

## Microphone Input Transformer LL1636

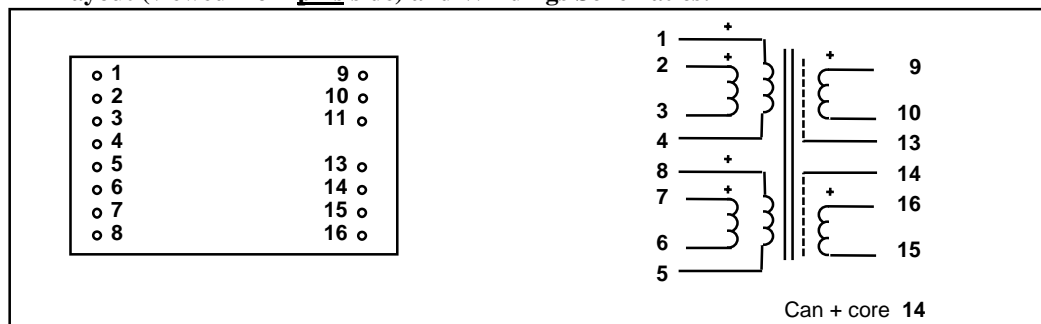
LL1636 is an audio input transformer for applications where a high turn's ratio is desired. The transformer is built up from two coils, each with a secondary winding surrounded by shields and two primary windings. This structure results in an excellent frequency response. All winding ends are available on the pins. Thus, the transformer can be configured for a number of different turn's ratios.

The LL1636 is made with amorphous core material. As this type of core does not store energy (unlike conventional mu-metal cores) the low frequency resonance with external series capacitors is practically eliminated.

**Turns ratio:** 1 + 1 + 1 + 1 : 10 + 10

**Dims: (Length x Width x Height above PCB (mm))** 30 x 22.5 x 14.5

**Pin Layout (viewed from pins side) and Windings Schematics:**



**Spacing between pins:** 2.54 mm (0.1")

**Spacing between rows of pins:** 22.86 mm (0.9")

**Weight:** 27 g

**Rec. PCB hole diameter:** 1.5 mm

**Static resistance of each primary (average):** 10 Ω

**Static resistance of each secondary (average):** 415 Ω

**Self resonance point :** > 250 kHz

**Frequency response**

(@ -10 dBu, all in series. Source 50Ω , load 100 kΩ) : 10 Hz -- 25 kHz +/- 1 dB  
10 Hz -- 90 kHz +/- 1.5 dB

**Distortion** (primaries connected in series, source impedance 50Ω) : < 0.5% @ -2 dBu, 50 Hz

**Primary no load impedance @ 0 dBu, 50 Hz, all in series:** 8 kΩ typically

**Core / Can:** Amorphous Strip Core / Mu-metal can

**Isolation between windings / between windings and core:** 3 kV / 1.5 kV

**Turns ratio and possible use at different termination alternatives. Termination alternatives are shown on the following page.**

Termination Alternative	Turns ratio	Copper Resistance prim/sec	Possible Use
A	1:5	40Ω / 790 Ω	400Ω / 10 kΩ
B	1:5	10Ω / 200 Ω	Not recommended
C	1:10	10Ω / 790 Ω	100Ω / 10kΩ
D	1:10	2.5Ω / 200 Ω	Not recommended
E	1:20	2.5Ω / 790 Ω	25Ω / 10kΩ

# LL1636 Termination Alternatives

(Left side is input if not stated otherwise)

!!!! Pin side view !!!!

