

Device Modeling Report

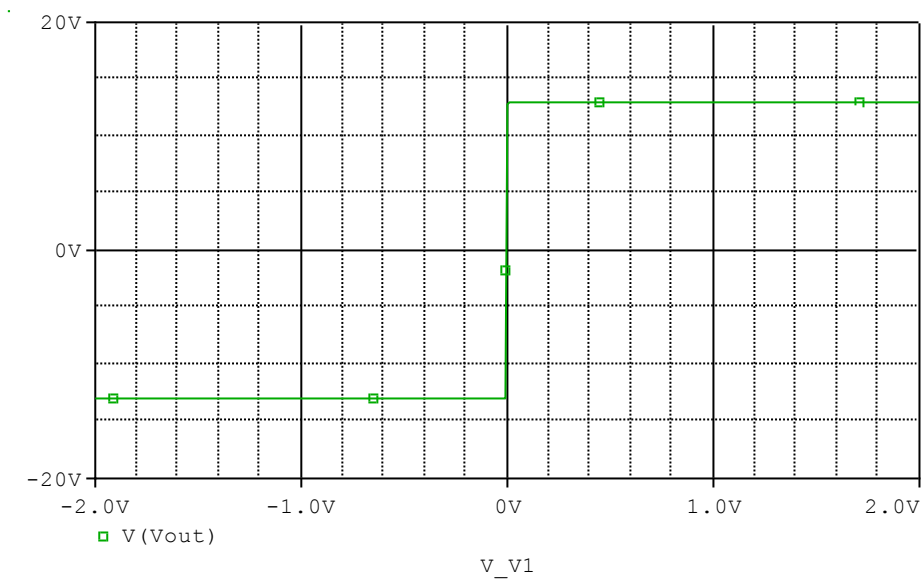
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM2114
MANUFACTURER: NEW JAPAN RADIO CO., LTD.



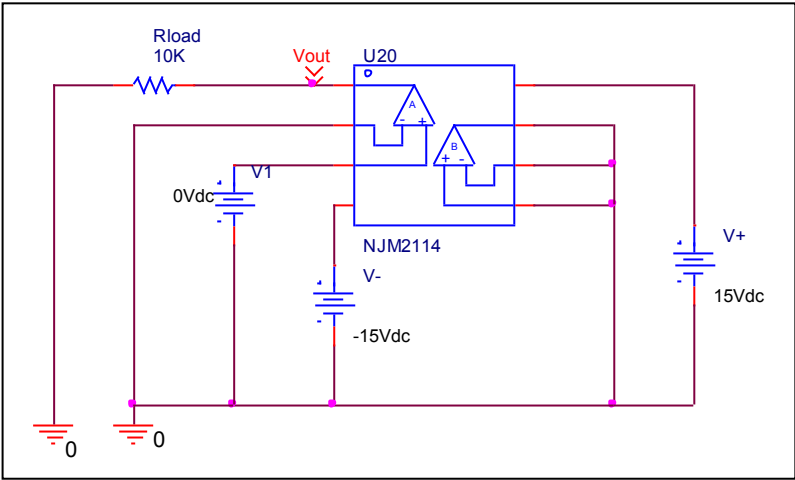
Bee Technologies Inc.

Output Voltage Swing, +Vout and -Vout

Simulation result



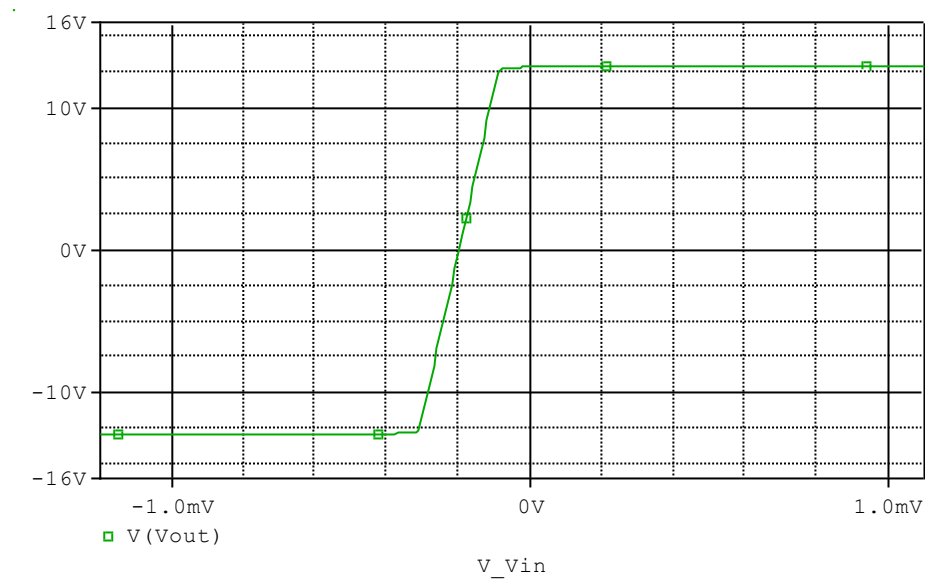
Evaluation circuit



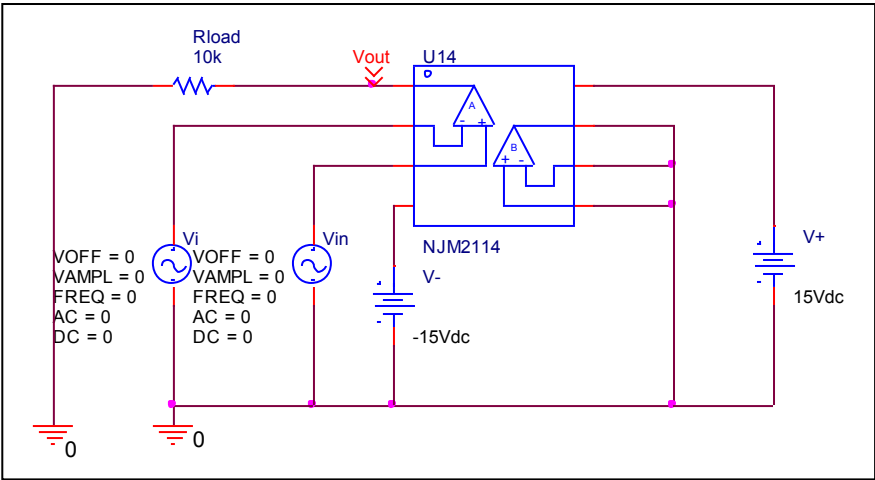
Output Voltage Swing	Data sheet	Simulation	%Error
+Vout(V)	13.000	13.000	0
-Vout(V)	-13.000	-13.000	0

Input Offset Voltage

Simulation result



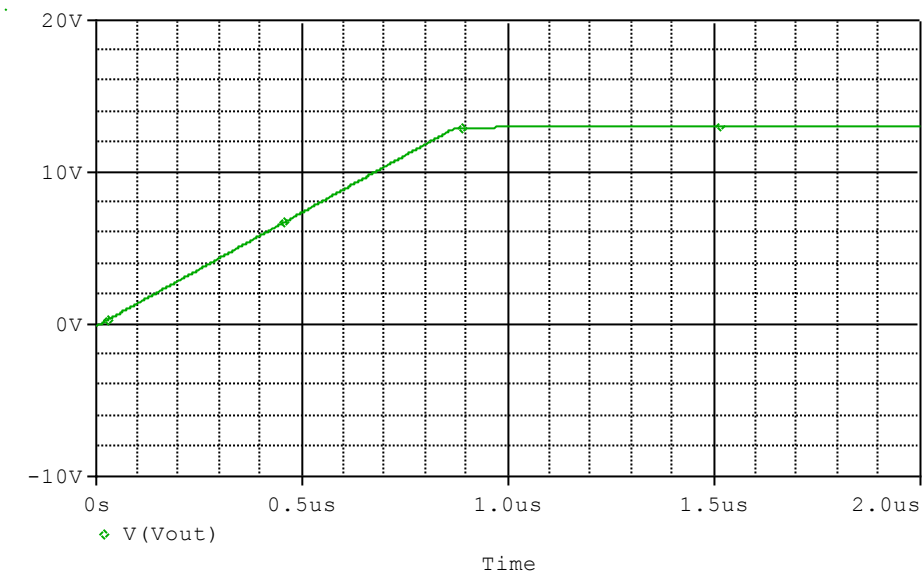
Evaluation circuit



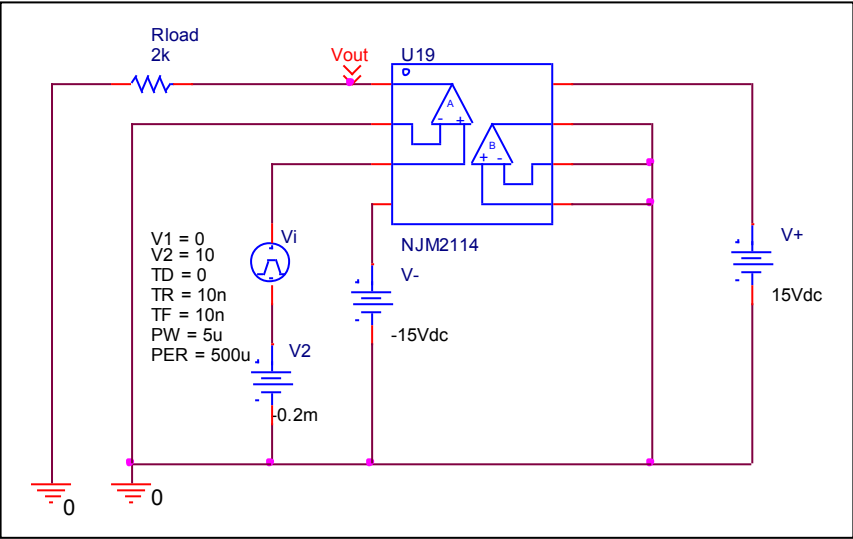
Vos	Measurement		Simulation		Error	
	0.200	mV	0.200	mV	0	%

Slew Rate, +SR, -SR

Simulation result



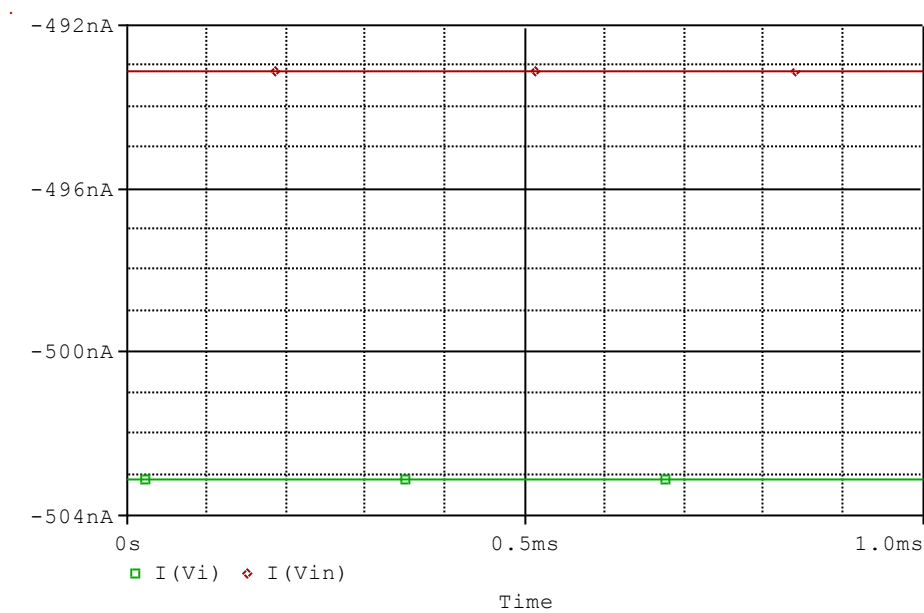
Evaluation circuit



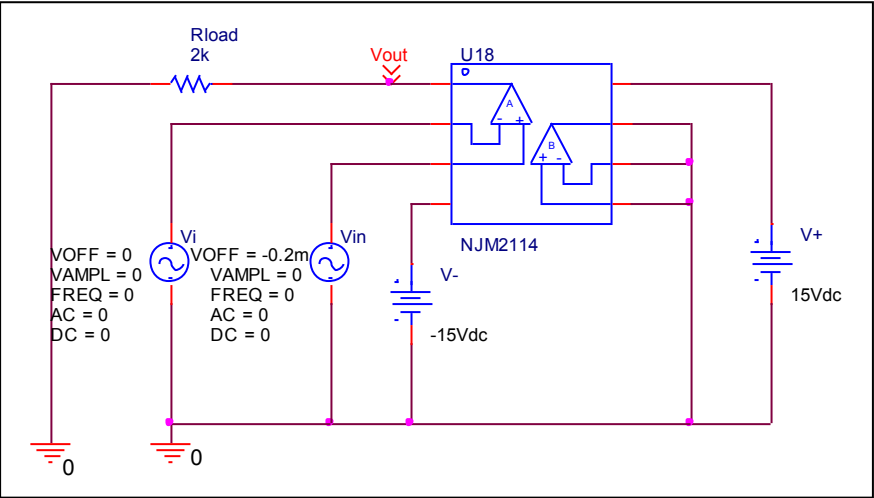
Slew Rate(v/us)	Data sheet	Simulation	%Error
	15.000	14.990	-0.067

Input current Ib, Ibos

Simulation result



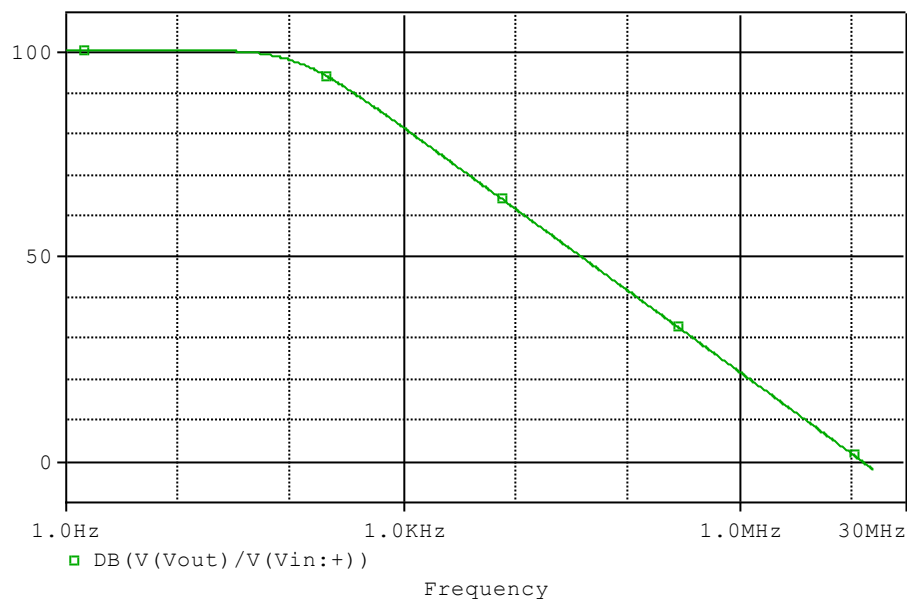
Evaluation circuit



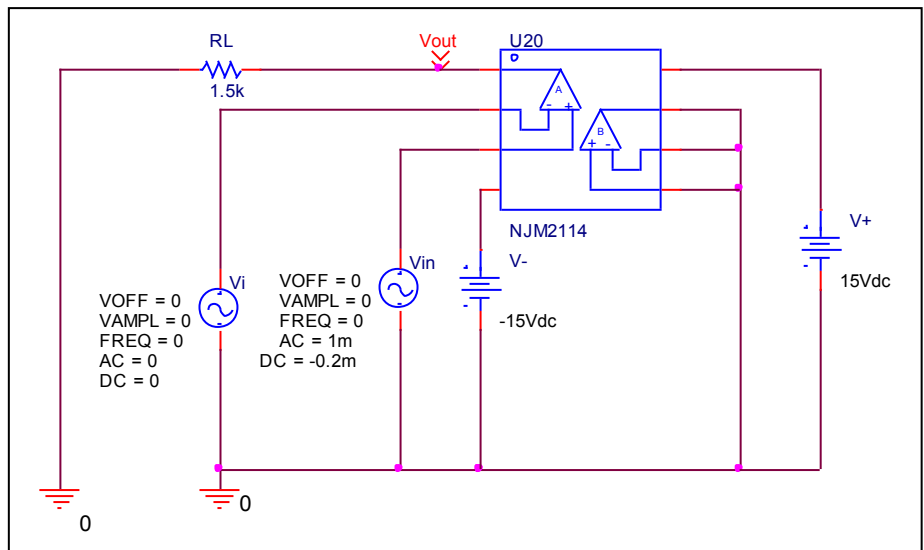
	Data sheet	Simulation	%Error
Ib(nA)	500.000	498.116	-0.377
Ibos(nA)	10.000	10.011	0.110

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

Simulation result



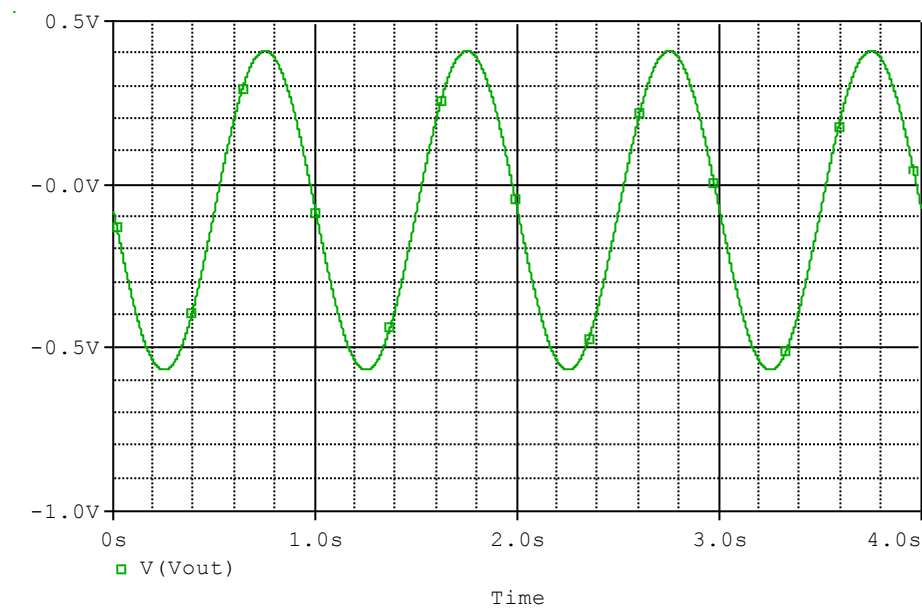
Evaluation circuit



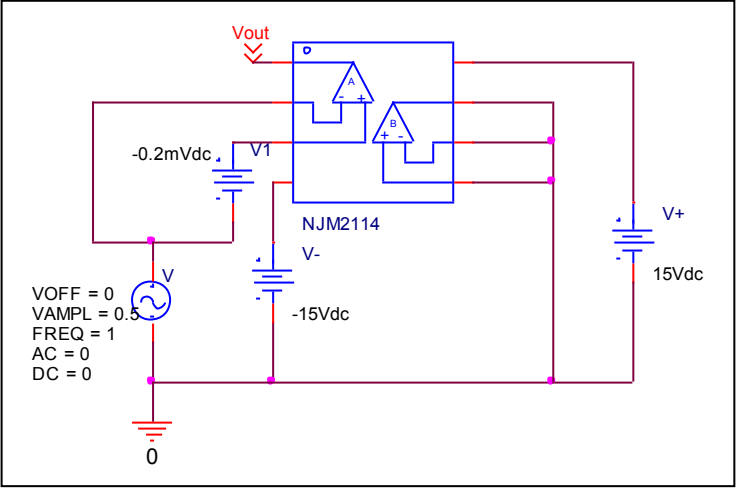
	Data sheet	Simulation	%Error
f-0dB(MHz)	13.000	12.493	-3.900
Av-dc(dB)	104.000	100.807	-3.070

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio= $109736.220/0.977=112319.571$

CMRR(dB)	Data sheet	Simulation	%Error
	100.000	101.009	1.009