

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.

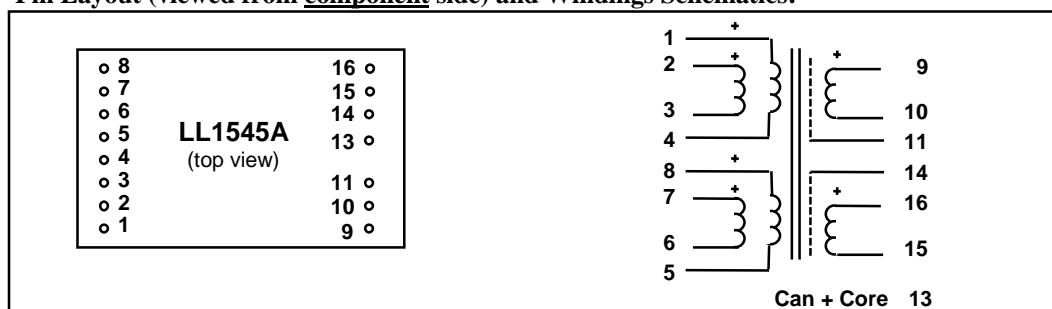
Turns ratio:

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 k Ω + 470 pF

Frequency response

(source 600 Ω , load (6.7 k Ω + 470 pF) in parallel with 56 k Ω):

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 k Ω / 80 k Ω	10 k Ω / 10 k Ω	22 dBu / 600 Ω
B	1:1	147 Ω / 147 Ω	20 k Ω / 20 k Ω	600 Ω / 600 Ω	16 dBu / 150 Ω
C	1:2	147 Ω / 590 Ω	20 k Ω / 80 k Ω	600 Ω / 2.5 k Ω	16 dBu / 150 Ω
D	1:2	37 Ω / 147 Ω	5 k Ω / 20 k Ω	200 Ω / 1 k Ω	10 dBu / 37.5 Ω
E	1:4	37 Ω / 590 Ω	5 k Ω / 80 k Ω	200 Ω / 3.2 k Ω	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 !!!!**

