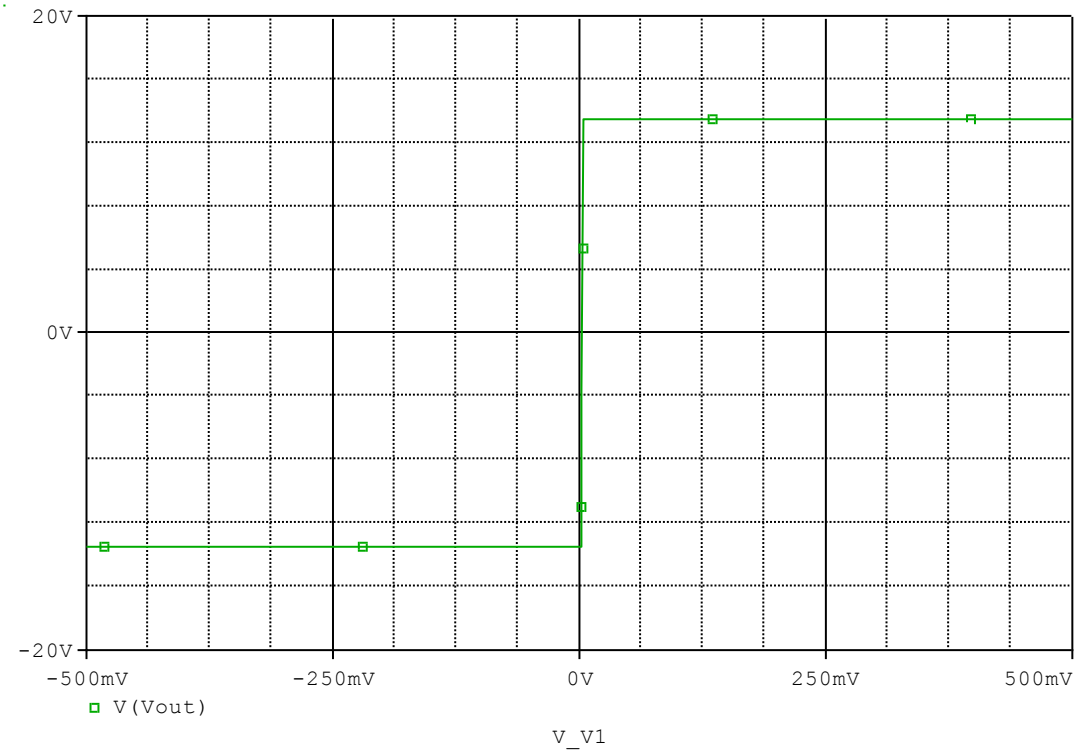
Device Modeling Report

COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: UPC4074C
MANUFACTURER: NEC

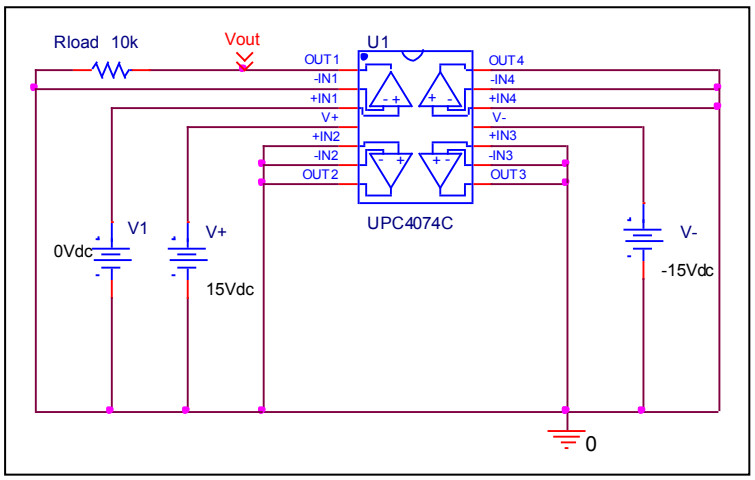
Bee Technologies Inc.

Output Voltage Swing

Simulation result



Evaluation circuit

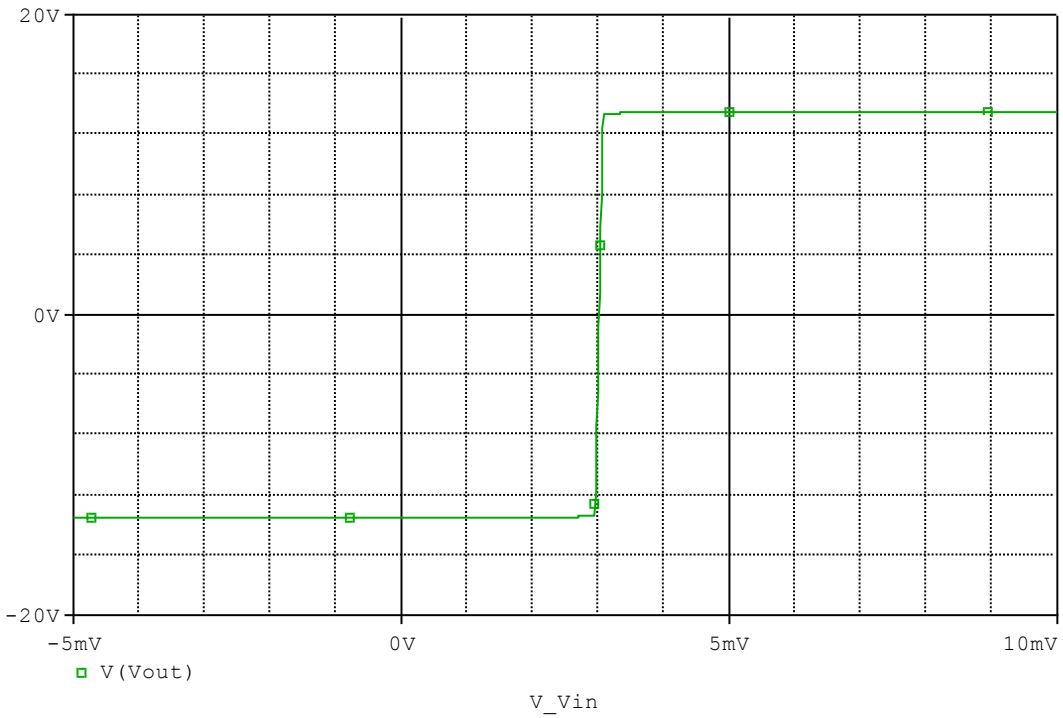


Comparison table

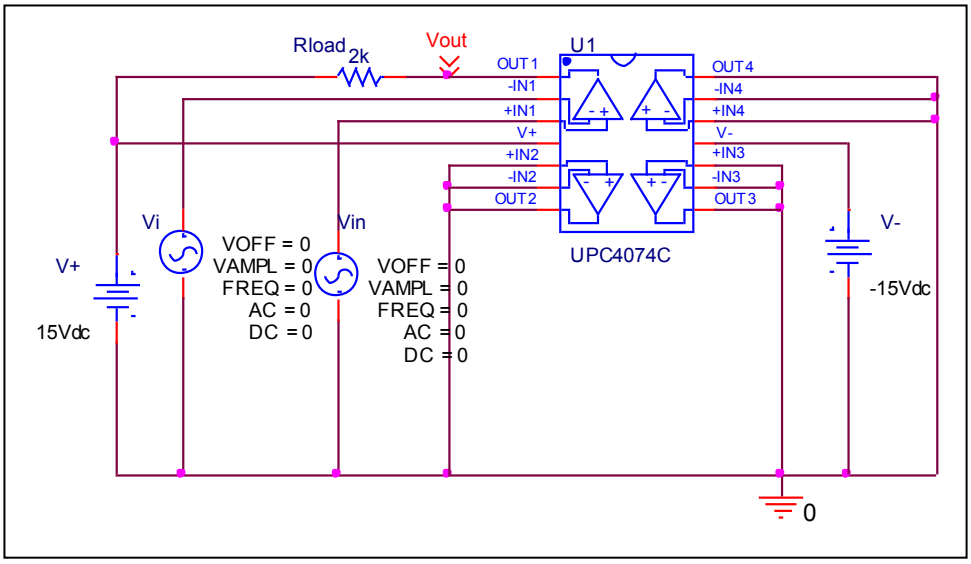
Output Voltage Swing	Measurement	Simulation	%Error
+Vout(V)	13.500	13.499	-0.007
-Vout(V)	-13.500	-13.499	-0.007

Input Offset Voltage

Simulation result



Evaluation circuit

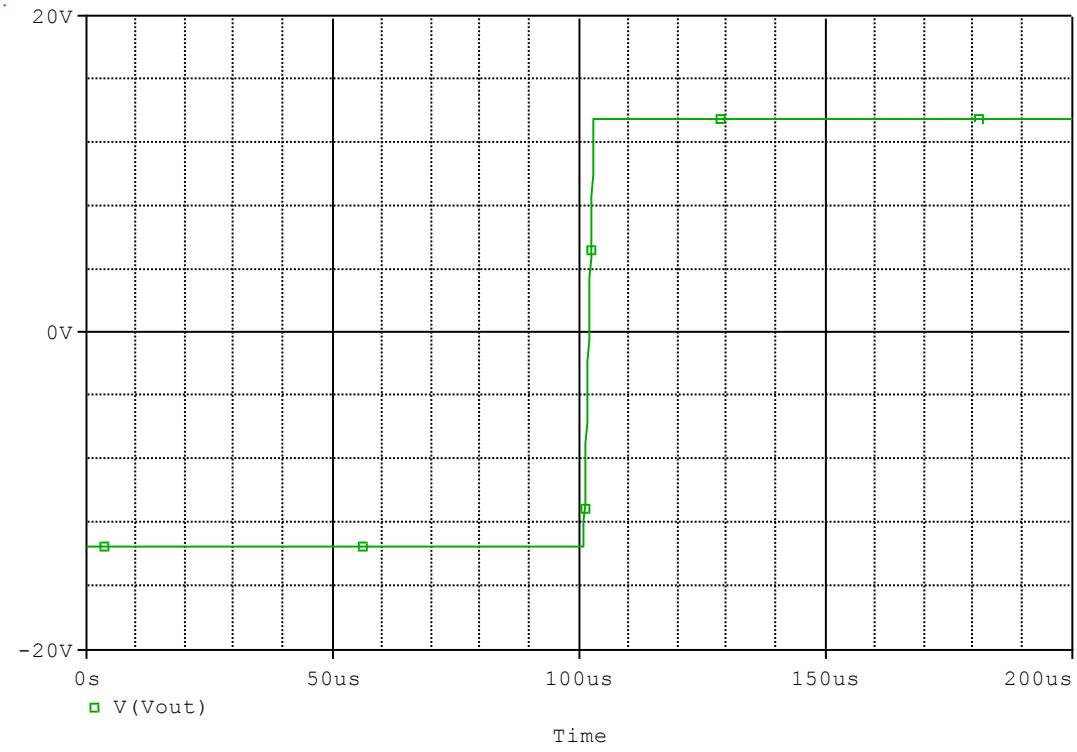


Comparison table

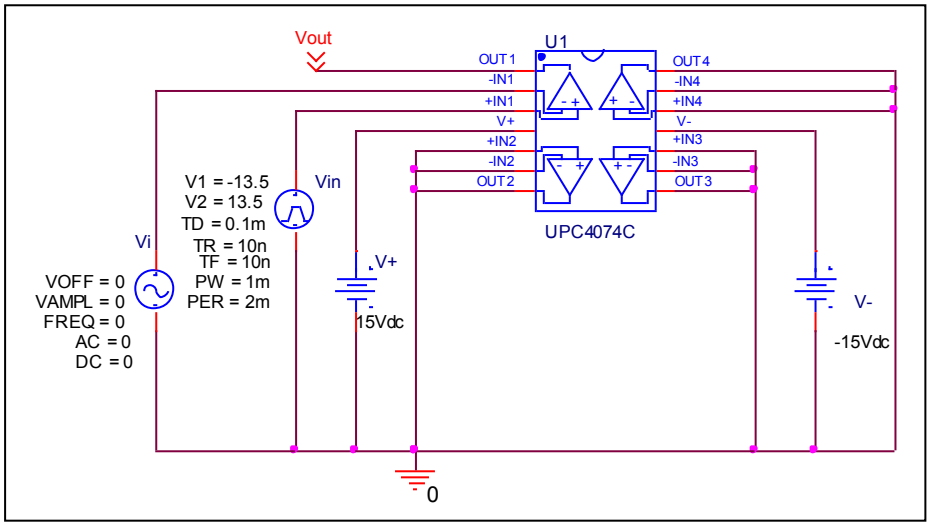
Vos(mV)	Measurement	Simulation	%Error
	3.000	3.014	0.453

Slew Rate

Simulation result



Evaluation circuit

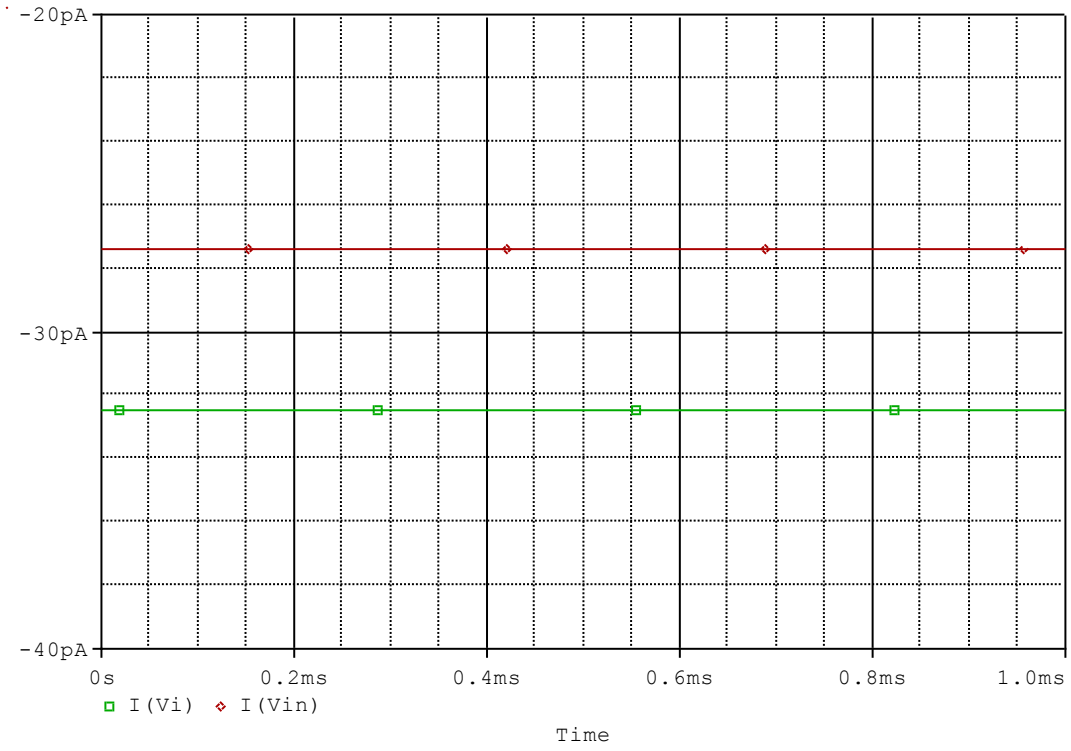


Comparison table

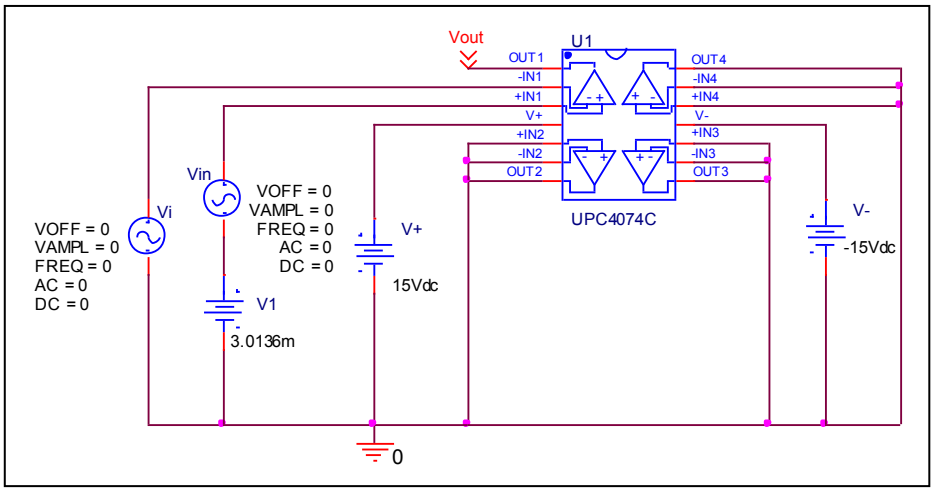
Slew Rate(v/us)	Measurement	Simulation	%Error
	13.000	12.995	-0.038

Input current Ib, Ibos

Simulation result



Evaluation circuit

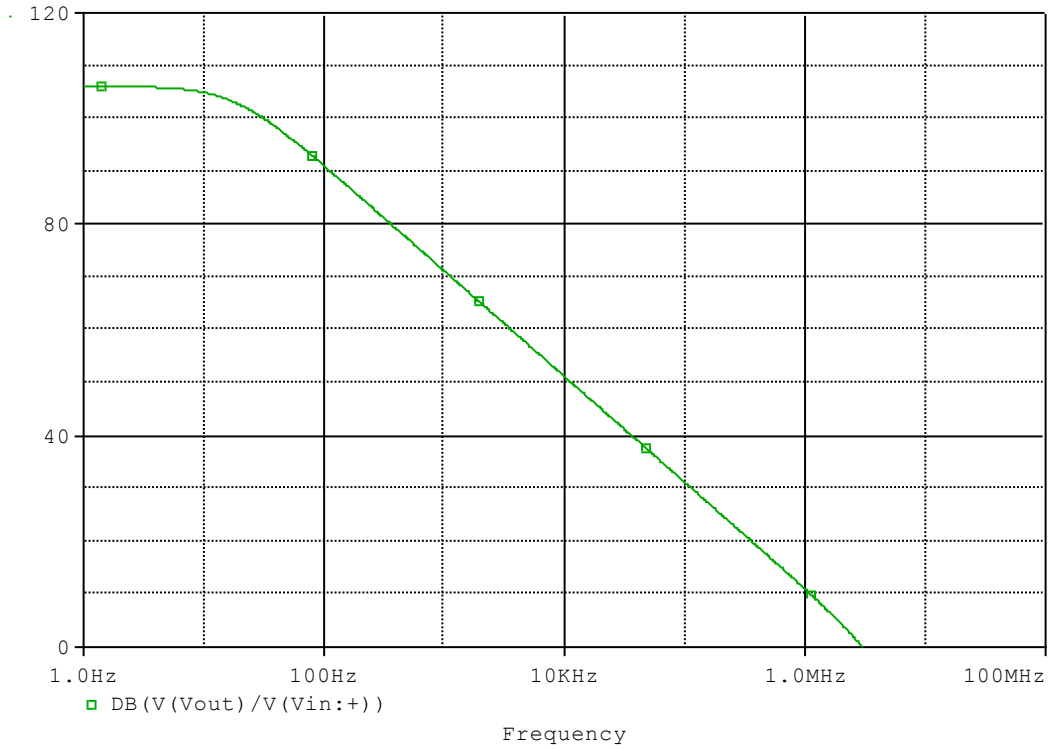


Comparison table

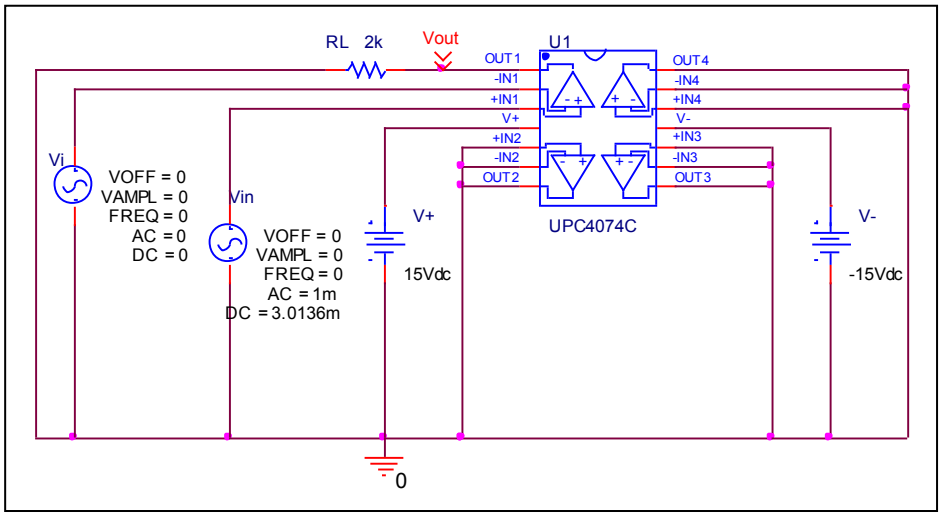
	Measurement	Simulation	%Error
Ib(pA)	30.000	29.948	-0.173
Ibos(pA)	5.000	5.094	1.880

Open Loop Voltage Gain vs. Frequency , Av-dc, f-0dB

Simulation result



Evaluation circuit

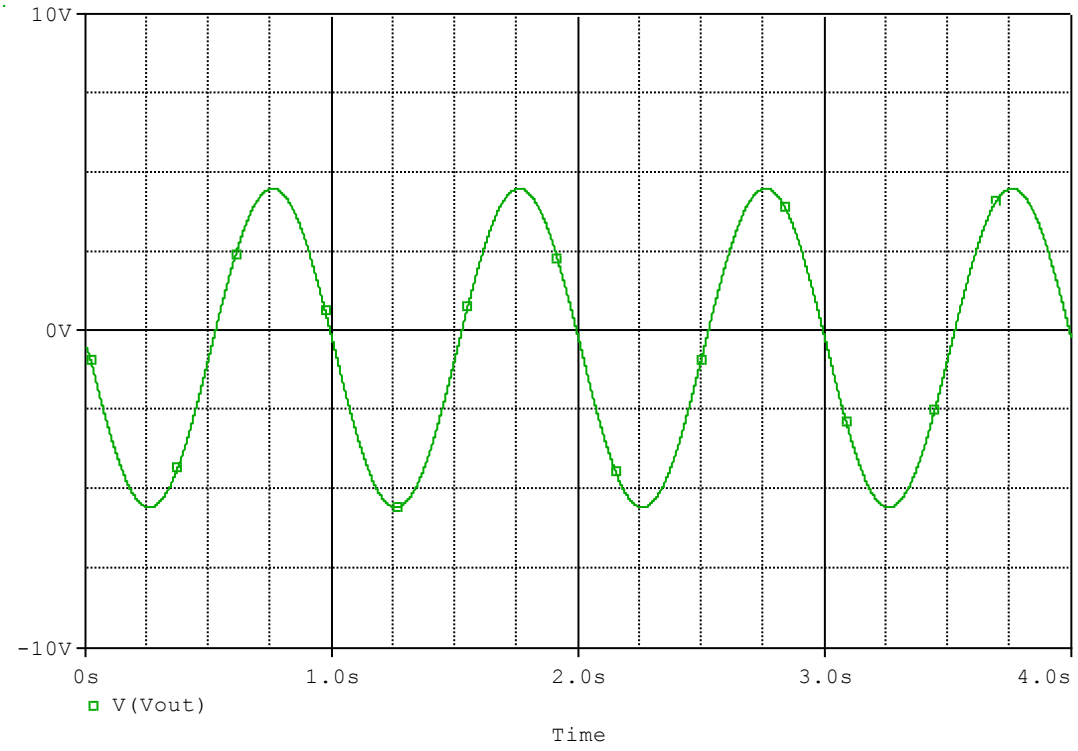


Comparison table

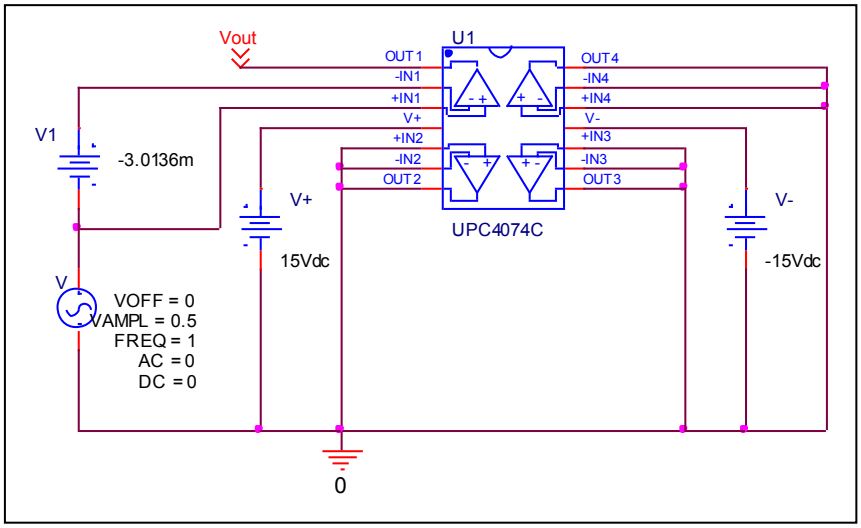
	Measurement	Simulation	%Error
f-0dB(MHz)	3.000	3.014	0.467
Av-dc(dB)	106.000	106.097	0.092

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio=20*LOG(201766.936/10.059) = 86.0459 dB

CMRR (dB)	Measurement	Simulation	%Error
	86.000	86.046	0.053