

Mic/Line Input Transformer LL7906

The LL7906 is a large, high level, high performance audio transformer, pin compatible with our LL7905, but with an internal structure better optimized for high turns-ratio step-up applications. The transformer combines very high secondary level capability (+37 dBu [54.5V rms] @ 50 Hz) with low copper resistance. The LL7906 consists of two coils, each with two primary and one 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.

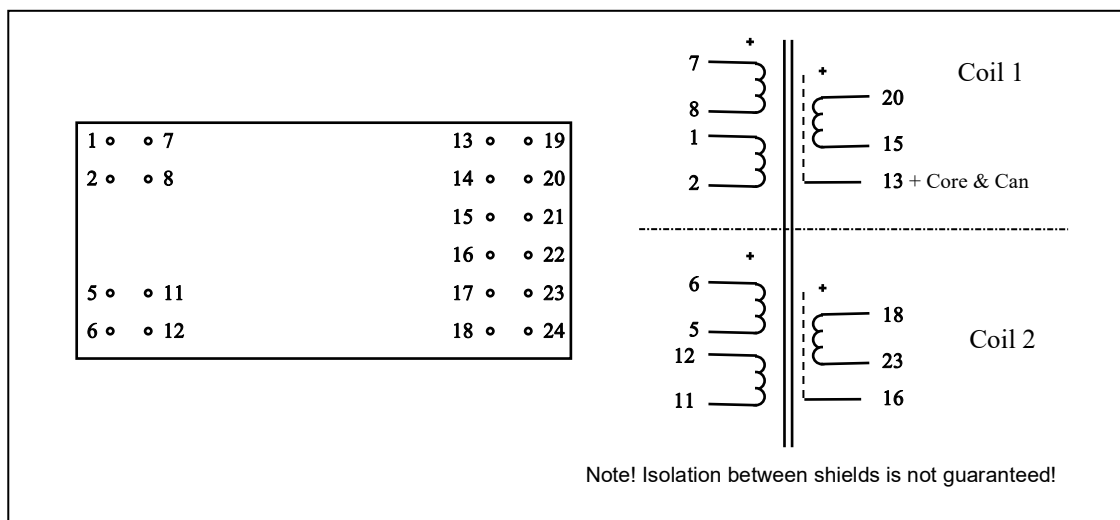
Turns ratio:

1 + 1 + 1 + 1 : 5.6 + 5.6

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

Static resistance of each primary (average):	24Ω
Static resistance of each secondary (average):	450Ω
Distortion (primary connection L1, source impedance 150Ω):	+ 8 dBu primary level, 50 Hz: 0.1 %
	+ 16 dBu primary level, 50 Hz: 1 %
Self resonance point :	30 kHz
Optimum termination for best square-wave response (Connections L1-R2 [1:11.2], source imp. 200Ω) :	80kΩ
Frequency response: (source and load as above, connection L1-R2, secondary side balanced with or without grounded centertap.	10 Hz - 45 kHz +/- 1 dB
Frequency response (source and load as above, connection L1-R2, secondary side unbalanced with pin 23 grounded)	10 Hz - 25 kHz +/- 1 dB

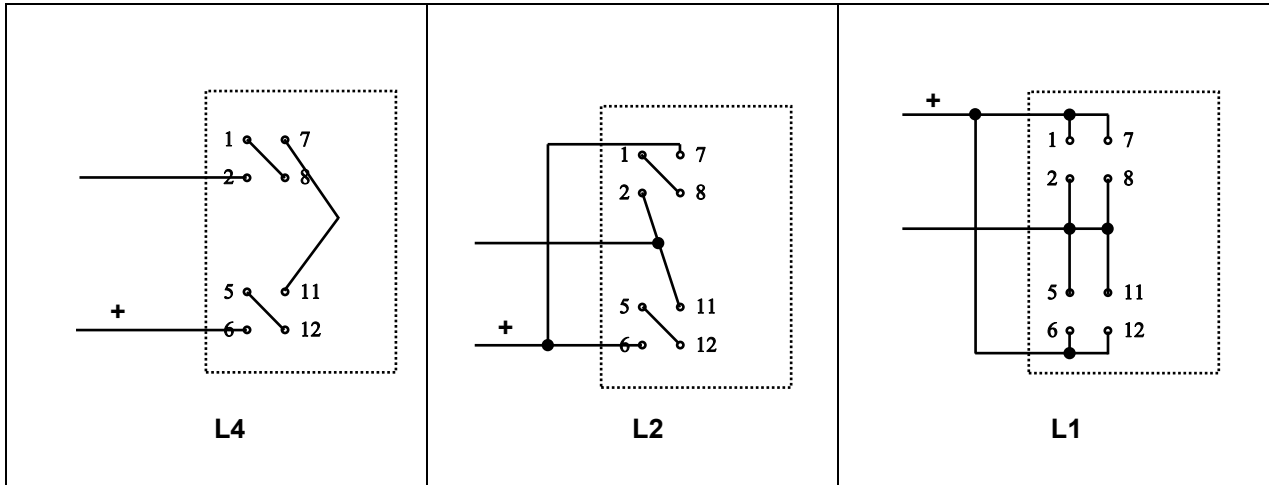
Isolation between primary and secondary windings/ between windings and shield: 4 kV / 2 kV



Connection alternatives, LL7906

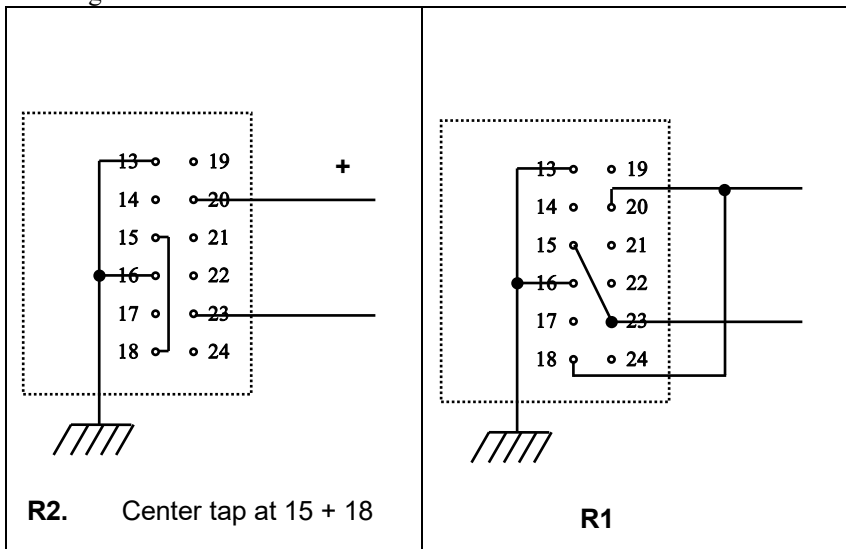
Left side connections

NOTE! Pin side view



Right side connections

NOTE! Pin side view



Suggested applications using LL7906

Application	Connections	Max primary level, < 1% THD@50 Hz	Corresponding secondary level
Microphone / line input 1:2.8	L4 – R2	+28 dBu (19.5 V rms)	+37 dBu (54.5V rms)
Microphone / line input 1:5.6	L2 – R2	+22 dBu (9.7 V rms)	+37 dBu (54.5V rms)
Microphone / line input 1:11.2	L1 – R2	+16 dBu (4.9 V rms)	+37 dBu (54.5V rms)