

AMP2N1_50 Amplifier

Dr. Godi Fischer
Department of Electrical Engineering
University of Rhode Island
`fischer@ele.uri.edu`

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Two-Stage CMOS Cascode Amplifier

(Amp2n_50)

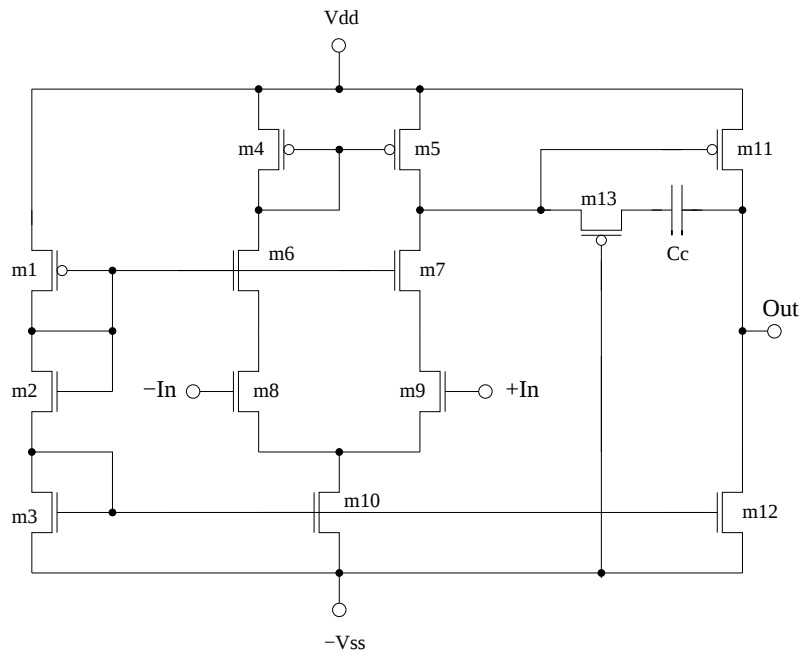


Figure 1: Schematic of the AMP2N1_50

Parameter	Simulated Value
Voltage Swing	$\pm 2.4\text{V}$
Open Loop Gain	90dB
Gain Bandwidth	31.63MHz
Phase Margin	43.8°
Slew Rate @ $C_l=10\text{pF}$	$25 \frac{\text{V}}{\mu\text{s}}$
CMRR @ DC	93dB
CMRR @ AC 100KHz	93dB
PSRR+ @ DC	95dB
PSRR+ @ AC 100KHz	59dB
PSRR- @ DC	101dB
PSRR- @ AC 100KHz	68dB
Power Supply Rails	$\pm 2.5\text{V}$
$I_{V_{ss}}$	.705mA

Table 1: **Various Parameters of the AMP2N1_50 from Simulation**

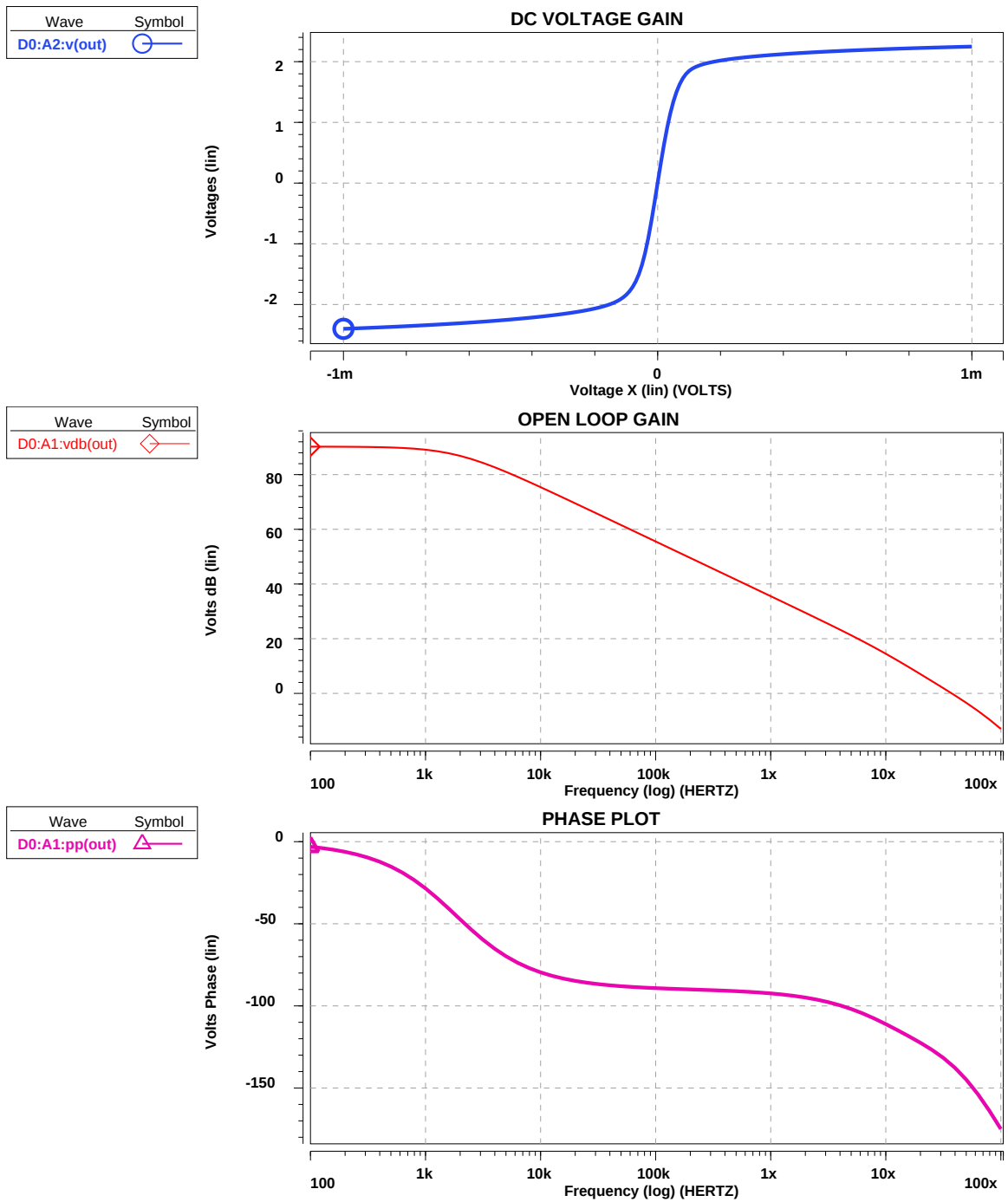


Figure 2: AMP2N1_50 Simulations (a) Voltage Swing (b) Gain (c) Phase Plot

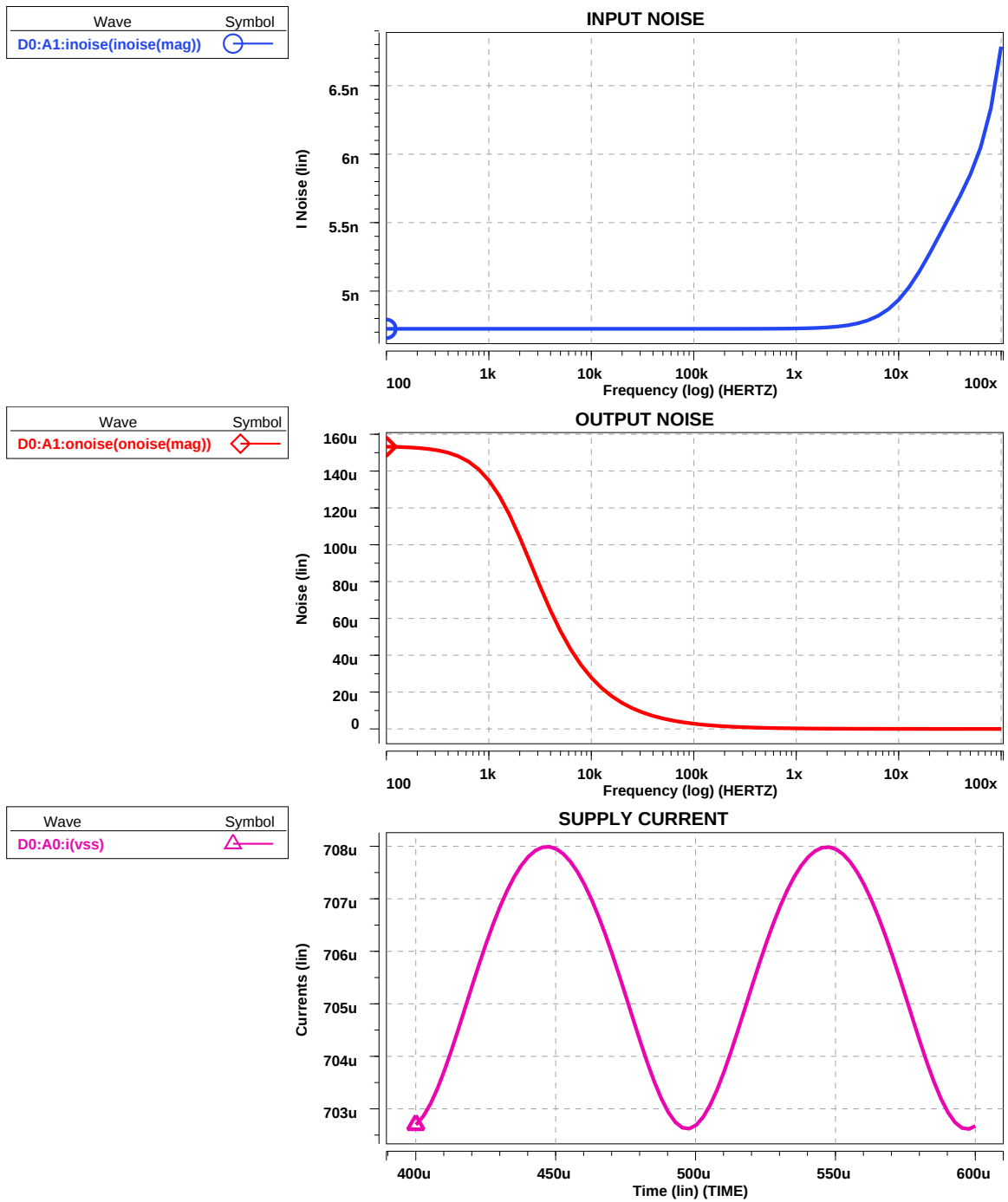


Figure 3: AMP2N1_50 Simulations (a) Input Noise (b) Output Noise (c) Supply Current

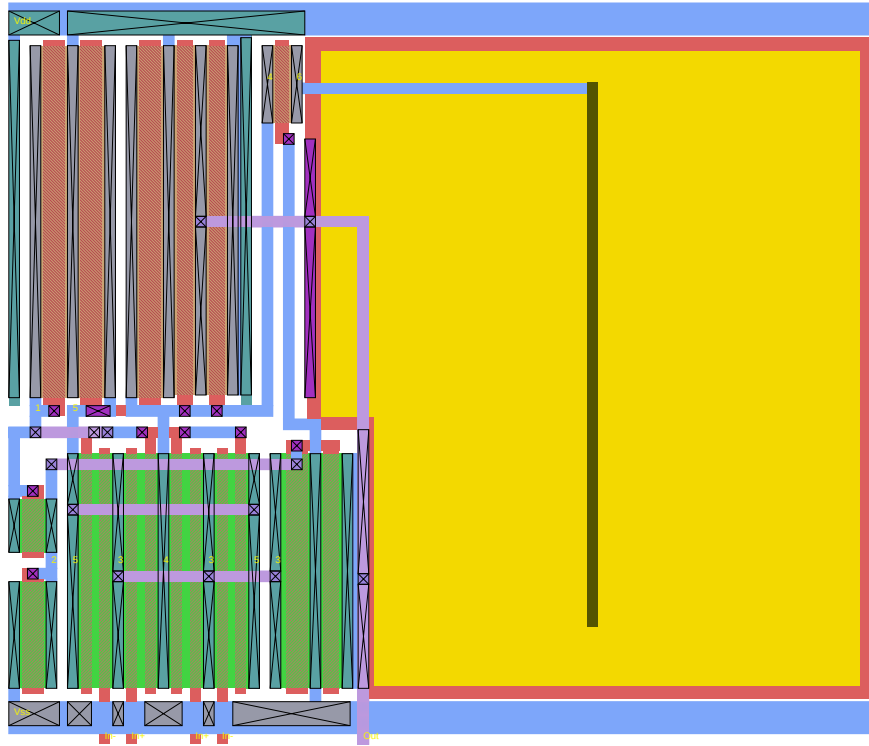


Figure 4: AMP2N1_50 Magic Layout 0.5 μ m Process