

Line Input / General Purpose Transformers LL7901 and LL7902

LL7901 and LL7902 are large size, high level, high performance audio transformers, made for extraordinary requirements. The LL7901 has an extreme level capability (+ 34 dBu @ 50 Hz) while the LL7902 combines high level capability (+28 dBu @ 50 Hz) with low copper resistance.

The transformer consists of two coils each with two primary and two secondary windings separated by electrostatic shields. The core is a high permeability mu metal lamination core.

The transformers are magnetically shielded by a mu metal case.

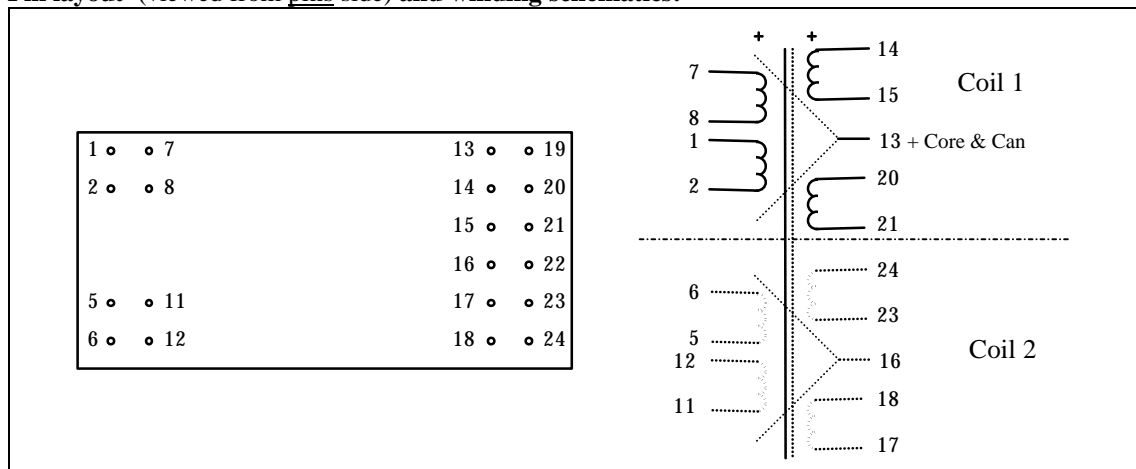
Turns ratio:

1 + 1 + 1 + 1 : 1 + 1 + 1 + 1

Dims (Length x Width x Height above PCB (mm)):

66 x 32 x 21

Pin layout (viewed from pins side) and winding schematics:



Spacing between pins:

5.08 mm (0.2")

Spacing between rows of pins:

5.08 / 45.72 mm (0.2 / 1.8")

Weight:

155 g

Rec. PCB hole diameter:

1.5 mm

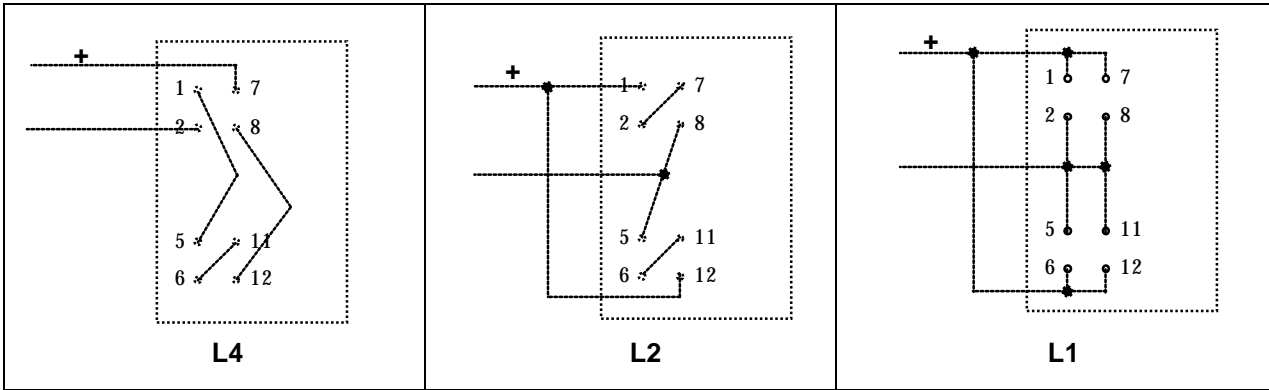
	LL7901	LL7902
Static resistance of each primary (average):	120Ω	28Ω
Static resistance of each secondary (average):	125Ω	28Ω
Distortion (primaries connected in series, source impedance 600Ω):	+ 20 dBu primary level, 50 Hz: 0.1 %	+ 10 dBu primary level, 50 Hz: 0.1 %
	+ 34 dBu primary level, 50 Hz: 1 %	+ 28 dBu primary level, 50 Hz: 1 %
Self resonance point :	> 80 kHz	> 150 kHz
Optimum termination for best square-wave response (source imp. 600Ω) :	12 kΩ in series with 1.7 nF	5 kΩ in series with 1.3 nF
Frequency response (source and load as above)	10 Hz - 55 kHz +/- 0.5 dB	10 Hz - 100 kHz +/- 0.5 dB

Isolation between primary and secondary windings/ between windings and shield: 4 kV / 2 kV

Connection alternatives, LL7901 and LL7902

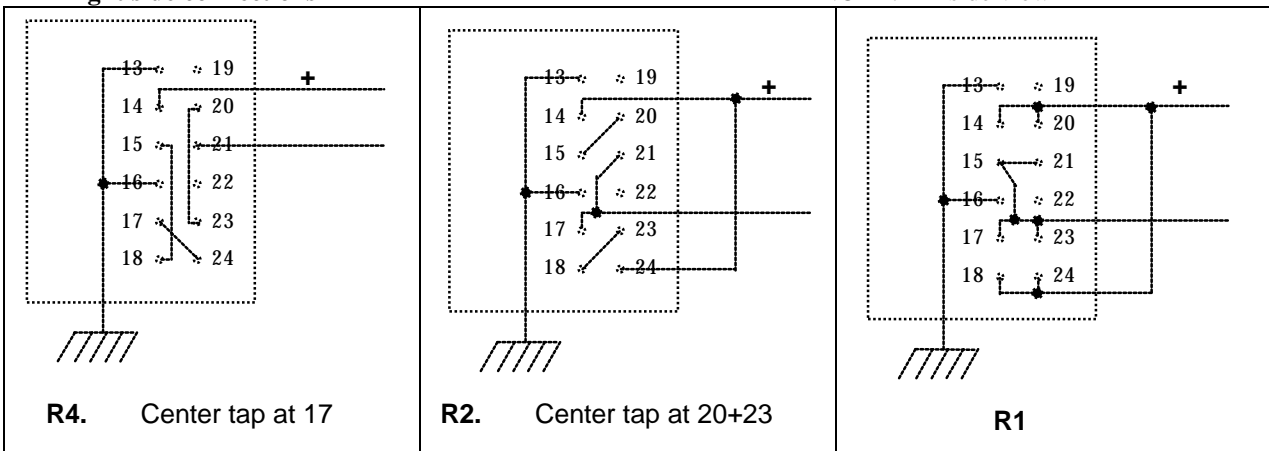
Left side connections

NOTE! Pin side view



Right side connections

NOTE! Pin side view



Suggested applications using LL7901 and LL7902

Application	Max primary level, < 1% THD@50 Hz	Transformer	Connections
Very high level input stage 1:1	+34 dBu	LL7901	L4 - R4
Very high level input stage 1:2	+28 dBu	LL7901	L2 - R4
Very high level input stage 2:1	+34 dBu	LL7901	L4 - R2
High level isolation unit 1:1	+28 dBu	LL7902	L4 - R4
High level isolation unit 1:1 Reduced copper resistance	+22 dBu	LL7902	L2 - R2
Low resistance isolation unit 1:1 (Transformer copper resistance 14 ohms)	+16 dBu	LL7902	L1 - R1
Microphone / line input 1:2	+22 dBu	LL7902	L2 - R4
Microphone / line input 1:4	+16 dBu	LL7902	L1 - R4