

Device Modeling Report

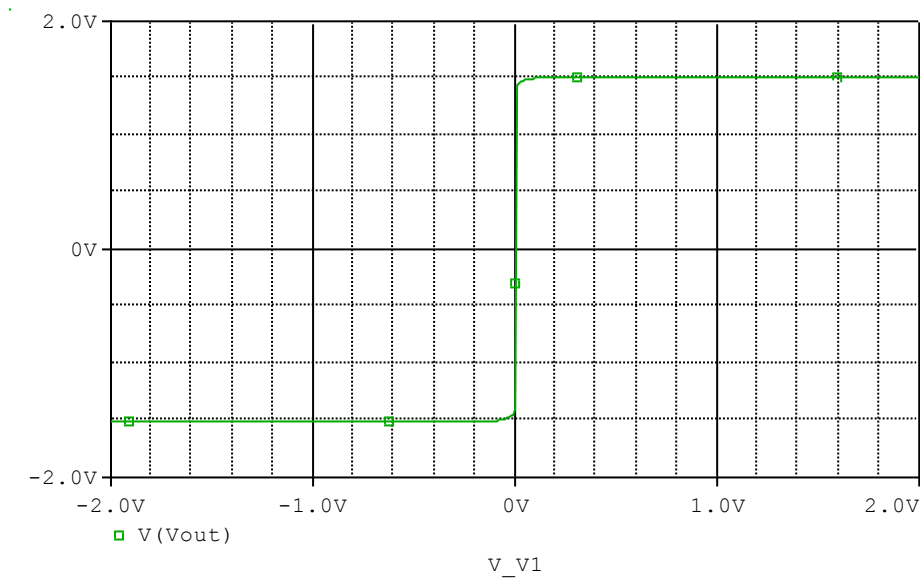
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM2712
MANUFACTURER: NEW JAPAN RADIO CO., LTD.



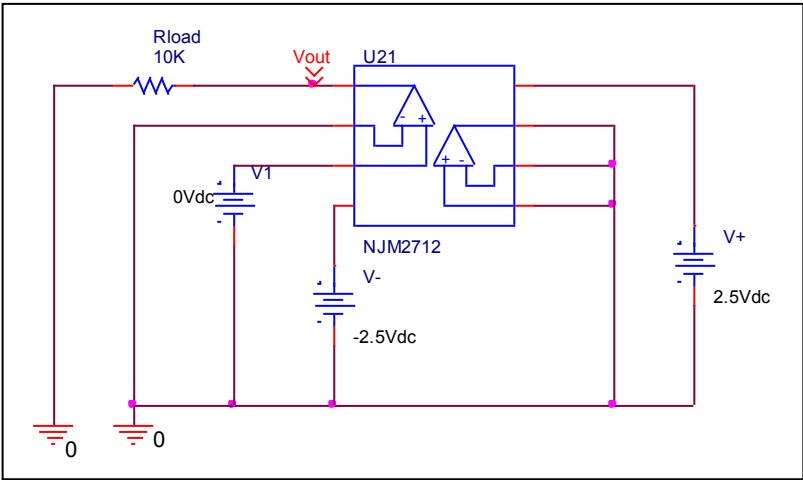
Bee Technologies Inc.

Output Voltage Swing

Simulation result



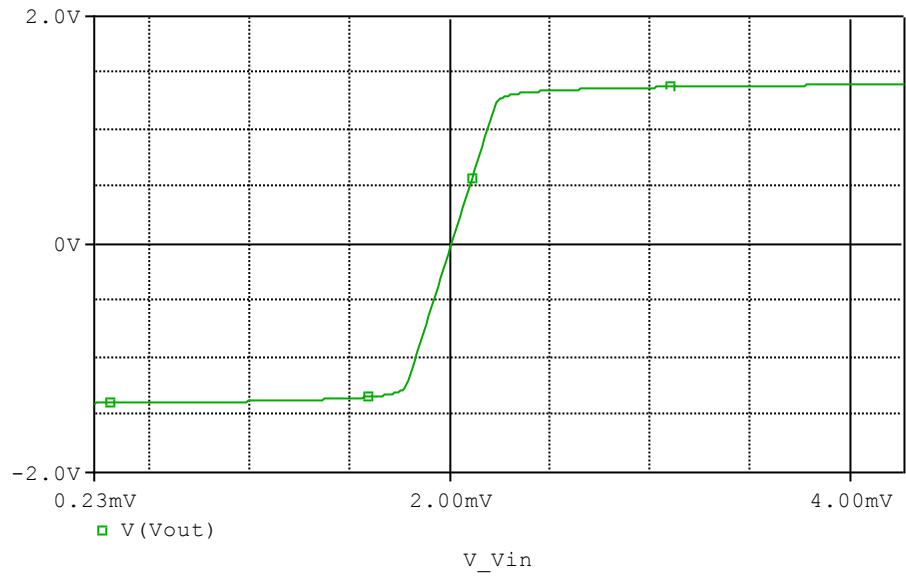
Evaluation circuit



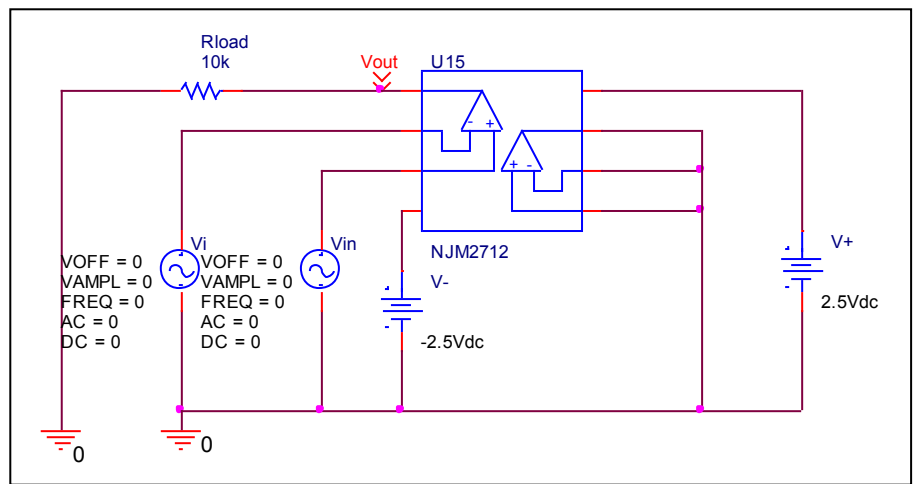
Output Voltage Swing	Data sheet	Simulation	%Error
+Vout(V)	1.500	1.500	0.000
-Vout(V)	-1.500	-1.500	0.000

Input Offset Voltage

Simulation result



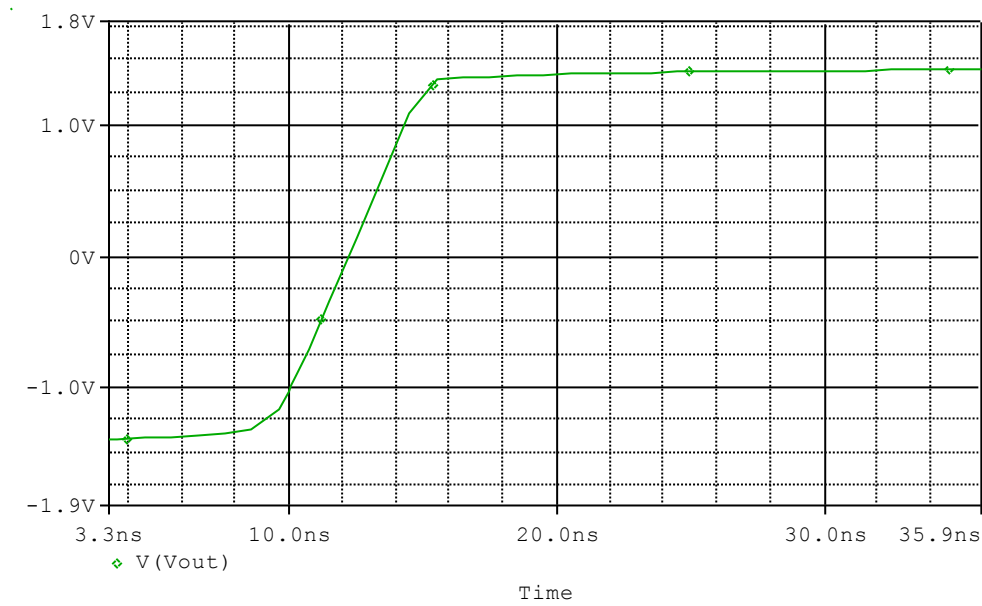
Evaluation circuit



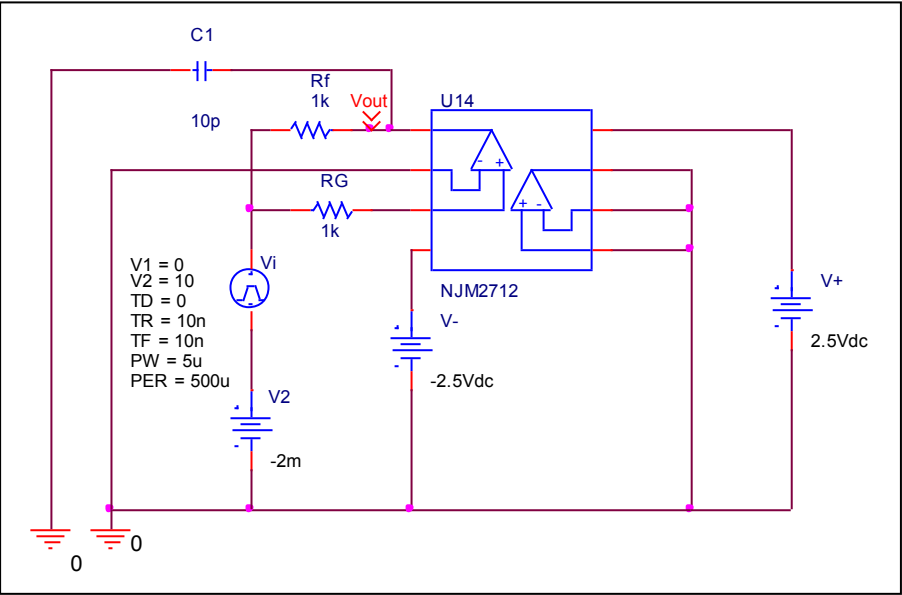
Vos	Measurement		Simulation		Error	
	2.000	mV	2.000	mV	0.000	%

Slew Rate

Simulation result



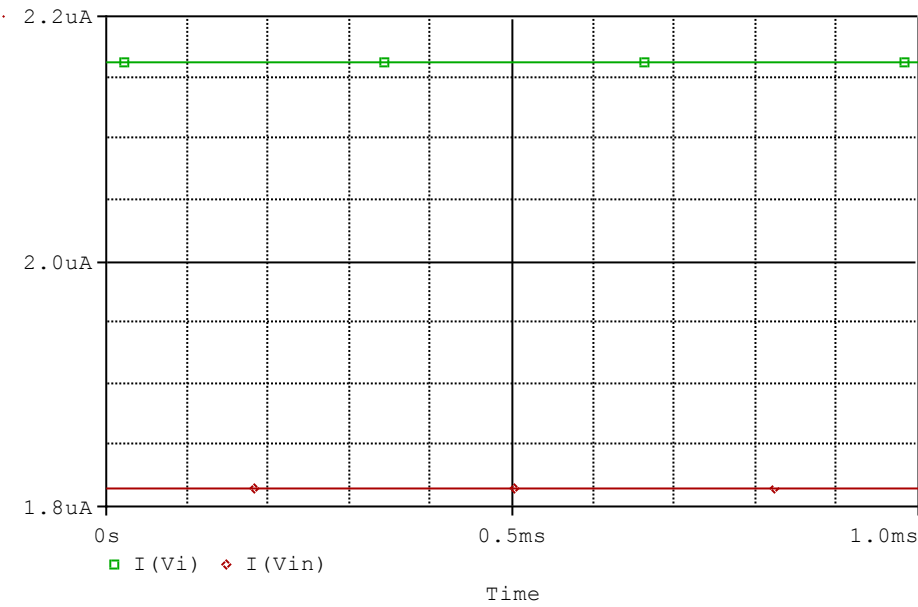
Evaluation circuit



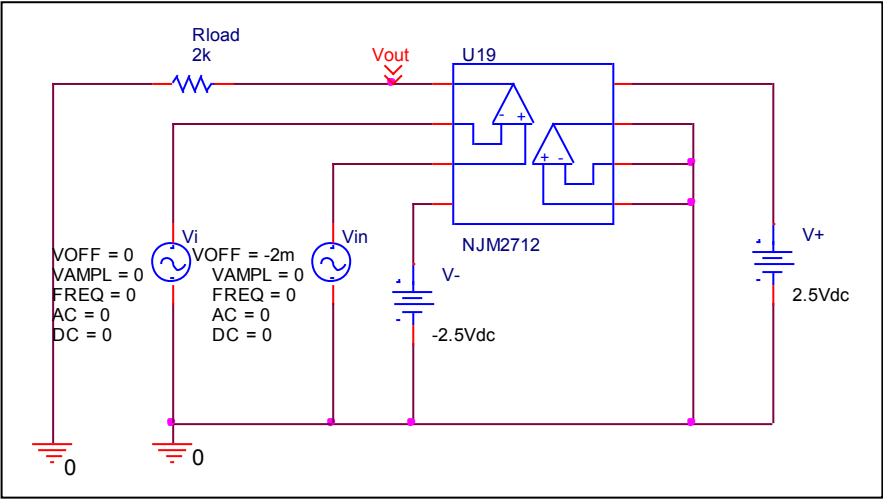
Slew Rate(v/us)	Data sheet	Simulation	%Error
	260.000	270.000	3.846

Input current

Simulation result



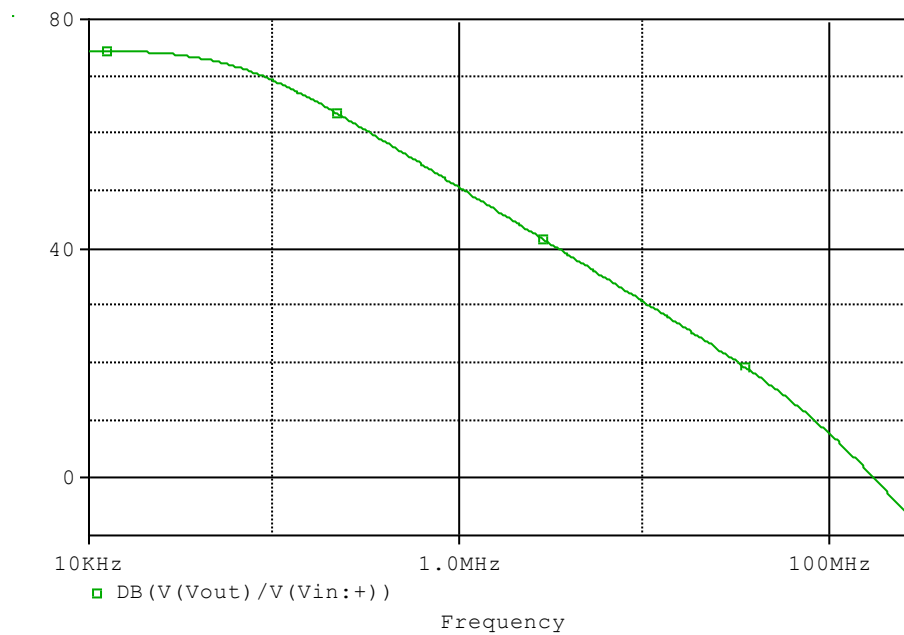
Evaluation circuit



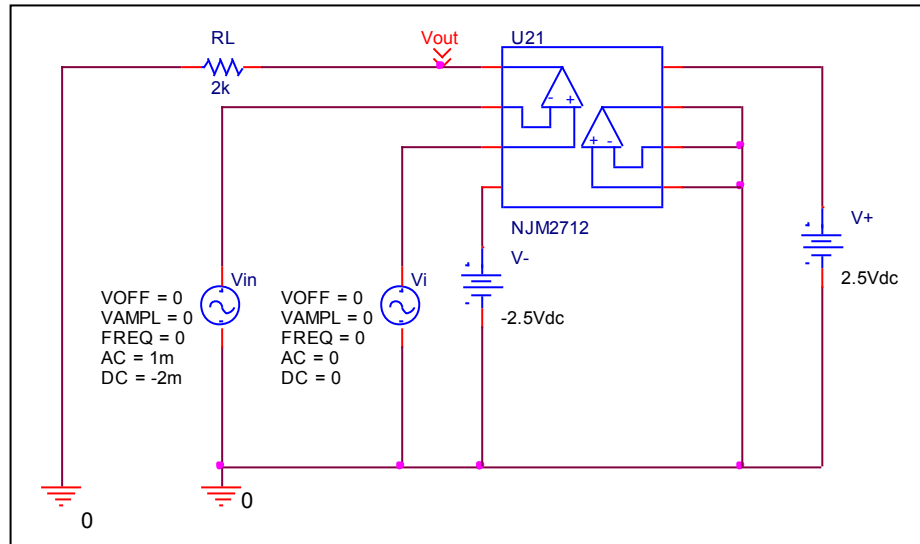
	Data sheet	Simulation	%Error
Ib(nA)	2.000	1.988	-0.600
Ibos(nA)	350.000	348.416	-0.453

Open Loop Voltage Gain vs. Frequency

Simulation result



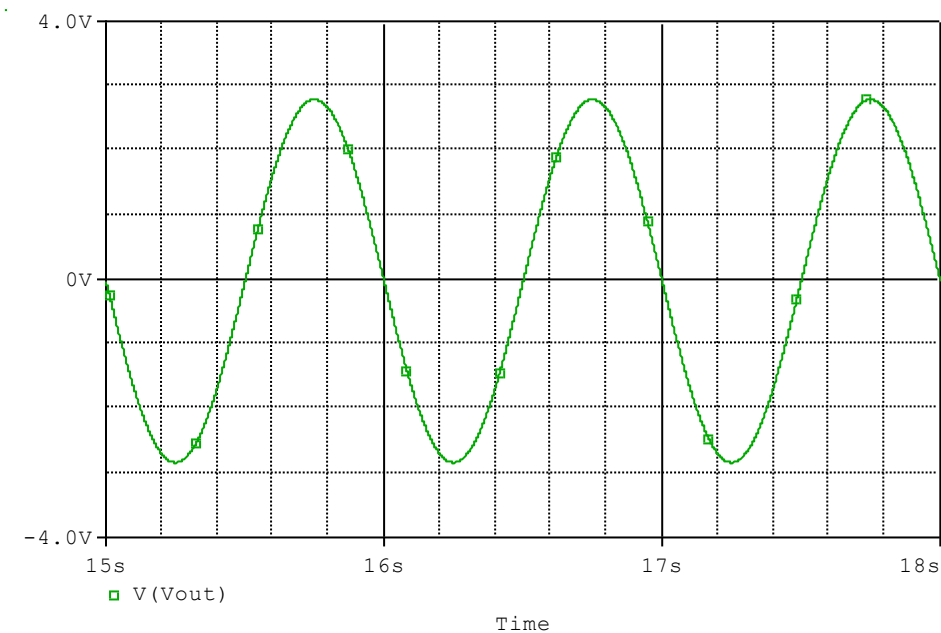
Evaluation circuit



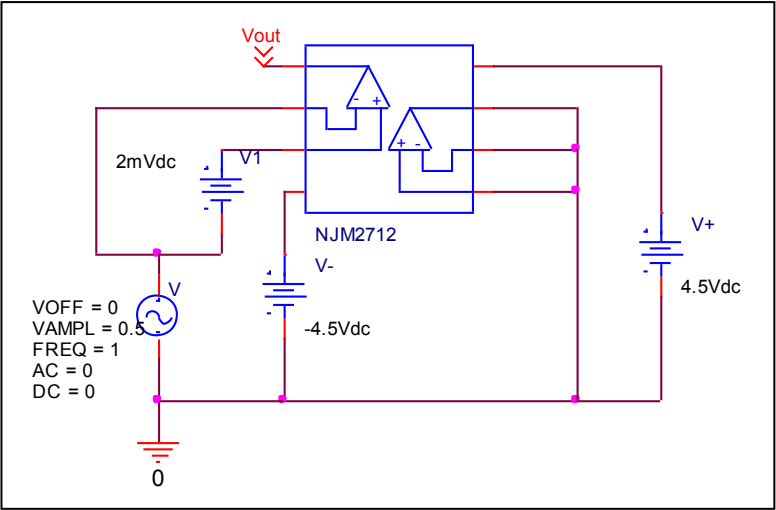
	Data sheet	Simulation	%Error
f-0dB(MHz)	180.000	180.211	0.117
Av-dc(dB)	75.000	74.558	-0.589

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio= $5344.412/5.625=950.117$

CMRR(dB)	Data sheet	Simulation	%Error
	60.000	59.555	-0.740