

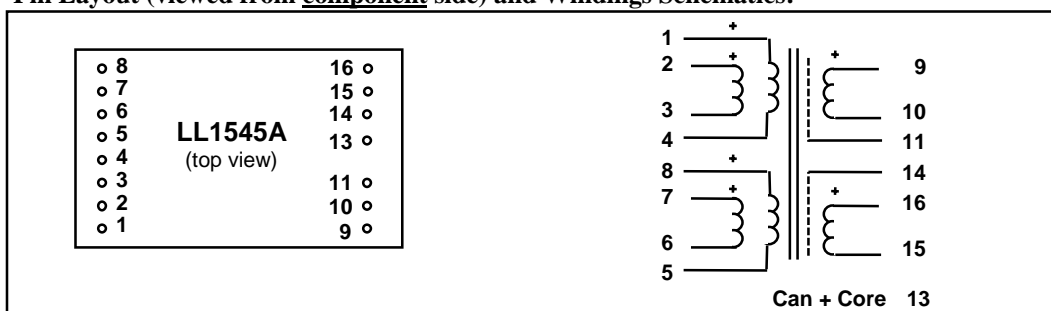
Audio Transformer LL1545A

LL1545A is a general-purpose audio transformer with a variety of connection alternatives. The transformer is built up from two coils, each with a secondary winding surrounded by shields and two primary windings. This structure results in an excellent frequency response. The transformer can be used in many different applications such as a high impedance line input transformer (accepting signal levels of 22 dBu @ 40 Hz with primaries in series), for splitting or as a microphone input transformer.

The LL1545A is made with a mu-metal core and is housed in a mu-metal can.

Refer to page 2 of this sheet for termination alternatives.

Turns ratio: 1 + 1 + 1 + 1 : 2 + 2
Dims: (Length x Width x Height above PCB (mm)) 37 x 22.5 x 14.5
Pin Layout (viewed from component side) and Windings Schematics:



Spacing between pins: 2.54 mm (0.1")
Spacing between rows of pins: 22.86 mm (0.9")
Weight: 46 g
Rec. PCB hole diameter: 1.5 mm
Static resistance of each primary (average): 147 Ω
Static resistance of each secondary (average): 295 Ω
Self resonance point: > 220 kHz
Recommended load for best square-wave response
 (Termination alternative A below): 6.7 kΩ + 470 pF
Frequency response
 (source 600Ω, load (6.7 kΩ + 470 pF) in parallel with 56 kΩ): 10 Hz - 70 kHz +/- 0.5 dB @ 0 dBu
Loss across transformer (at midband with termination as above): 0.3 dB
Core: Mu-metal
Isolation between windings / between windings and shields: 3 kV / 1.5 kV

Data at different termination alternatives, showed on page 2 of this data sheet.

| Termination Alternative | Turns ratio | Copper Resistance prim/sec | Idle impedance @40 Hz, 0dBu | Suggested Use | THD < 0.2% @40 Hz primary level / real source impedance |
|-------------------------|-------------|--|-----------------------------|----------------|---|
| A | 1:1 | 590 Ω / 590 Ω | 80 kΩ / 80 kΩ | 10 kΩ / 10 kΩ | 22 dBu / 600 Ω |
| B | 1:1 | 147 Ω / 147 Ω | 20 kΩ / 20 kΩ | 600 Ω / 600 Ω | 16 dBu / 150 Ω |
| C | 1:2 | 147 Ω / 590 Ω | 20 kΩ / 80 kΩ | 600 Ω / 2.5 kΩ | 16 dBu / 150 Ω |
| D | 1:2 | 37 Ω / 147 Ω | 5 kΩ / 20 kΩ | 200 Ω / 1 kΩ | 10 dBu / 37.5 Ω |
| E | 1:4 | 37 Ω / 590 Ω | 5 kΩ / 80 kΩ | 200 Ω / 3.2 kΩ | 10 dBu / 37.5 Ω |
| F (Split) | 2:1+1 | 590 Ω / 295 Ω + 295 Ω | | | |
| G (Split) | 1:1+1 | 147 Ω / 295 Ω + 295 Ω Left side can also be connected as B _{CenterTap} (1:1+1) or D (1:2+2) | | | |

LL1545A Connection alternatives

(Left side is input if not stated otherwise)

!!!! Pin side view !!!!

