

Device Modeling Report

COMPONENTS : 4-Input 1-Output Audio Selector built-in Isolation

Amplifier

PART NUMBER : NJM2754

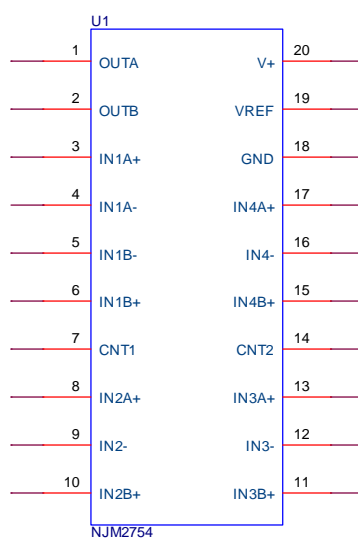
MANUFACTURE : NEW JAPAN RADIO CO.,LTD

TARGET : PSPICE

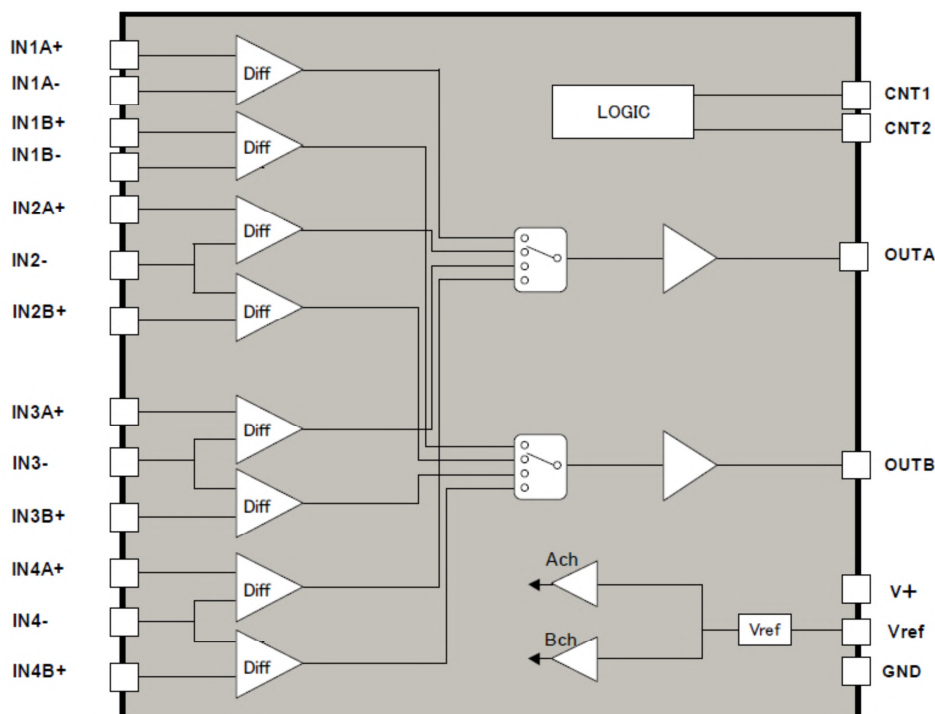


New Japan Radio Co., Ltd.

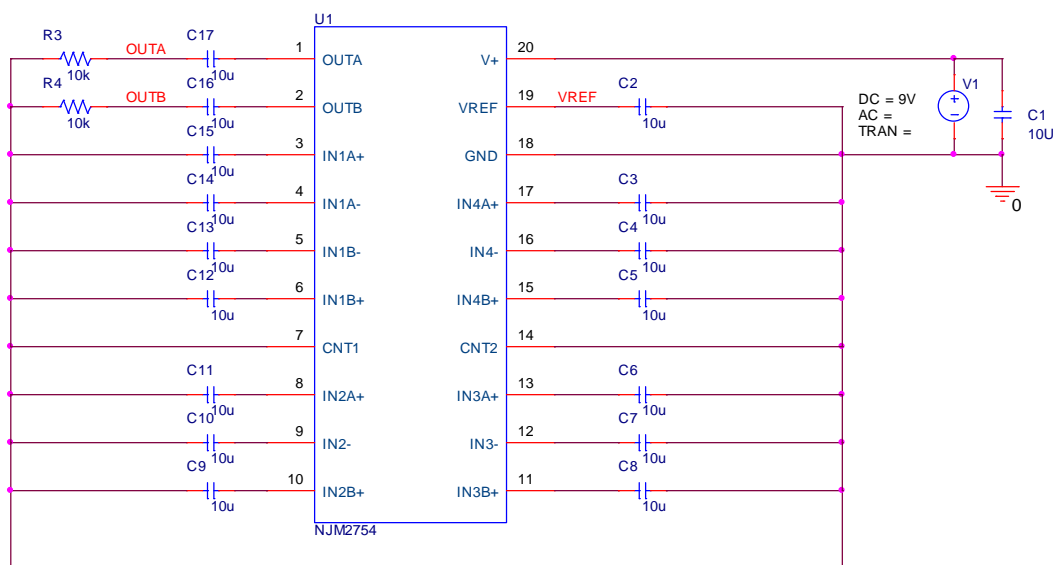
Symbol



Simple Equivalent Circuit



■Operating Current

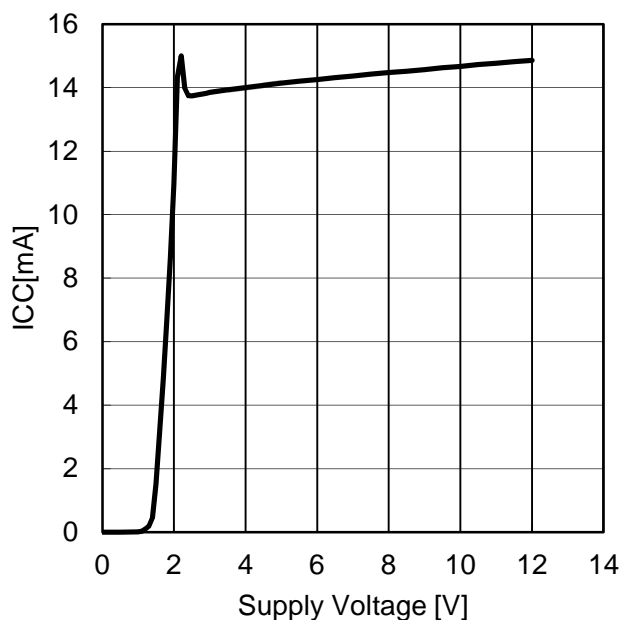


Simulation Circuit

Comparison Table

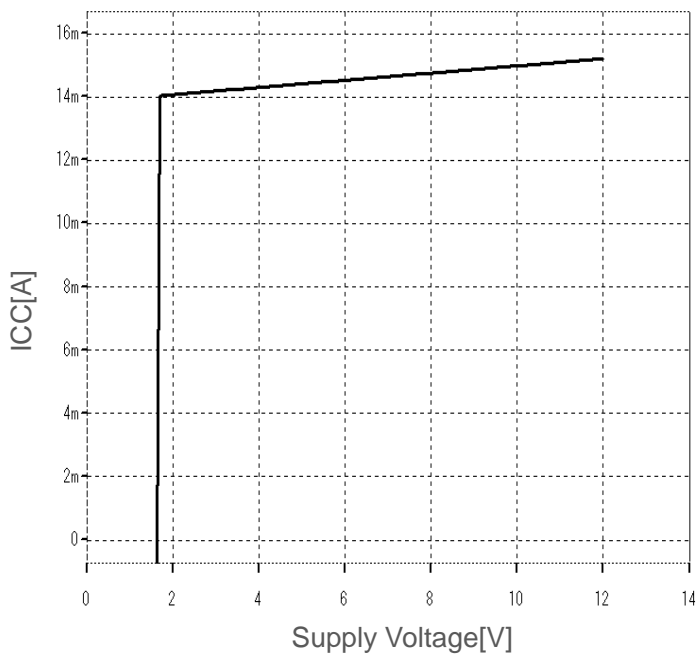
Operating Current [mA]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	No Signal	-	14	20	14.8	14.9	0.6%

ICC vs Supply Voltage
No signal



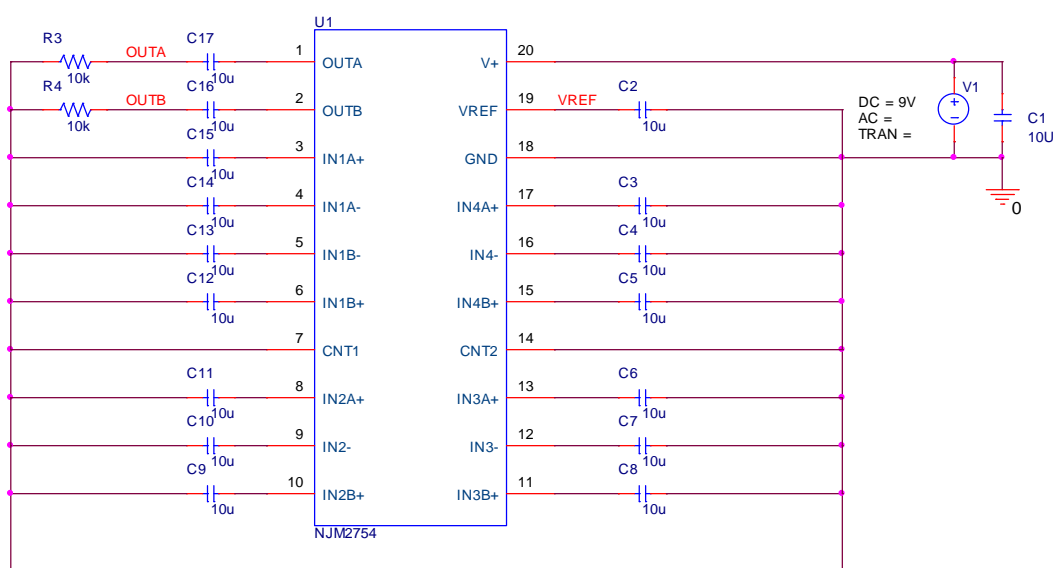
Evaluation Wave

ICC vs Supply Voltage
No Signal



Simulation Wave

■Reference Voltage

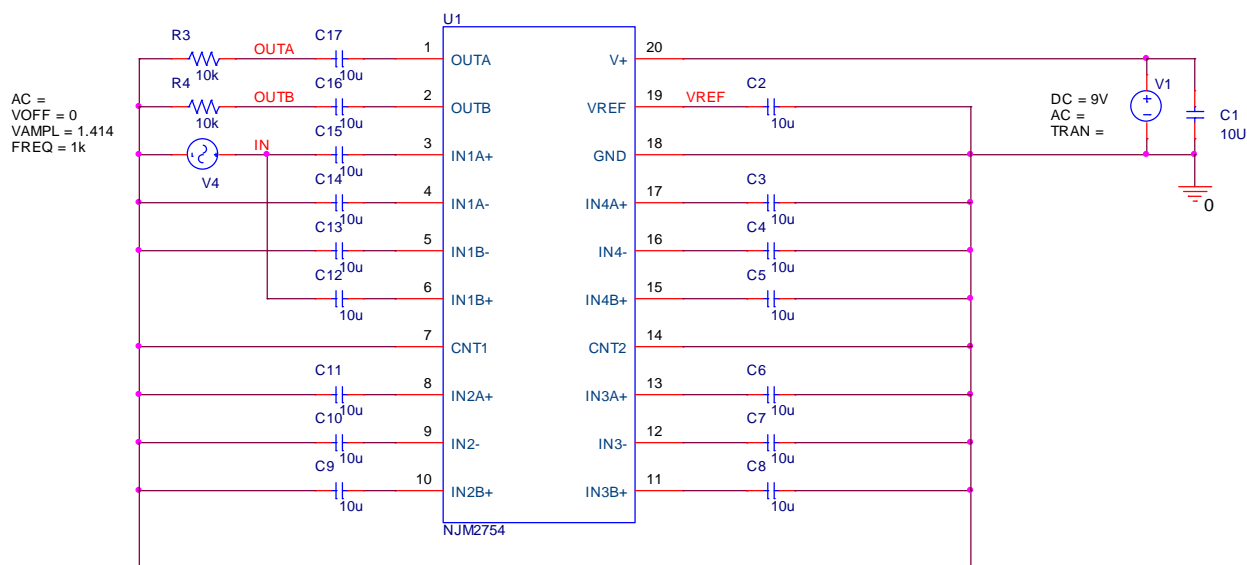


Simulation Circuit

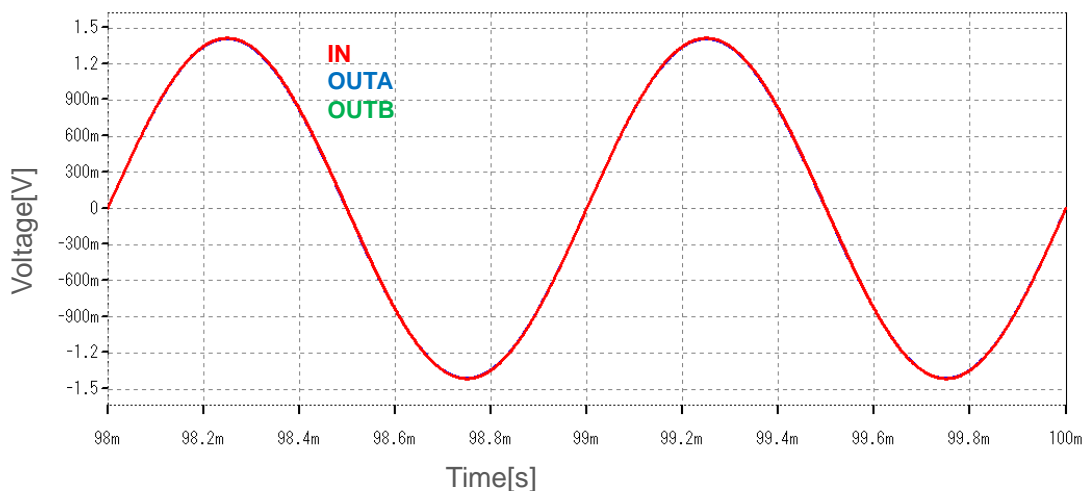
Comparison Table

Reference Voltage [V]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	-	3.8	4.3	4.8	4.29	4.32	0.7%

■Voltage Gain



Simulation Circuit

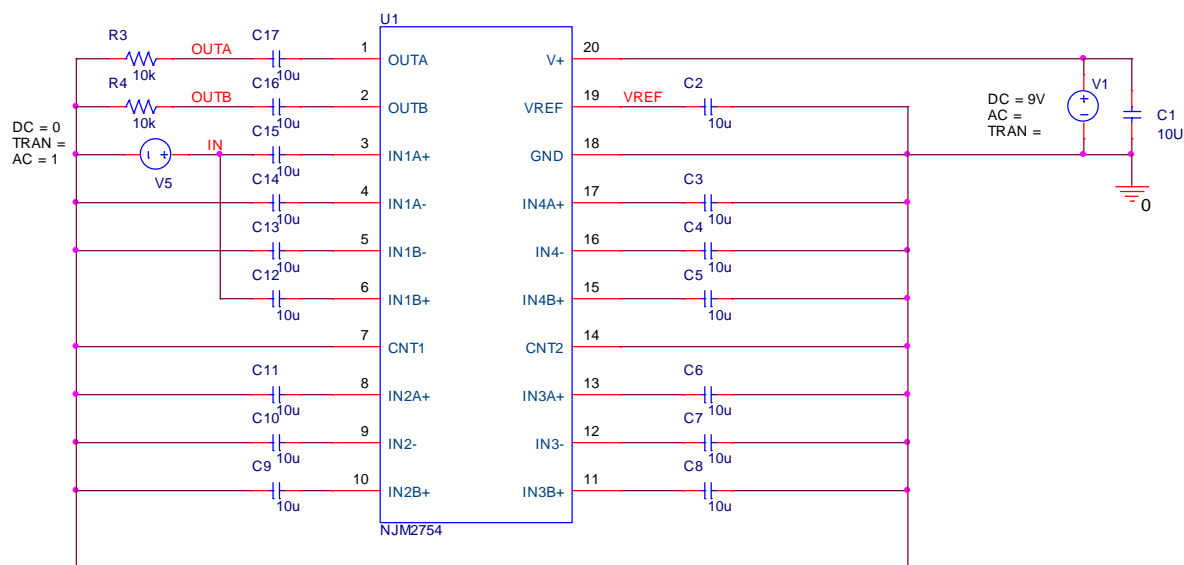


Simulation Wave

Comparison Table

Voltage Gain [dB]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	Vin=1Vrms f=1kHz	-1	0	1	0.06	-0.02	-0.9%

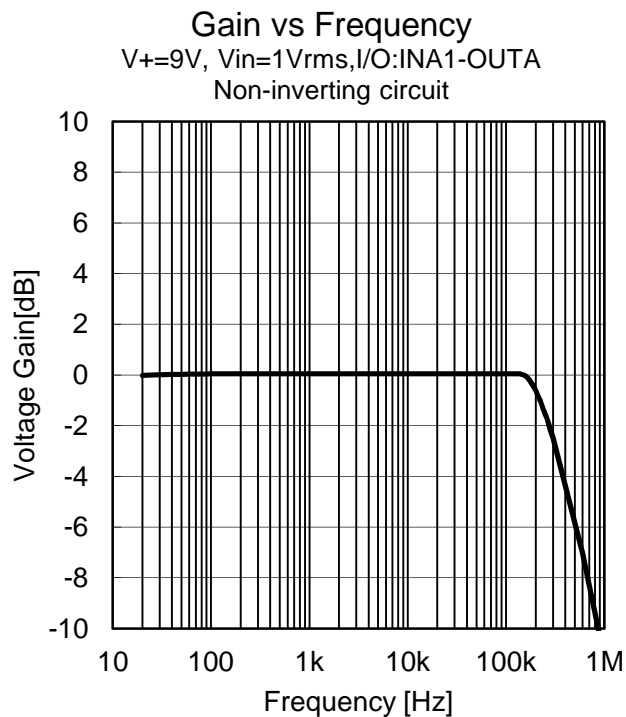
■Roll-Off High Frequency



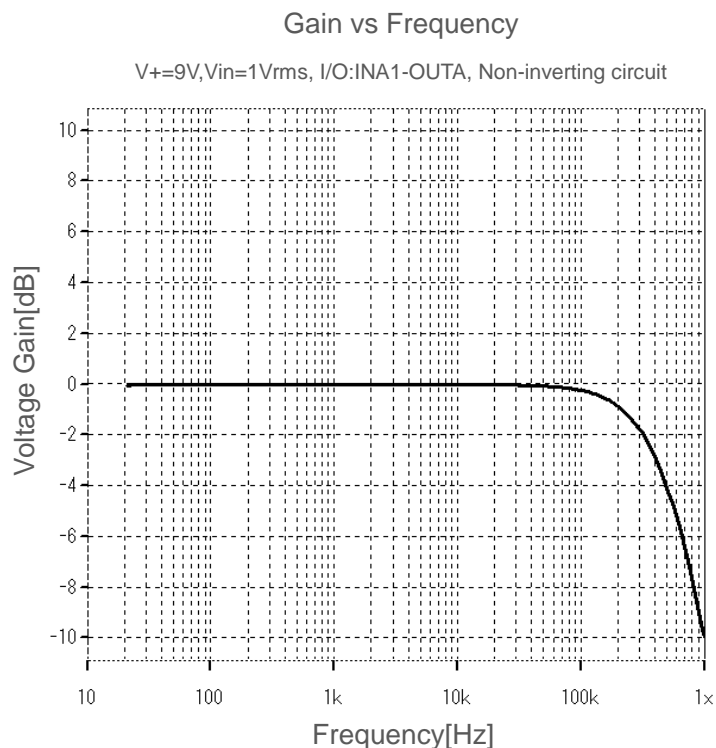
Simulation Circuit

Comparison Table

Roll-Off High Frequency [kHz]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	-1dB	100	-	-	217	218	0.5%

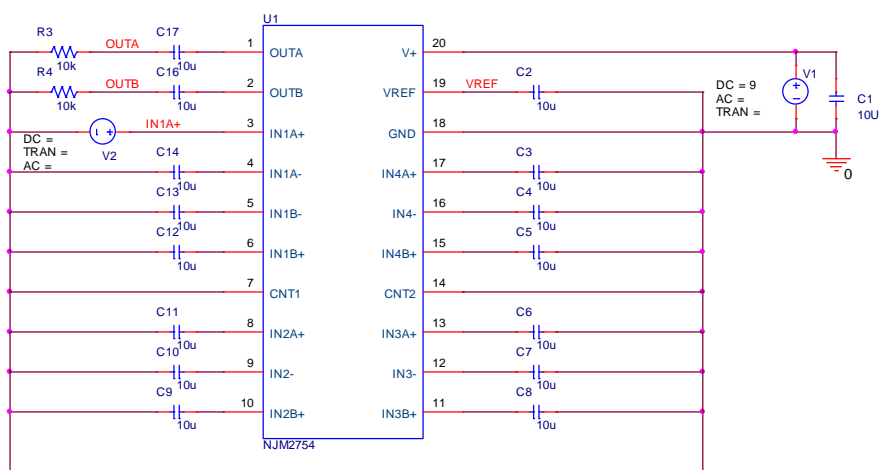


Evaluation Wave



Simulation Wave

■Input Impedance

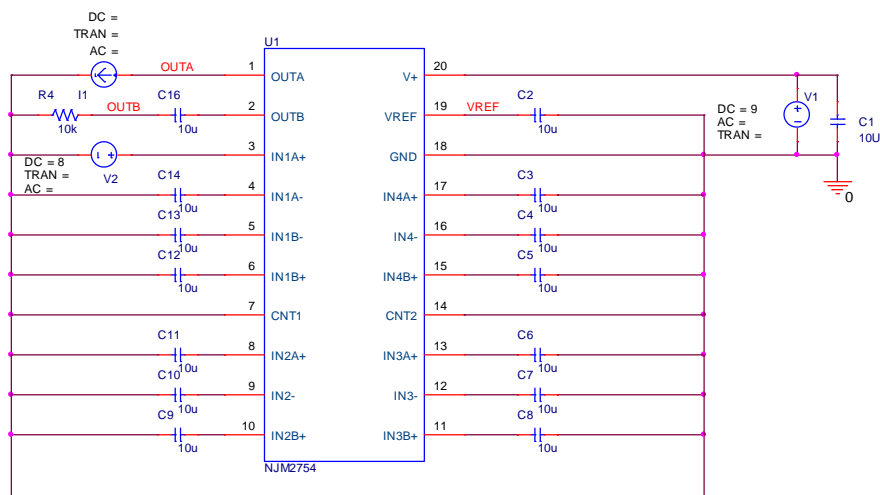


Simulation Circuit

Comparison Table

Input Impedance [kΩ]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	-	85	105	125	113.6	104.9	-7.6%

■Output Impedance

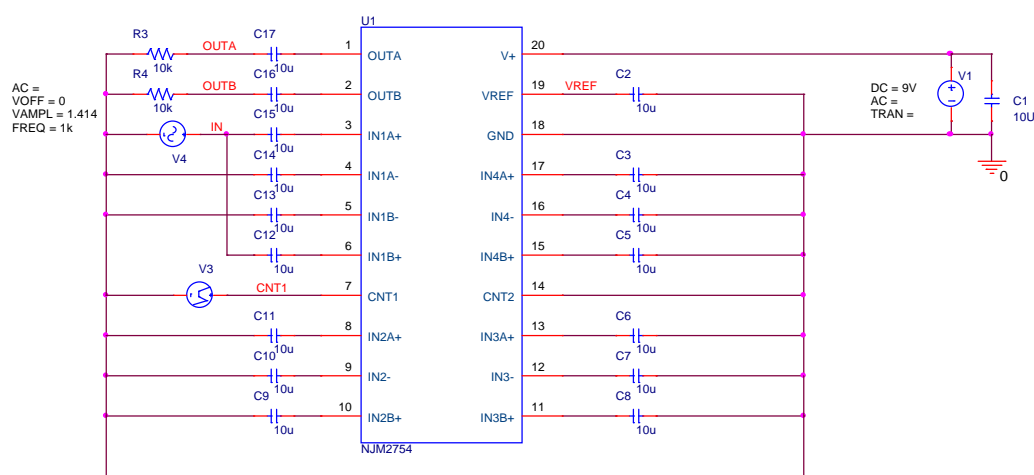


Simulation Circuit

Comparison Table

Output Impedance [Ω]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	-	-	90	-	85.3	88.0	3.2%

■Switch Control Voltage High Level

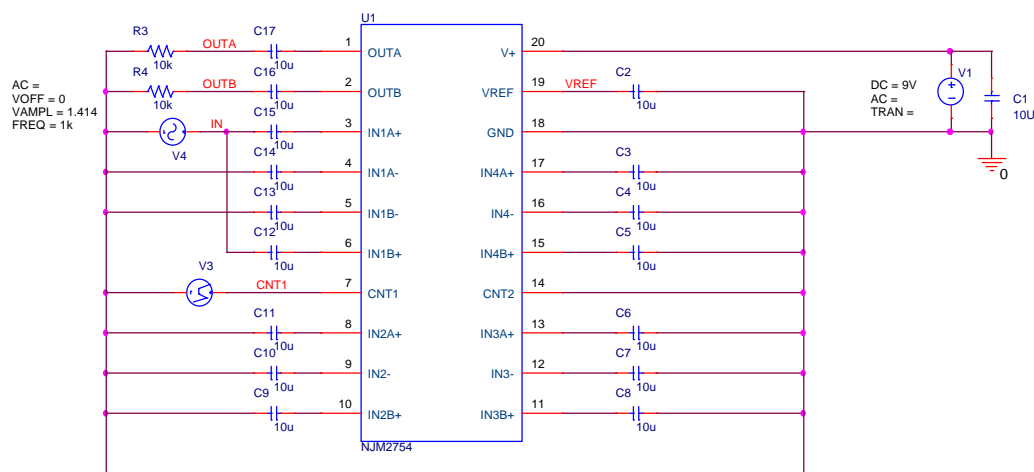


Simulation Circuit

Comparison Table

Switch Control Voltage High Level [V]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	-	2.3	-	V+	1.870	1.869	-0.1%

■Switch Control Voltage Low Level



Simulation Circuit

Comparison Table

Switch Control Voltage Low Level [V]	Condition	Data Sheet			Evaluation	Simulation	Error to Evaluation
		min	typ	max			
	-	-	-	0.8	1.098	1.095	-0.2%