

Device Modeling Report

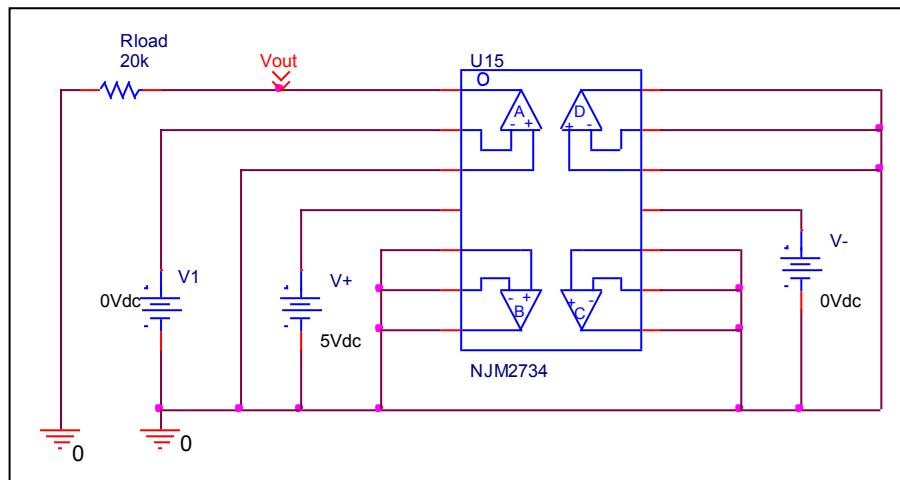
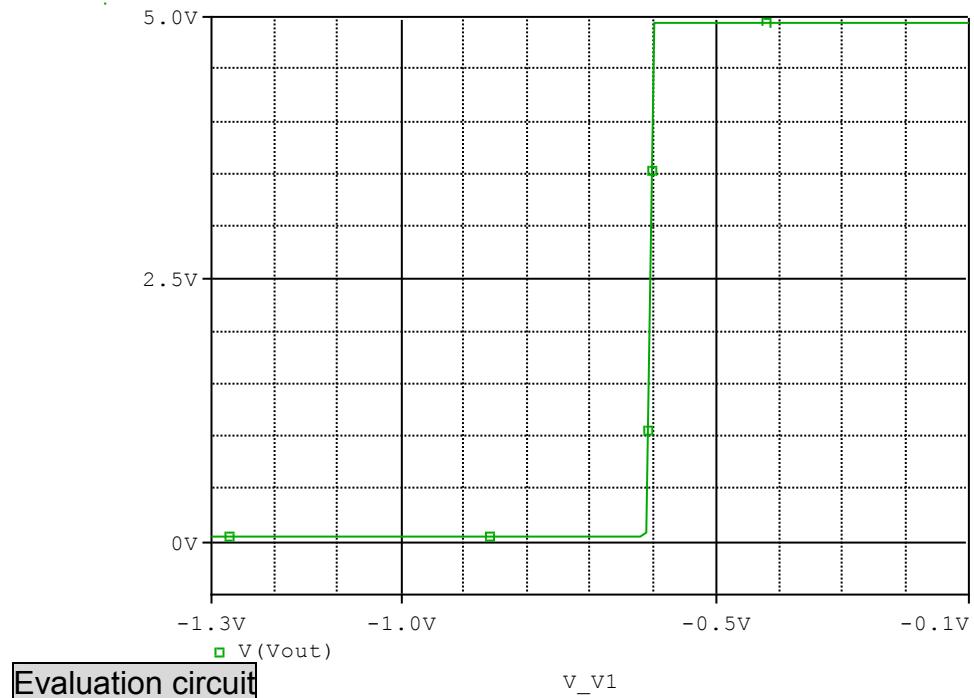
COMPONENTS: OPERATIONAL AMPLIFIER
PART NUMBER:NJM2734
MANUFACTURER: NEW JAPAN RADIO CO.,LTD



Bee Technologies Inc.

Output Voltage Swing

Simulation result

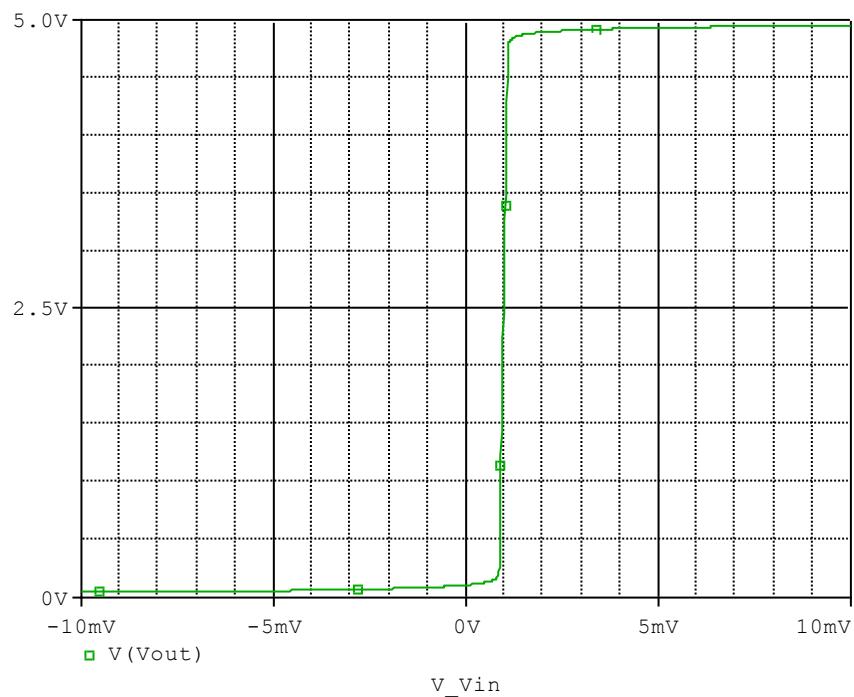


Comparison table

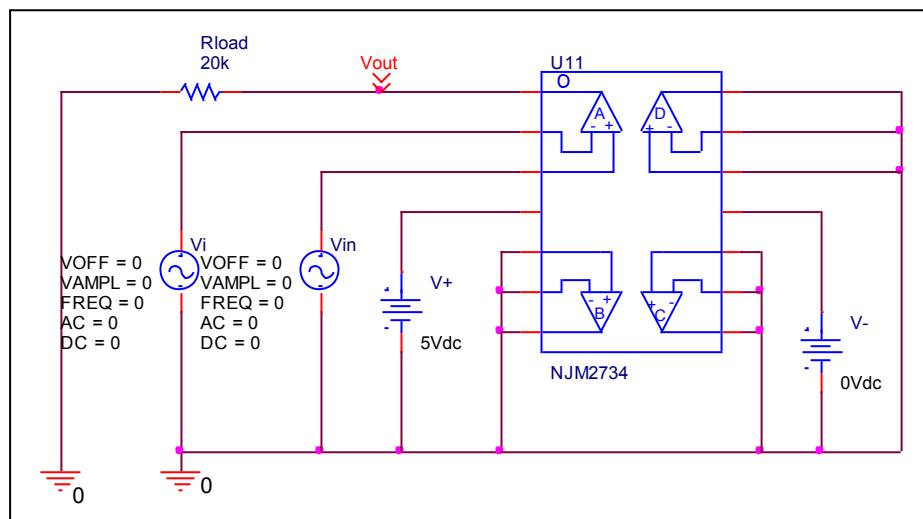
Output Voltage Swing	Data sheet	Simulation	%Error
VOH	4.950	4.949	-0.020
VOL	0.050	0.050	0.000

Input Offset Voltage

Simulation result



Evaluation circuit

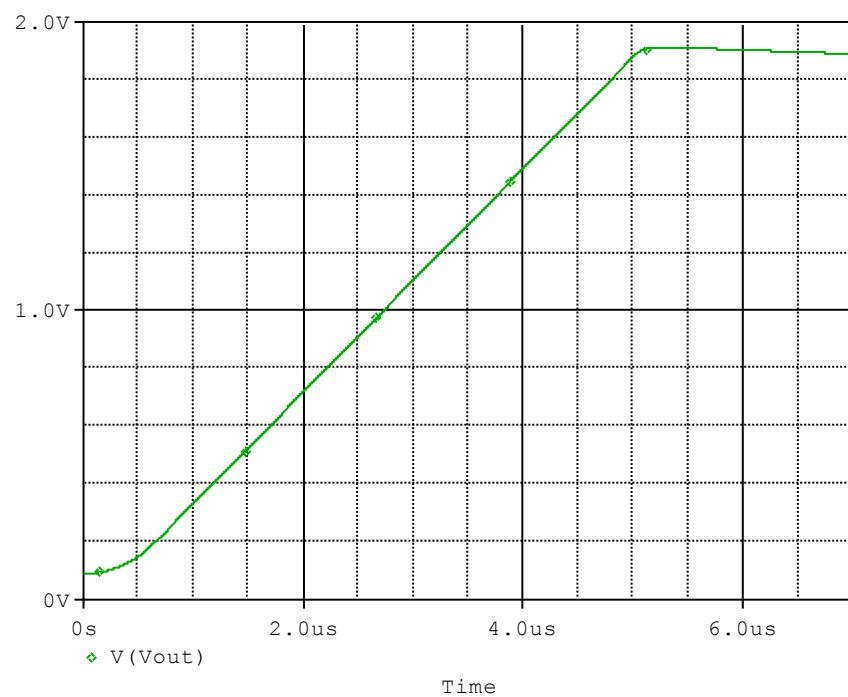


Comparison table

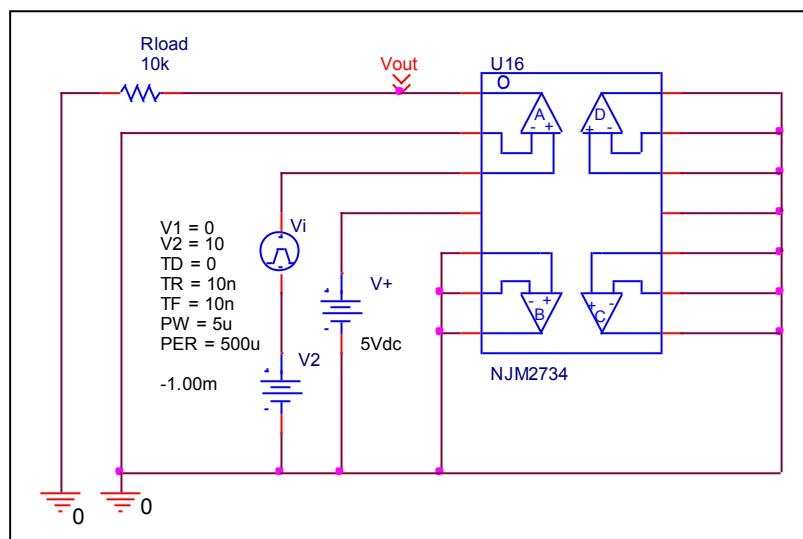
V _{io}	Measurement		Simulation		Error	
	1.000	mV	1.000	mV	0.000	%

Slew Rate

Simulation result



Evaluation circuit

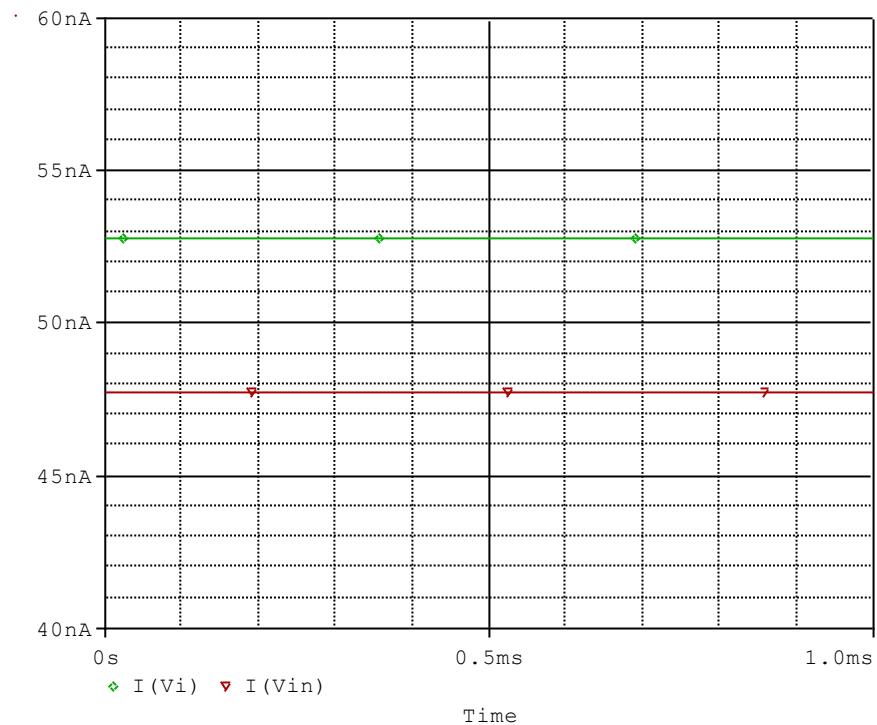


Comparison table

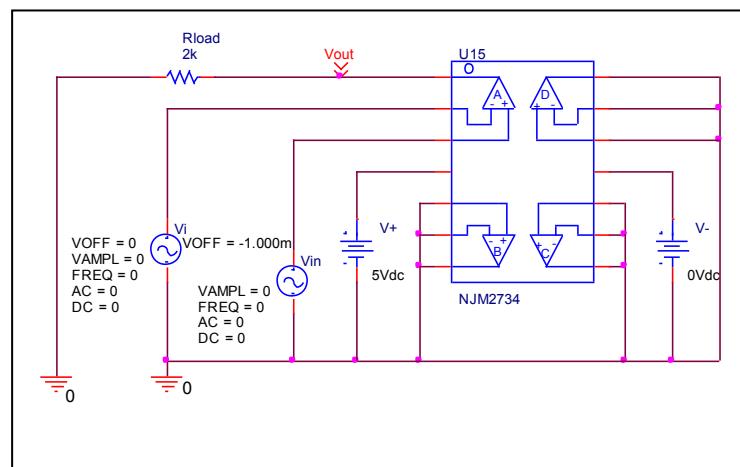
Slew Rate(v/us)	Data sheet	Simulation	%Error
	0.400	0.388	-3.000

Input current

Simulation result



Evaluation circuit

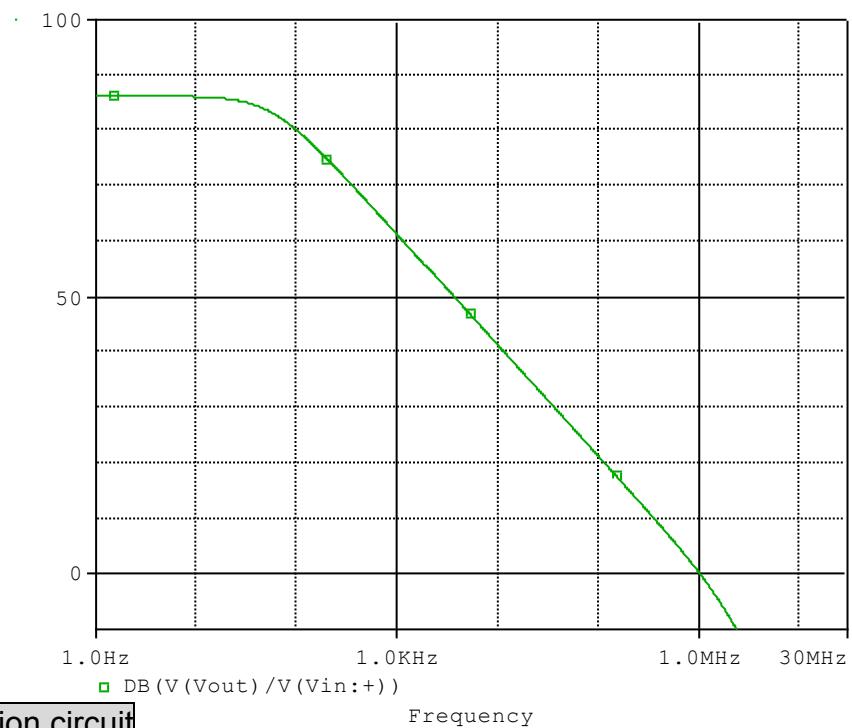


Comparison table

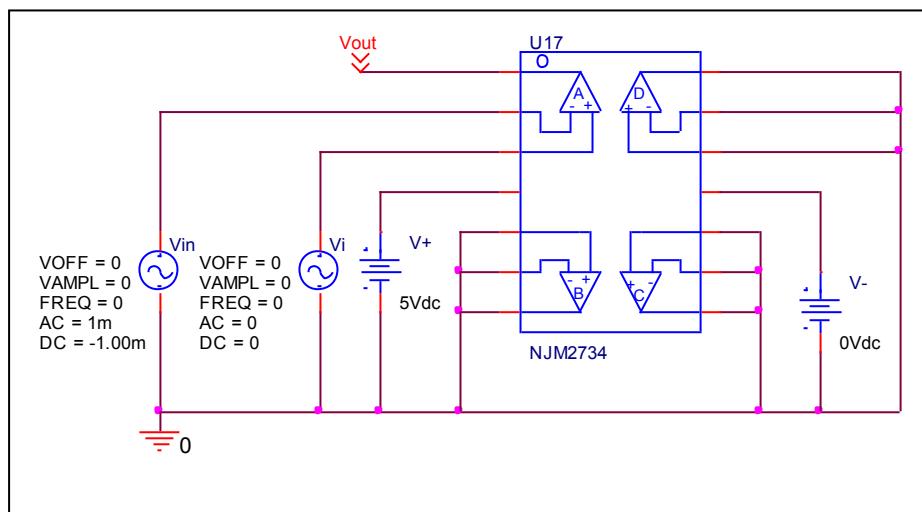
	Data sheet	Simulation	%Error
$I_b(nA)$	50.000	50.235	0.470
$I_{io}(nA)$	5.000	5.051	1.020

Open Loop Voltage Gain vs. Frequency

Simulation result



Evaluation circuit

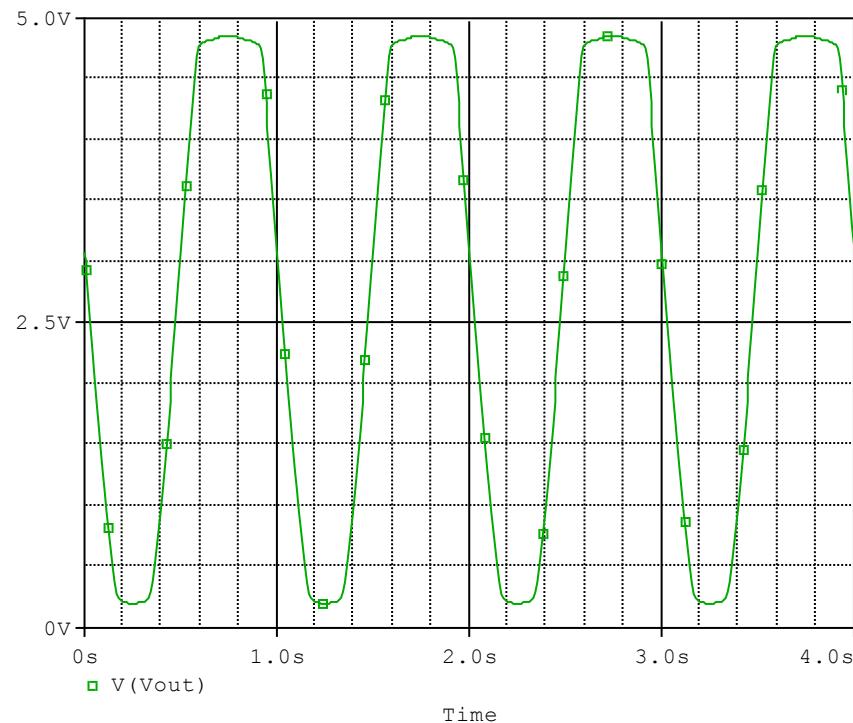


Comparison table

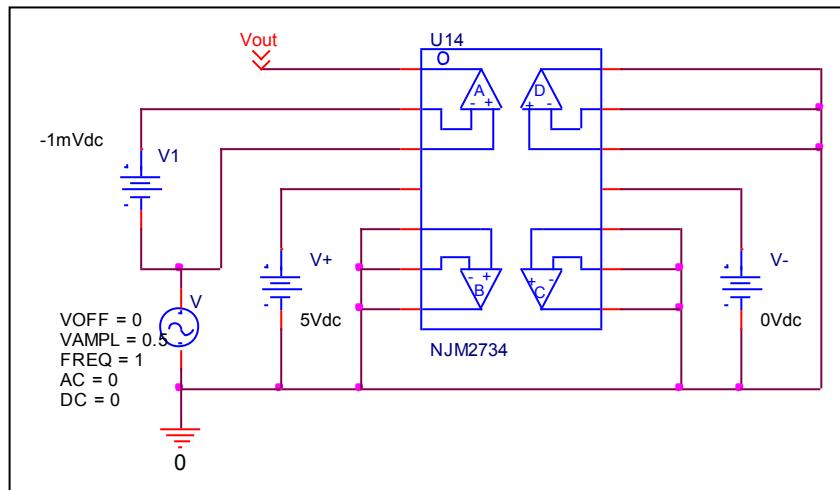
	Data sheet	Simulation	%Error
f-0dB(MHz)	1.000	1.028	2.800
Av-dc	85.000	86.231	1.448

Common-Mode Rejection Voltage gain

Simulation result



Evaluation circuit



Common Mode Reject Ratio=20490.379/4.654 = 4402.745= 72.874dB

Comparison table

CMRR(dB)	Data sheet	Simulation	%Error
	70.000	72..950	4.105