

Device Modeling Report

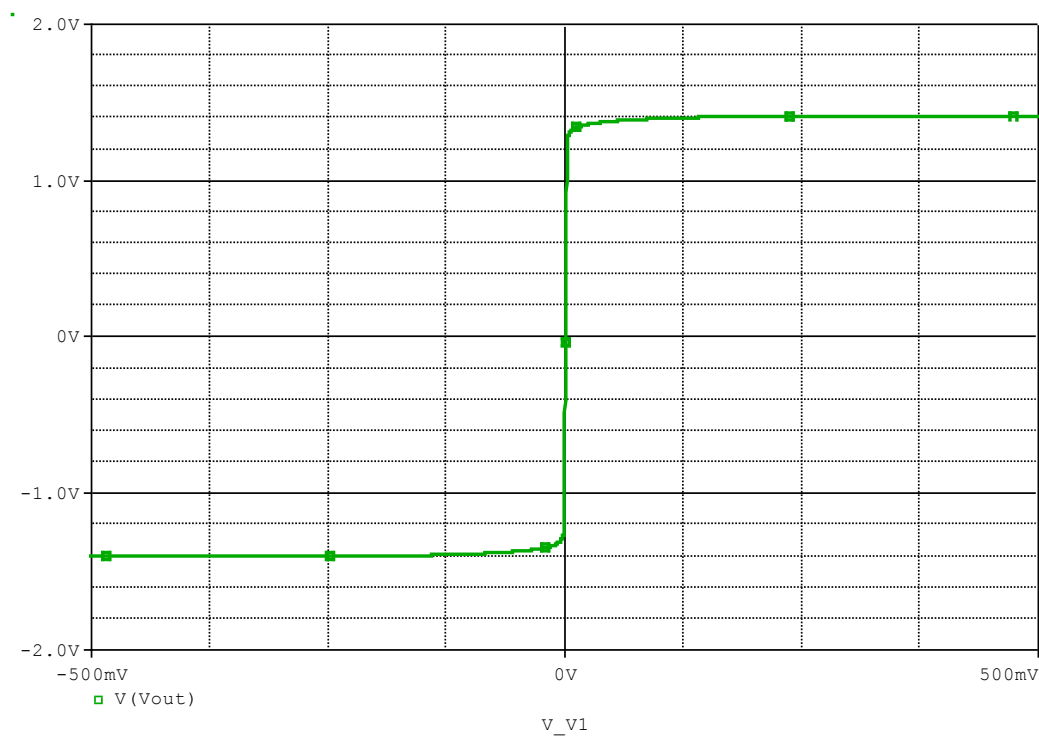
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER: NJM2720
MANUFACTURER: NEW JAPAN RADIO



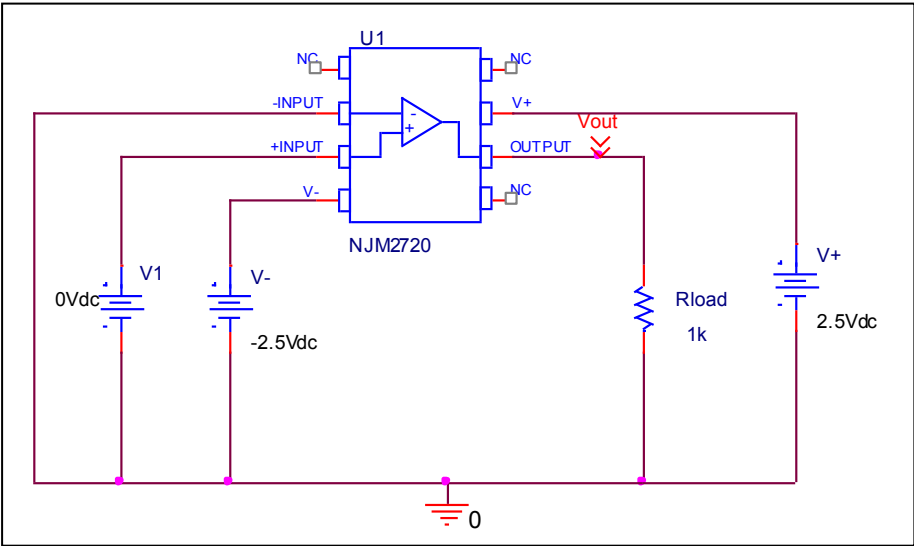
Bee Technologies Inc.

Output Voltage Swing

Simulation result



Evaluation circuit

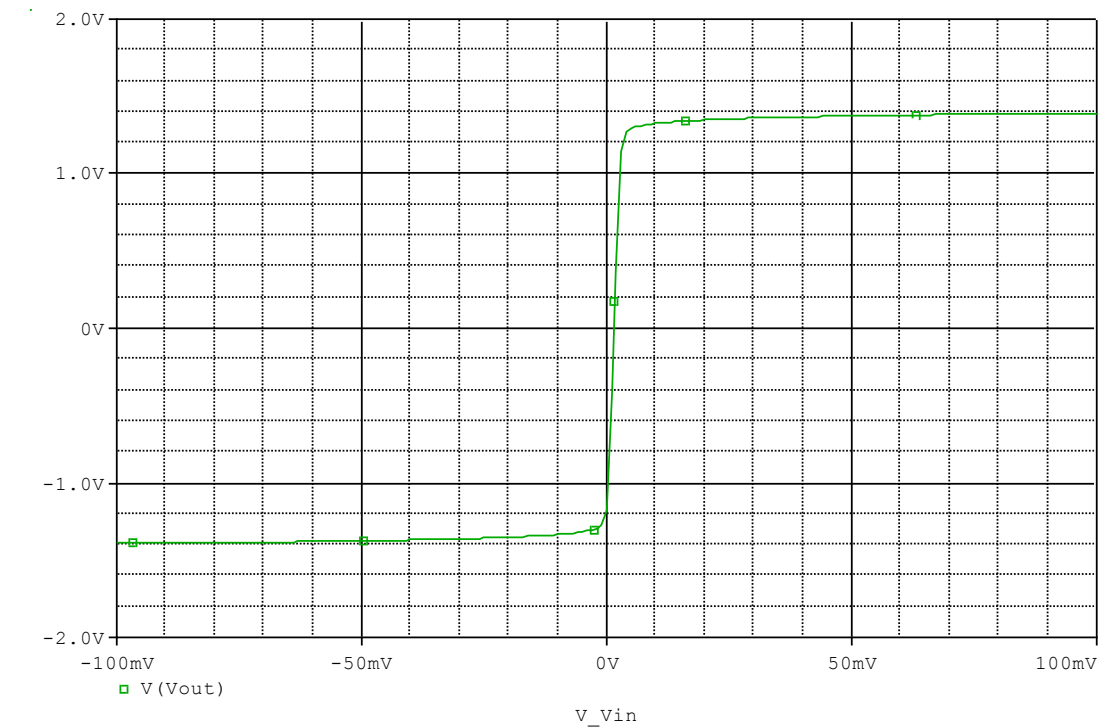


Comparison table

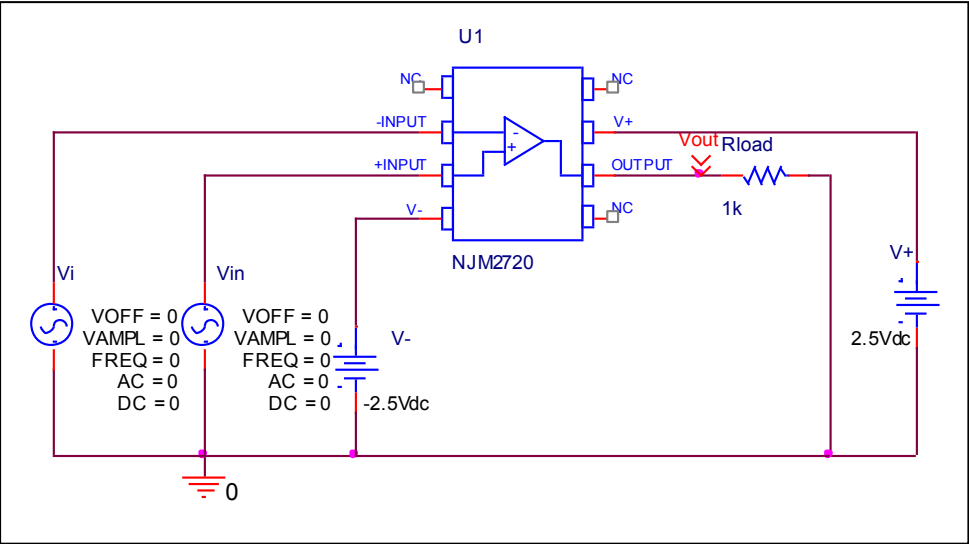
Output Voltage Swing	Measurement	Simulation	%Error
+VOUT(V)	1.400	1.406	0.400
-VOUT(V)	-1.400	-1.406	0.400

Input Offset Voltage

Simulation result



Evaluation circuit

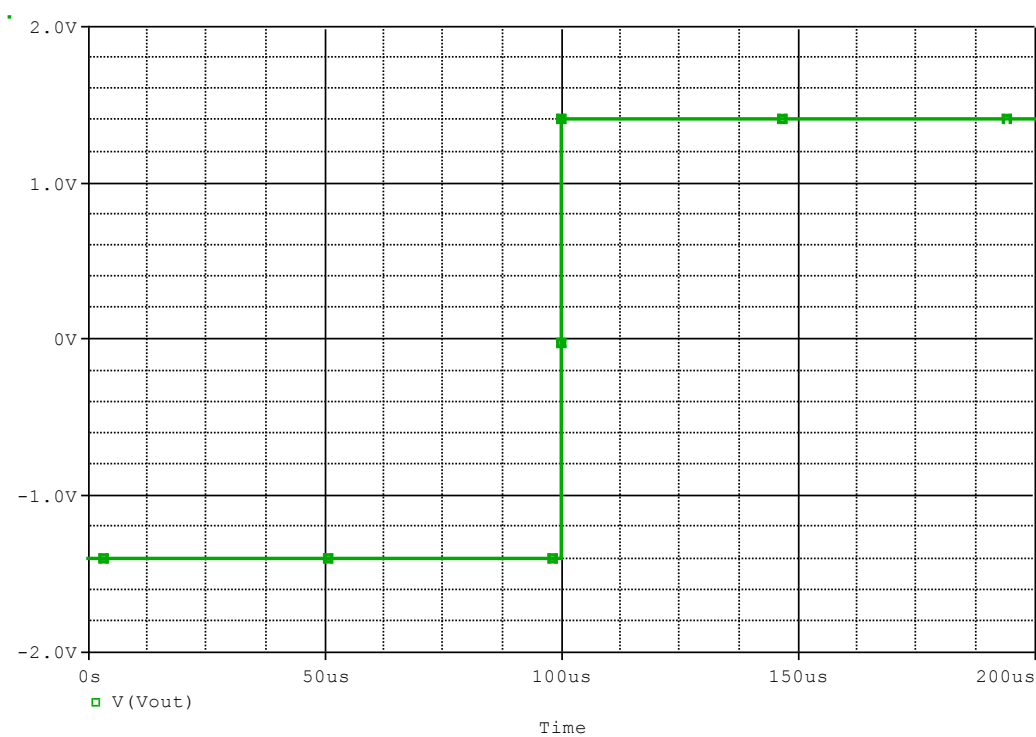


Comparison table

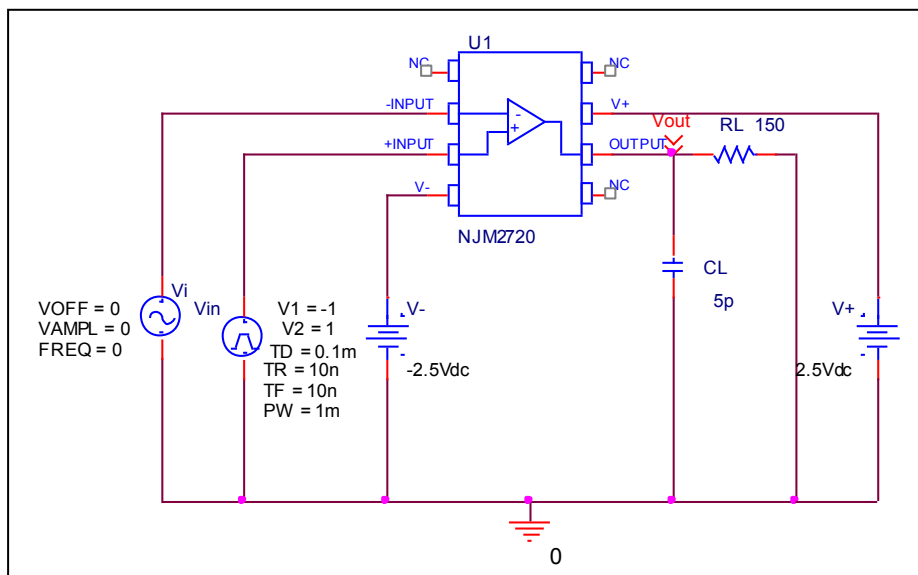
Vos(mV)	Measurement	Simulation	%Error
	1.500	1.522	1.493

Slew Rate

Simulation result



Evaluation circuit

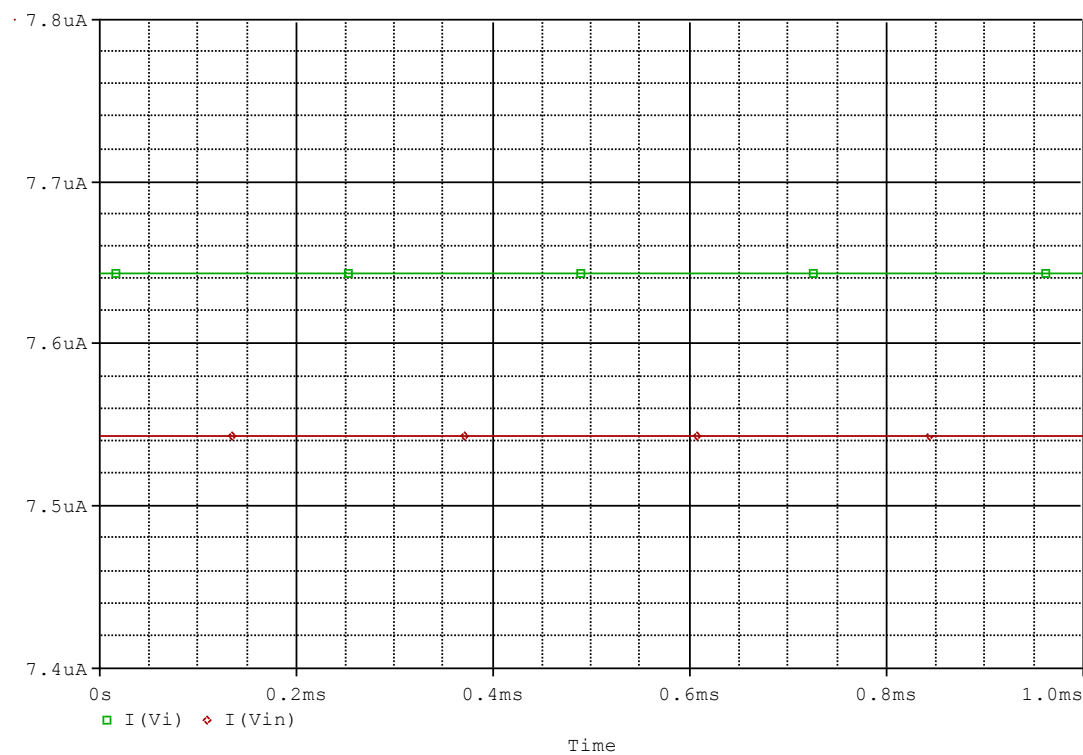


Comparison table

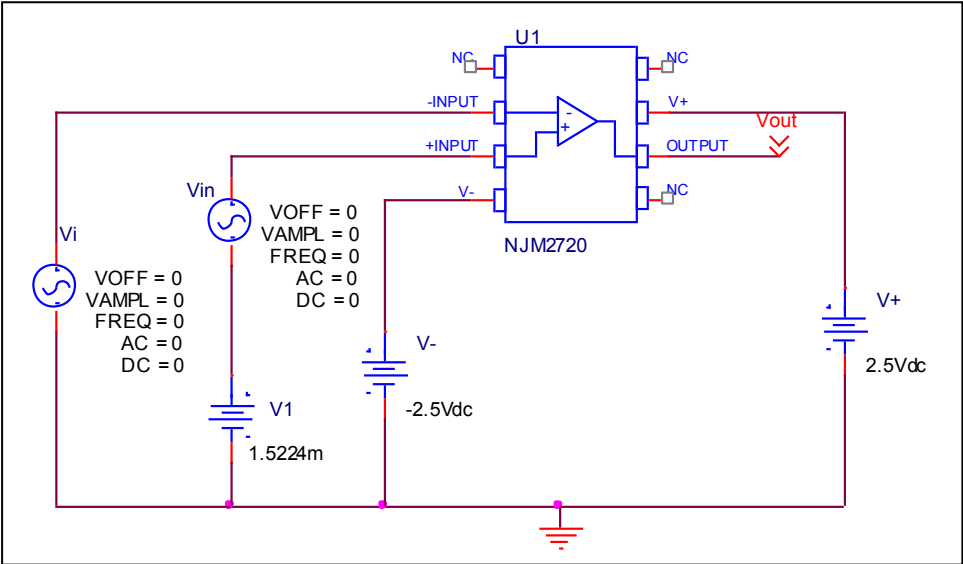
Slew Rate(v/us)	Measurement	Simulation	%Error
	250.000	247.171	-1.132

Input current Ib, Ibos

Simulation result



Evaluation circuit

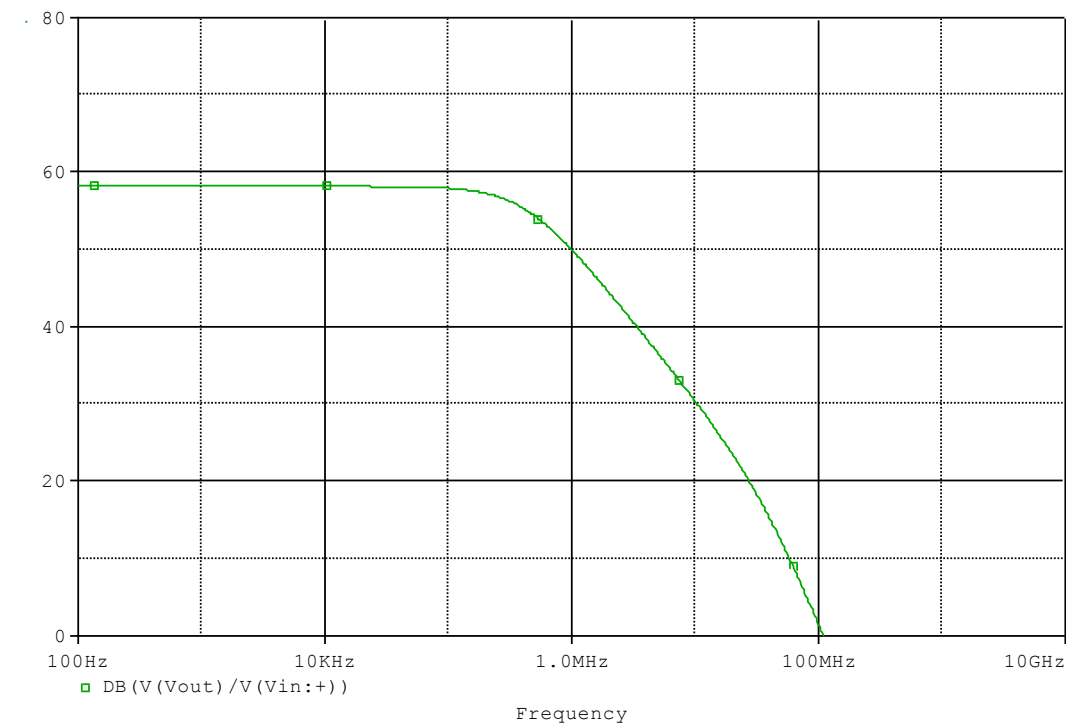


Comparison table

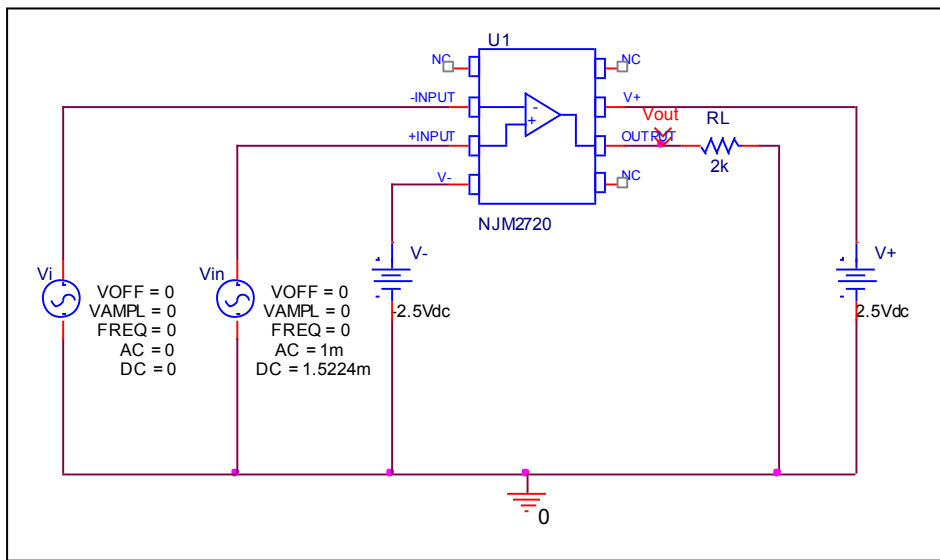
	Measurement	Simulation	%Error
Ib(uA)	7.500	7.593	1.240
Ibos(nA)	100.000	100.237	0.237

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

Simulation result



Evaluation circuit

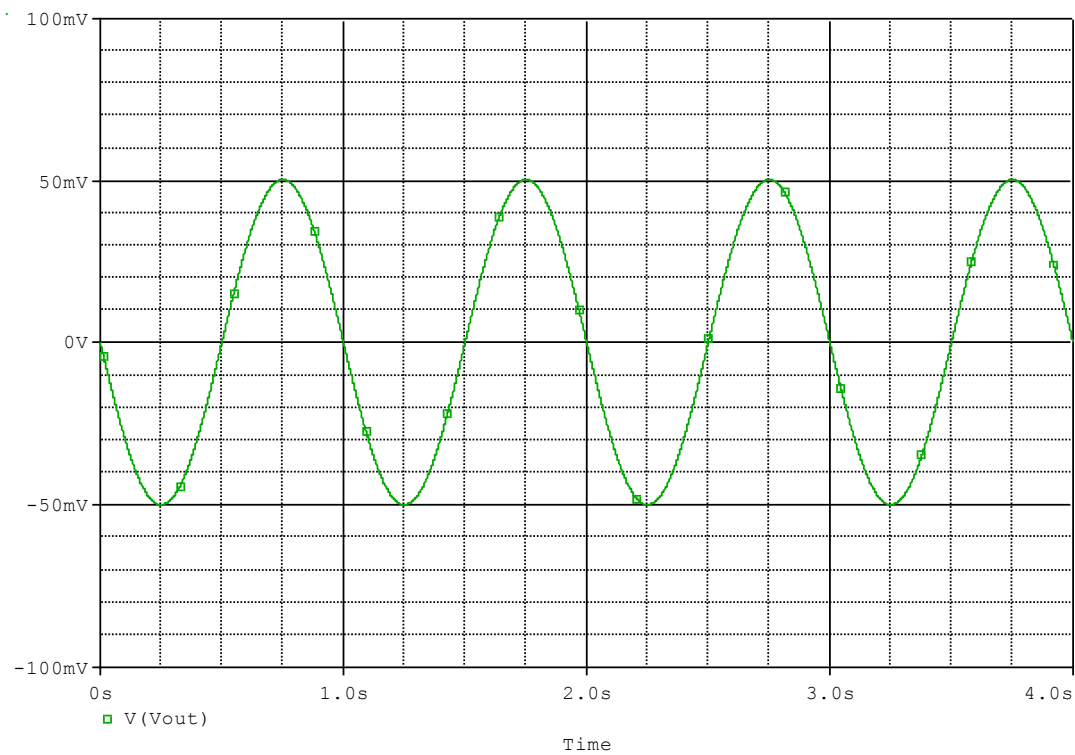


Comparison table

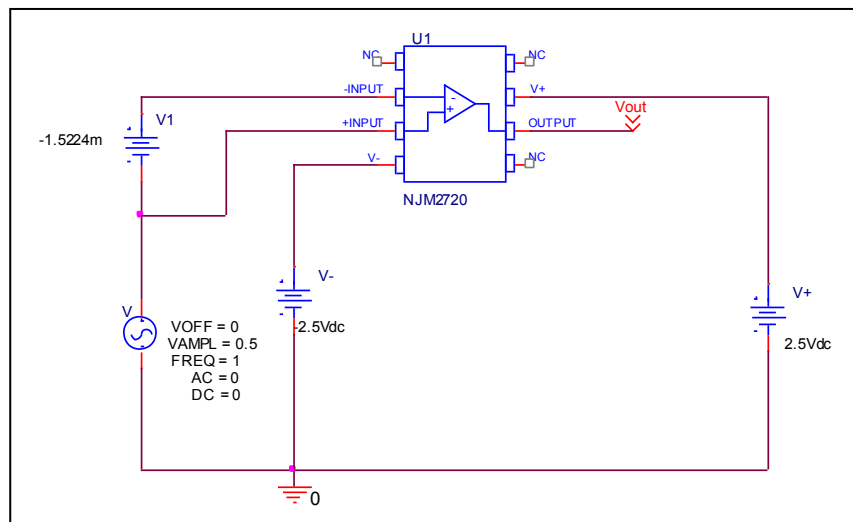
	Measurement	Simulation	%Error
f-0dB(MHz)	120.000	114.392	-4.673
Av-dc(dB)	60.000	58.163	-3.062

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio= $20 \times \text{LOG}(809.375/0.1002) = 78.1456\text{dB}$

CMRR (dB)	Measurement	Simulation	%Error
	80.000	78.146	-2.318