

## Microphone Input Transformer Transformers LL7903

The LL7903 is a large, high level, high performance audio transformer, made for extraordinary requirements. The transformer combines high level capability (+28 dBU @ 50 Hz primary level) with low copper resistance and is designed for the most demanding applications. The LL7903 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 transformer is magnetically shielded by a mu metal case.

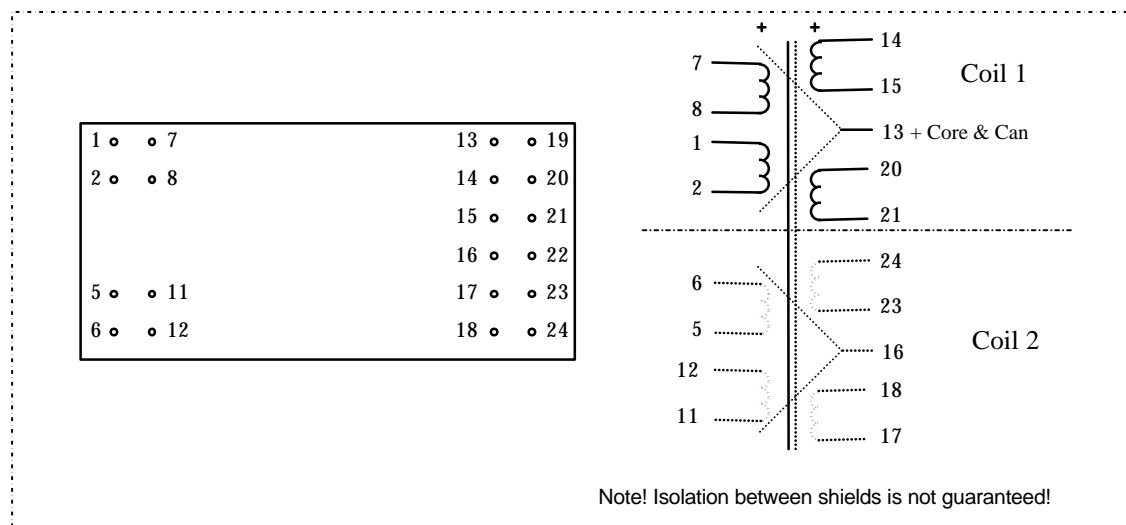
**Turns ratio:**

1 + 1 + 1 + 1 : 2 + 2 + 2 + 2

**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

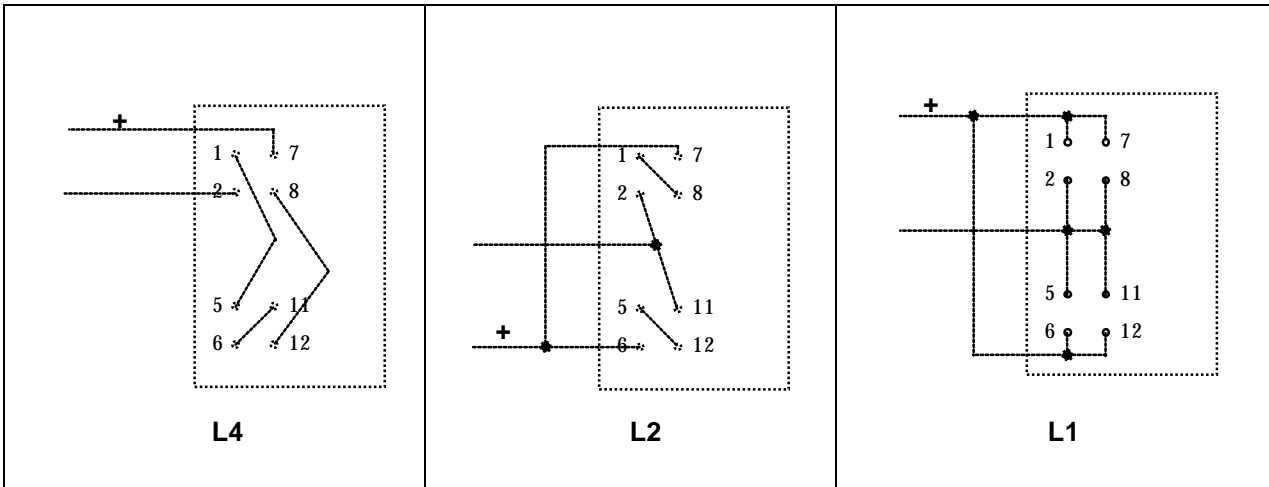
<b>Static resistance of each primary</b> (average):	28Ω
<b>Static resistance of each secondary</b> (average):	125Ω
<b>Distortion</b> (primaries connected in series, source impedance 600Ω):	+ 10 dBU primary level, 50 Hz: 0.1 %
	+ 28 dBU primary level, 50 Hz: 1 %
<b>Self resonance point :</b>	80 kHz
<b>Optimum termination for best square-wave response</b> (source imp. 600Ω) :	30kΩ in series with 400pF
<b>Frequency response</b> (source and load as above)	10 Hz - 70 kHz +/- 0.5 dB

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

## Connection alternatives, LL7903

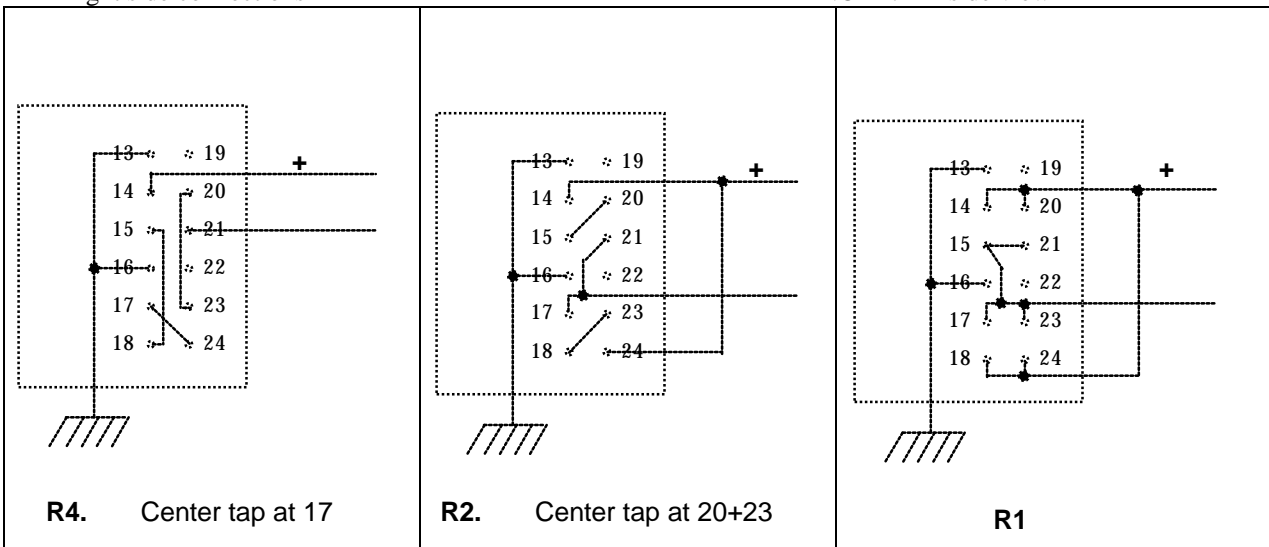
Left side connections

NOTE! Pin side view



Right side connections

NOTE! Pin side view



## Suggested applications using LL7903

Application	Max primary level, < 1% THD@50 Hz	Connections
Microphone / line input 1:2	+28 dBU	L4 - R4
Microphone / line input 1:4	+22 dBU	L2 - R4
Microphone / line input 1:8	+16 dBU	L1 - R4