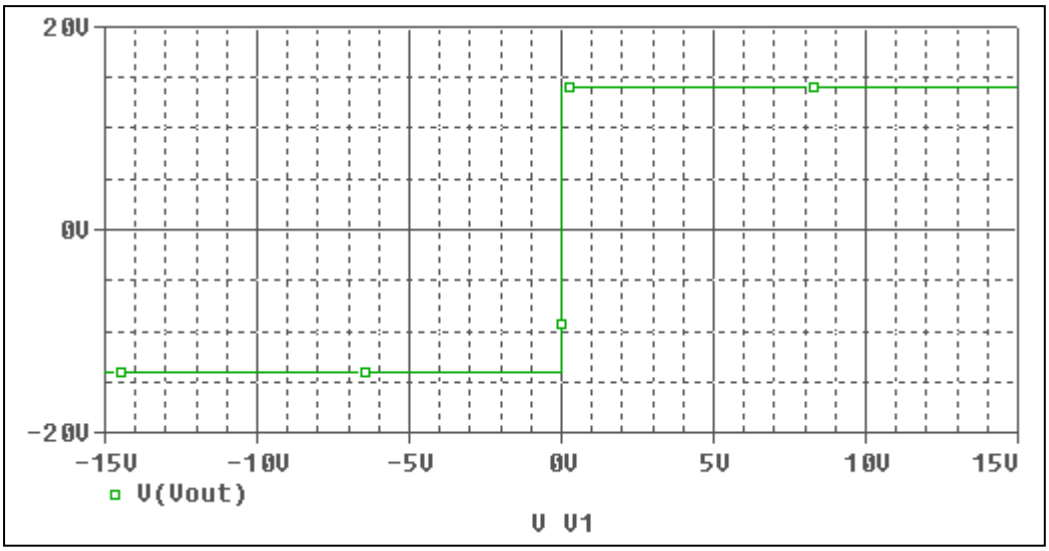
Device Modeling Report

COMPONENTS:MOSFET: OPERATIONAL AMPLIFIER
PART NUMBER:NJM2059V
MANUFACTURER: NEW JAPAN RADIO CO.,LTD

Bee Technologies Inc.

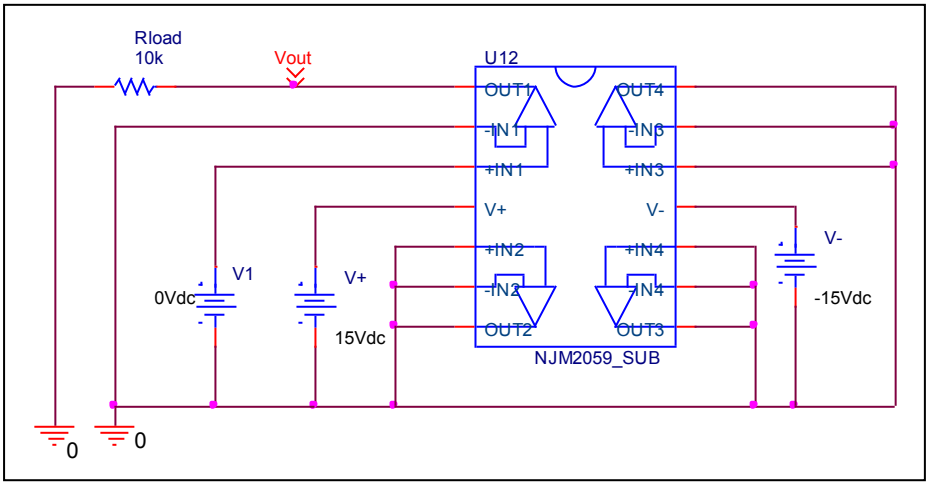
Output Voltage Swing, +Vout and –Vout

Simulation result



These simulation results are compared with ±Vout

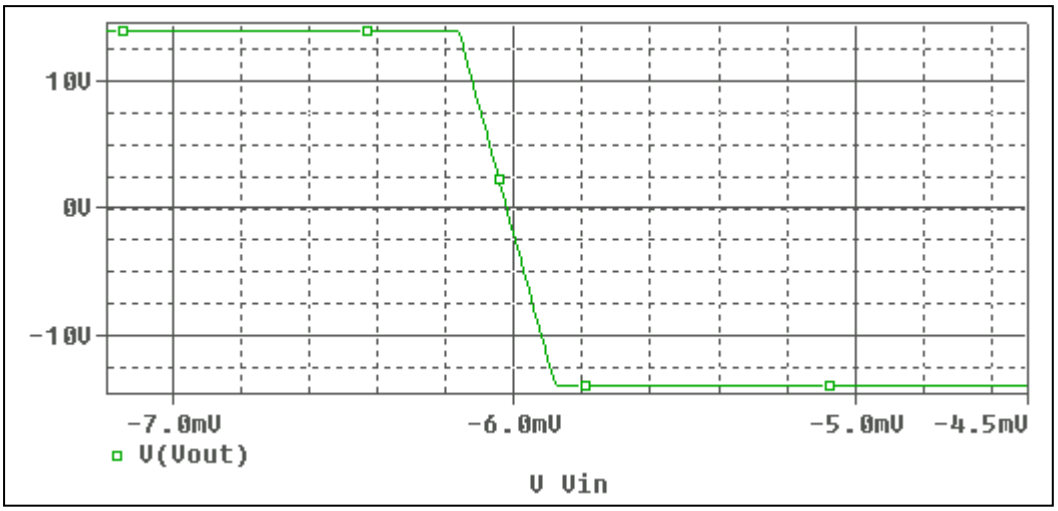
Evaluation circuit



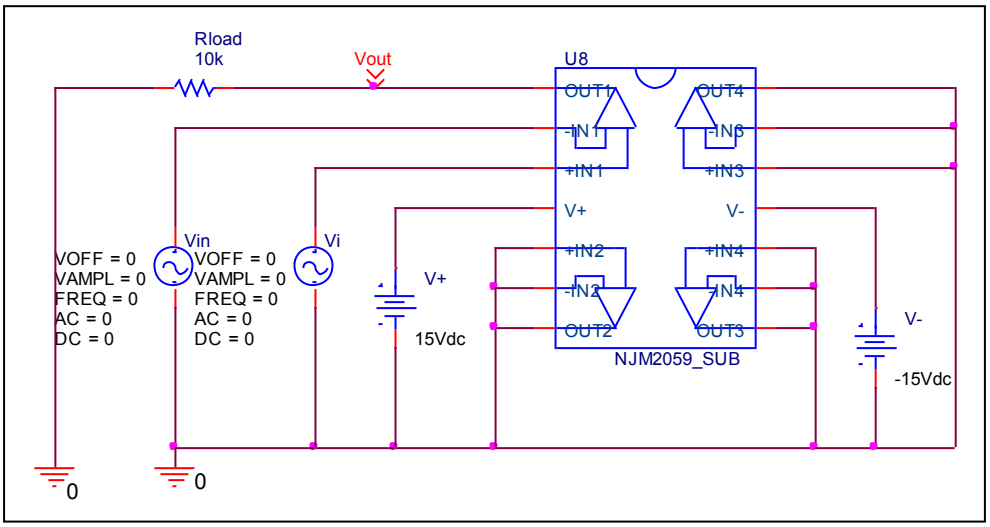
Output Voltage Swing	Data sheet	Simulation	%Error
+Vout(V)	+14	13.995	0.035
-Vout(V)	-14	-13.995	0.035

Input Offset Voltage

Simulation result



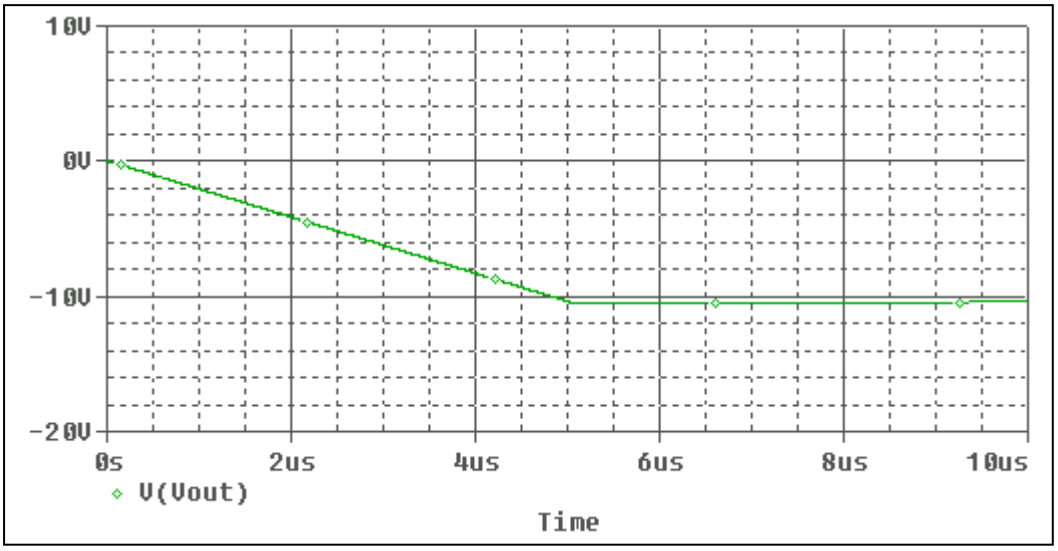
Evaluation circuit



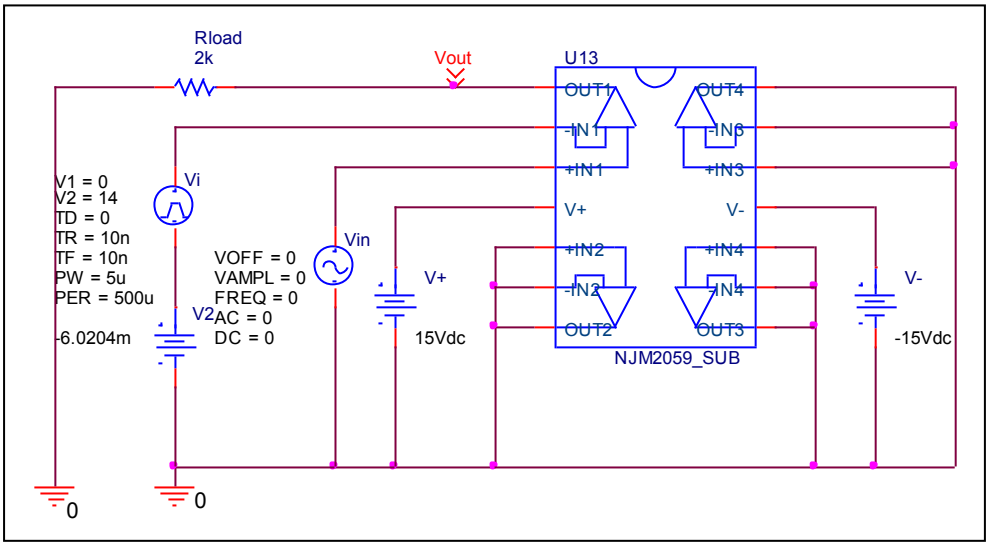
Vos	Measurement		Simulation		Error	
	6	mV	6.0204	mV	0.34	%

Slew Rate, +SR, -SR

Simulation result



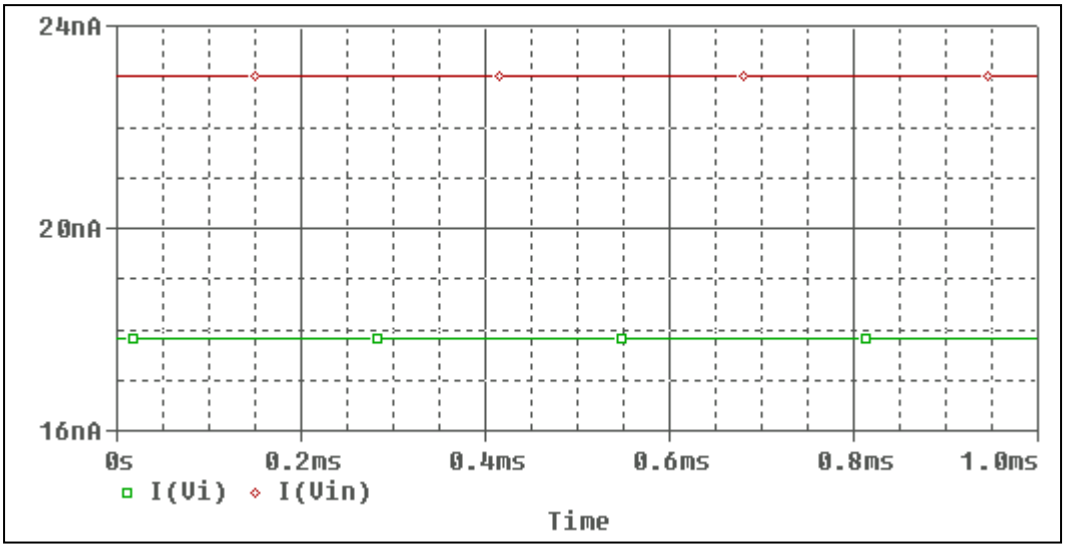
Evaluation circuit



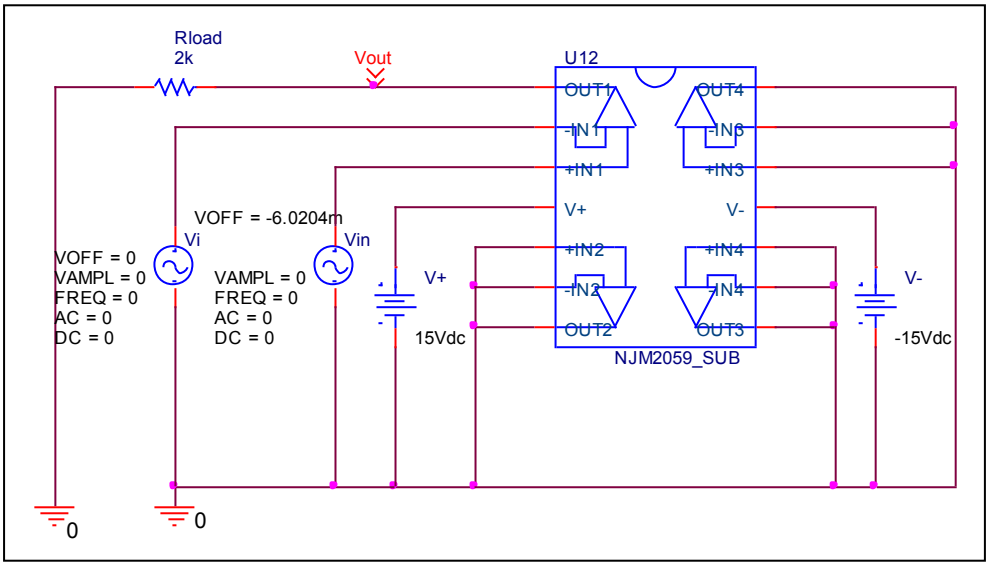
Slew Rate(v/us)	Data sheet	Simulation	%Error
	2V/us	2.081V/us	4.05

Input current Ib, Ibos

Simulation result



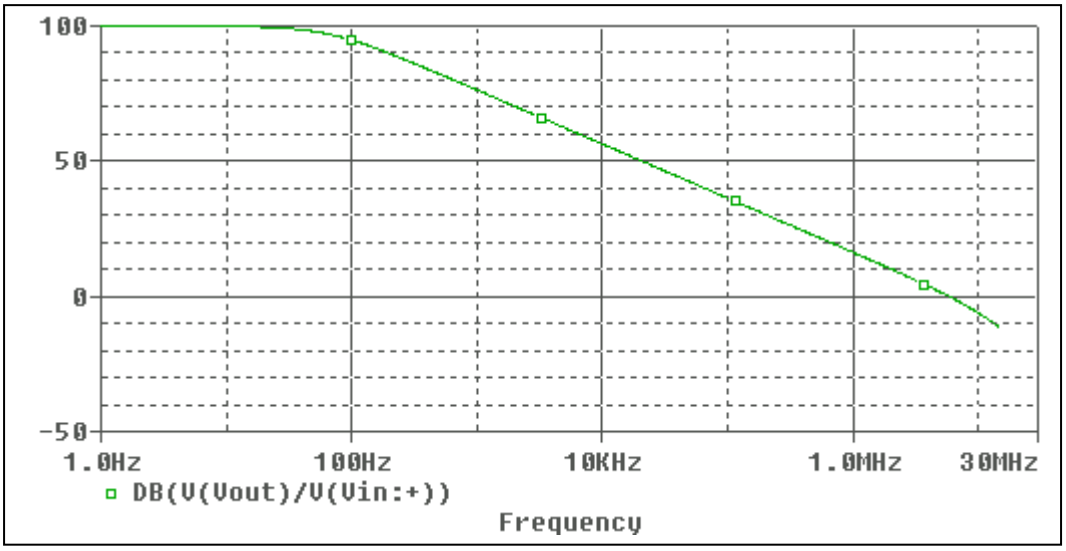
Evaluation circuit



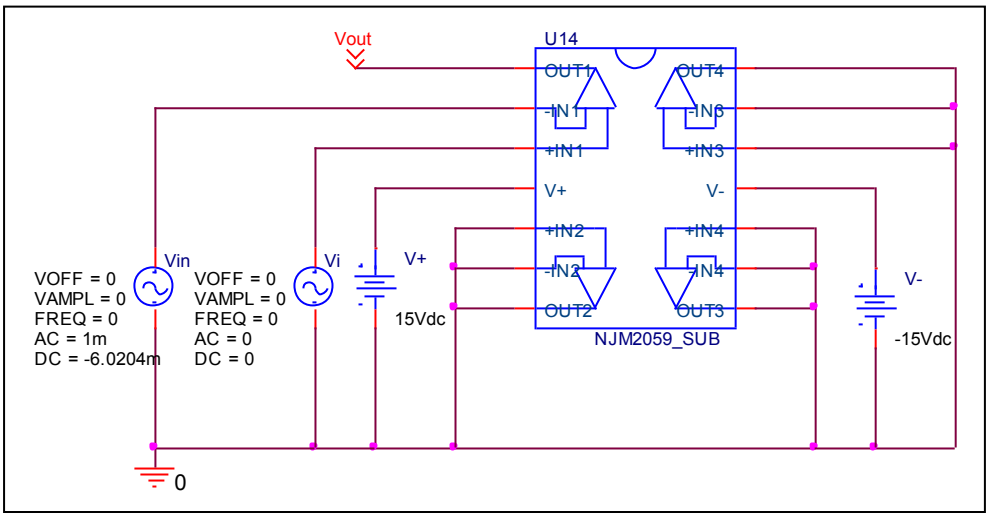
	Data sheet	Simulation	%Error
Ib(nA)	20	20.418	2.09
Ibos(nA)	5	5.17	3.4

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

Simulation result



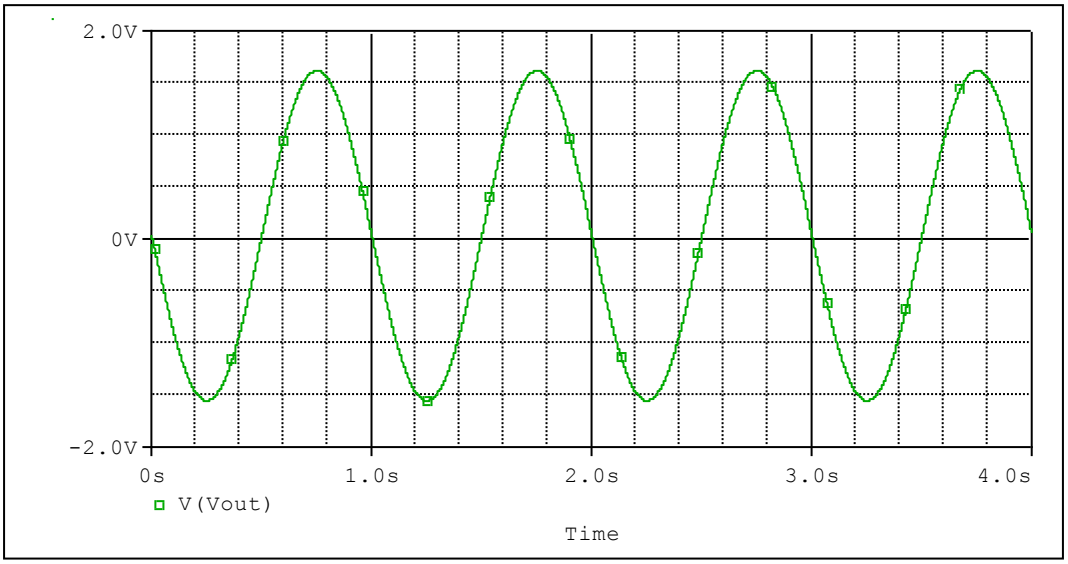
Evaluation circuit



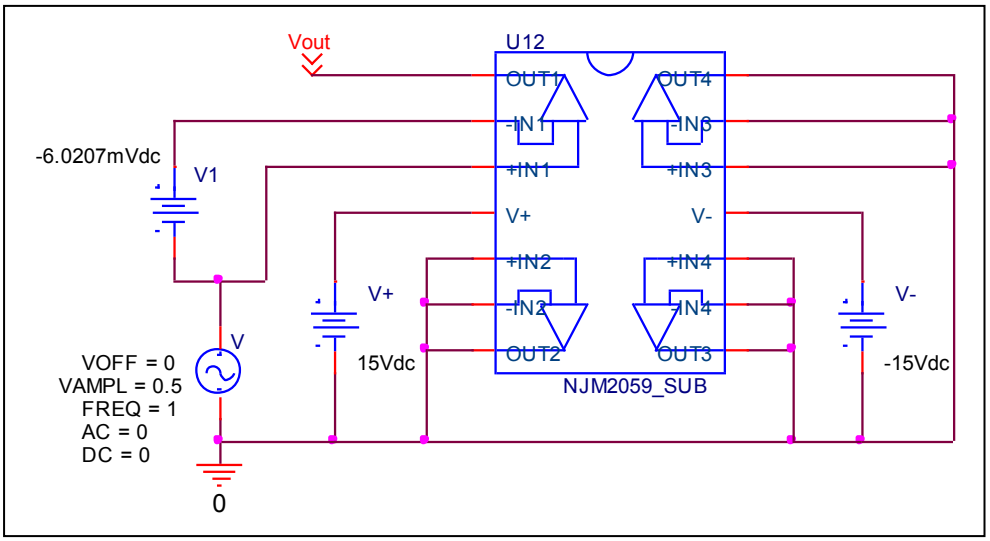
	Data sheet	Simulation	%Error
f-0dB(MHz)	6	5.944	0.933
Av-dc(dB)	100	99.972	0.028

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Rejection Ratio=99678/3.171=31434.247

CMRR	Data sheet	Simulation	%Error
	90	89.948	-0.057