

## 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.

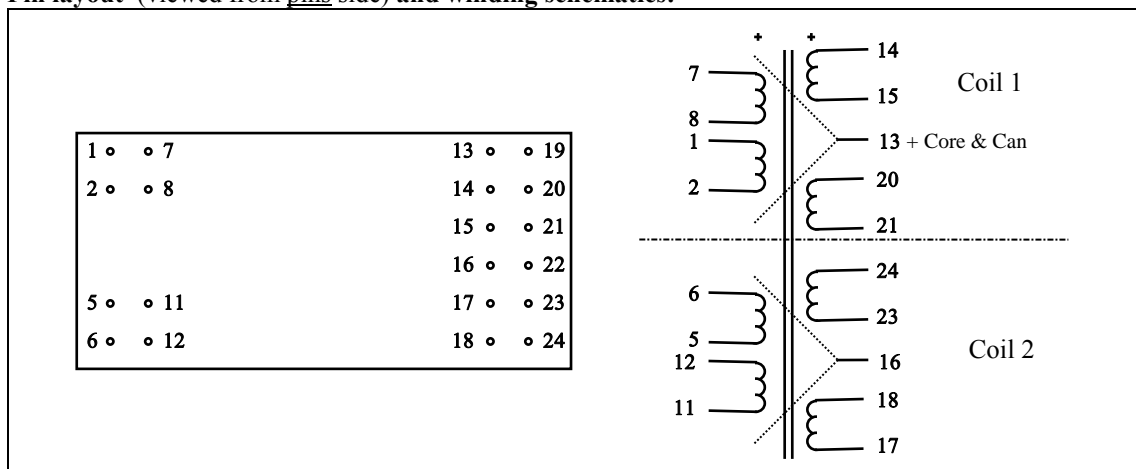
**Turns ratio:**

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

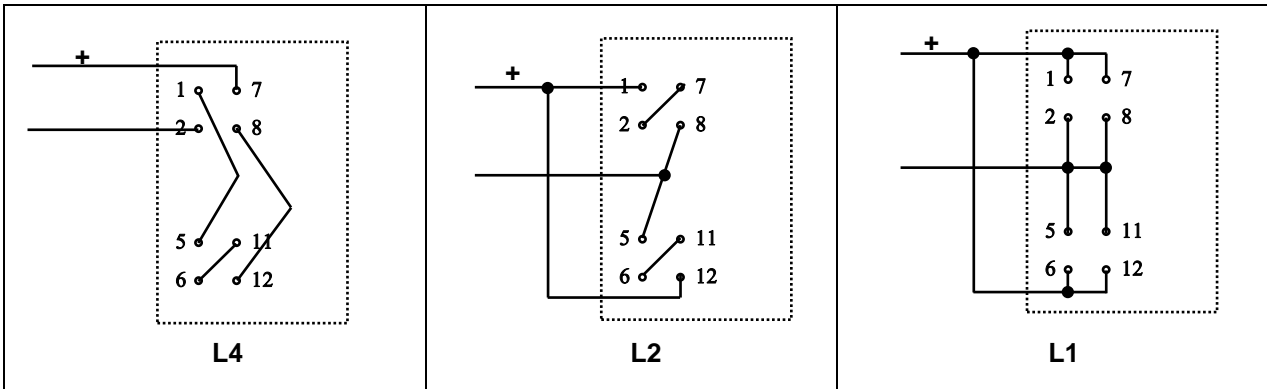
	<b>LL7901</b>	<b>LL7902</b>
<b>Static resistance of each primary (average):</b>	120Ω	28Ω
<b>Static resistance of each secondary (average):</b>	125Ω	28Ω
<b>Distortion</b> (primaries connected in series, source impedance 600Ω):	+ 20 dBu primary level, 50 Hz: 0.1 %	+ 10 dBu primary level, 50 Hz: 0.1 %
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

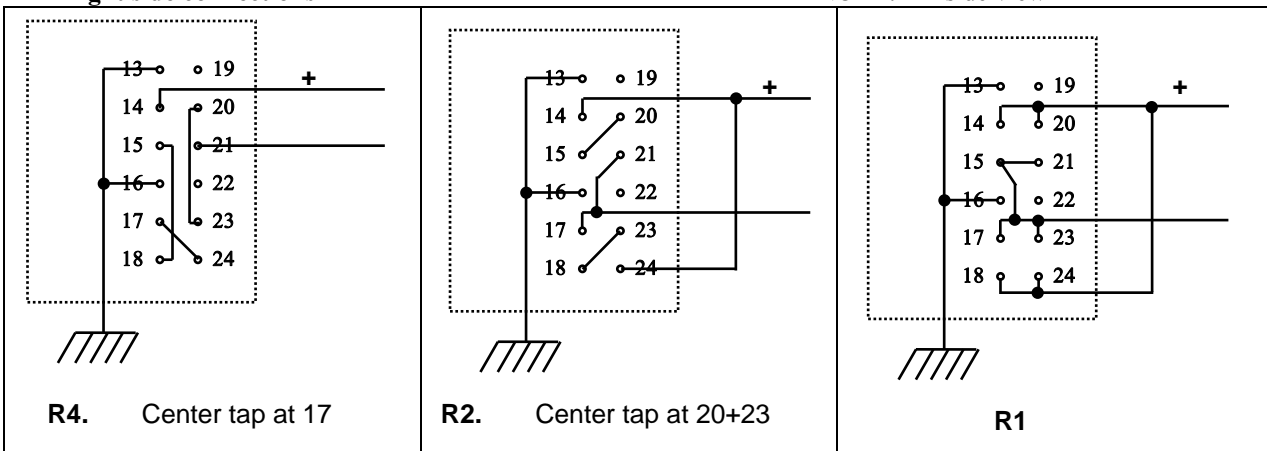
**Left side connections**

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
Stepdown line input / line output 2:1	+28 dBU	LL7902	L4 - R2
Stepdown line input / line output 4:1	+28 dBU	LL7902	L4 - R1