

# Device Modeling Report

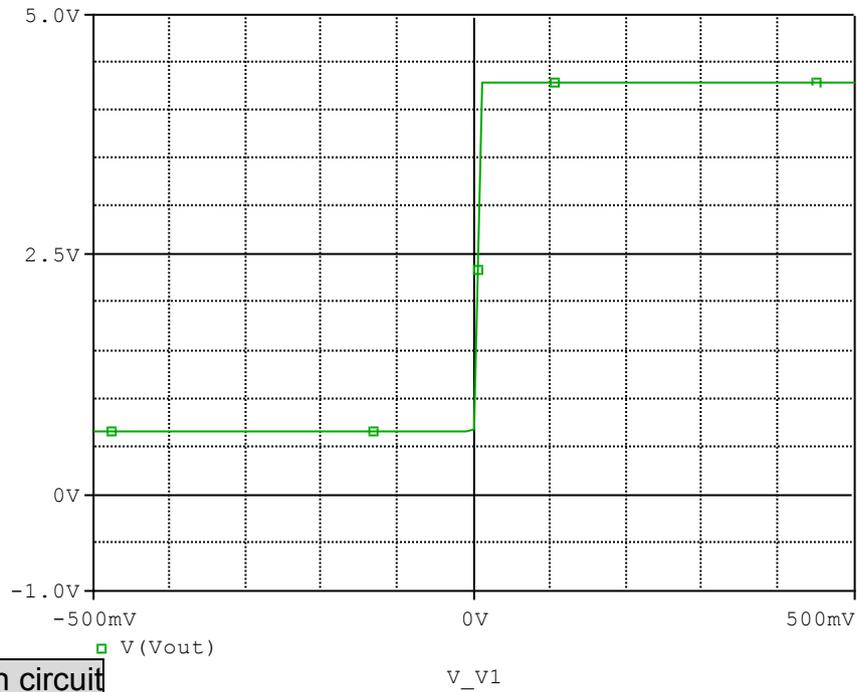
COMPONENTS: OPERATIONAL AMPLIFIER  
PART NUMBER: NJM2743  
MANUFACTURER: NEW JAPAN RADIO CO., LTD



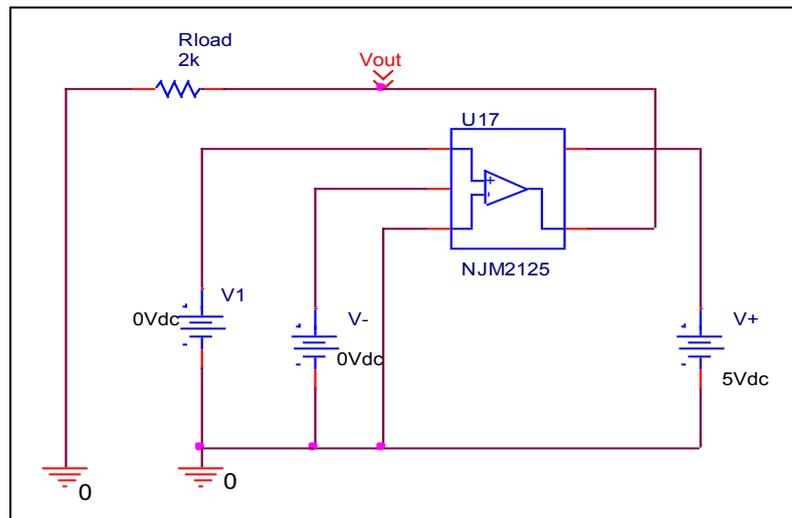
Bee Technologies Inc.

# Output Voltage Swing

## Simulation result



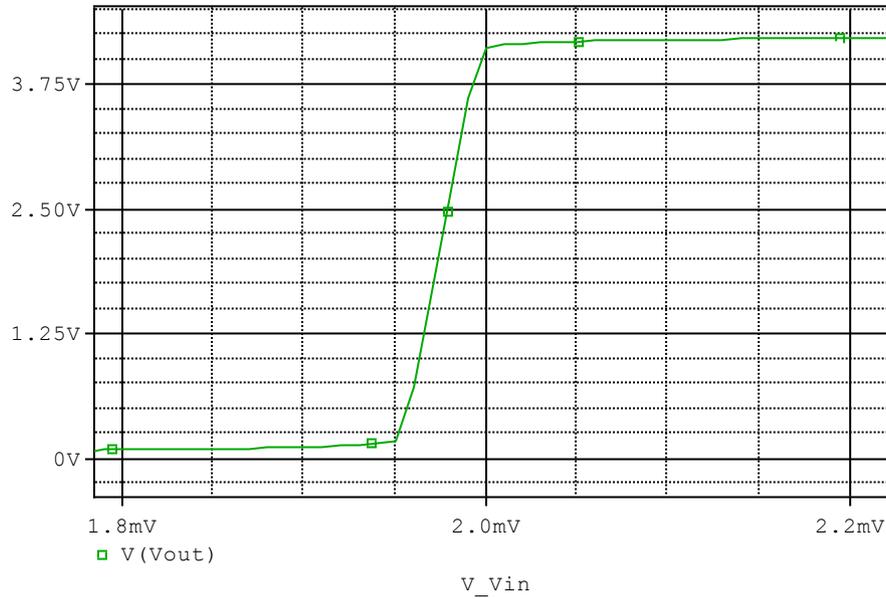
## Evaluation circuit



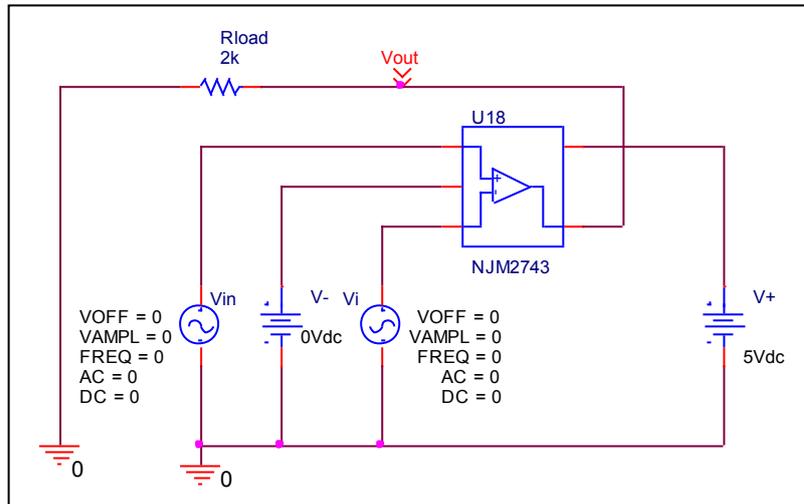
Output Voltage Swing	Data sheet	Simulation	%Error
Vout(V)	4.300	4.298	-0.047
VoL(V)	0.650	0.658	1.231

# Input Offset Voltage

## Simulation result



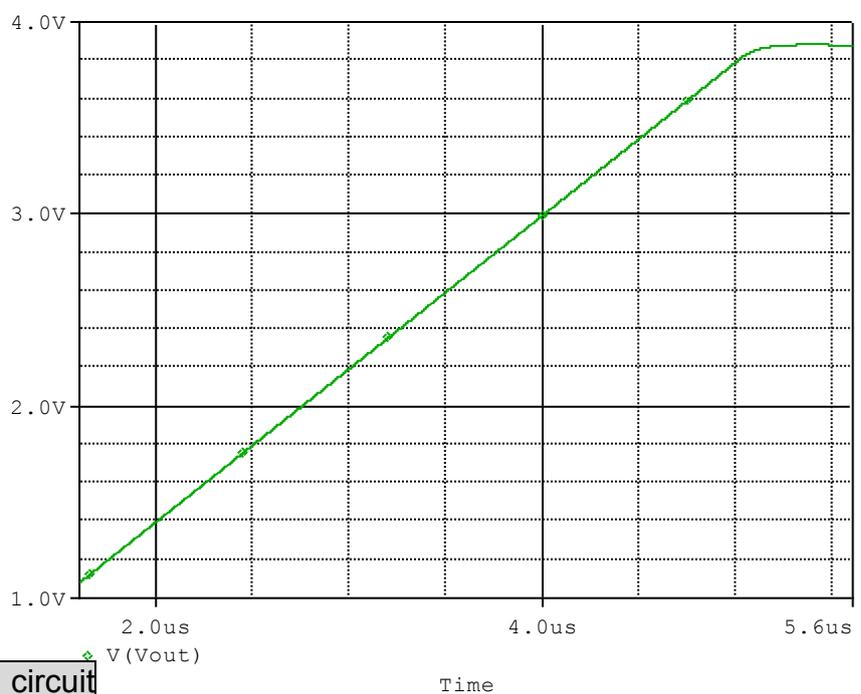
## Evaluation circuit



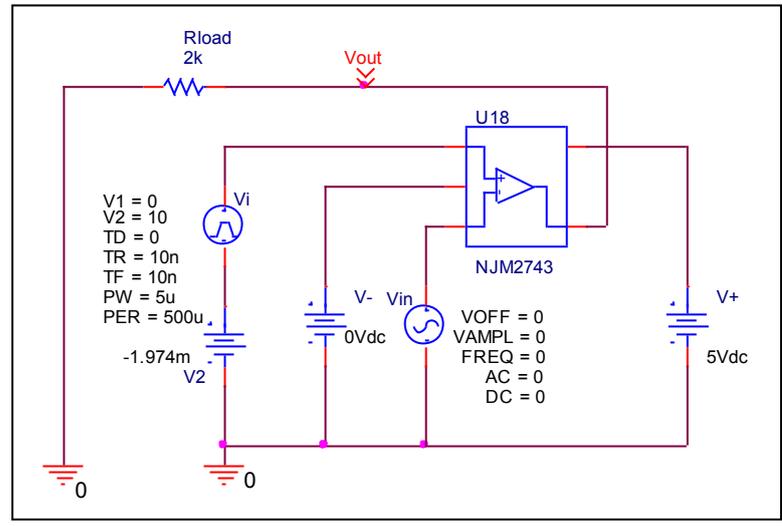
Vos	Measurement		Simulation		Error	
	2.000	mV	1.974	mV	-1.300	%

# Slew Rate

## Simulation result



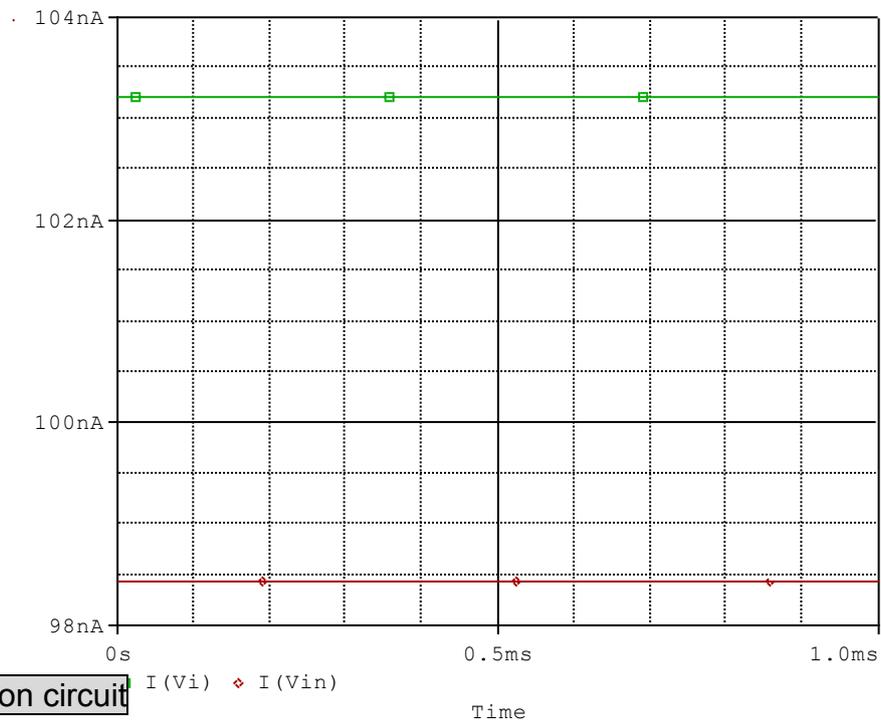
## Evaluation circuit



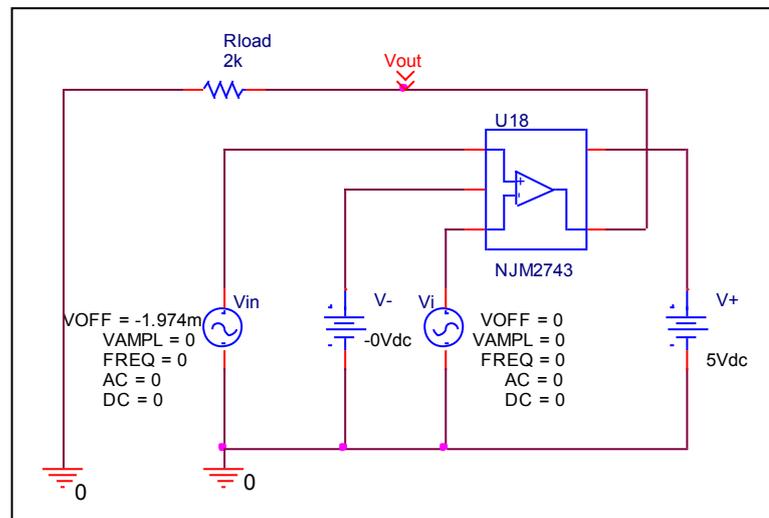
Slew Rate(v/us)	Data sheet	Simulation	%Error
		0.800	0.798

# Input current

## Simulation result



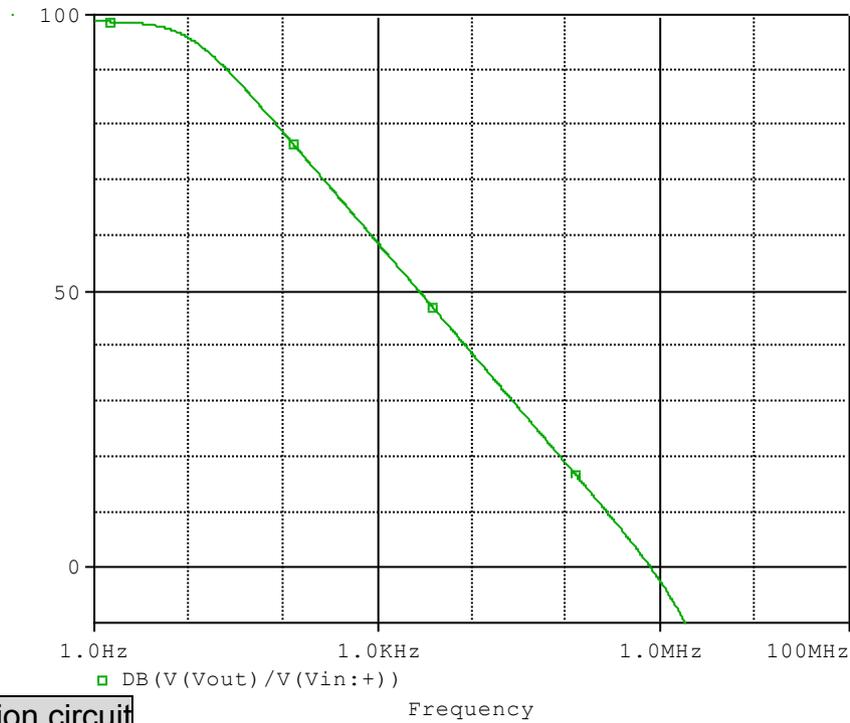
## Evaluation circuit



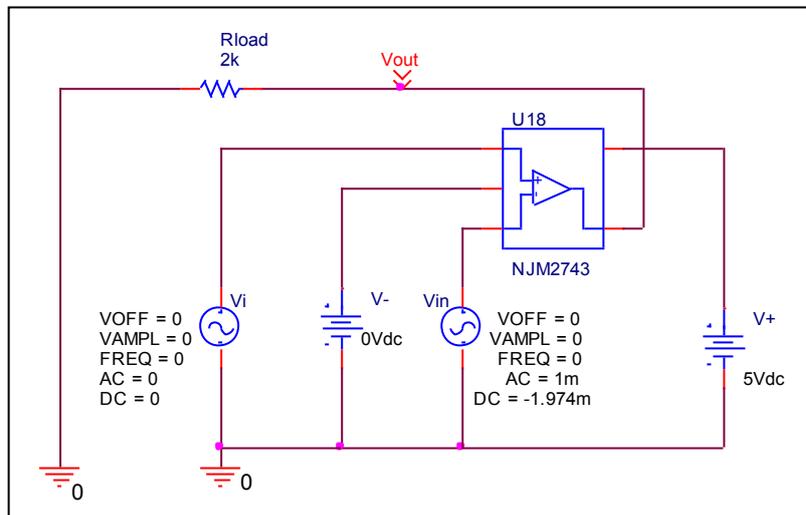
	Data sheet	Simulation	%Error
<b>I<sub>b</sub>(nA)</b>	100.000	100.829	0.829
<b>I<sub>bos</sub>(nA)</b>	5.000	4.776	-4.480

# Open Loop Voltage Gain vs. Frequency

## Simulation result



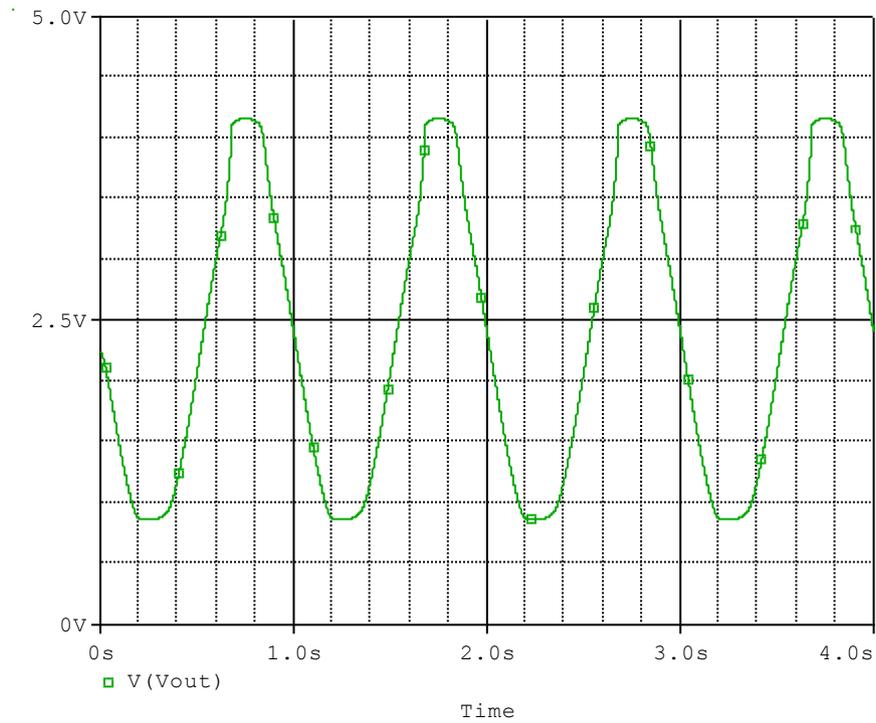
## Evaluation circuit



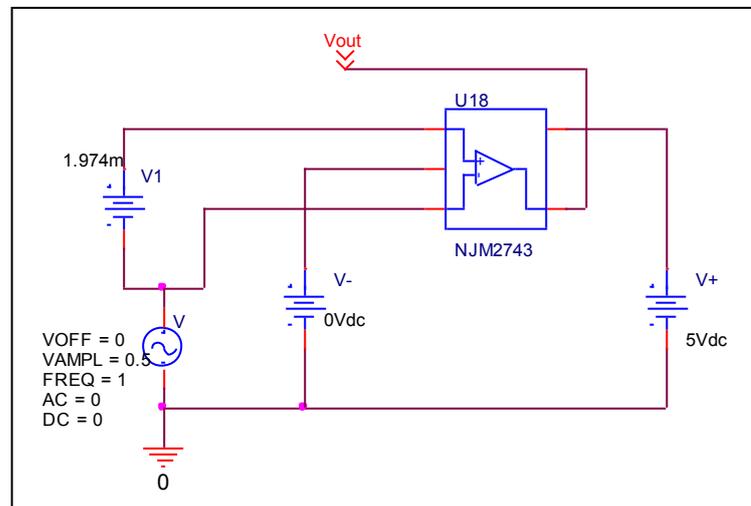
	Data sheet	Simulation	%Error
<b>f-0dB(MHz)</b>	0.850	0.810	-4.706
<b>Av-dc(dB)</b>	100.000	98.791	-1.209

## Common-Mode Rejection Voltage gain

### Simulation result



### Evaluation circuit



Common Mode Reject Ratio= $87006.159/3.293=26405.511$

CMRR	Data sheet	Simulation	%Error
		90.000	88.433