

## Audio Line Driver using DRV135 with Balanced Output

The project presented here is a differential output amplifier that converts a single-ended audio signal input to a balanced output pair. This balanced audio project consists of high-performance OPAMPS with on-chip precision resistors. They are fully specified for high-performance audio applications and have excellent AC specifications, including low distortion (0.0005% at 1 kHz) and high slew rate (15 V/ $\mu$ s).

The board is based on DRV135 from Texas Instruments. The on-chip resistors are laser-trimmed for accurate gain and optimum output common-mode rejection. Wide output voltage swing and high output drive capability allow use in a wide variety of demanding applications. They easily drive the large capacitive loads associated with long audio cables.

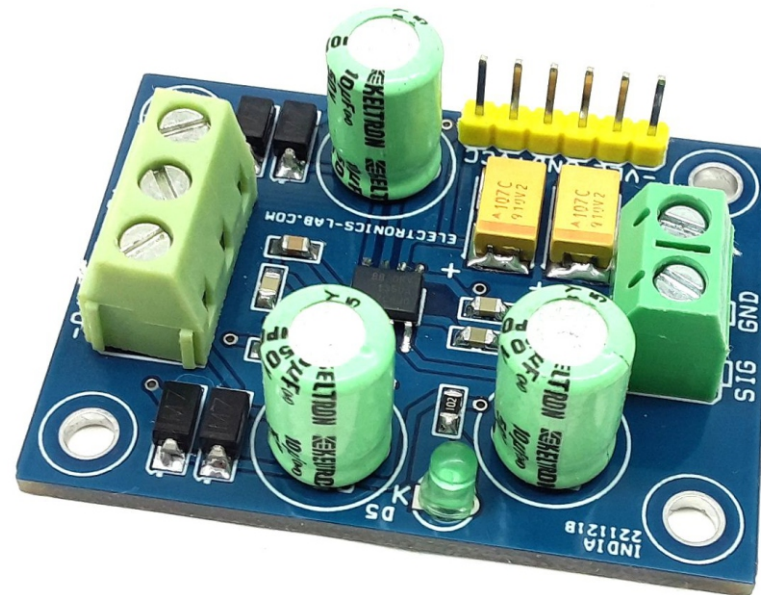
This project is used in combination with the Audio Line Receiver using INA134 as the receiver. Together they offer a complete solution for transmitting analog audio signals without degradation over a long distance.

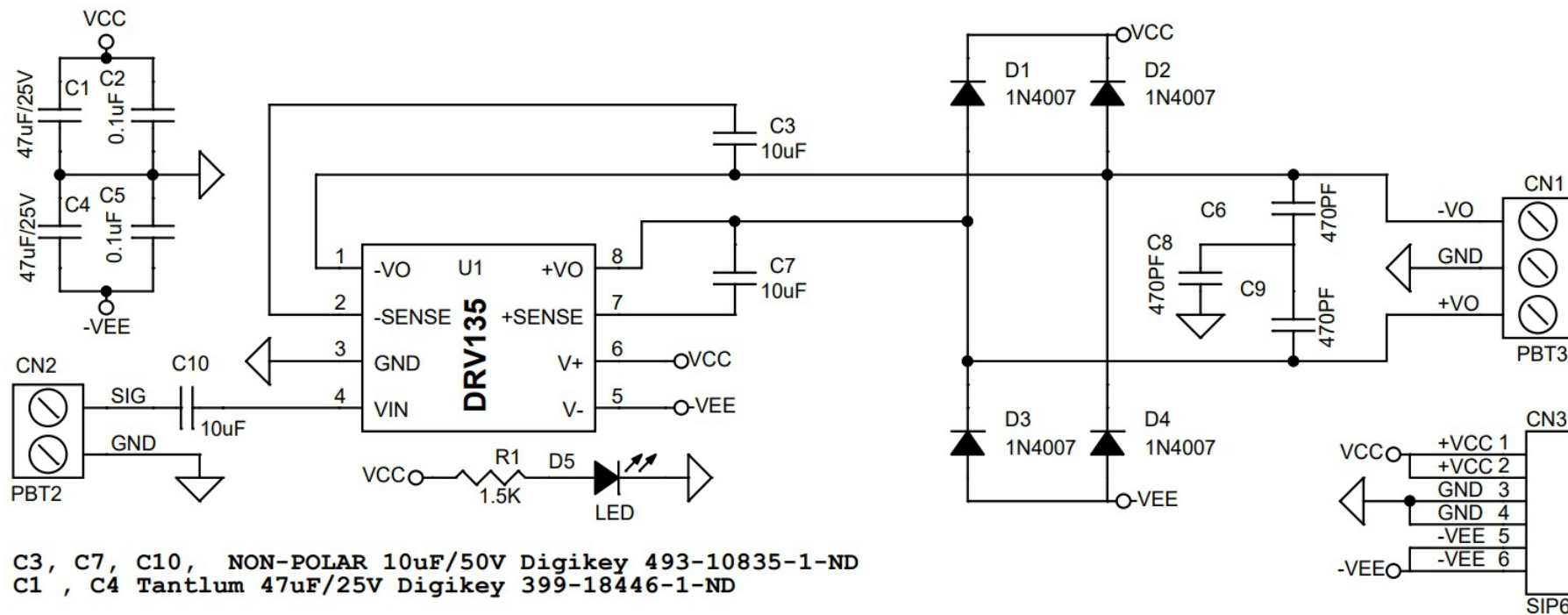
### Features

- Single Ended Audio Input and Balanced Output
- Low Distortion: 0.0005% at  $f = 1$  kHz
- Wide Output Swing: 17Vrms into 600  $\Omega$
- High Capacitive Load Drive
- High Slew Rate: 15 V/ $\mu$ s
- Wide Supply Range:  $\pm 4.5$  V to  $\pm 18$  V @ 15mA without Load
- Low Quiescent Current:  $\pm 5.2$  mA
- Companion to Audio Differential Line Receivers: INA134
- Improved Replacement for SSM2142
- PCB Dimensions 48.26 x 36.20 mm

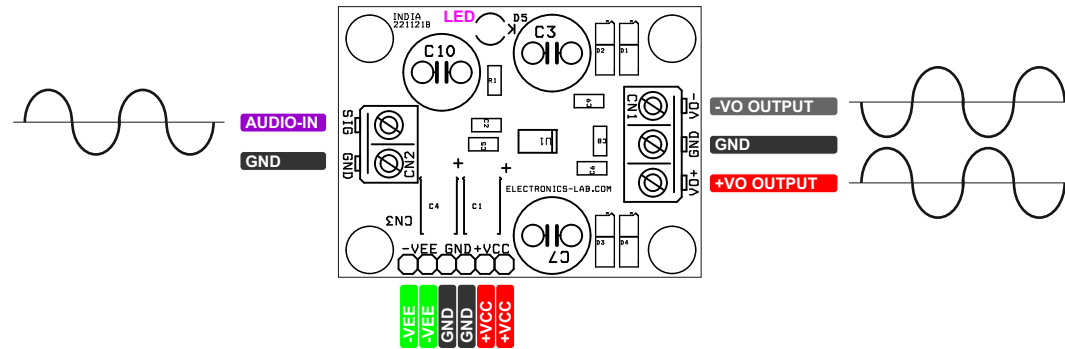
### Applications

- Audio Differential Line Drivers
- Audio Mix Consoles
- Distribution Amplifier
- Digital Effects Processors
- Hi-Fi Equipment's

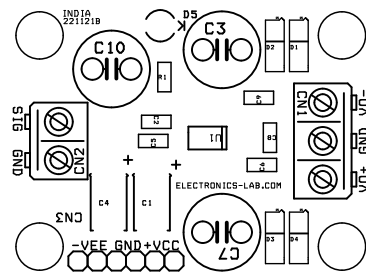




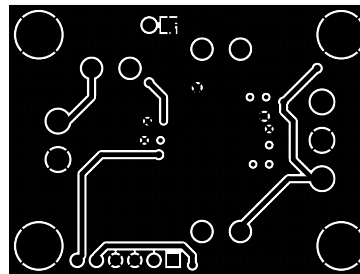
C3, C7, C10, NON-POLAR 10uF/50V Digikey 493-10835-1-ND  
C1, C4 Tantlulm 47uF/25V Digikey 399-18446-1-ND



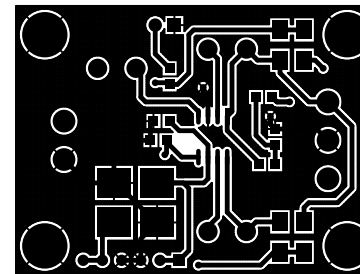
BOM						
NO.	QNTY.	REF.	DESC.	MANUFACTURING	SUPPLIER	SUPPLIER PART NO
1	1	CN1	3 PIN SCREW TERMINAL PITCH 5.08MM	PHOENIX	DIGIKEY	277-1248-ND
2	1	CN2	3 PIN SCREW TERMINAL PITCH 5.08MM	PHOENIX	DIGIKEY	277-1248-ND
3	1	CN3	6 PIN MALE HEADER PITCH 2.54MM	WURTH	DIGIKEY	732-5319-ND
4	2	C1,C4	47uF/25V	KEMET	DIGIKEY	399-18446-1-ND
5	2	C2,C5	0.1uF SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
6	3	C3,C7,C10	10uF/50V NON-POLAR	NICHICON	DIGIKEY	493-10835-1-ND
7	3	C6,C8,C9	470PF/50V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
8	4	D1,D2,D3,D4	1N4007 SMD	SMC DIODE SOLUTION	DIGIKEY	1655-1N4007FLCT-ND
9	1	D5	LED SMD SIZE 0805	LITE ON INC	DIGIKEY	160-1427-1-ND
10	1	R1	1.5K 5% SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
11	1	U1	DRV135 SOIC8	TI	DIGIKEY	DRV135UA-ND



SILK SCREEN TOP



BOTTOM LAYER



TOP LAYER

## PCB DIMENSIONS 48.26MM X 36.20MM