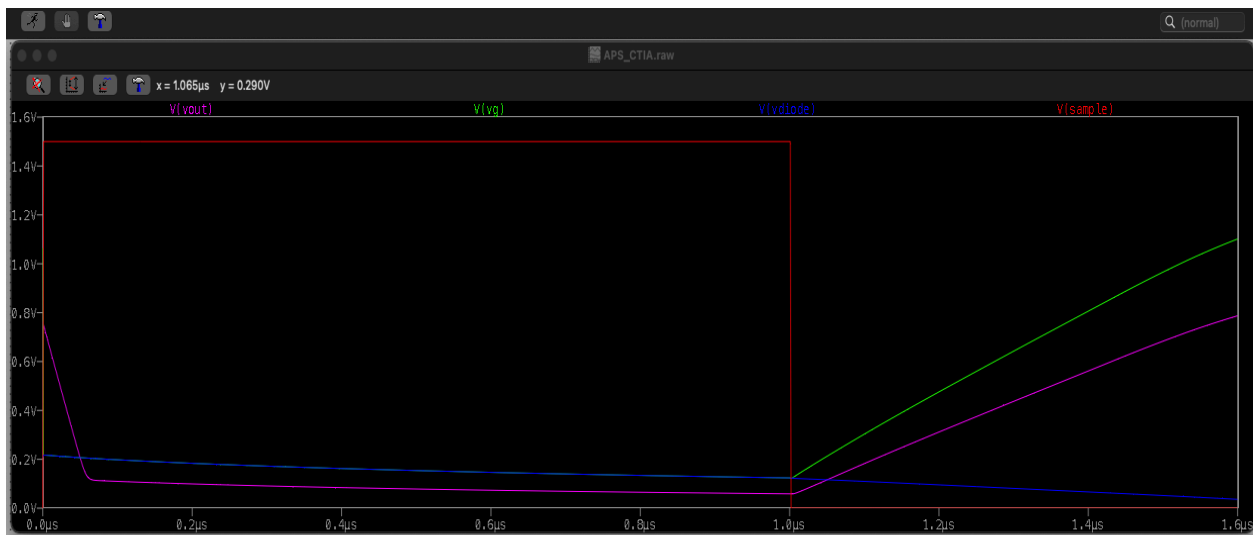
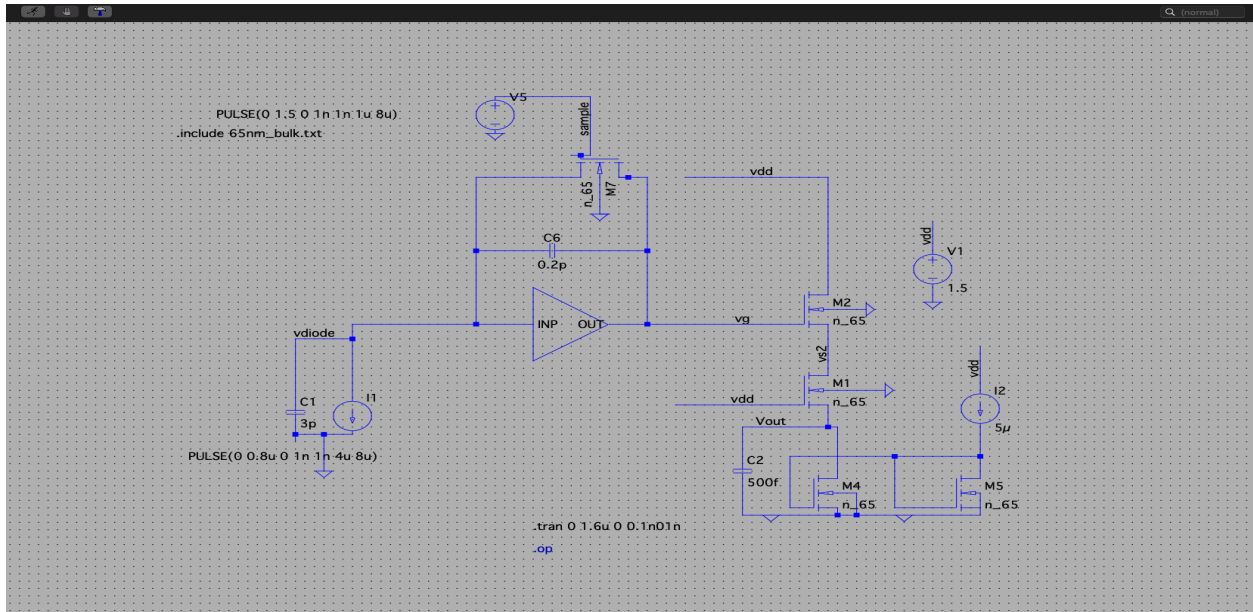
Assignment 4: CTIA APS Simulation

- Circuit Diagram:



Assignment 4: CTIA APS Simulation

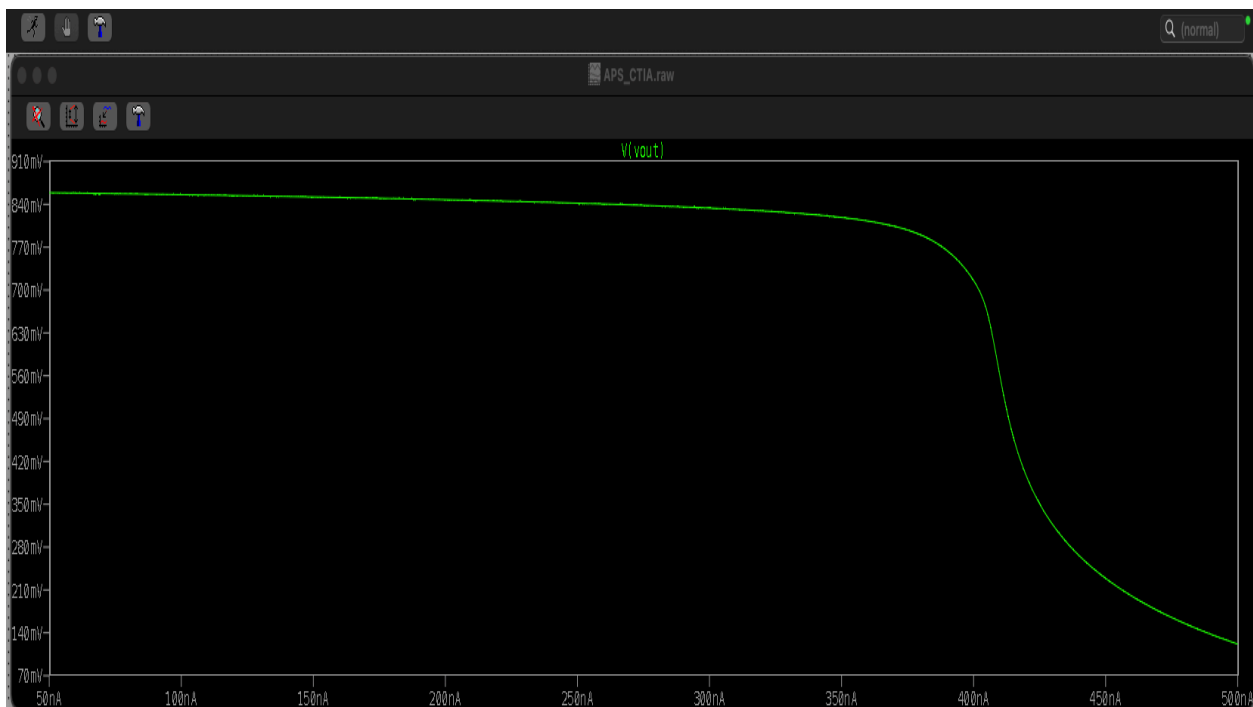
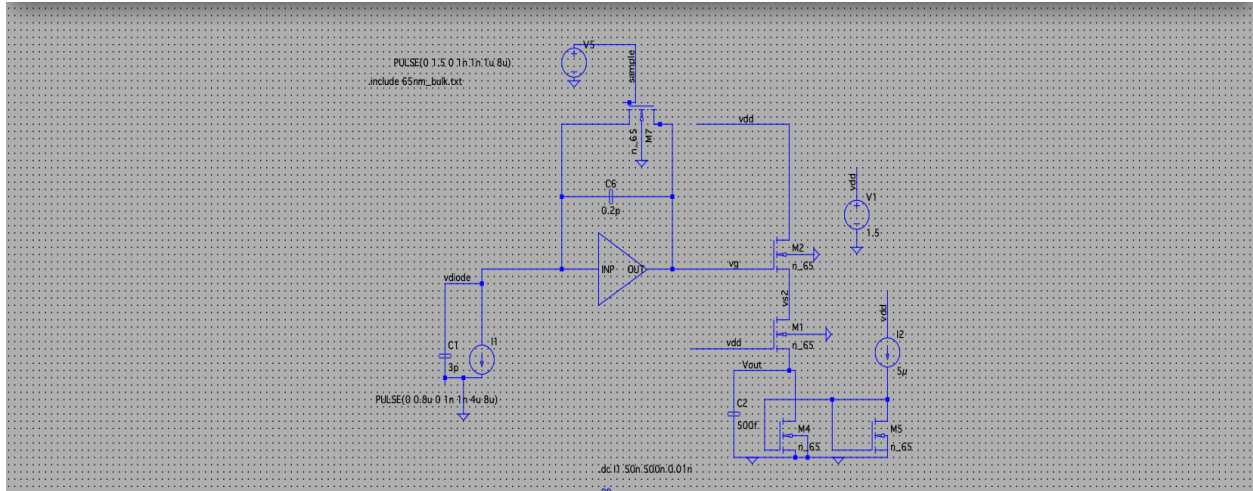
i) Transient analysis:



vout(pink), vsample(red), vg(green), vdiode(blue)

Assignment 4: CTIA APS Simulation

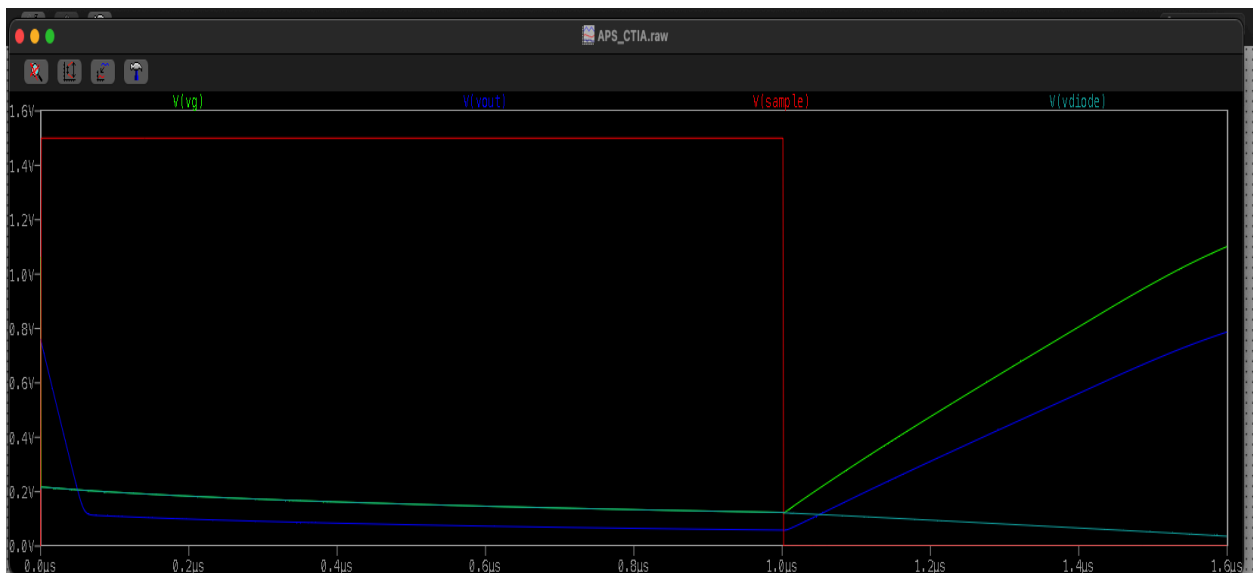
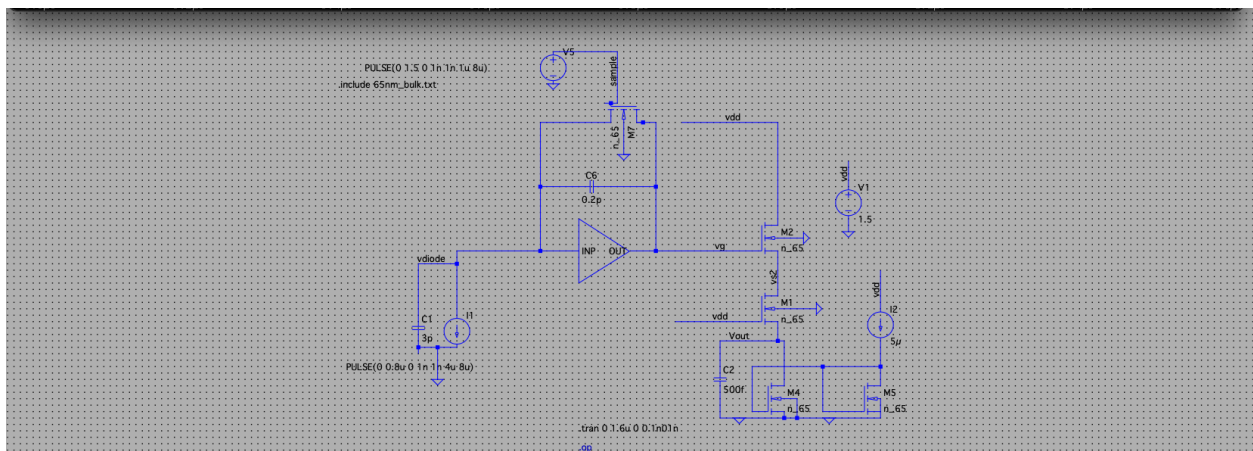
ii) V_{out} vs I_{in} :



Assignment 4: CTIA APS Simulation

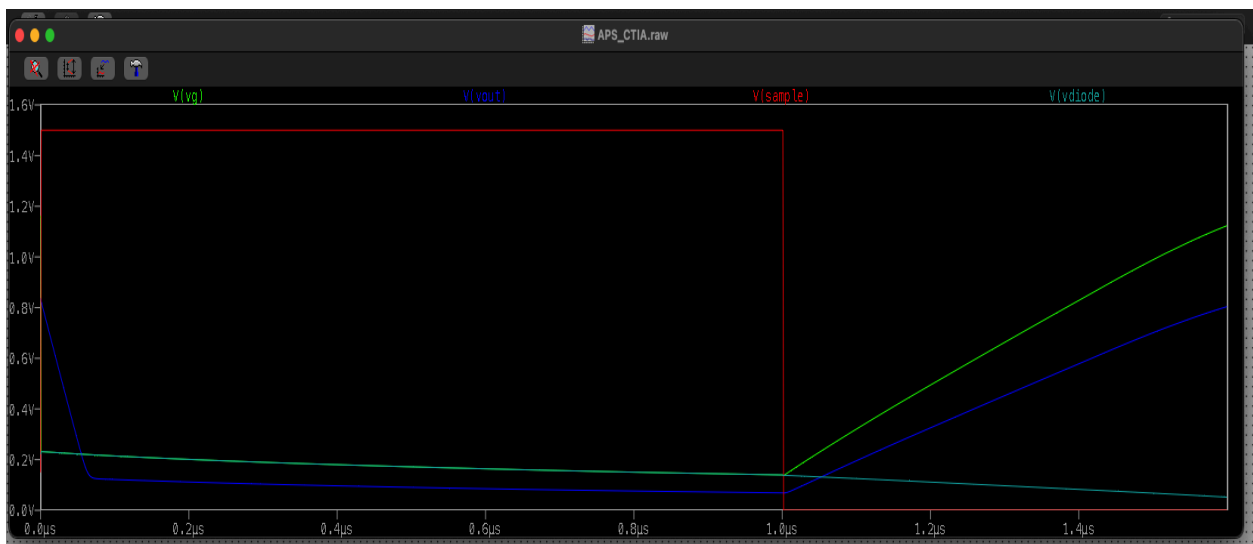
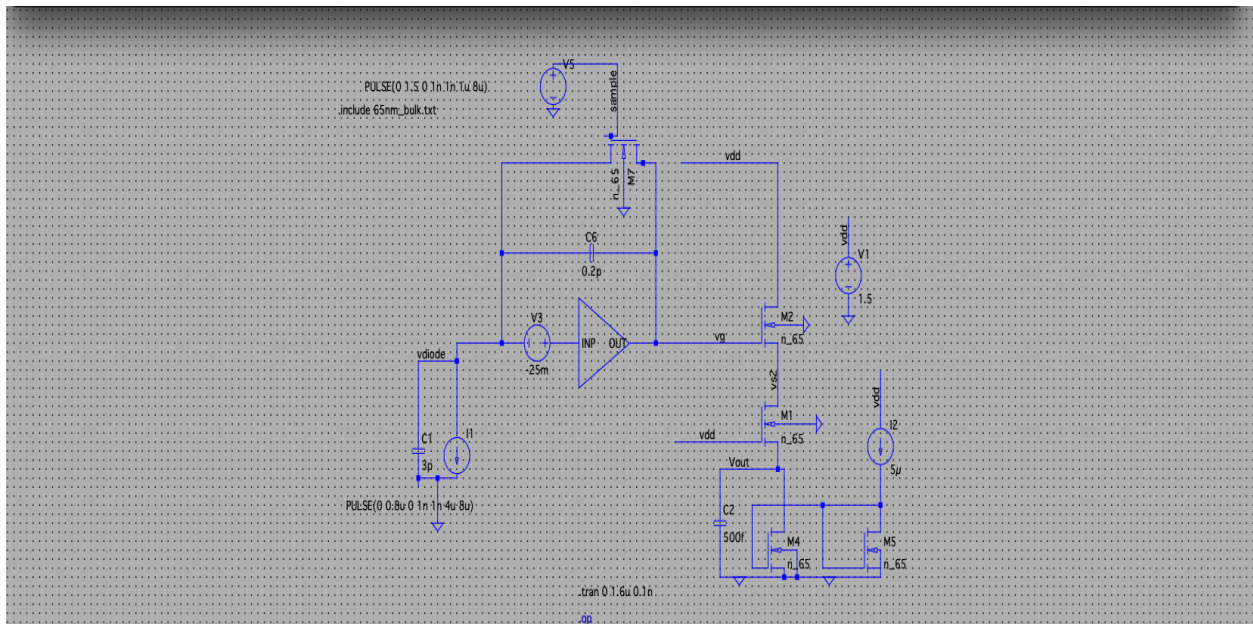
iii) Effect of 25mV change in the V_t of input device on the V_{start} .

- Without addition:



Assignment 4: CTIA APS Simulation

- With -25mV addition to the input signal :



Assignment 4: CTIA APS Simulation

- With +25mV addition to the input signal :

