

Compact Headphone Amplifier

BU7150NUV Evaluation Board Information

BU7150NUV-EVK-001(SE) / BU7150NUV-EVK-002(BTL)

● General

BU7150NUV is Audio Amplifier designed for Single-cell battery operated audio products ($V_{DD} = 0.93 \sim 3.5V$, at $T_a=0\sim 85^\circ C$). BU7150NUV can be selected in single-ended mode for stereo headphone and BTL mode for mono speaker operations. For BU7150NUV at $V_{DD} = 1.5V$, $THD+N = 1\%$, the output power is 14mW at $R_L = 16\Omega$ in single-ended mode and the output power is 85mW at $R_L = 8\Omega$ in BTL mode.

● Index

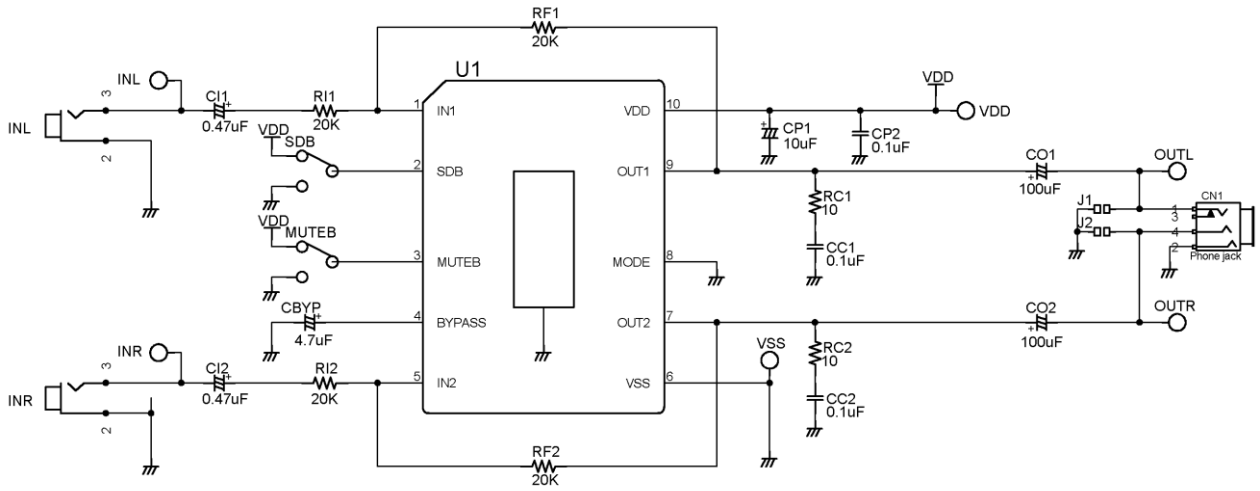
● General	1
● Index	1
● Conditions	1
● Circuit Diagram.....	2
● PCB layout	3
● Usage	4
● BOM List	5

● Conditions

Item	Symbol	Range		Unit
		BU7150NUV-EVK-001(SE) (Stereo Headphone Amplifier)	BU7150NUV-EVK-002(BTL) (Monaural Speaker Amplifier)	
Power Supply Voltage	V_{DD}	$+0.93 \sim +3.5$		V
Input Voltage	V_{IN}	$V_{SS}-0.3 \sim V_{DD}+0.3$		V
Load Impedance	R_L	$16 \geq$	$8 \geq$	Ω

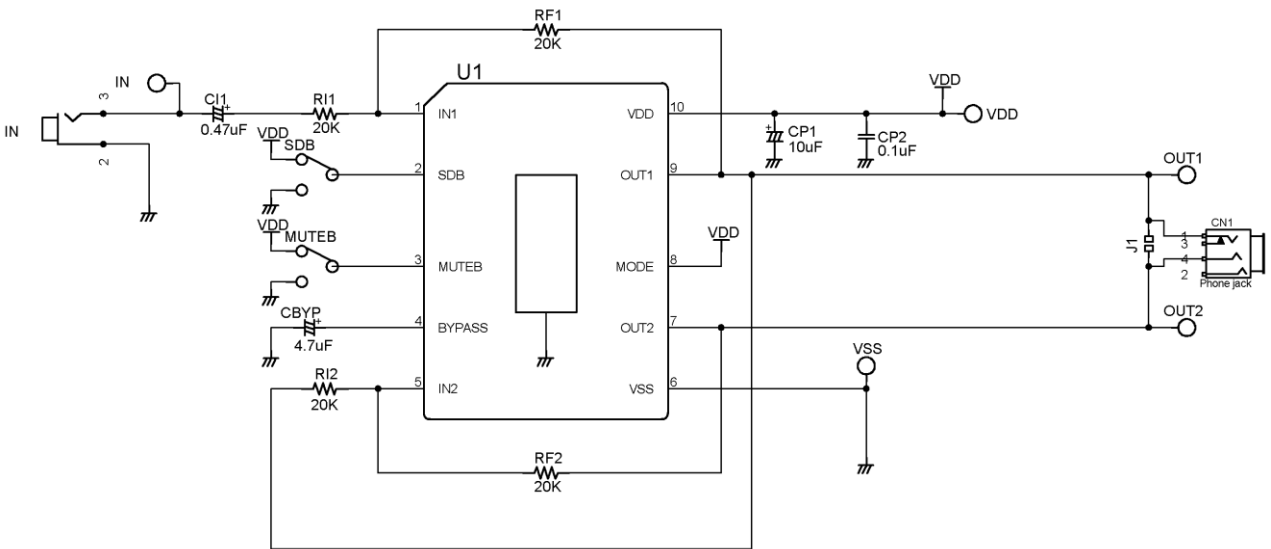
This document is information of the evaluation board when we evaluated the device.
 This information will help you when designing your evaluation board.
 Notice, the evaluation board is not available for sale except BU7150NUV-EVK-001

●Circuit Diagram



Note: Pin 3 of Phone jack open

SE mode (BU7150NUV-EVK-001)

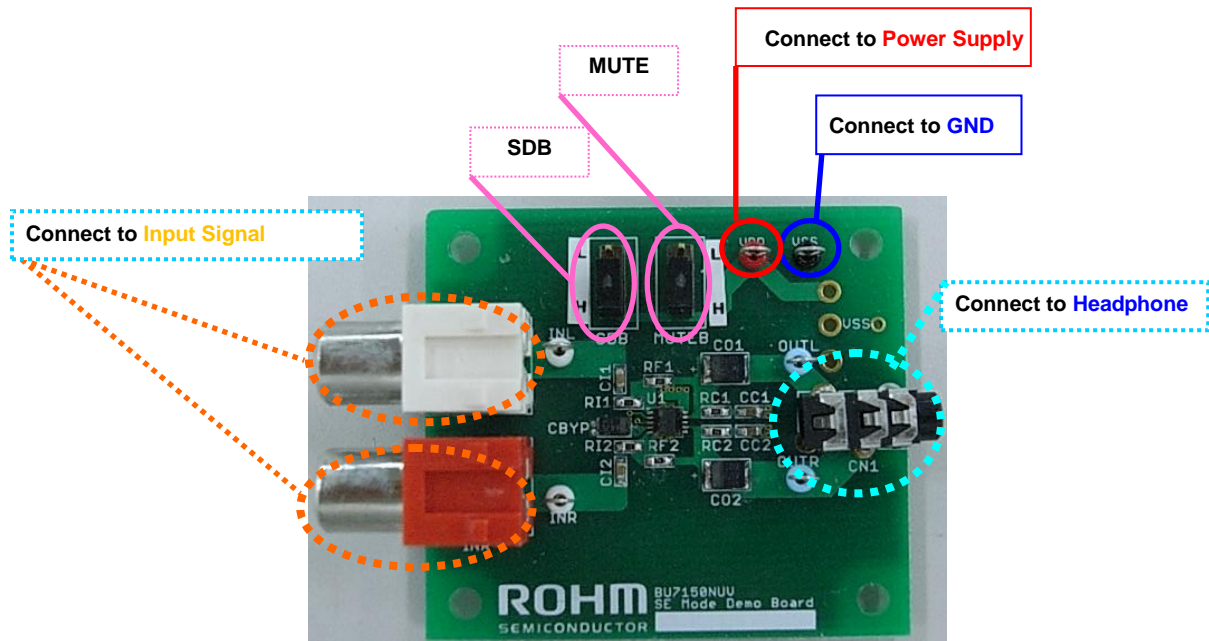


Note: Pin 2 and 3 of Phone jack open

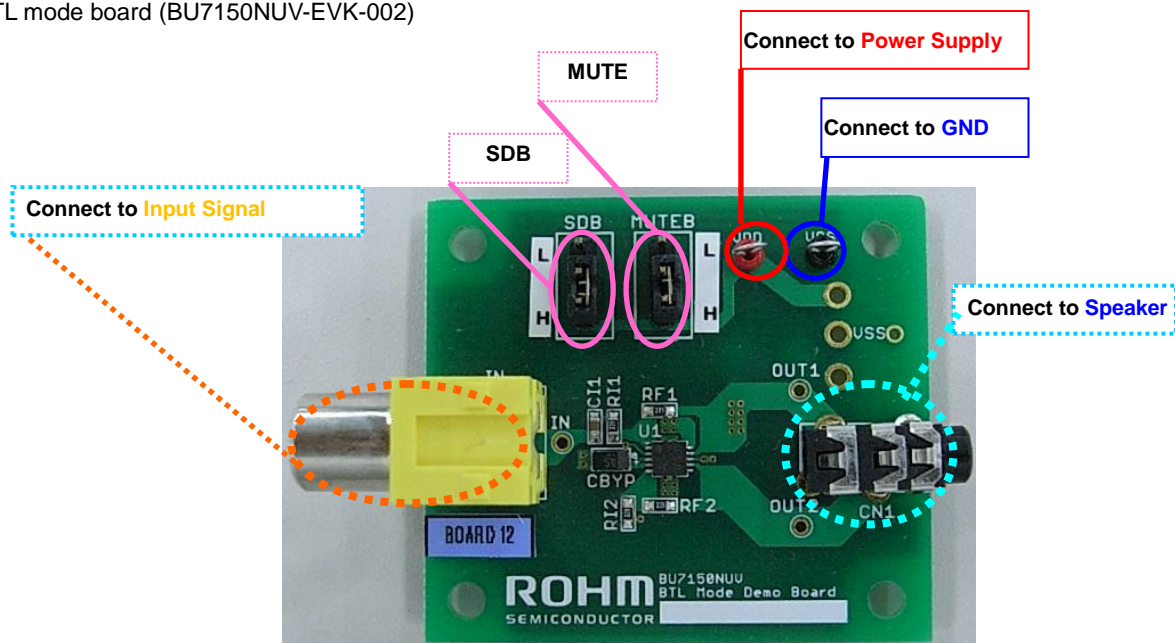
BTL mode (BU7150NUV-EVK-002)

● Usage

- SE mode board (BU7150NUV-EVK-001)



- BTL mode board (BU7150NUV-EVK-002)



- ① Set the jumper of SDB & MUTE pin to L.
- ② Connect the Power Supply pin and GND pin.
- ③ Connect the audio source and Output device.
Output device of SE board : Headphone
Output device of BTL board : Speaker
- ④ Power On
- ⑤ Set the jumper pins to H
- ⑥ Input the audio source.

●BOM List

• SE mode board (BU7150NUV-EVK-001)

num	Part number	Type	Value	Package/ SMD size
1	U1	IC	—	VSON010V3030
1	CP1	Tantalum Capacitor	10 μ F	3216
3	CP2, CC1, CC2	Ceramic Capacitor	0.1 μ F	1608
2	CI1, CI2	Ceramic Capacitor	0.47 μ F	1608
1	CBYP	Tantalum Capacitor	4.7 μ F	3216
2	CO1, CO2	Tantalum Capacitor	100 μ F	3528
4	RI1, RI2, RF1, RF2	Resister	22k Ω	1608
2	RC1, RC2	Resister	10 Ω	1608
2	J1, J2	Solder Jumper	Open	—

• BTL mode board (BU7150NUV-EVK-002)

num	Part number	Type	Value	Package/ SMD size
1	U1	IC	—	VSON010V3030
1	CP1	Tantalum Capacitor	10 μ F	3216
1	CP2	Ceramic Capacitor	0.1 μ F	1608
2	CI1	Ceramic Capacitor	0.47 μ F	1608
1	CBYP	Tantalum Capacitor	4.7 μ F	3216
4	RI1, RI2, RF1, RF2	Resister	22k Ω	1608
2	J1	Solder Jumper	Open	—

Notes

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