

Device Modeling Report

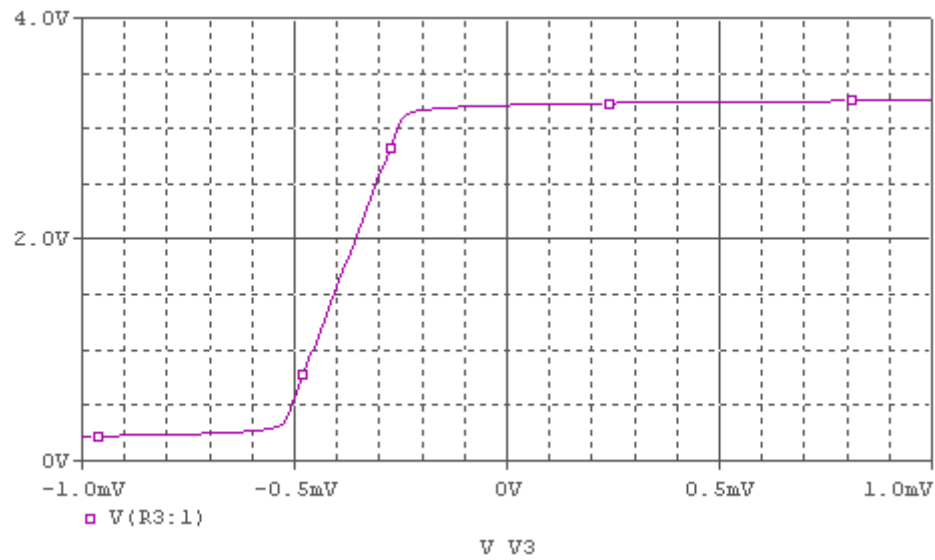
COMPONENTS: OPERATIONAL AMPLIFIER WITH EVR
PART NUMBER: NJM2172
MANUFACTURER: NEW JAPAN RADIO



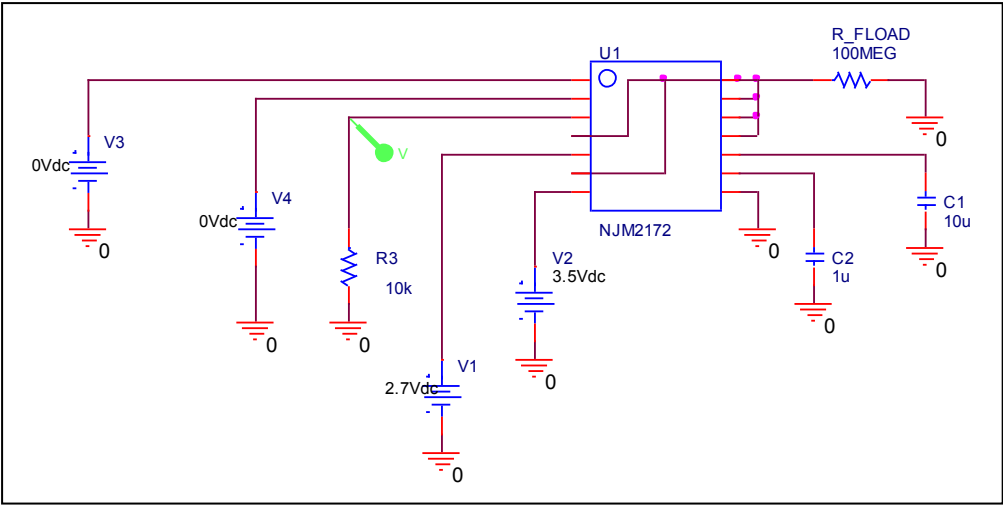
Bee Technologies Inc.

Input Offset Voltage

Simulation result



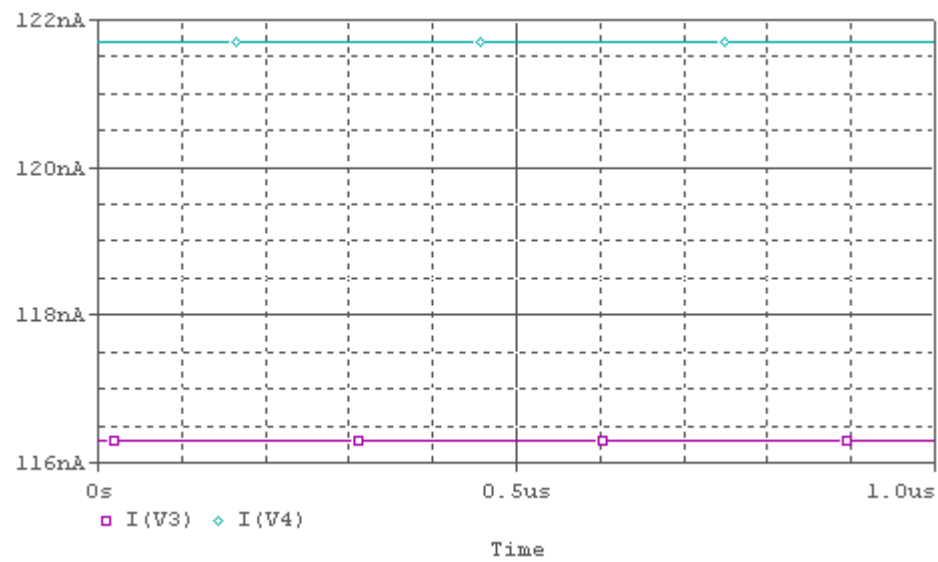
Evaluation circuit



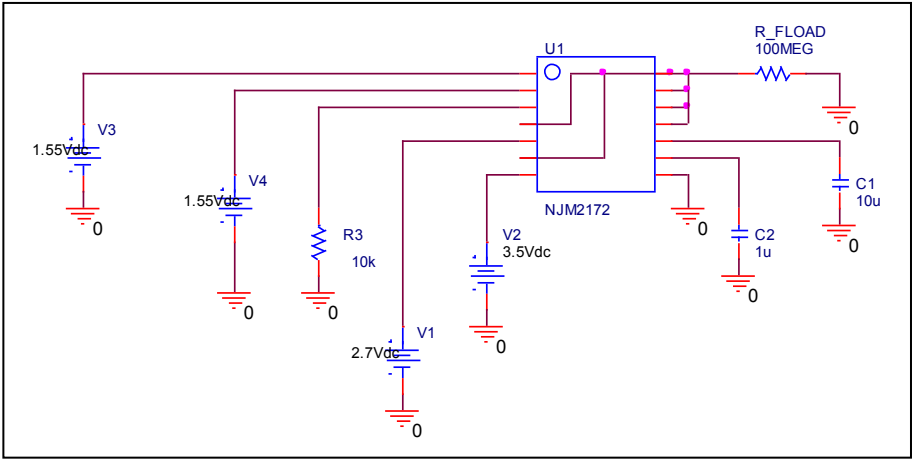
Vos	Measurement		Simulation		Error
	-0.4	mV	-0.401684	mV	0.421(%)

Input Bias Current Ib, Ibos

Simulation result



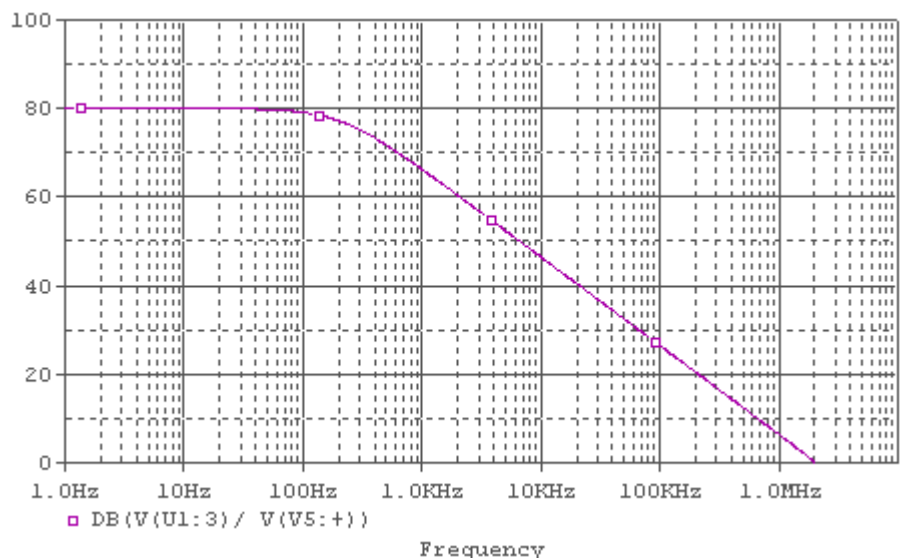
Evaluation circuit



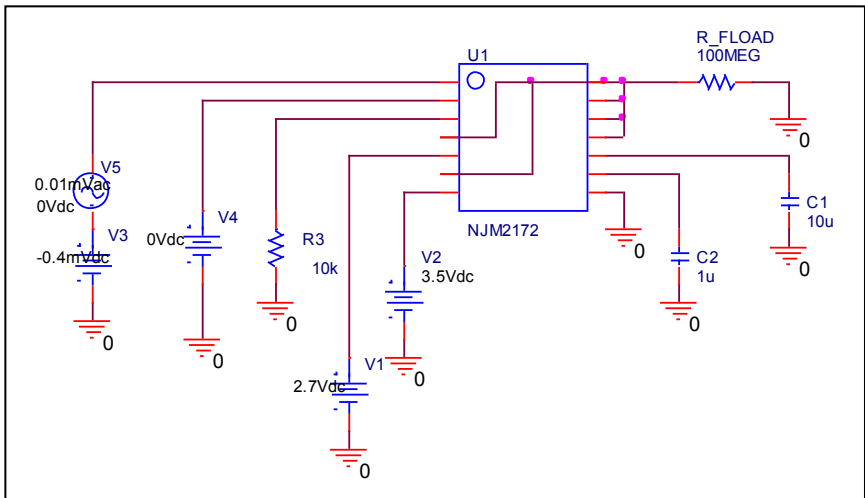
Ib	Measurement	Simulation	Error
	120(nA)	119(nA)	0.833(%)

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

Simulation result



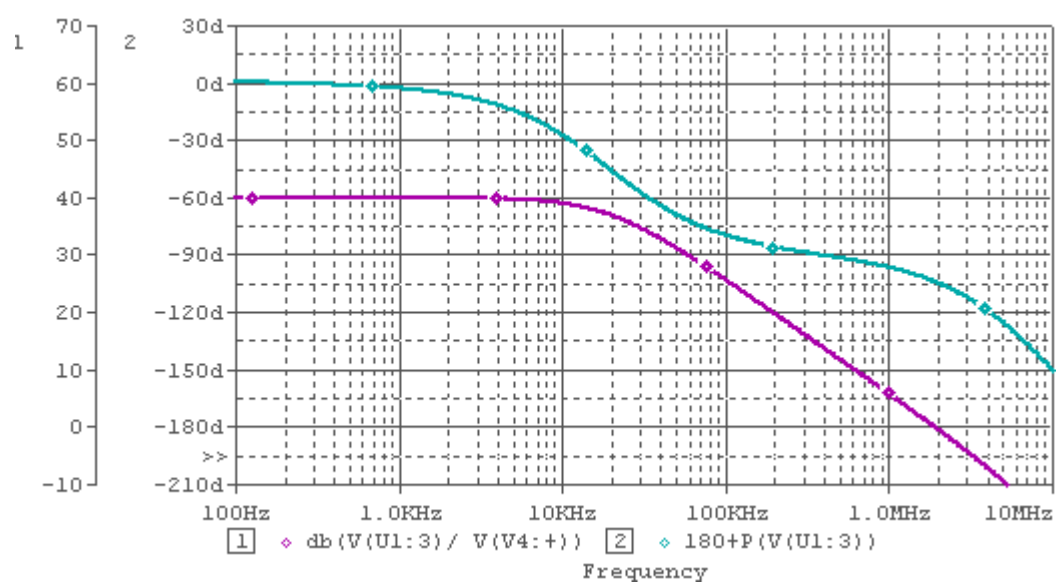
Evaluation circuit



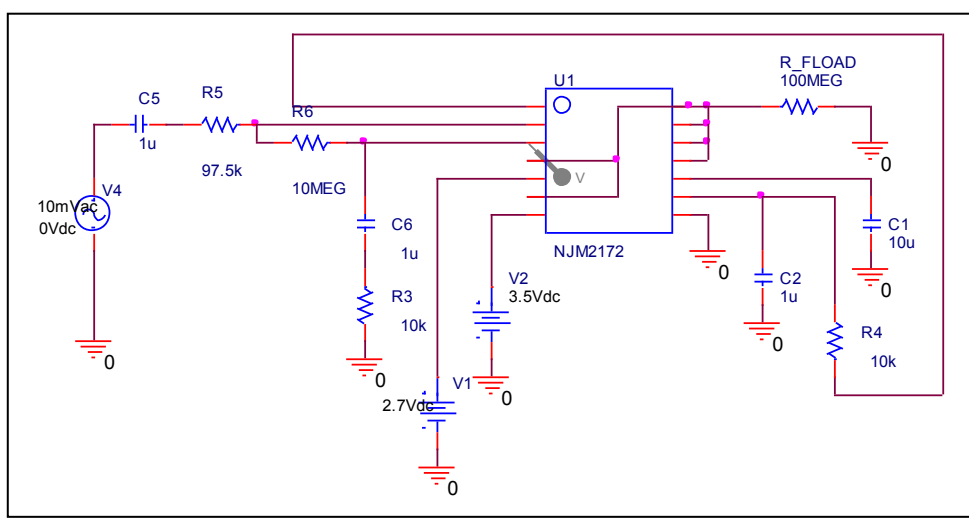
	Measurement	Simulation	%Error
f-0dB(MHz)	2.000	2.036	1.800
Av-dc(dB)	80.000	80.031	0.039

Voltage Gain 1 vs. Frequency, Av-dc, f-0dB

Simulation result



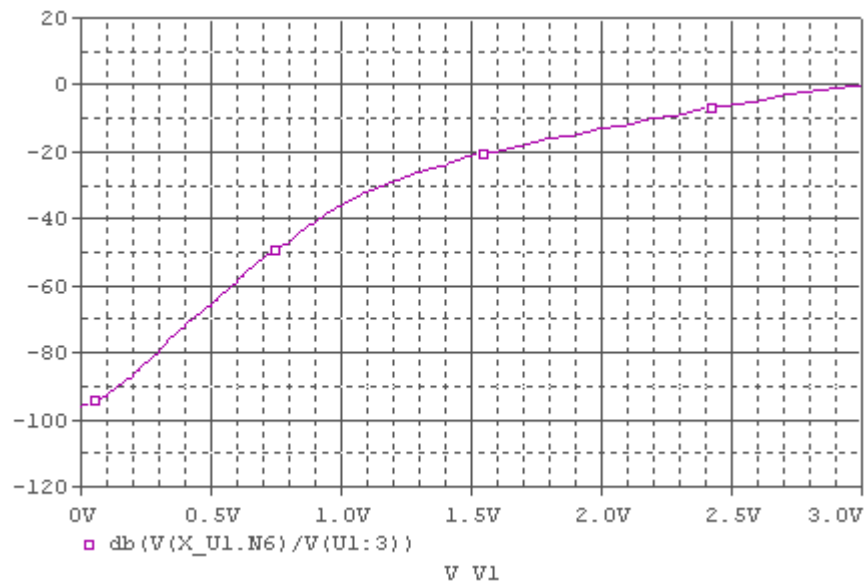
Evaluation circuit



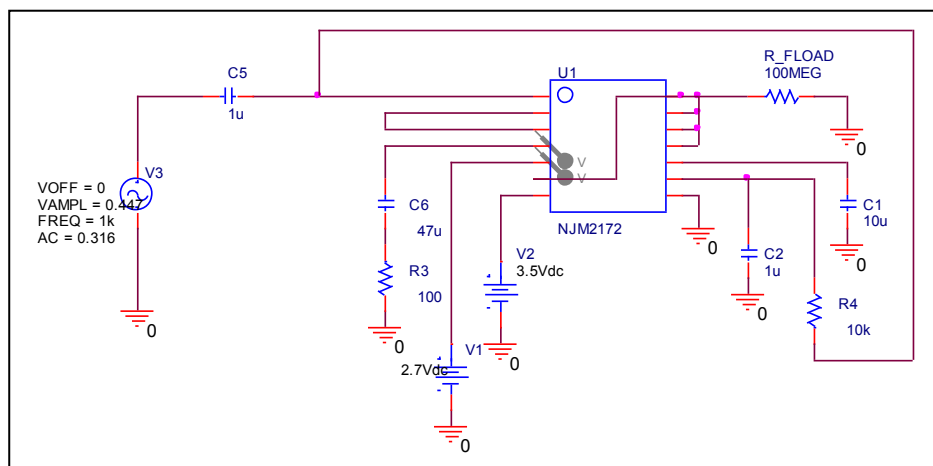
	Measurement	Simulation	%Error
f-0dB(MHz)	2	2.036	1.8
Av-dc(dB)	80	80.031	0.03875

Voltage Gain 2 vs. EVR Control Voltage

Simulation result

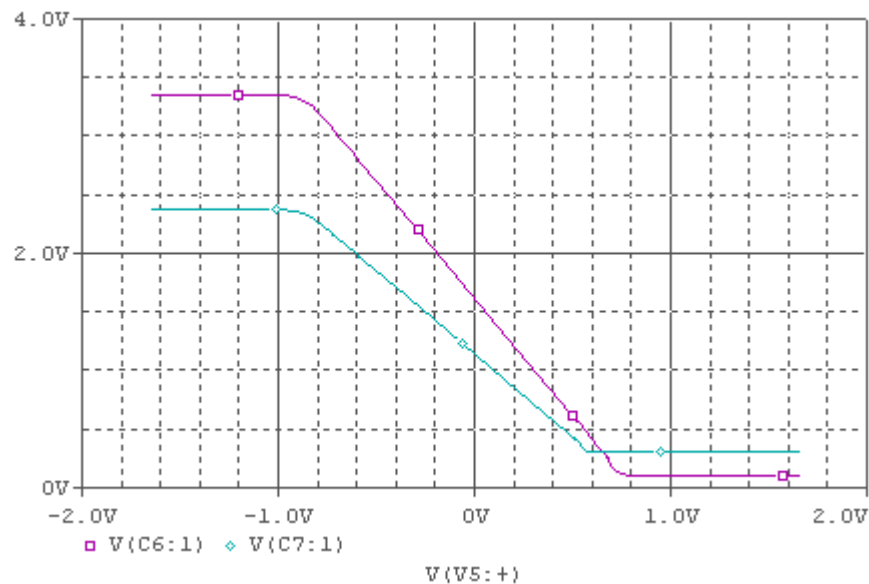


Evaluation circuit

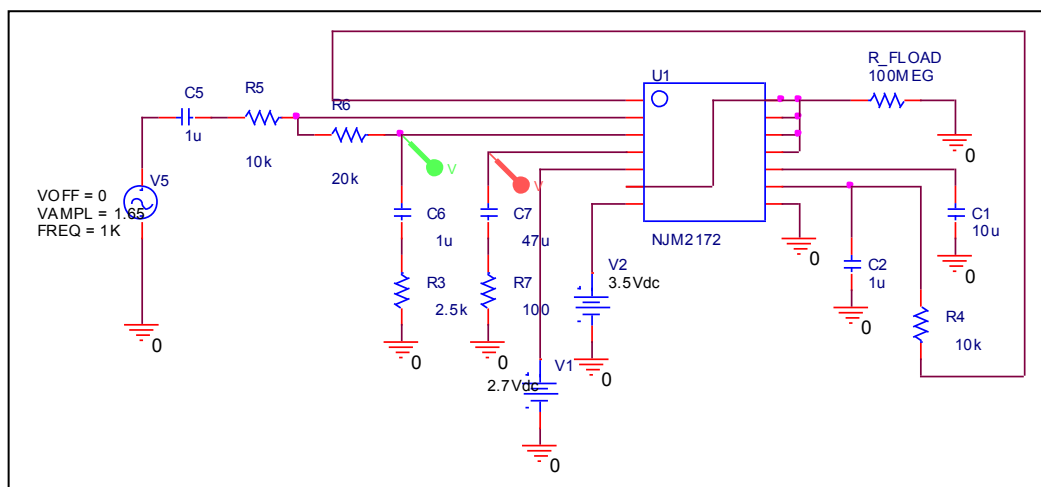


Maximum Ouput Voltage Swing

Simulation result



Evaluation circuit



Parameter	Datasheet	Simulation	Error
Vom1	1 (Vrms)	1.043 (Vrms)	4.3 (%)
Vom2	0.71 (Vrms)	0.707 (Vrms)	0.4225 (%)