

Zachary Bakhchi

ECE-241 Final Project Report

NMOS Device Characteristics					
	W	L	# fingers	VDS	VDsat
M0	1 μm	200 nm	2	561.3 mV	150.4 mV
M5	400 nm	60 nm	2	460.4 mV	150.4 mV

PMOS Device Characteristics					
	W	L	# fingers	VDS	VDsat
M4	450 nm	50 nm	2	-338.4 mV	-90.26 mV
M2	1.3 μm	30 nm	2	-453.8 mV	-99.13 mV

Other Device Characteristics	
I ₉	55 μA
I ₁₀	21 μA
Input Capacitor	200 nF
Bias Resistor	1000 Ohm

Circuit Specs	
Decibel Gain	20.6 dB
Power Consumption	74 μW
Output Voltage Headroom	0.660 V
Unity Gain Frequency	940 MHz

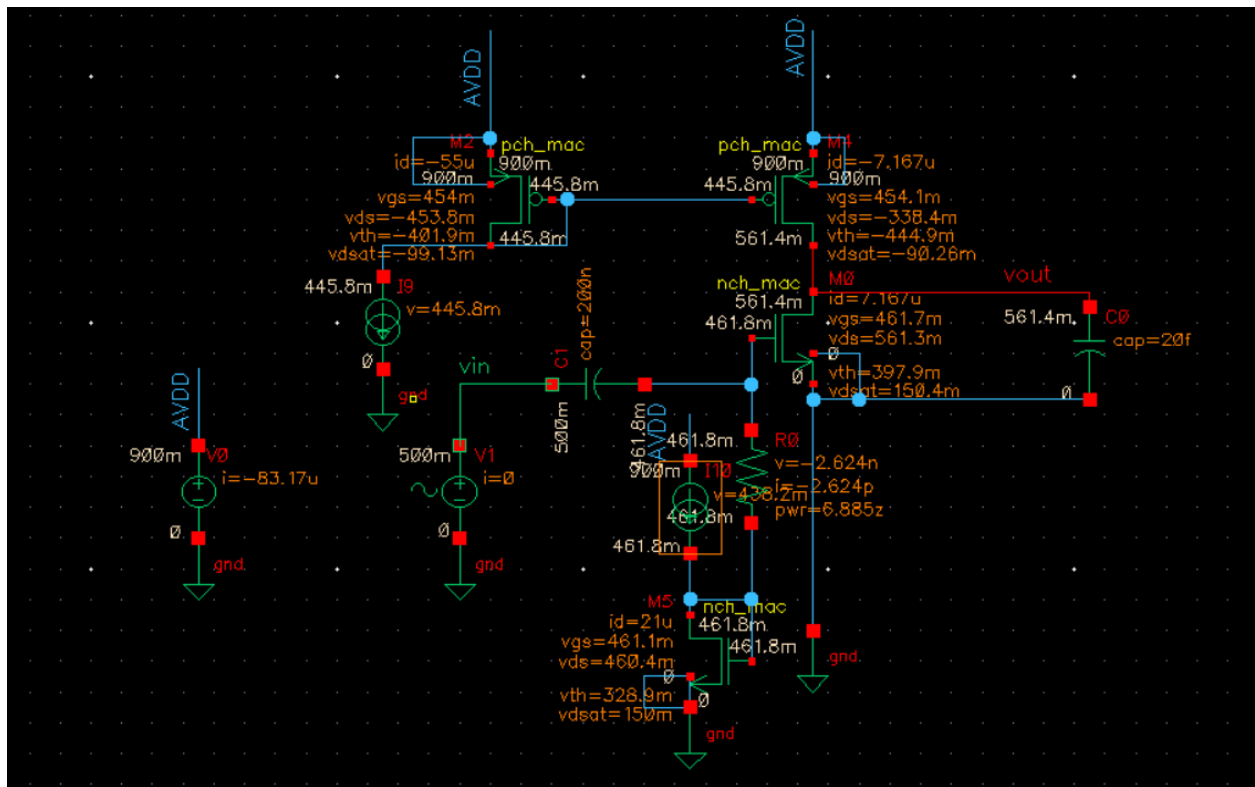


Image 1: Circuit Schematic with DC Operating Points and Node Voltages

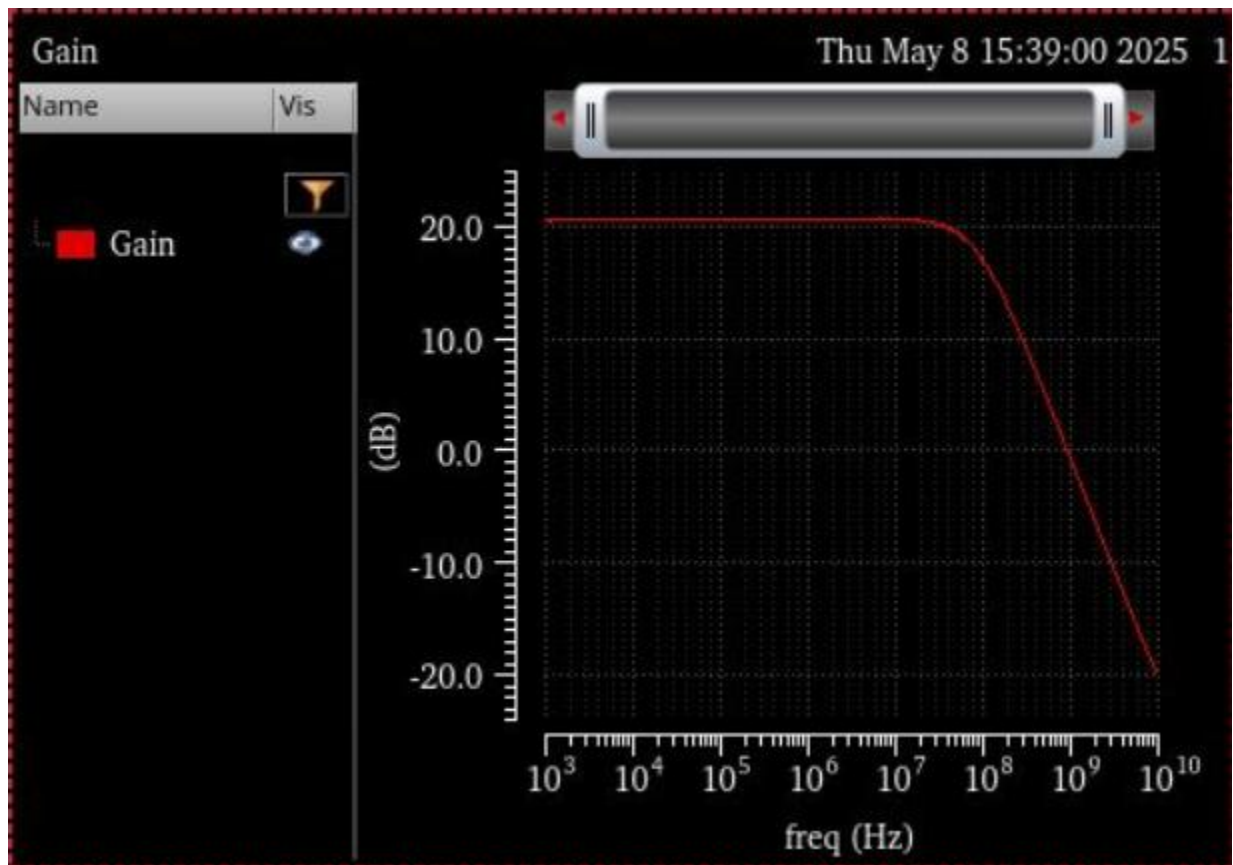


Image 2: Circuit Bode Plot

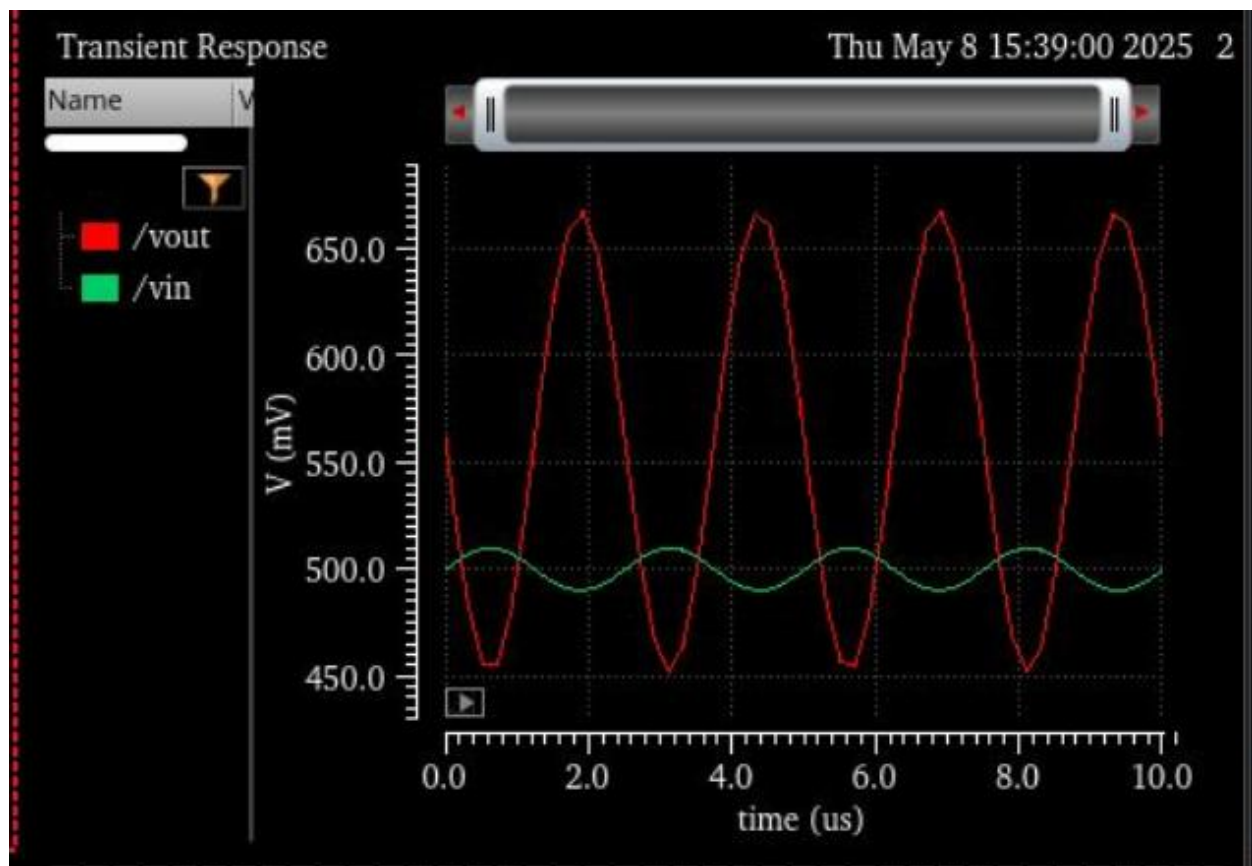


Image 3: Transient Response Simulation