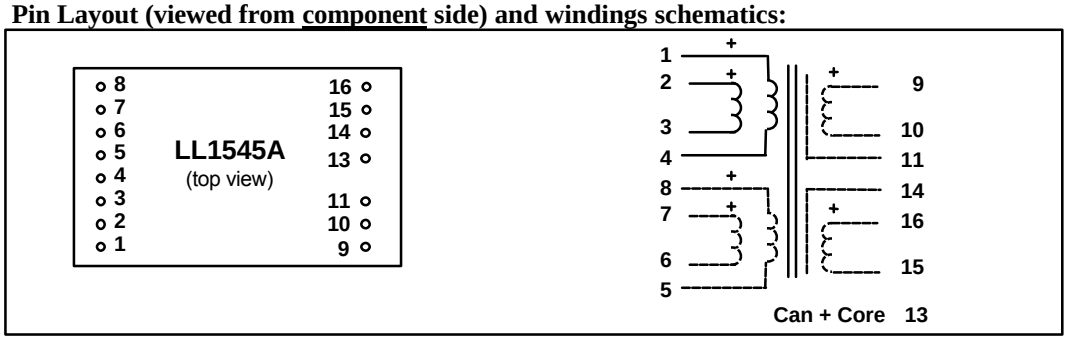
Audio Transformer
LL1545A

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:



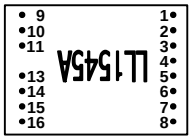
Spacing between pins:		2.54 mm (0.1")
Spacing between rows of pins:		22.86 mm (0.9")
Weight:		46 g
Rec. PCB hole diameter		1.5 mm
Static resistance of windings:	2-3 or 6-7	122 Ω
	1-4 or 5-8	182 Ω
	9-10 or 15-16	305 Ω
Self resonance point:		> 220 kHz
Recommended load for best square-wave response (Termination alternative R4B:L4B over):		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 1 kHz 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 Alternatives	Turns ratio	Copper Resistance Prim/sec	Idle impedance @40 Hz, 0dBU	Suggested Use	THD < 0.2%@40 Hz primary level / real source impedance
R4B / R4U : L4B / L4U	1:1	610 Ω / 610 Ω	80 kΩ / 80 kΩ	10 kΩ / 10 kΩ	22 dBU / 600 Ω
R2B / R2U : L2B / L2U	1:1	150 Ω / 150 Ω	20 kΩ / 20 kΩ	600 Ω / 600 Ω	16 dBU / 150 Ω
R2B / R2U : L4B / L4U	1:2	150 Ω / 610 Ω	20 kΩ / 80 kΩ	600 Ω / 2.5 kΩ	16 dbU / 150 Ω
R4B / R4U : L2B / L2U	2:1	610 Ω / 150 Ω	80 kΩ / 20 kΩ	10 kΩ / 2.5 kΩ	22 dBU / 37.5 Ω
R4B / R4U : L1	4:1	610 Ω / 75 Ω	80 kΩ / 5 kΩ	10 kΩ / 600 Ω	22 dBU / 37.5 Ω

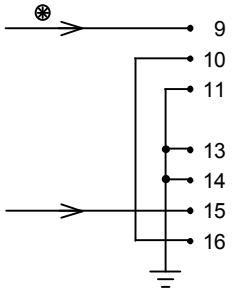
R030220

Connection alternatives for LL1545A
Component side view

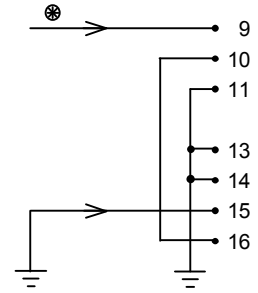


Component side view

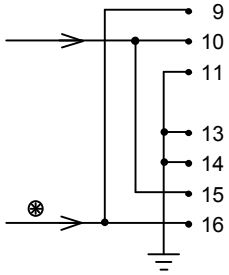
Connection: R4B
Balanced source



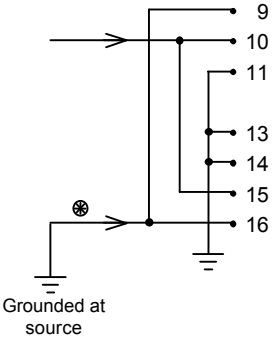
Connection: R4U
Unbalanced source



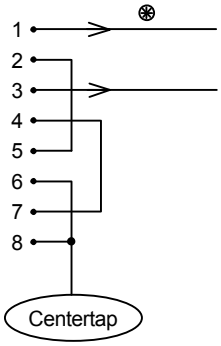
Connection: R2B
Balanced source



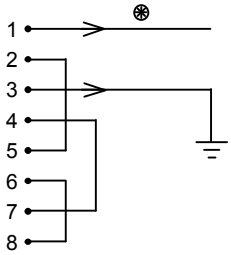
Connection R2U
Unbalanced source



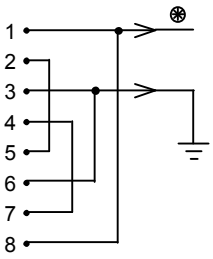
Connection L4B
Balanced load



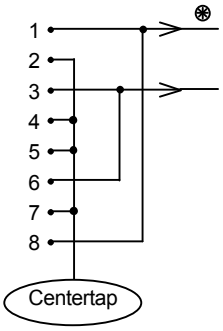
Connection L4U
Unbalanced load



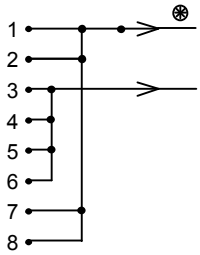
Connection L2U
Unbalanced load



Connection L2B
Balanced load



Connection L1



Turns ratio	Application	Transformer Input (primary)	Transformer Output (secondary)
1:1	Line input to unbalanced circuits	R4B / R4U	L4U
1:2	Line input to unbalanced circuits	R2B / R2U	L4U
2:1	Line input to unbalanced circuits	R4B / R4U	L2U
1:1	Low impedance line input to unbalanced circuits	R2B / R2U	L2U
1:1	Line input to balanced circuits	R4B / R4U	L4B
1:2	Line input to balanced circuits	R2B / R2U	L4B
2:1	Line input to balanced circuits	R4B / R4U	L2B
1:1	Low impedance line input to balanced circuits	R2B / R2U	L2B