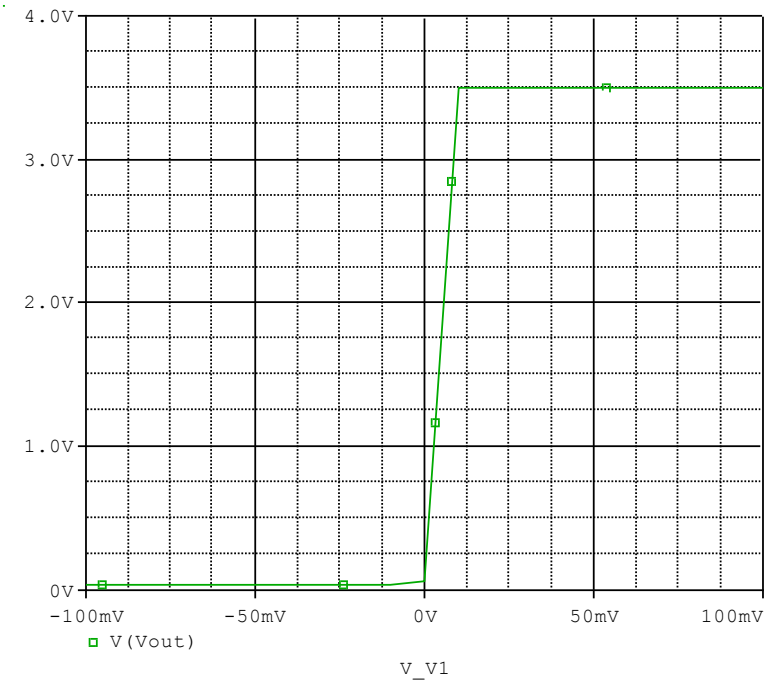
Device Modeling Report

COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM2143
MANUFACTURER: NEW JAPAN RADIO

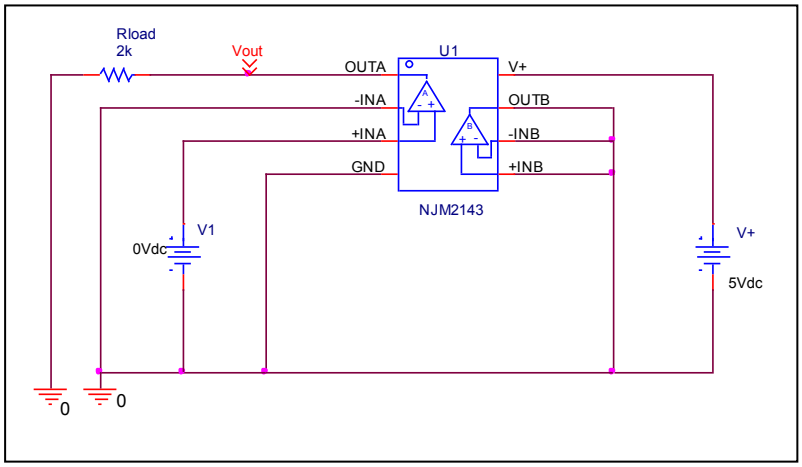
Bee Technologies Inc.

Output Voltage Swing

Simulation result



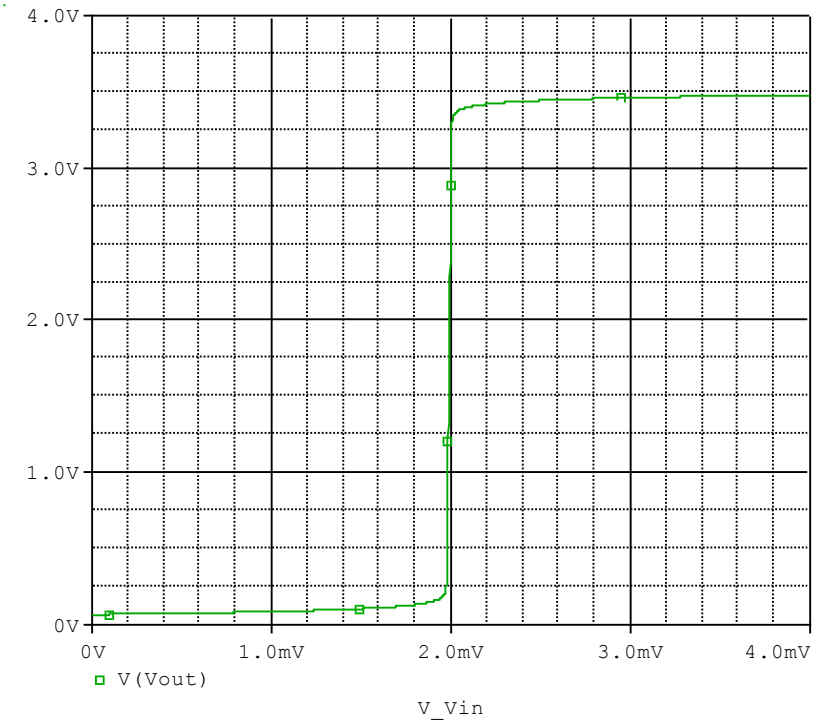
Evaluation circuit



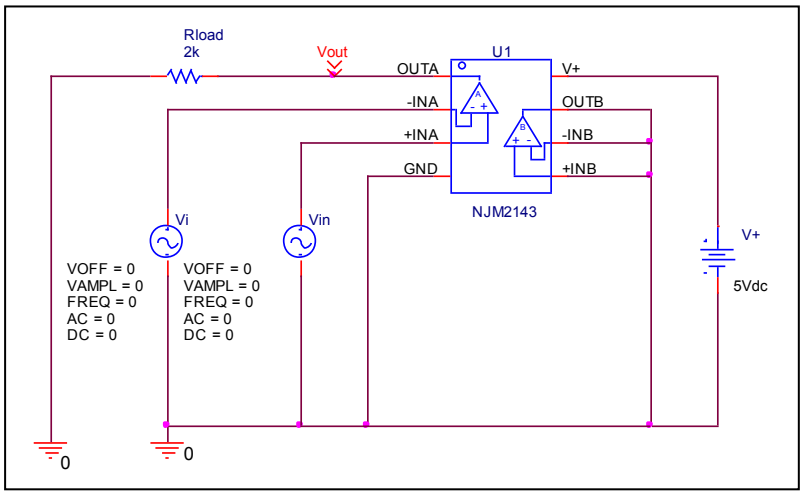
Output Voltage Swing	Measurement	Simulation	%Error
+Vout(V)	3.500	3.499	-0.029
-Vout(V)	0.000	0.000	0.000

Input Offset Voltage

Simulation result



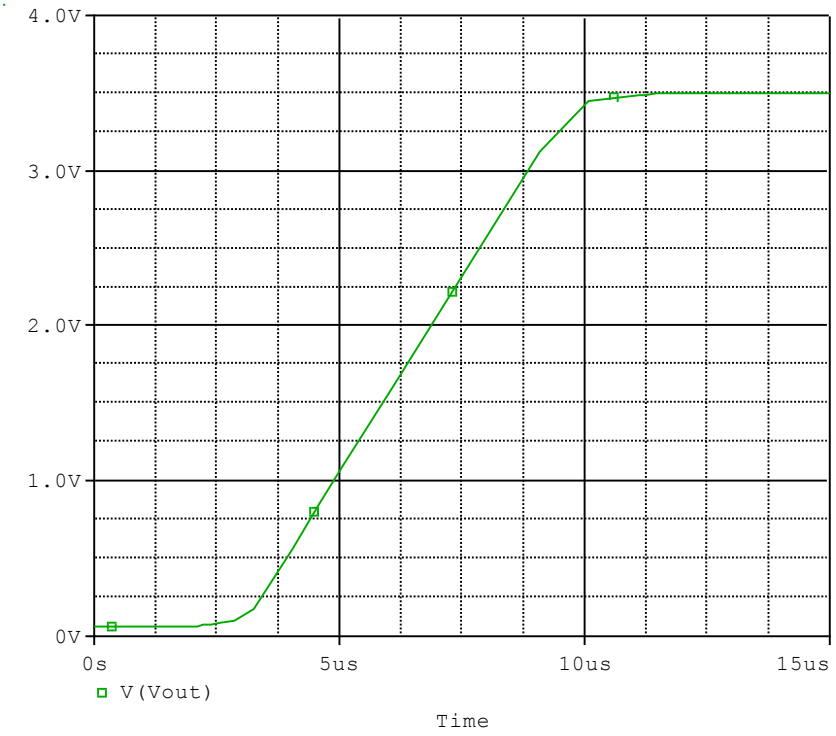
Evaluation circuit



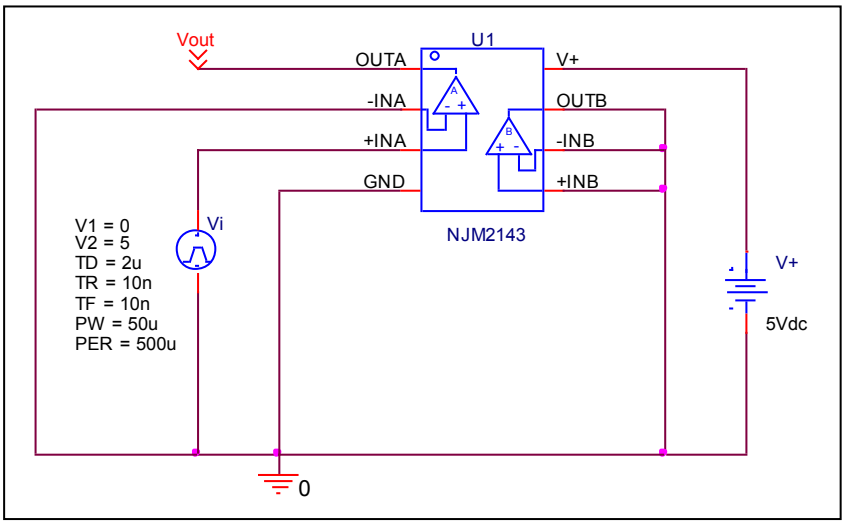
Vos	Measurement		Simulation		Error	
	2.000	mV	1.989	mV	-0.550	%

Slew Rate

Simulation result



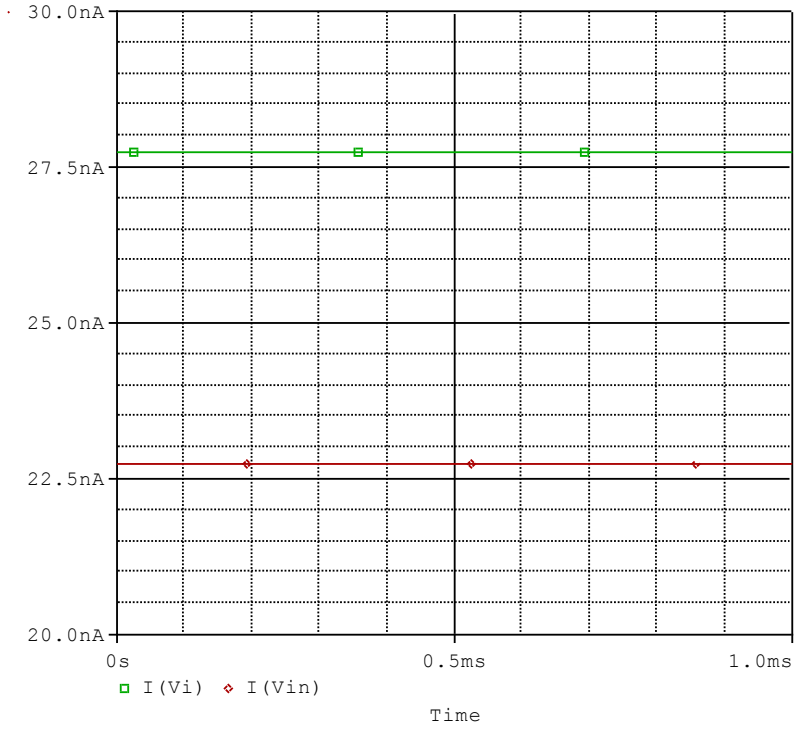
Evaluation circuit



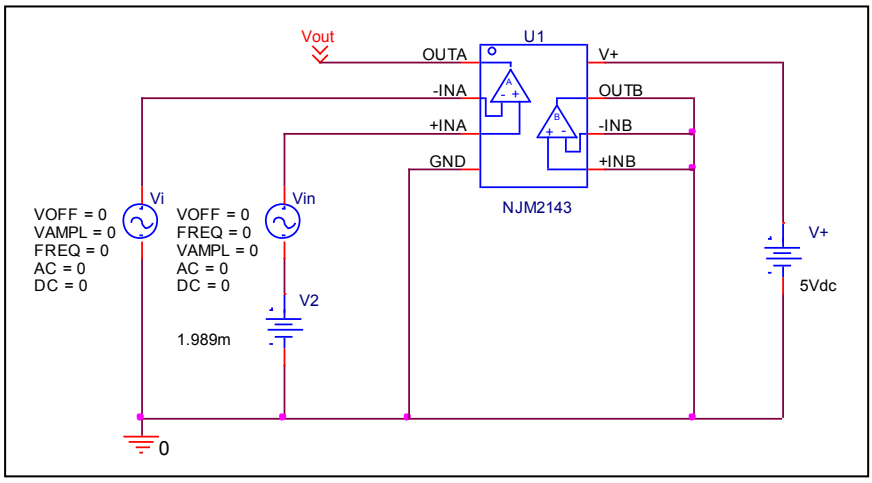
Slew Rate(v/us)	Measurement	Simulation	%Error
	0.500	0.501	0.200

Input current Ib, Ibos

Simulation result



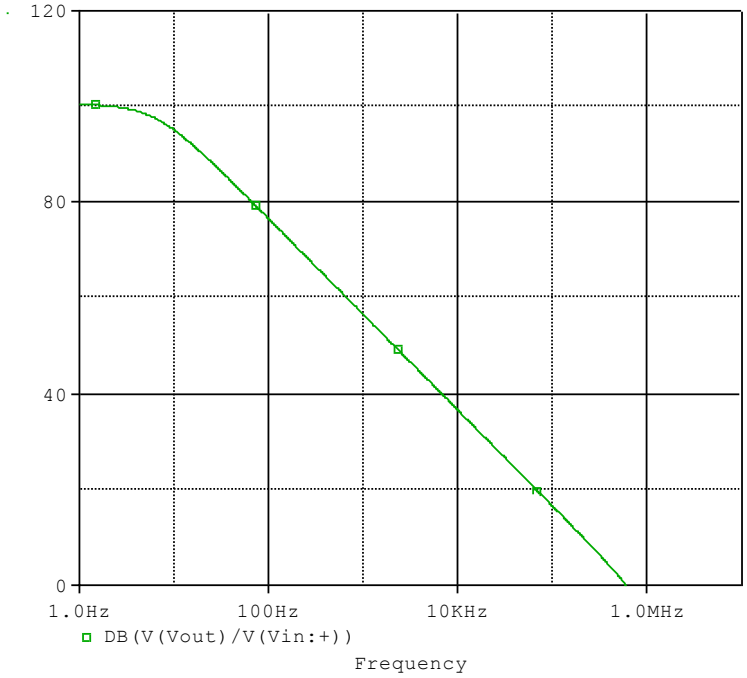
Evaluation circuit



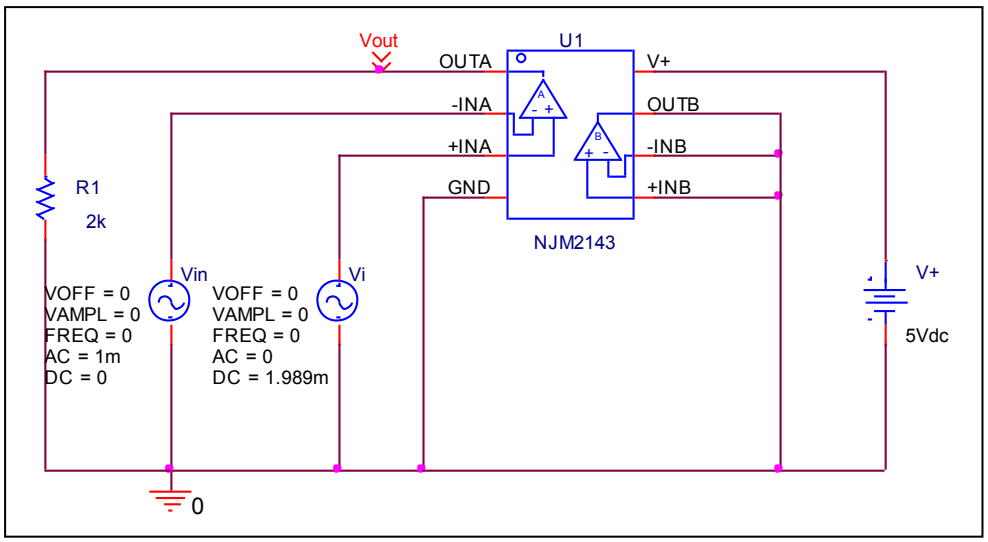
	Measurement	Simulation	%Error
Ib(nA)	25.000	25.235	0.940
Ibos(nA)	5.000	4.998	-0.040

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

Simulation result



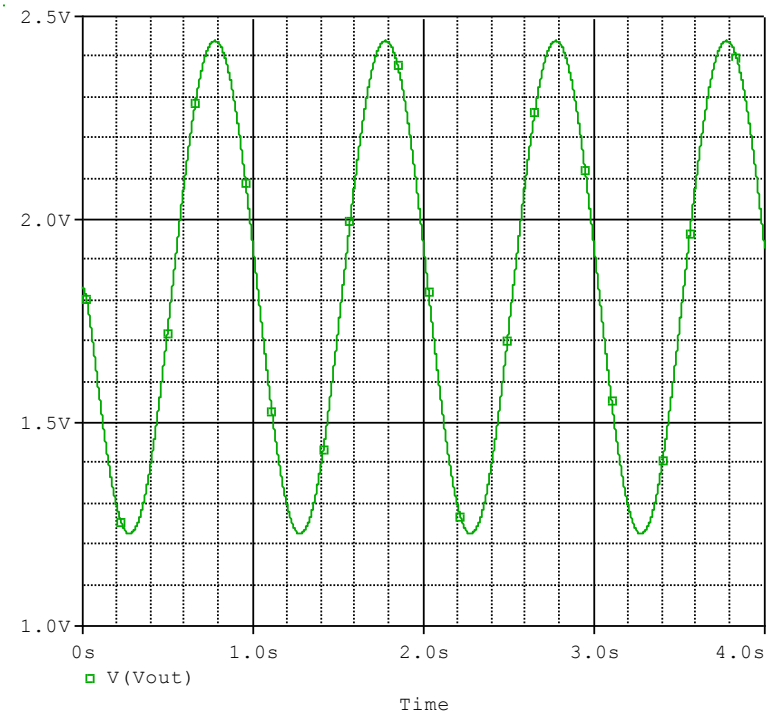
Evaluation circuit



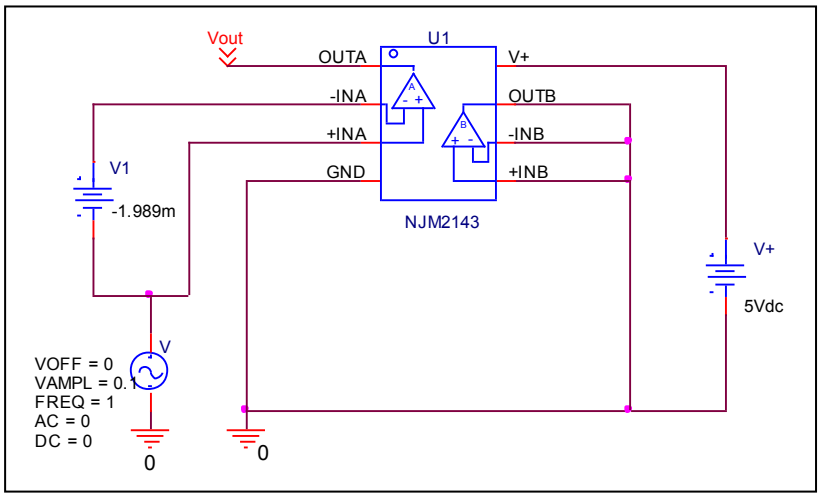
	Measurement	Simulation	%Error
f-0dB(MHz)	0.600	0.599	-0.167
Av-dc(dB)	100.000	100.430	0.430

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



CMRR=20*LOG(105111.4434/(1.2134/0.2)) = 84.774 dB

CMRR (dB)	Measurement	Simulation	%Error
	85.000	84.774	-0.266