

## Audio VU/Sound Level Meter

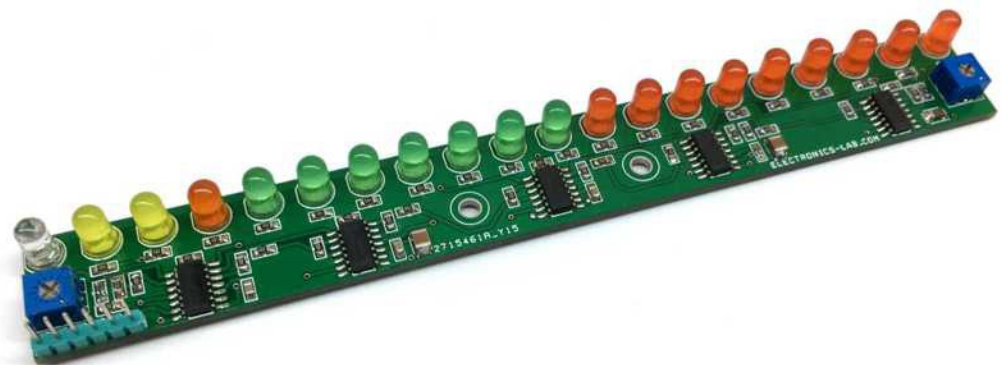
Here is my new project “Audio VU Meter” Or “Sound level meter”, it is a general-purpose bar-graph Audio VU meter designed for fun projects, hook up one wire to output of audio amplifier’s speaker pin along with GND and see the magic. Response of circuit is very fast and it provides beautiful visual representation from audio signal input.

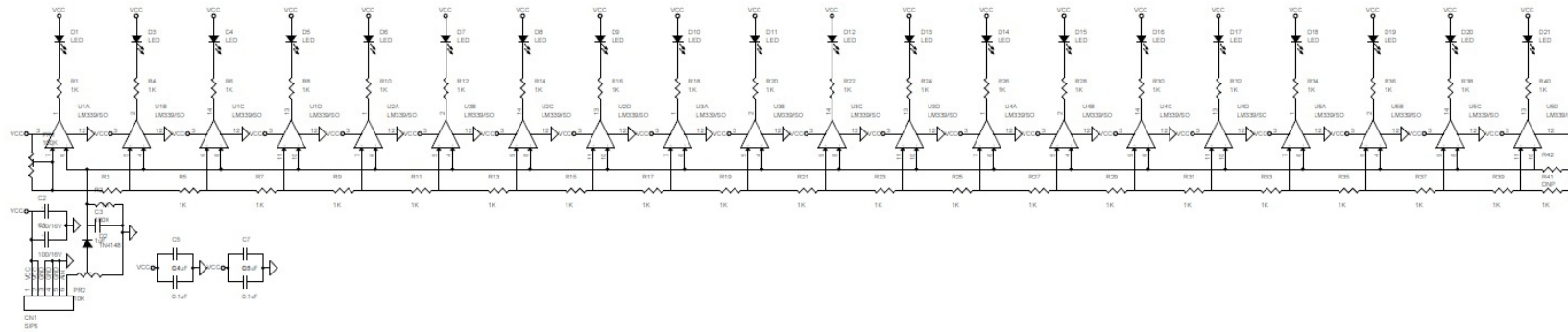
The simplified schematic provided to give the general idea of the operation. The signal is then applied to a series of 20 comparators; each of which is biased to a different comparison level by the resistor string. In the circuit diagram, the resistor string is connected to the 100K potentiometer which provides reference voltage 1.9V to 12V. As the input voltage varies from 0 to 1.9V, the comparator outputs are driven low one by one, switching on the LED indicators. This circuit will work with audio signal level 1.9V to 12V, it will not work with audio line signal. Resistor values calculated to use this project with audio amplifier of 1W to 10W. PR2 provided to adjust the input audio signal level. Testing the board is simple, keep both potentiometers PR1 and PR2 at centre, hook up 2 wires GND and Input signal to Audio amplifier speaker out, adjust the PR1 so all LEDs are in ON condition at full audio signal level.

Note: This project can be used in many other applications by altering string resistor’s value. Possible applications are bar graph voltmeter, battery level monitor, sensor value monitor.

### Features

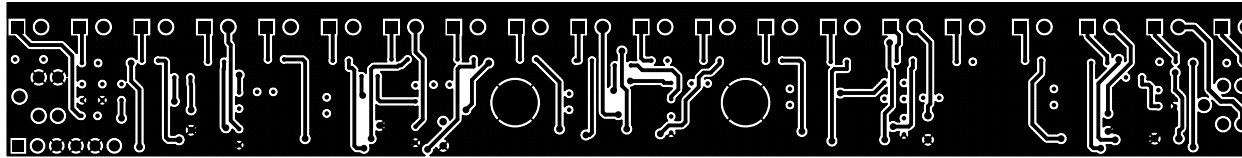
- Supply 9V to 12V DC
- Load Current 200 Ma (When all LED’s are ON)
- Input Signal Level 1.9V to 12V
- Can be used with 1W to 10W Audio Amplifier



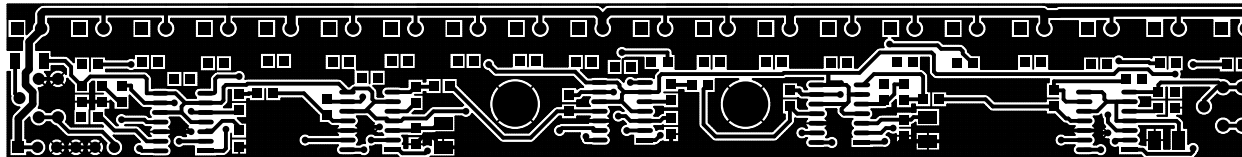


SR.	QNTY.	REF.	DESC.
1	1	CN1	6 PIN MALE HEADER 2.54MM
2	2	C1,C2	100/16V SMD CERAMIC 1210
3	1	C3	1uF/50V 1210 OR 1206
4	4	C4,C5,C6,C7	0.1uF/50V SMD 0805
5	20	D1,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14,D15,D16,D17,D18,D19,D20,D21	LED 5MM
6	1	D2	1N4148 SMD
7	2	PR1,R2	100K TRIMMER POT
8	1	PR2	10K TRIMMER POT
9	40	R1,R3 TO R41	1K SMD 0805
10	1	R42	DNP
11	5	U1,U2,U3,U4,U5	LM339/SO14
12	1	R2	100K SMD 0805

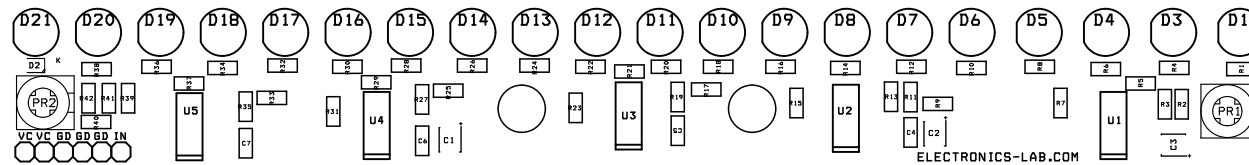




TOP LAYER



BOTTOM LAYER



SILK SCREEN TOP LAYER

PCB Dimensions 165.74MM X 20.64MM

