

Device Modeling Report

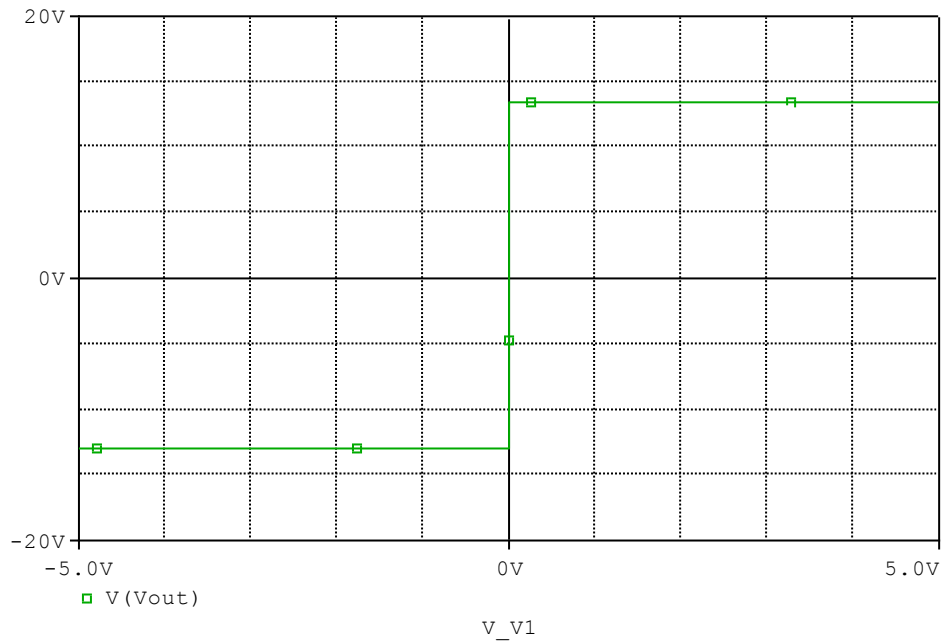
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM2082
MANUFACTURER: NEW JAPAN RADIO CO.,LTD



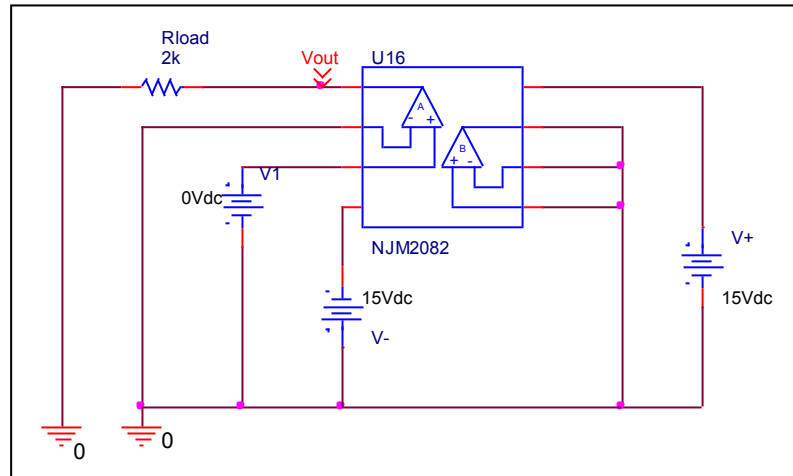
Bee Technologies Inc.

Output Voltage Swing

Simulation result



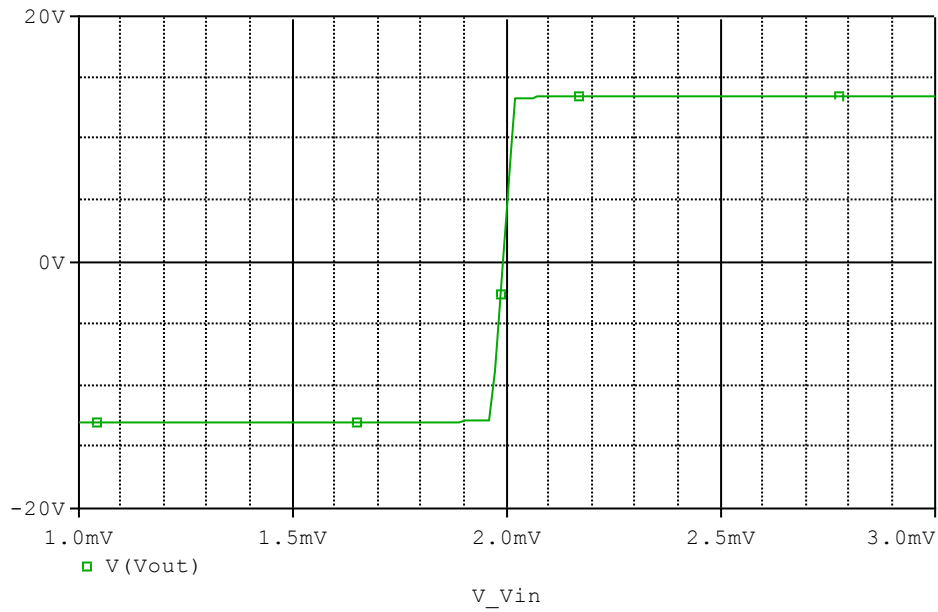
Evaluation circuit



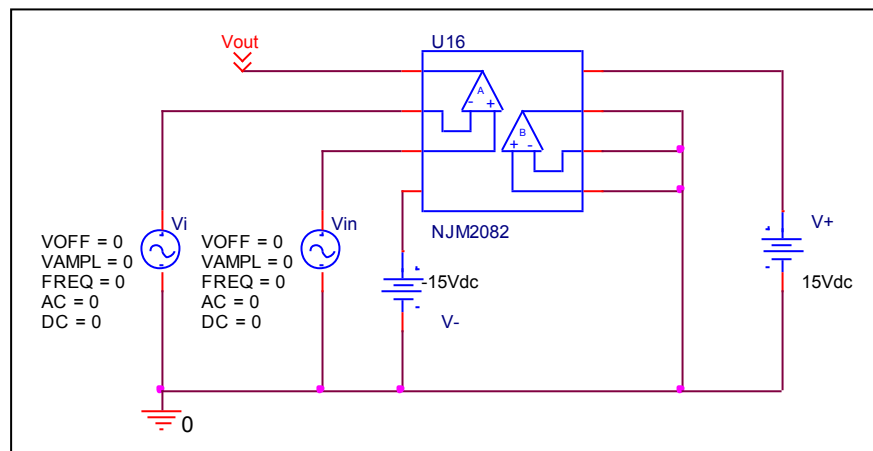
Output Voltage Swing	Data sheet	Simulation	%Error
+ $V_{out}(V)$	+13.500	+13.491	-0.067
- $V_{out}(V)$	-13.000	-12.991	-0.069

Input Offset Voltage

Simulation result



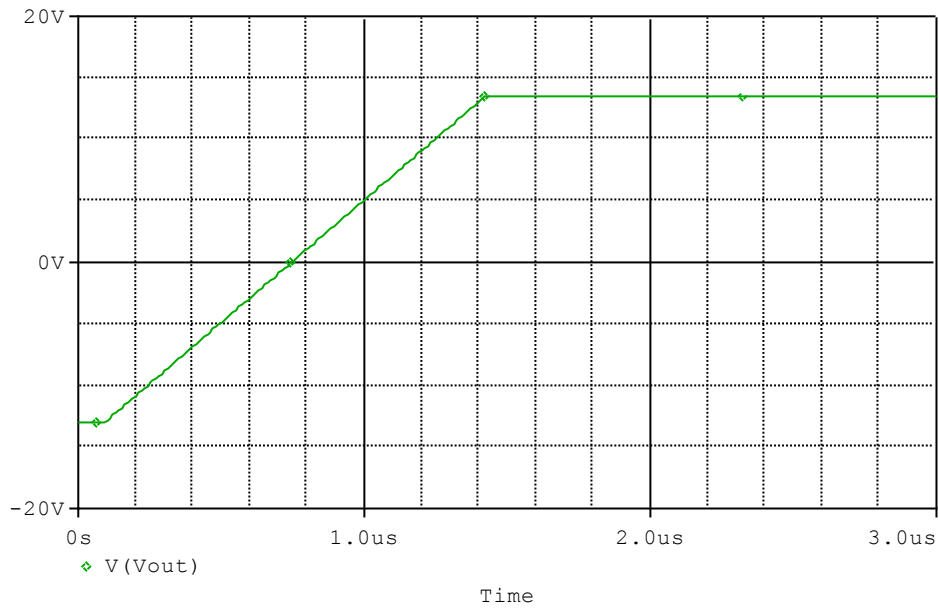
Evaluation circuit



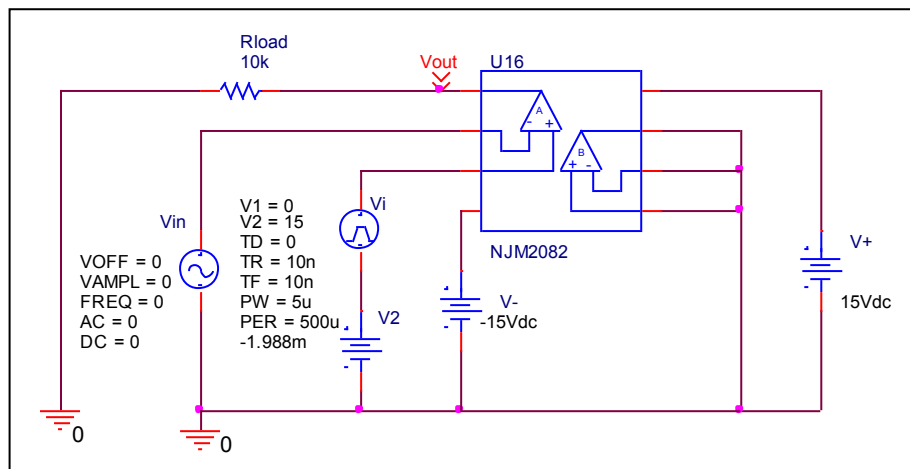
Vos	Measurement		Simulation		Error	
		2.000	mV	1.988	mV	-0.600

Slew Rate, +SR, -SR

Simulation result



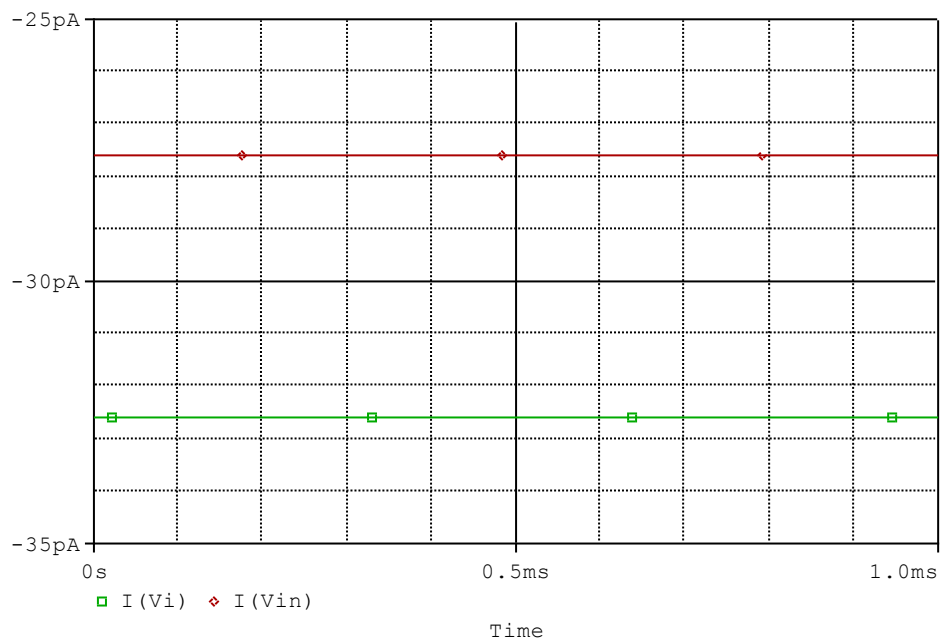
Evaluation circuit



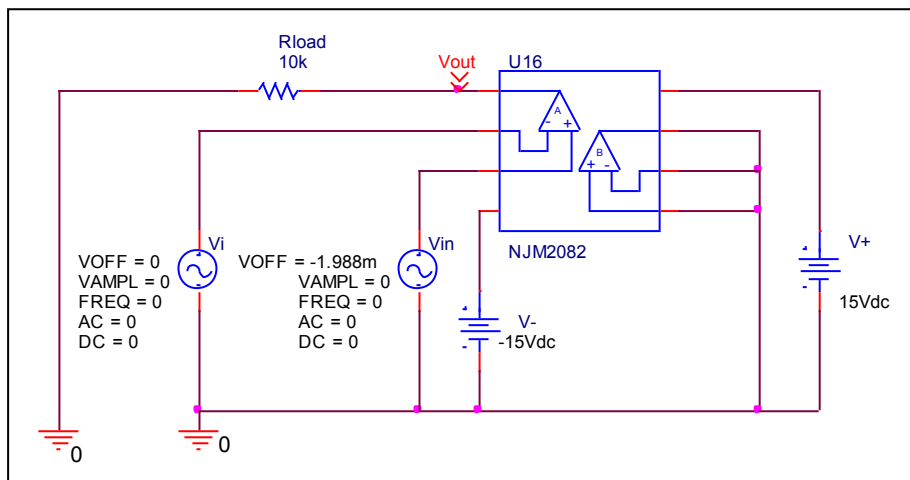
Slew Rate(v/us)	Data sheet	Simulation	%Error
		20.000V/us	19.916V/us

Input current Ib, Ibos

Simulation result



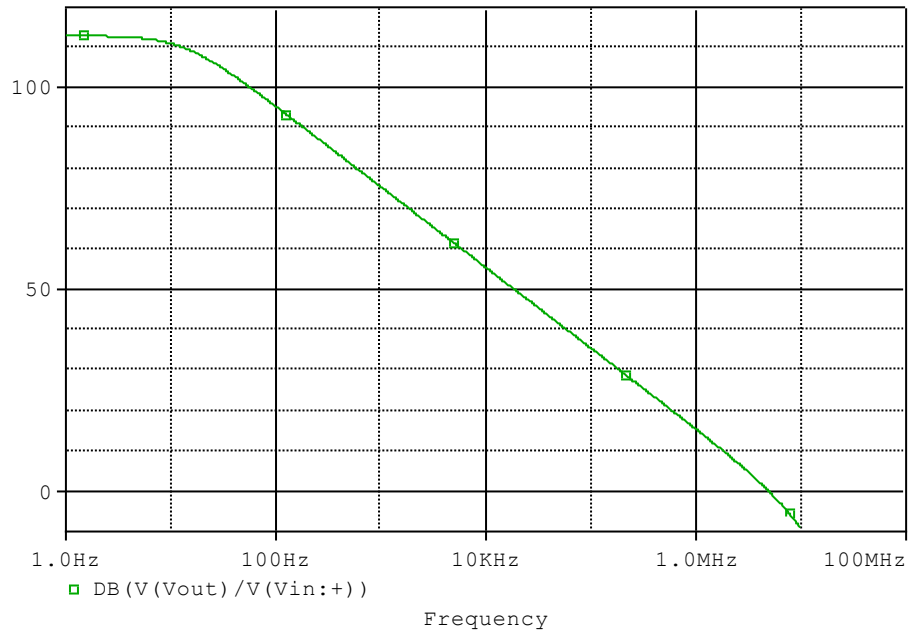
Evaluation circuit



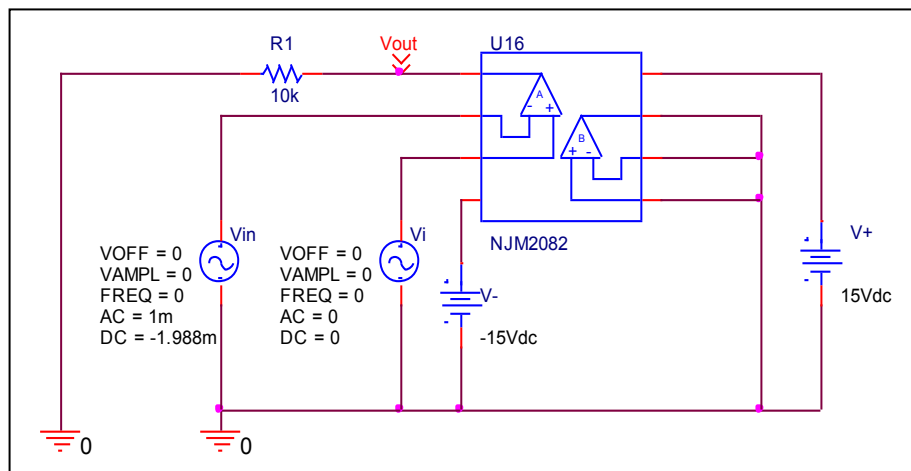
	Data sheet	Simulation	%Error
Ib(pA)	30.000	30.000	0.000
Ibos(pA)	5.000	5.000	0.000

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

Simulation result



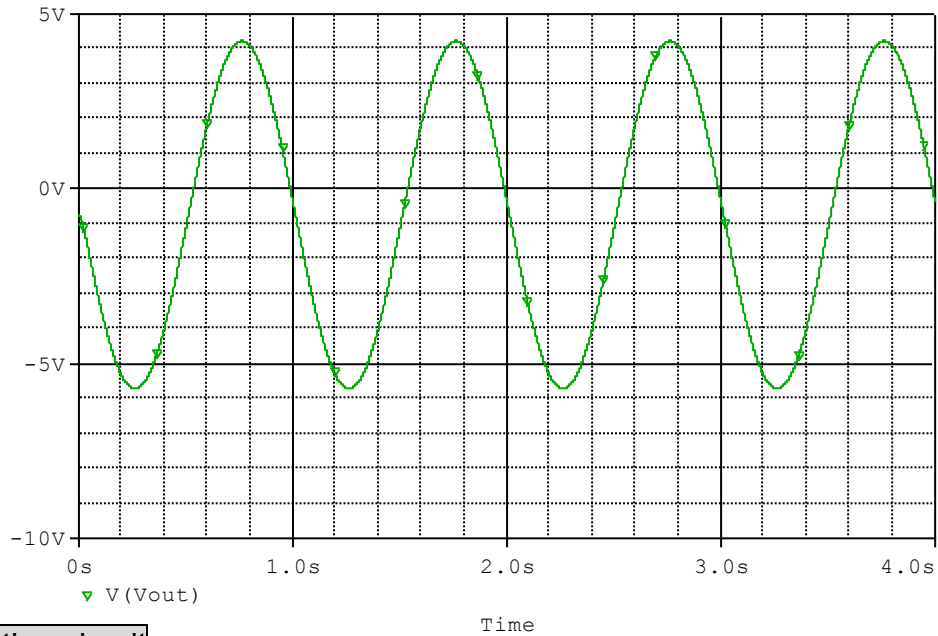
Evaluation circuit



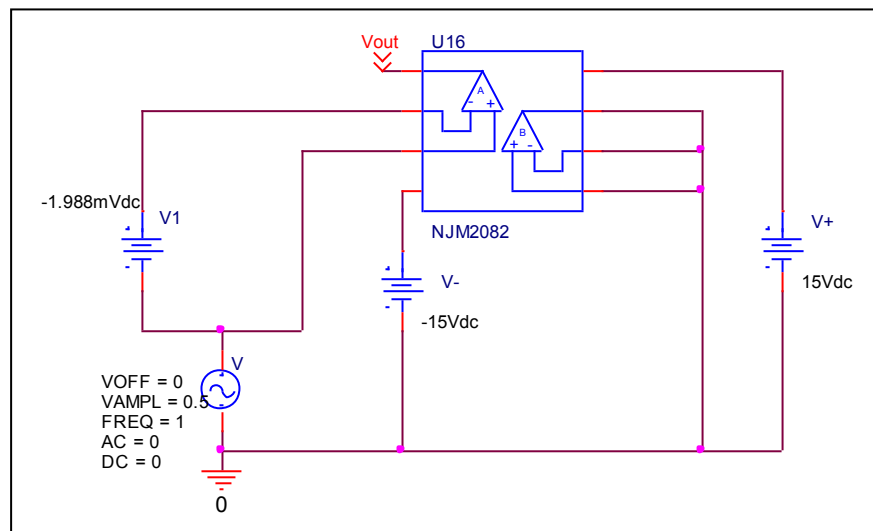
	Data sheet	Simulation	%Error
f-0dB(MHz)	5.000	5.067	1.340
Av-dc	110.000	112.931	2.665

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio= $441570.447/9.945=44401.251$

CMRR	Data sheet	Simulation	%Error
		90.000	92.947