

3.1W Stereo Audio Amplifier with DC Volume Control

The LM4952 is a dual audio power amplifier primarily designed for demanding applications in flat panel monitors and TV's. It is capable of delivering 3.1 watts per channel to a 4Ω single-ended load with less than 1% THD+N when powered by a 12VDC power supply. Eliminating external feedback resistors, an internal, DC controlled, volume control allows easy and variable gain adjustment. Boomer audio power amplifiers were designed specifically to provide high quality output power with a minimal amount of external components. The LM4952 does not require bootstrap capacitors or snubber circuits. Therefore, it is ideally suited for display applications requiring high power and minimal size. The LM4952 features a low-power consumption active-low shutdown mode. Additionally, the LM4952 features an internal thermal shutdown protection mechanism along with short circuit protection. The LM4952 contains advanced pop & click circuitry that eliminates noises which would otherwise occur during turn-on and turn-off transitions.

Key Specifications

Supply 12V DC

Quiescent Power Supply Current 18mA (typ)

VDD = 12V, RL = 4Ω, 10% THD+N 3.8W (typ)

Shutdown current 55μA (typ)

Features

Pop & click circuitry eliminates noise during turn-on and turn-off transitions

Low current, active-low shutdown mode

Low quiescent current

Stereo 3.8W output, RL = 4Ω

DC-controlled volume control

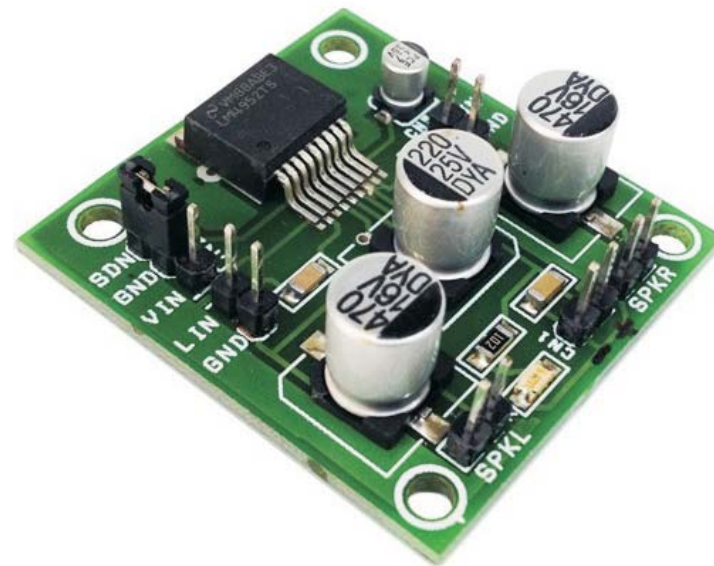
Short circuit protection

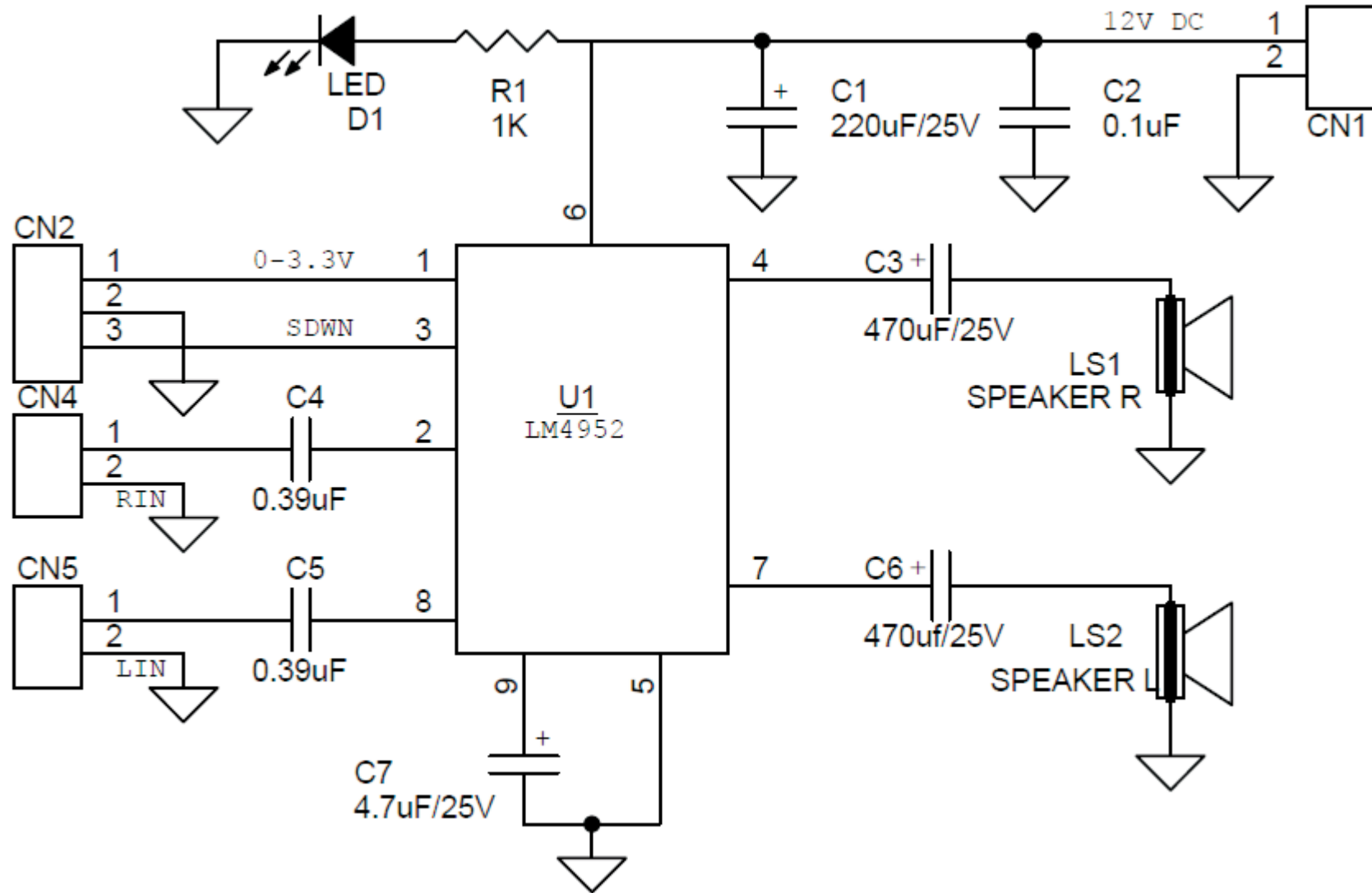
Applications

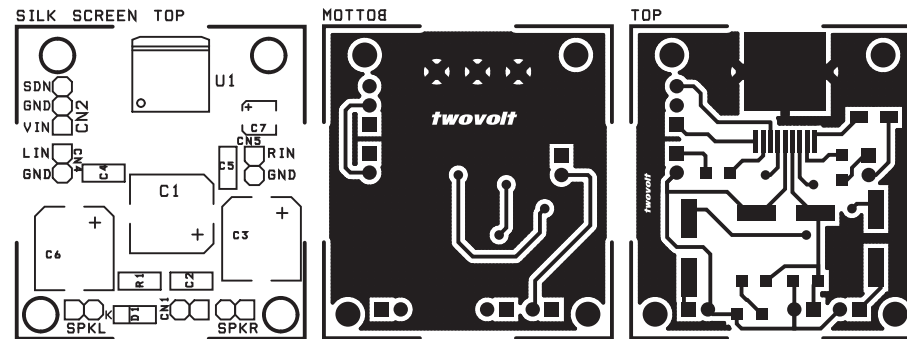
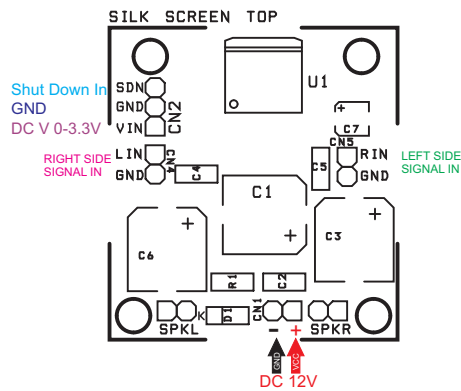
Flat Panel Monitors

Flat panel TV's

Computer Sound Cards







BOM			
SR	QNTY.	REF	DESC.
1	3	CN1,CN4,CN5	2 PIN HEADER CONNECTOR
2	1	CN2	3 PIN HEADER CONNECTOR
3	1	U1	LM4950
4	1	C1	220uF/25V
5	1	C2	0.1uF SMD 1206
6	2	C3,C6	470uf
7	2	C4,C5	0.39uF SMD 1206
8	1	C7	4.7uF/25V
9	1	D1	LED SMD 1206
10	1	LS1	2 PIN HEADER CONNECTOR
11	1	LS2	2 PIN HEADER CONNECTOR
12	1	R1	1K SMD 1206

