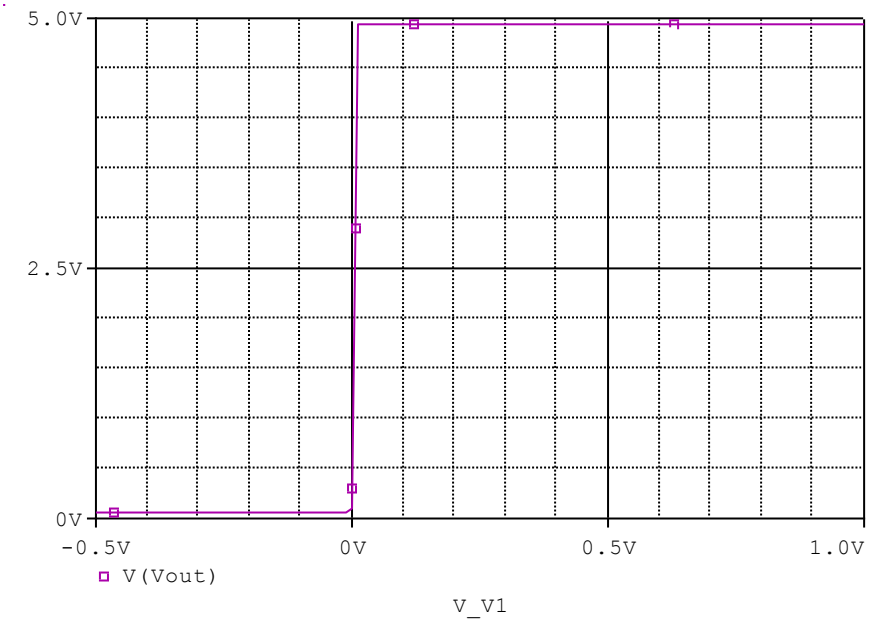
Device Modeling Report

COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER:NJM2730
MANUFACTURER: NEW JAPAN RADIO CO.,LTD

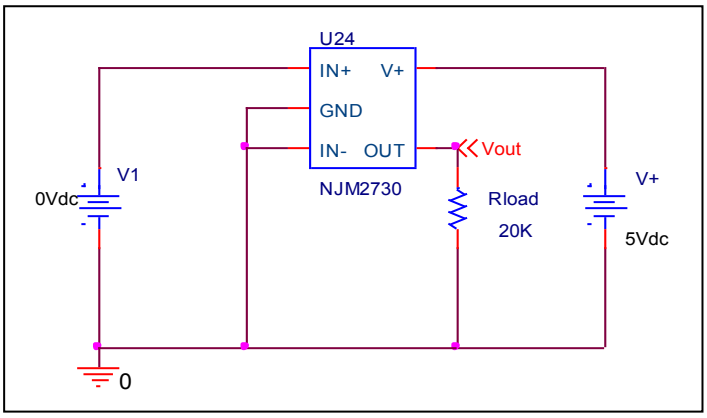
Bee Technologies Inc.

Output Voltage Swing

Simulation result



Evaluation circuit

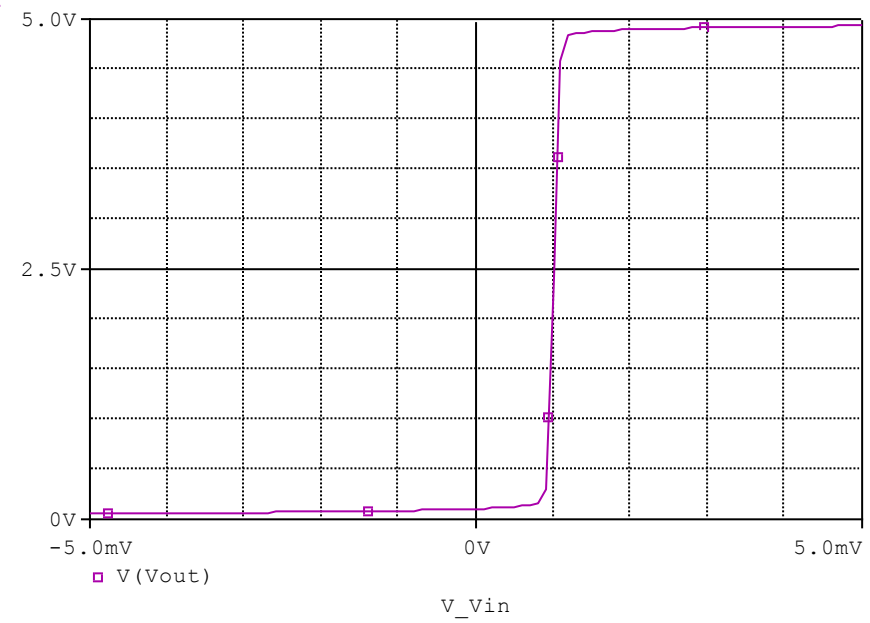


Comparison table

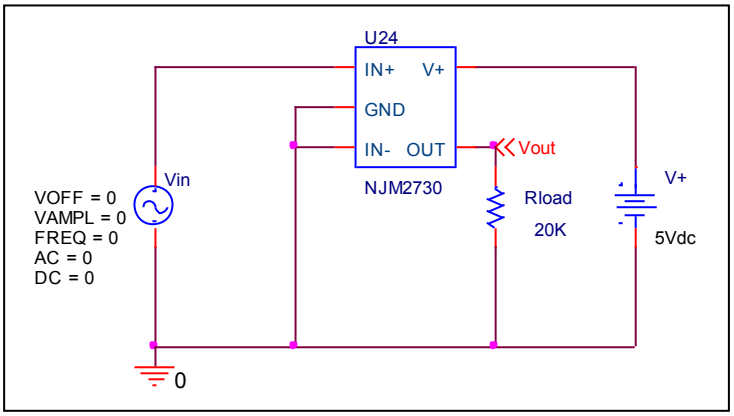
Output Voltage Swing	Data sheet	Simulation	%Error
VOH	4.95	4.949	-0.02
VOL	0.05	0.05	0

Input Offset Voltage

Simulation result



Evaluation circuit

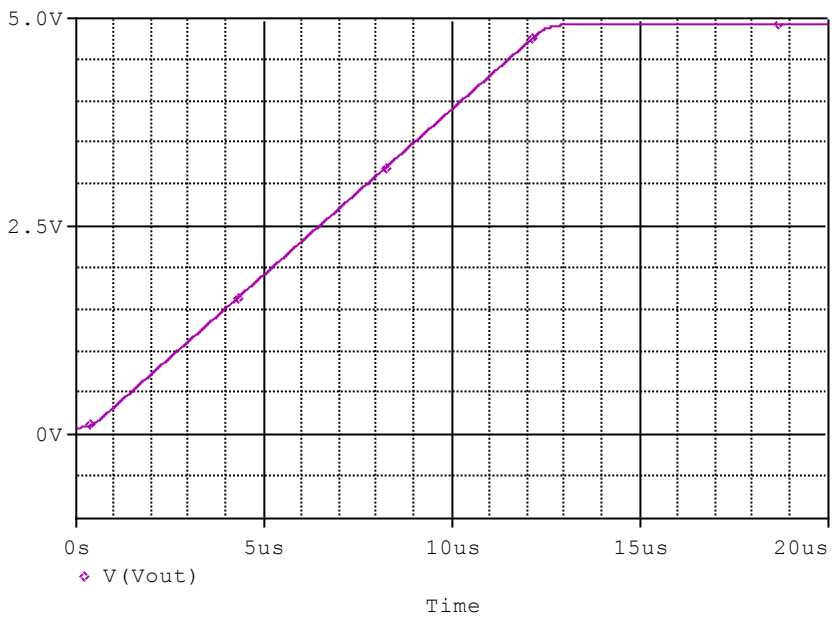


Comparison table

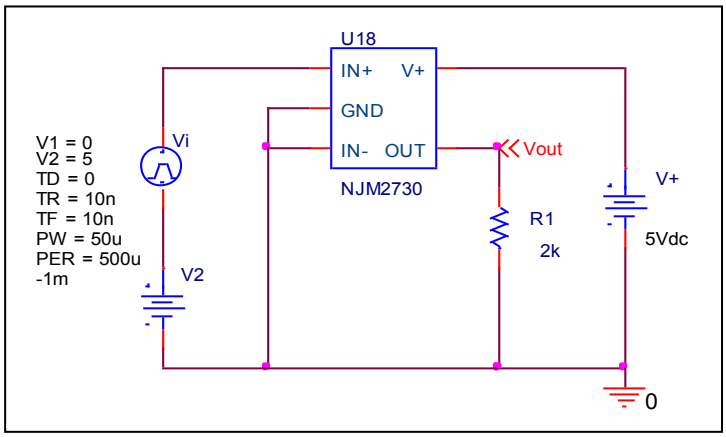
Vio	Measurement		Simulation		Error	
	1	mV	1	mV	0	%

Slew Rate

Simulation result



Evaluation circuit

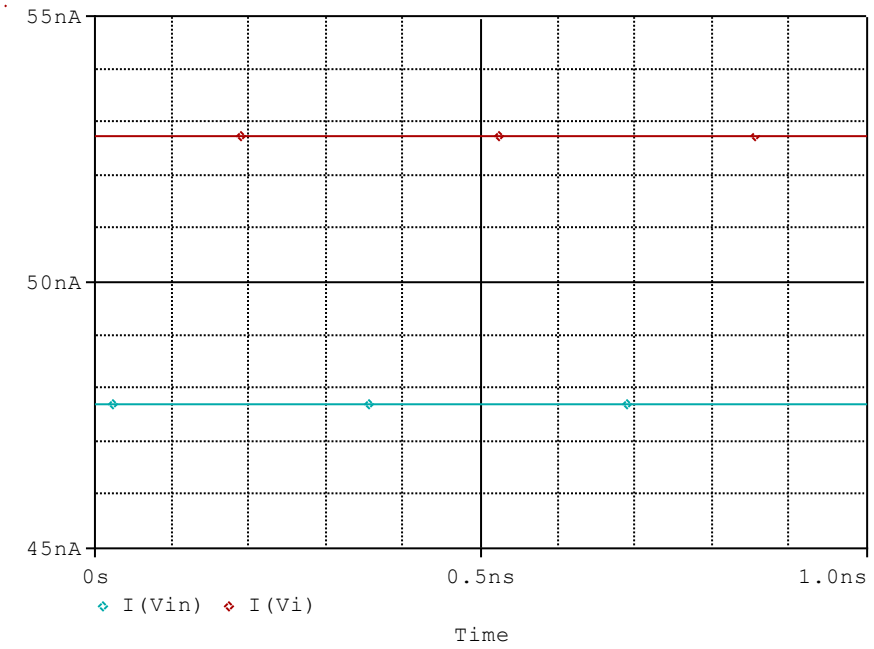


Comparison table

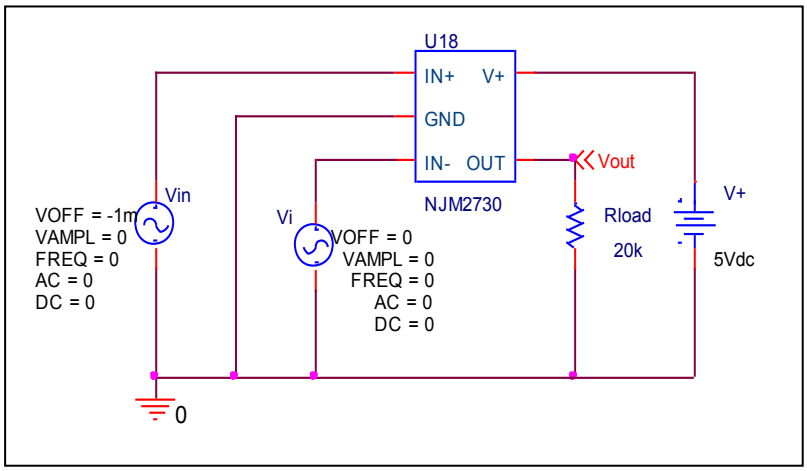
Slew Rate(v/us)	Data sheet	Simulation	%Error
	0.4	0.402	0.5

Input current

Simulation result



Evaluation circuit

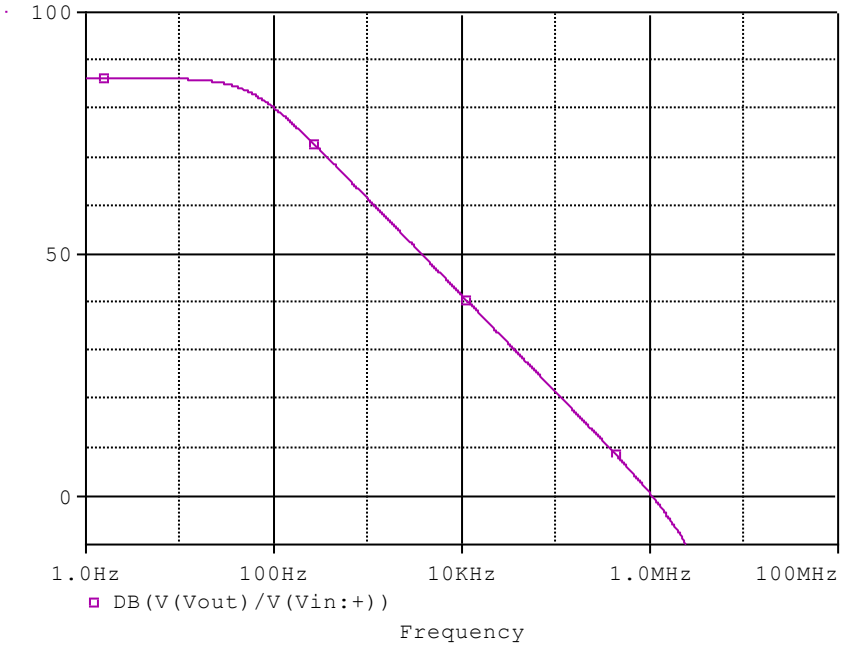


Comparison table

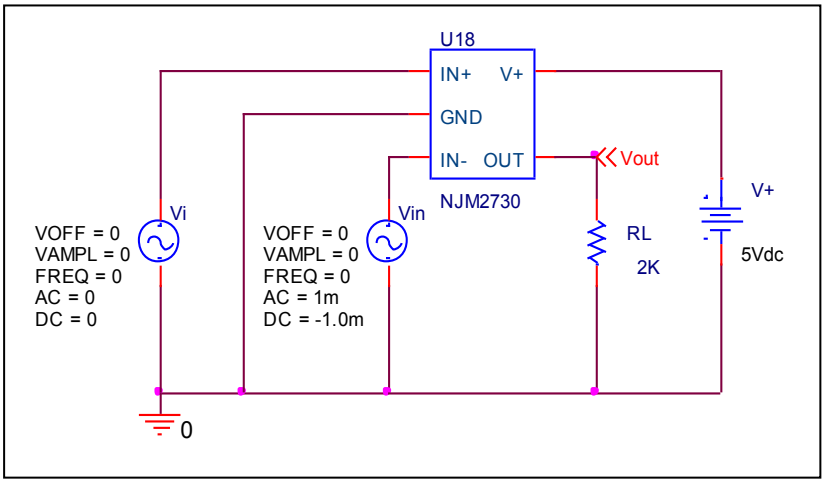
	Data sheet	Simulation	%Error
Ib(nA)	50	50.235	0.47
Iio(nA)	5	5.051	1.02

Open Loop Voltage Gain vs. Frequency

Simulation result



Evaluation circuit

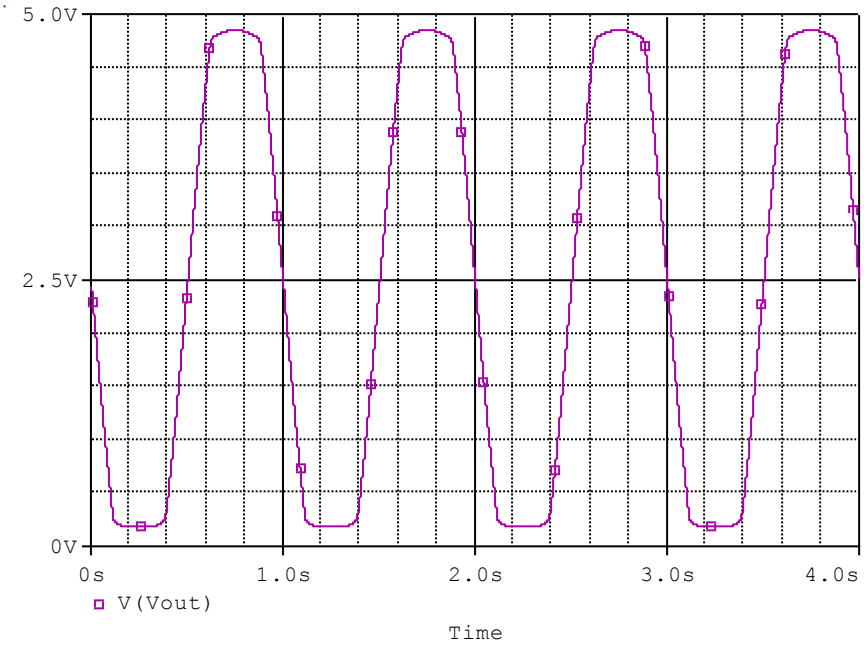


Comparison table

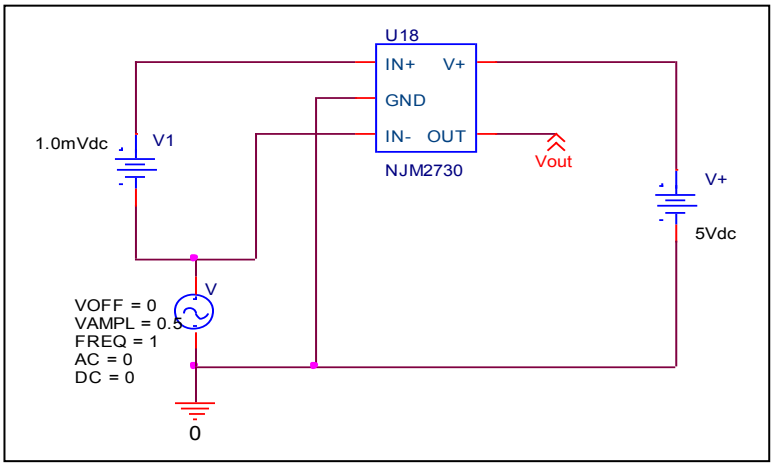
	Data sheet	Simulation	%Error
f-0dB(MHz)	1	1.048	4.8
Av-dc	85	86.344	1.58

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



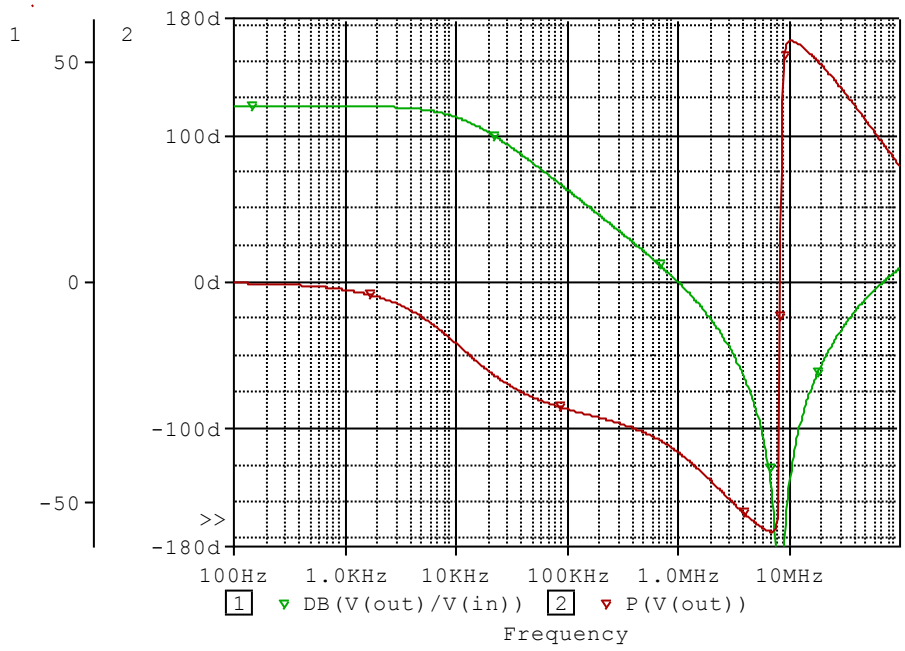
Common Mode Reject Ratio=20758.692/4.672 = 4443.213= 72.95dB

Comparison table

CMRR(dB)	Data sheet	Simulation	%Error
	70	72..95	4.214

Voltage Gain,Phase vs. Frequency

Simulation result



Evaluation circuit