

Device Modeling Report

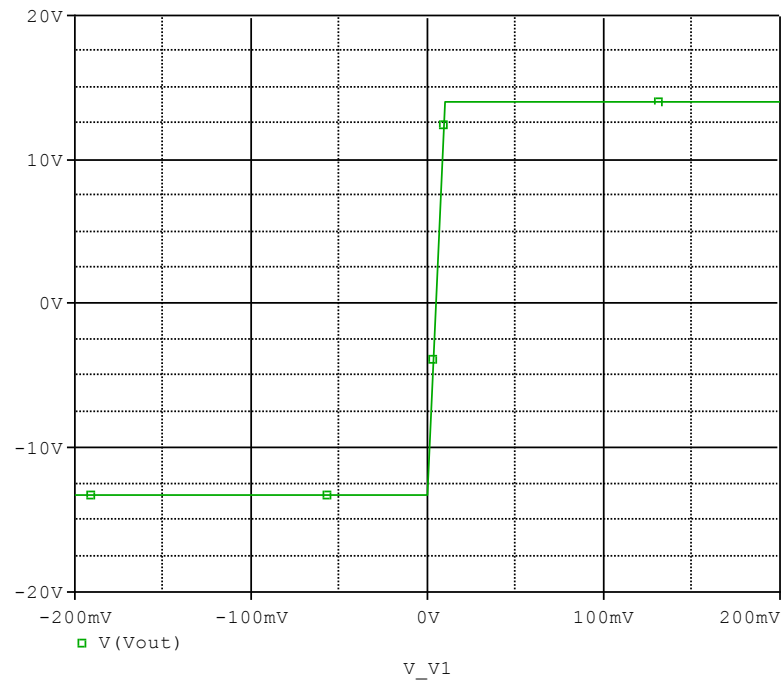
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: uPC4094G2
MANUFACTURER: NEC



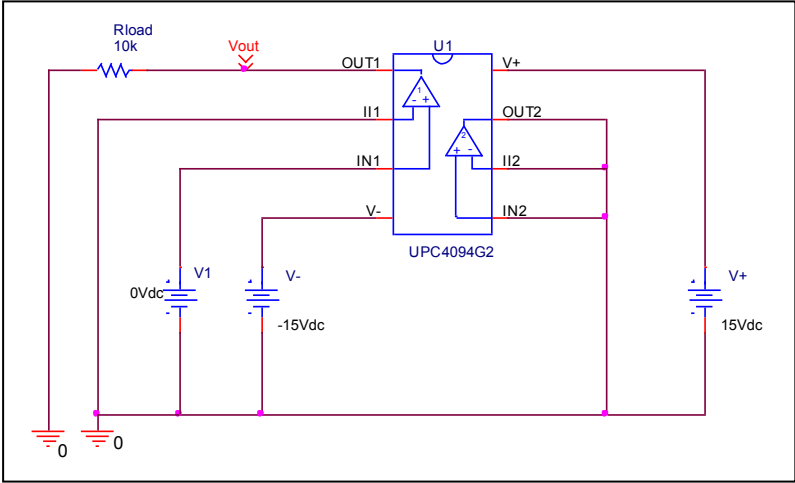
Bee Technologies Inc.

Output Voltage Swing

Simulation result



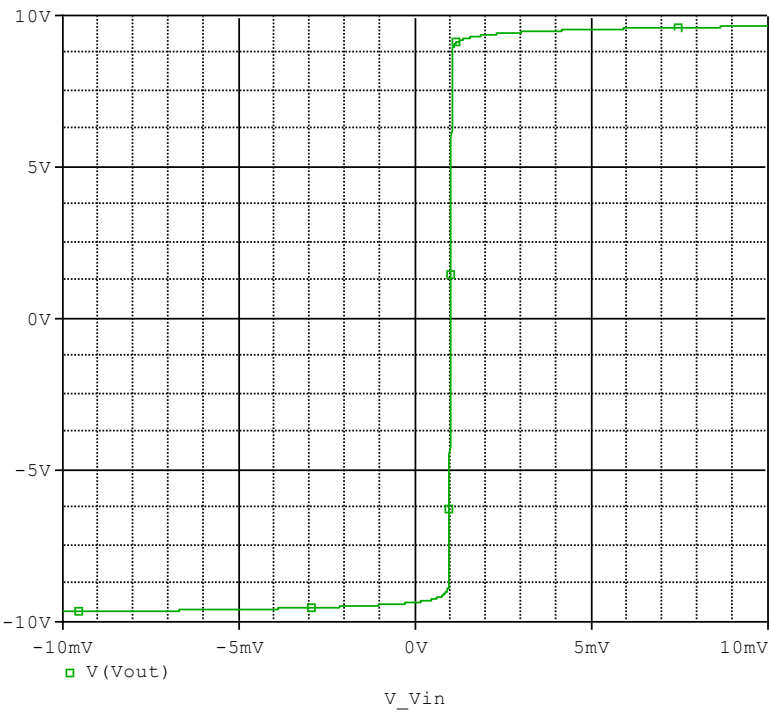
Evaluation circuit



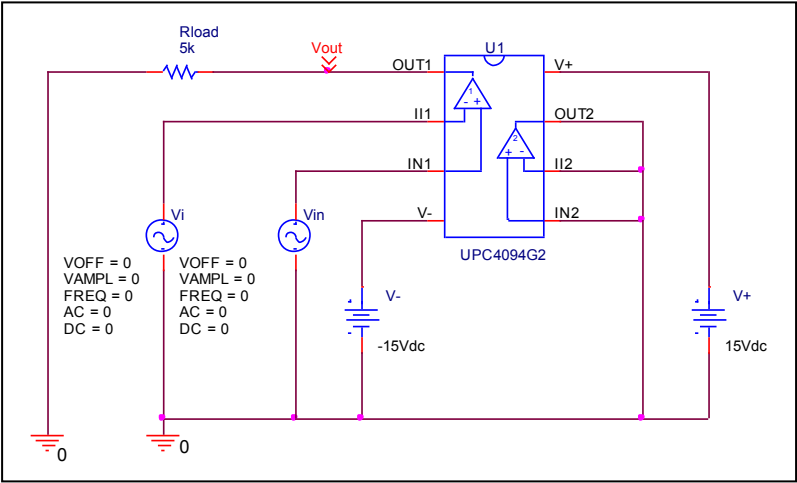
Output Voltage Swing	Measurement	Simulation	%Error
+Vout(V)	+14.000	+13.978	-0.160
-Vout(V)	-13.300	-13.282	-0.140

Input Offset Voltage

Simulation result



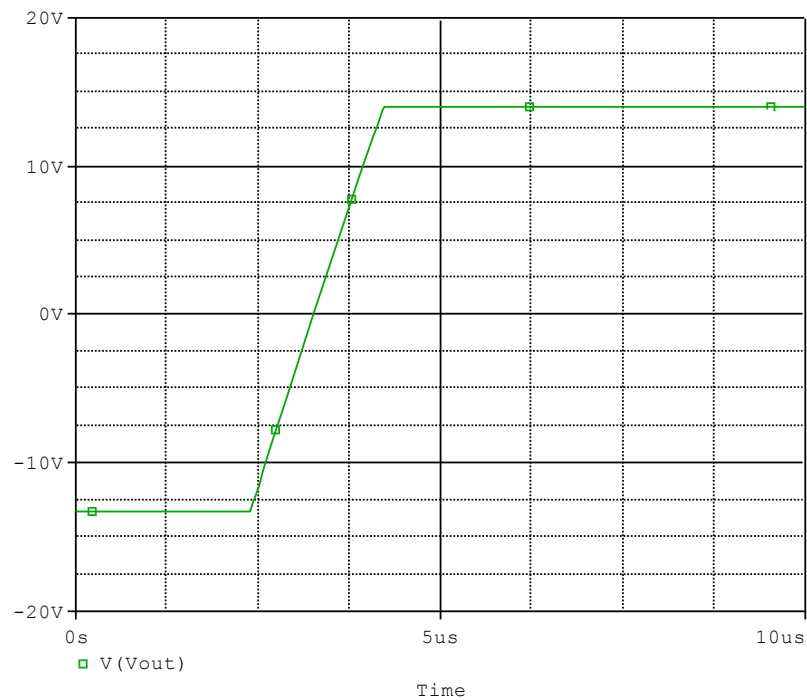
Evaluation circuit



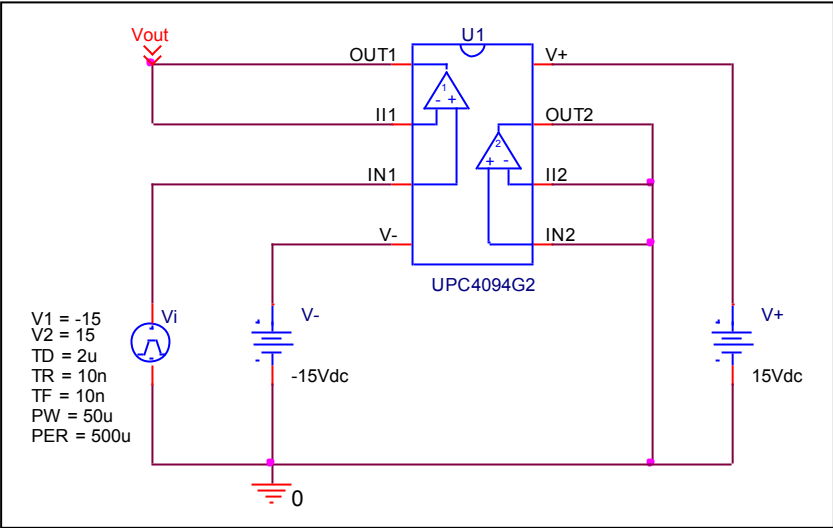
Vos	Measurement		Simulation		Error	
	1.000	mV	0.996	mV	-0.400	%

Slew Rate

Simulation result



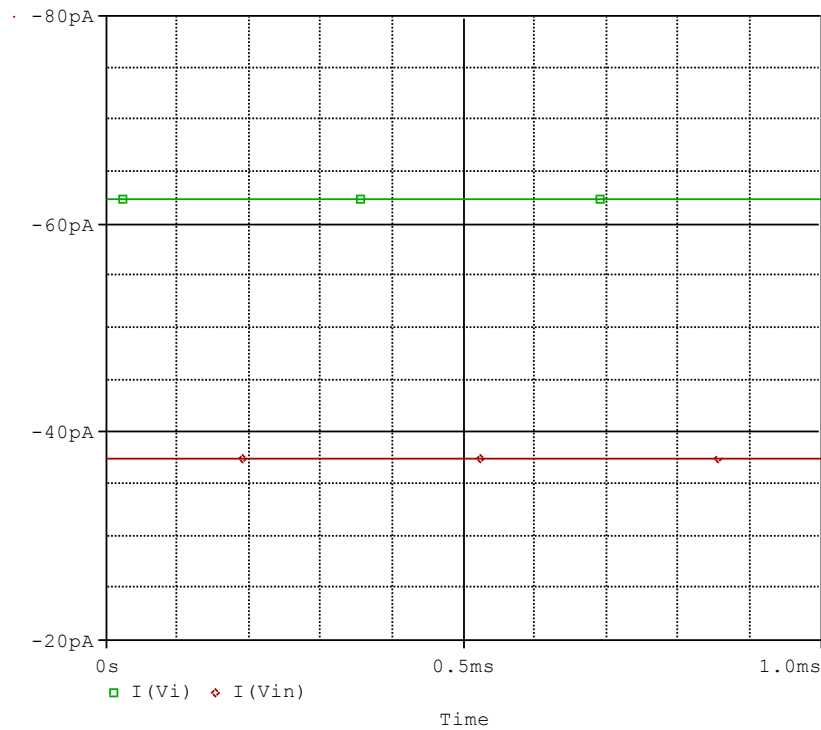
Evaluation circuit



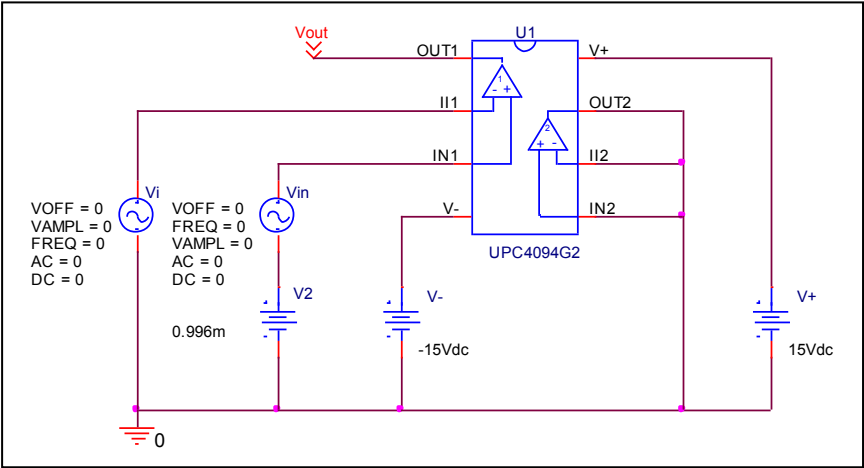
Slew Rate(v/us)	Measurement	Simulation	%Error
	15.000	15.011	0.070

Input current Ib, Ibos

Simulation result



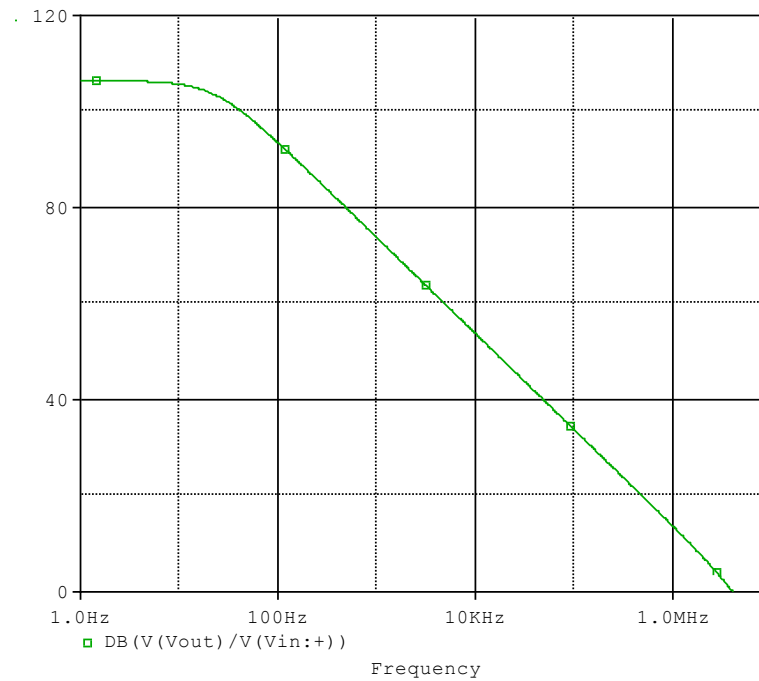
Evaluation circuit



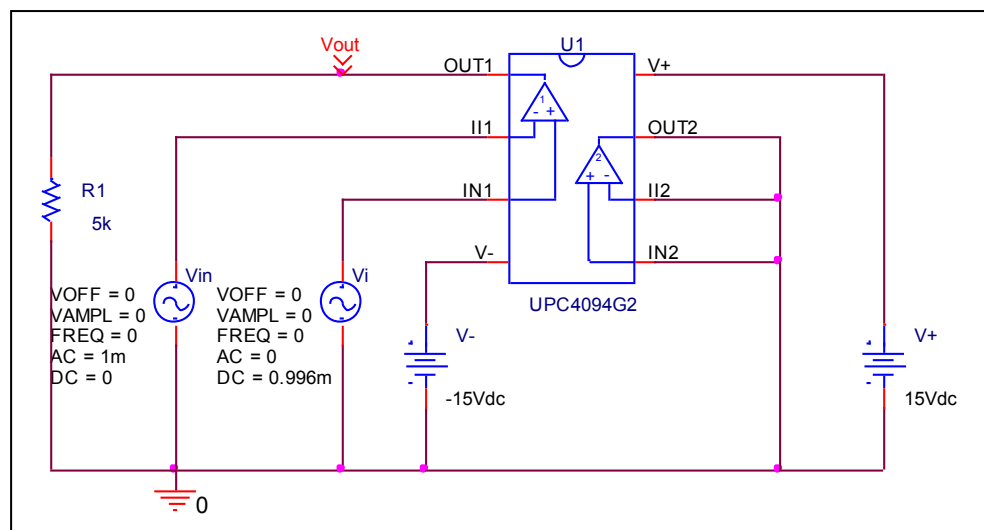
	Measurement	Simulation	%Error
Ib(nA)	50.000	49.971	-0.060
Ibos(nA)	25.000	24.998	-0.010

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

Simulation result



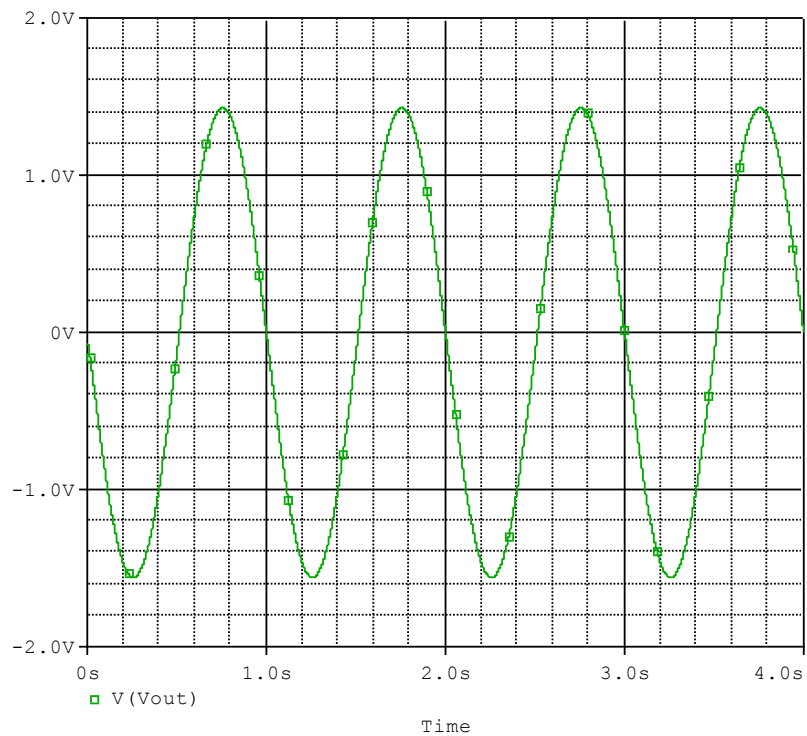
Evaluation circuit



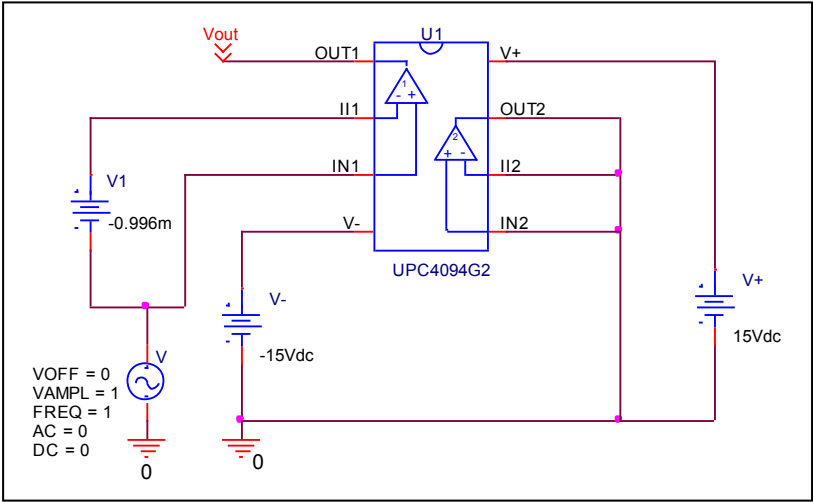
	Measurement	Simulation	%Error
f-0dB(MHz)	4.000	4.047	1.175
Av-dc(dB)	106.000	106.404	0.381

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



$CMRR=20*LOG(209025.8509/(2.9894/2)) = 102.913 \text{ dB}$

CMRR (dB)	Measurement	Simulation	%Error
	100.000	102.913	2.913