

LW108 Low Voltage Audio Amplifier Preliminary DataSheet

Subject to change without prior notice

Rev 0.1, January, 2007

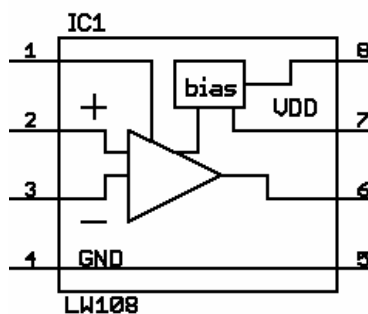
Introduction

LW108 is audio power amplifier of wide operating voltage range. The gain of this amplifier can be controlled easily by an external resistor. Targeted applications are audio power amplifier in portable radio, handy cassette player, walkie-talkie and toys.

Features

- Wide operating supply voltage, 2.2V~6.5V
- Externally adjustable gain
- Medium output power
- Low quiescent current
- Low distortion
- Wide load impedance, 8~100 ohm
- SOP-8 package or chip form for PCB bonding

Block Diagram



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Pin Description

Pin no.	Symbol	Description
1	GAIN	Gain adjust
2	+INPUT	Positive input
3	-INPUT	Negative Input
4	GND	Ground
5	GND	Ground
6	OUTPUT	Audio amplifier out
7	VCC	Power supply
8	BIAS	Bias adjust

Electrical Characteristics

Maximum ratings

Rating	Symbol	Value	Unit
Power Supply Voltage	V_{BATT}	6.5	Vdc
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{STg}	-40 to 125	°C

Electrical Characteristics

Parameter	Conditions	Min	Typ	Max	Unit
Supply voltage		2.2	--	6.5	V
Quiescent Current	$V_S=6V, V_{in}=0$		1		mA
Output Power ($f=1KHz, THD=10\%$)	$V_S=6V, R_L=32\Omega,$		120		mW
	$V_S=4.5V, R_L=32\Omega,$		60		
	$V_S=3V, R_L=32\Omega,$		20		
Voltage Gain			20		dB

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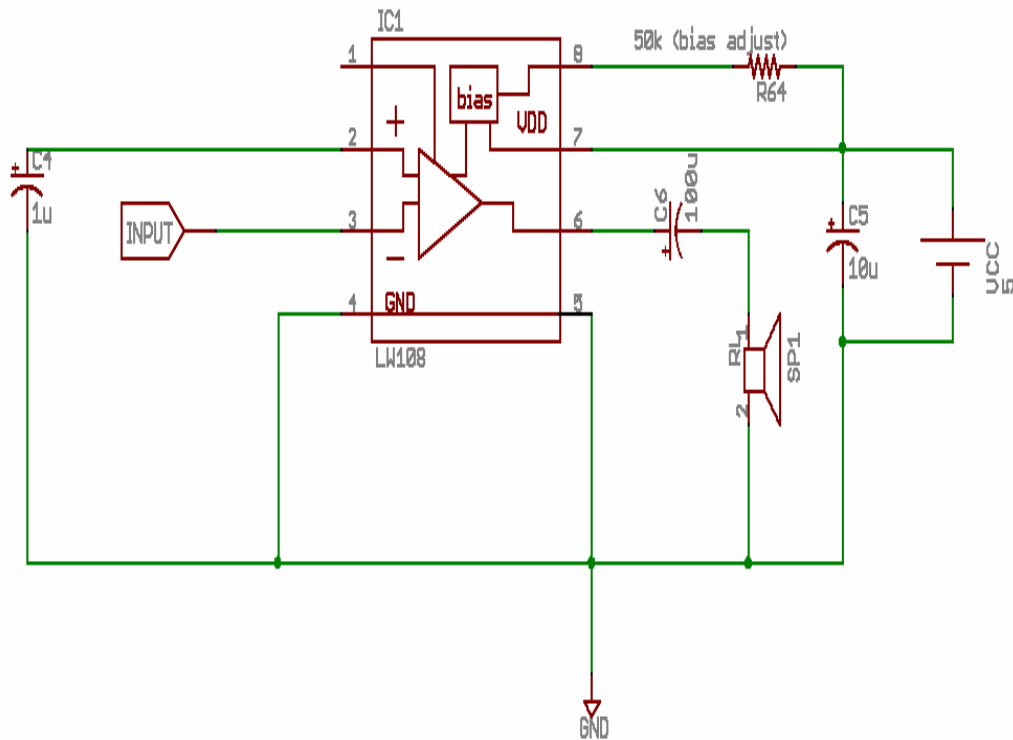
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Application Example

A. Amplifier with 20dB Gain



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B. Amplifier with adjustable Gain

