

Device Modeling Report

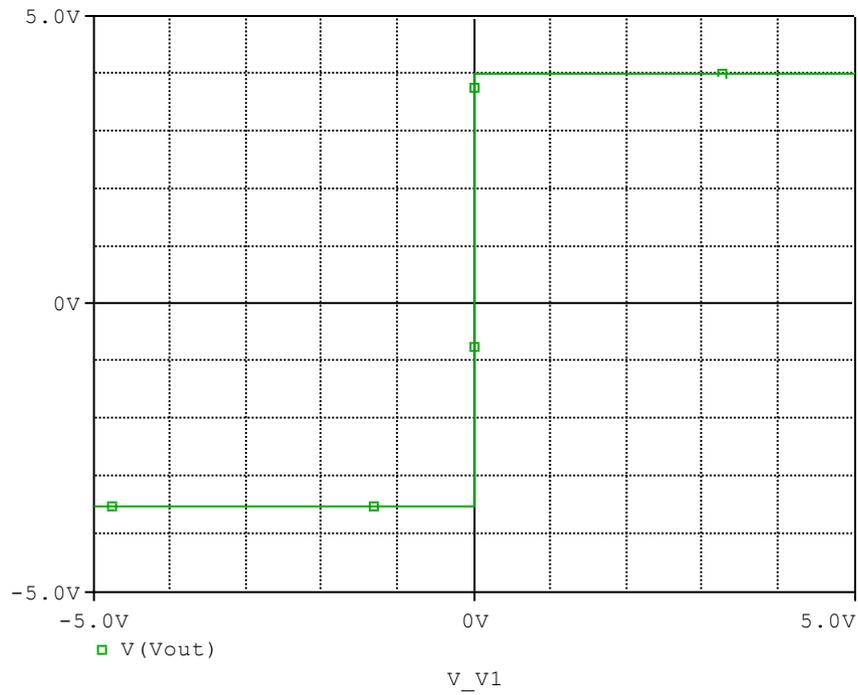
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM14558
MANUFACTURER: NEW JAPAN RADIO CO.,LTD



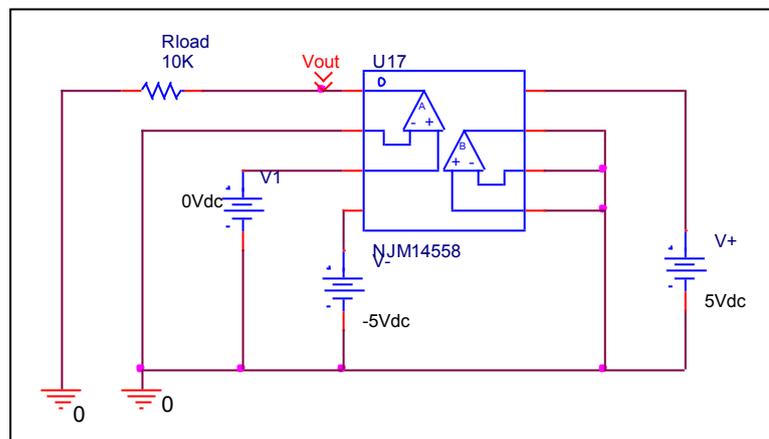
Bee Technologies Inc.

Output Voltage Swing

Simulation result



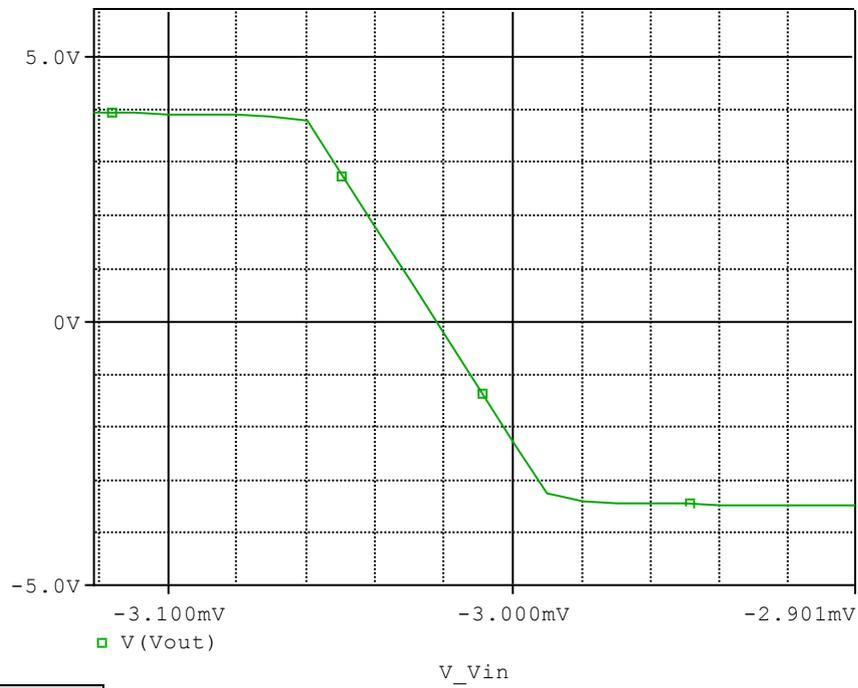
Evaluation circuit



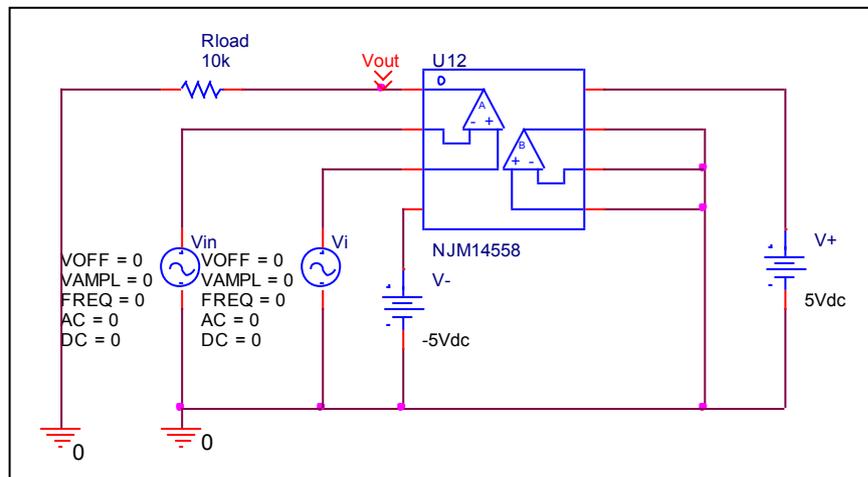
Output Voltage Swing	Data sheet	Simulation	%Error
+Vout(V)	4.000	4.004	0.100
-Vout(V)	3.500	3.502	0.057

Input Offset Voltage

Simulation result



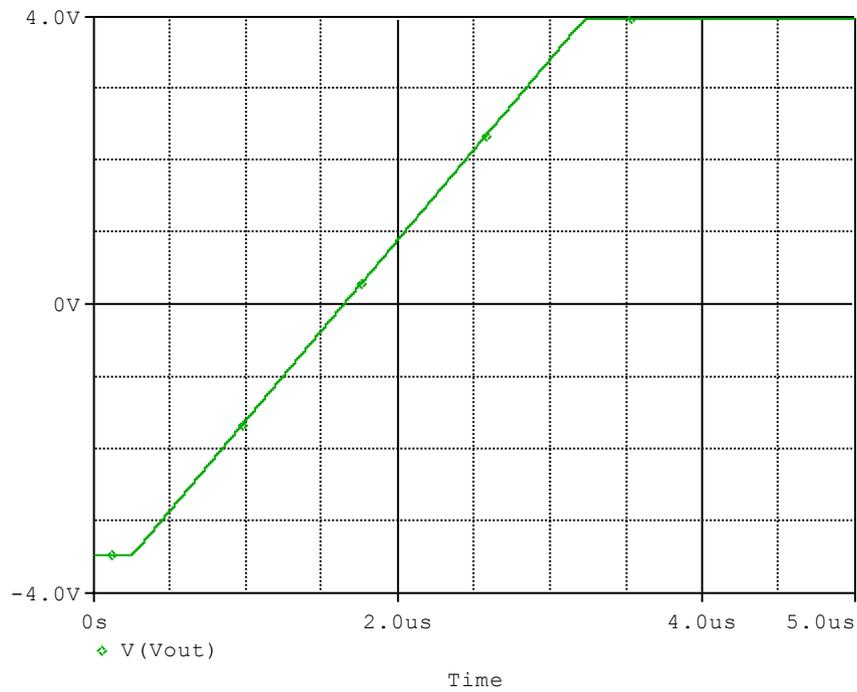
Evaluation circuit



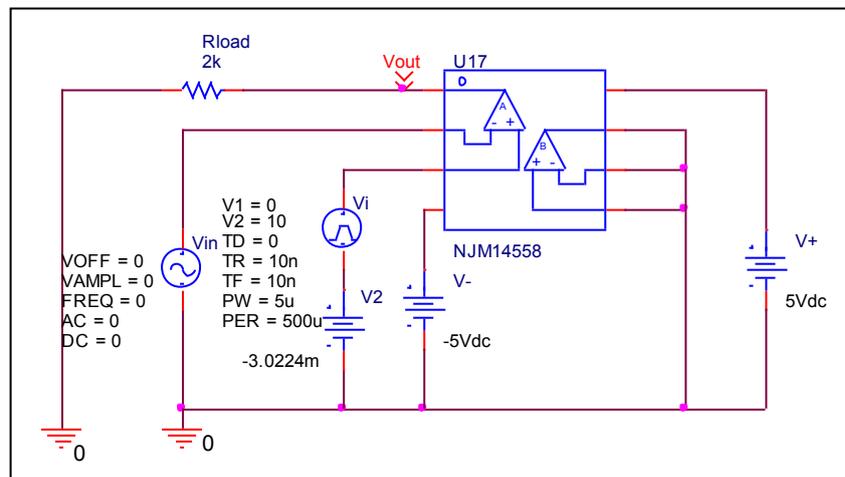
Vos	Measurement		Simulation		Error	
	3.000	mV	3.0224	mV	0.746	%

Slew Rate

Simulation result



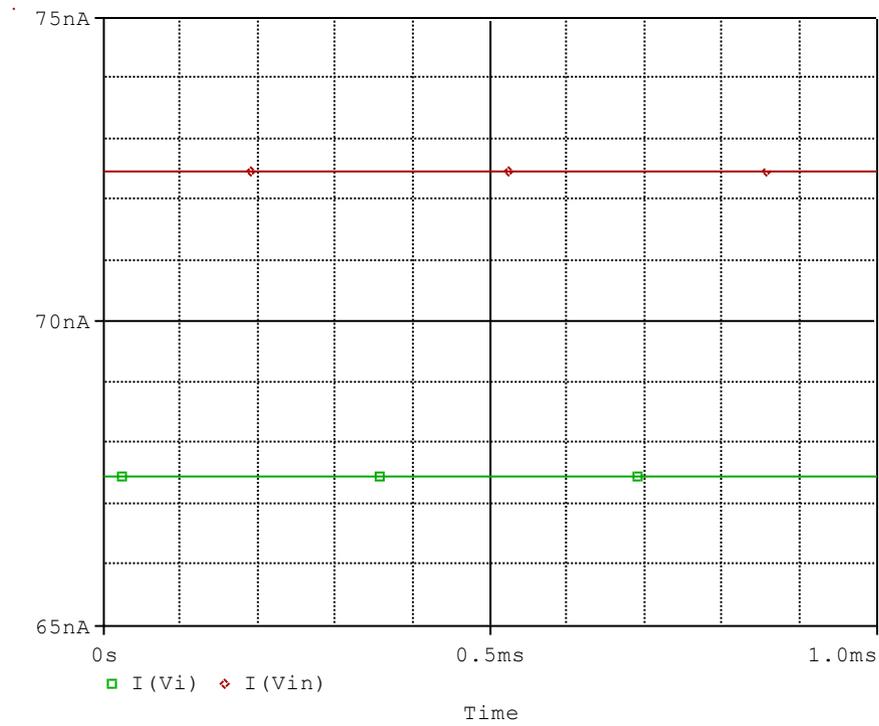
Evaluation circuit



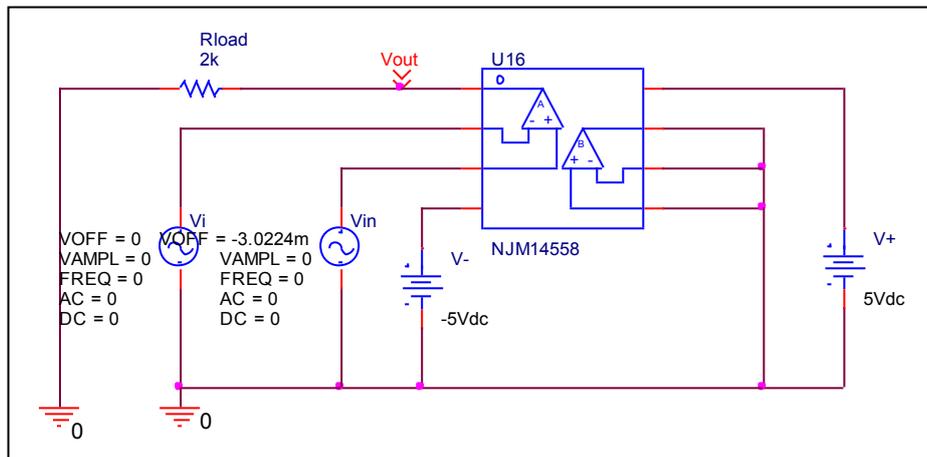
Slew Rate(v/us)	Data sheet	Simulation	%Error
		2.500	2.509

Input current

Simulation result



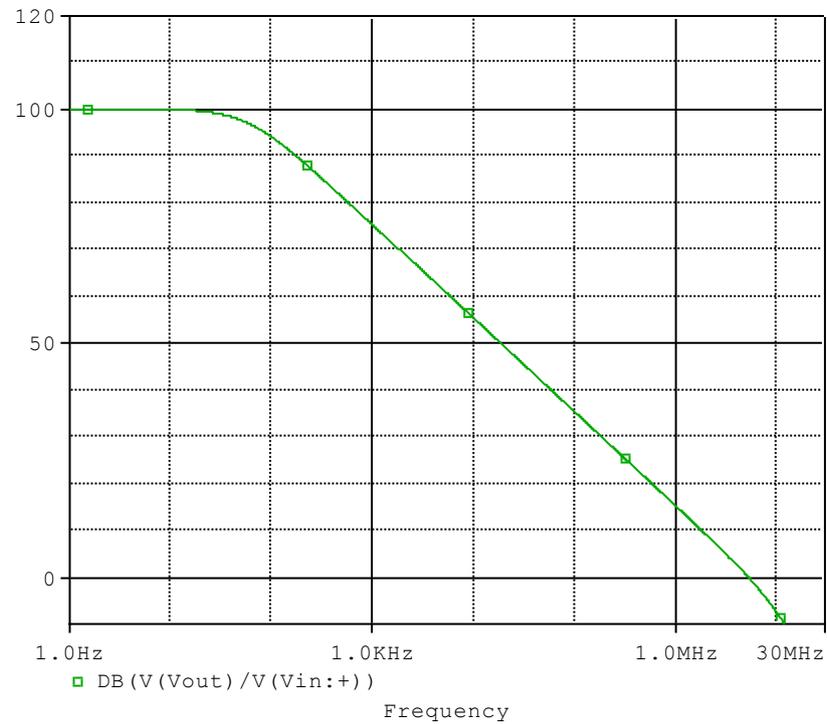
Evaluation circuit



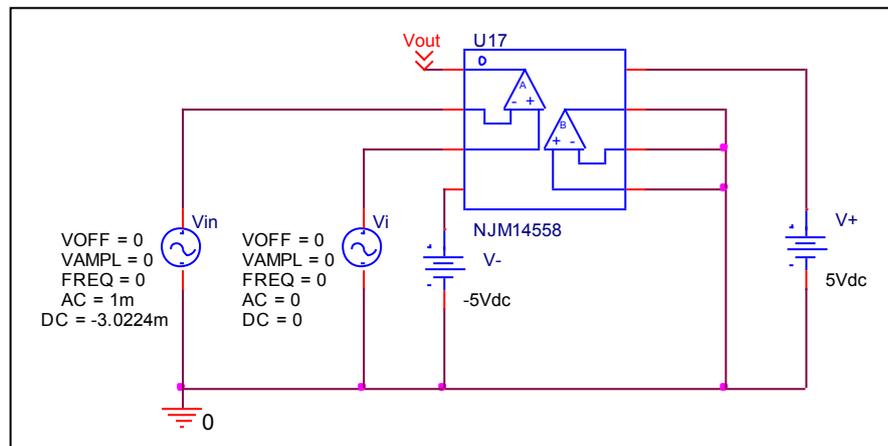
	Data sheet	Simulation	%Error
Ib(nA)	70.000	69.960	-0.442
Ibos(nA)	5.000	5.005	0.100

Open Loop Voltage Gain vs. Frequency

Simulation result



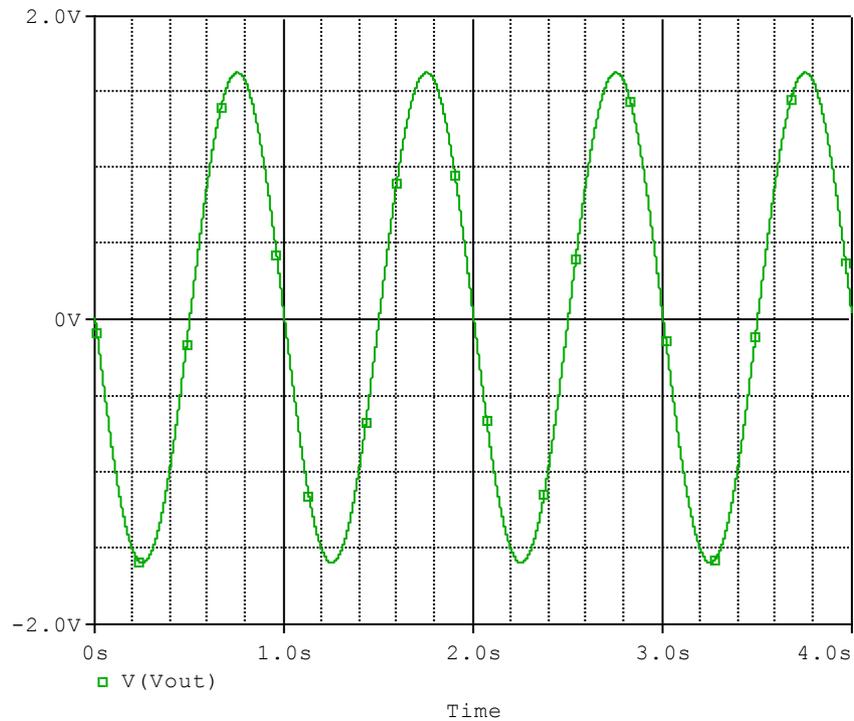
Evaluation circuit



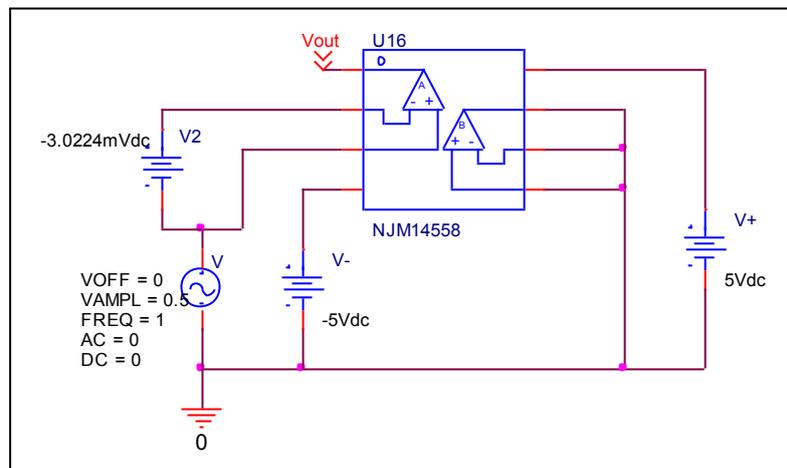
	Data sheet	Simulation	%Error
f-0dB(MHz)	5.000	5.010	0.200
Av-dc(dB)	100.000	100.010	0.010

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Rejection Ratio = $100115 / 3.224 = 31053$

CMRR	Data sheet	Simulation	%Error
		90.000	89.800