

## Microphone Input Transformers LL1538 and LL1538XL

The LL1538 and the LL1538XL are high performance microphone input transformers, each with a high permeability mu-metal core and two three-section coils.

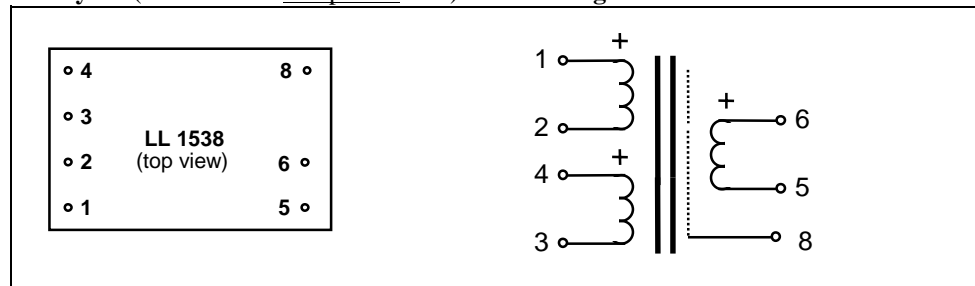
In the LL1538XL the core is about 45% larger than in the LL1538, resulting in a larger level capability. In both types, primary and secondary windings are separated by electrostatic shields. The three-section winding structure of the transformers results in a very low leakage inductance and thus an excellent frequency response.

The transformers are encapsulated in mu-metal cases for magnetic shielding.

**Turns ratio:**

1 + 1 : 5

**Pin layout** (viewed from component side) **and winding schematics:**



	LL1538	LL1538XL
<b>Dimensions (Max. Length x Width x Height above PCB (mm))</b>	38 x 24 x 17	38 x 24 x 20.5
<b>Spacing between pins</b>	5.08 mm (0.2")	5.08 mm (0.2")
<b>Spacing between rows of pins</b>	27.94 mm (1.1")	27.94 mm (1.1")
<b>Weight</b>	46 g	65 g
<b>Rec. PCB hole diameter</b>	1.5 mm	1.5 mm
<b>Static resistance of each primary</b>	44Ω	61Ω
<b>Static resistance of each secondary</b>	880 Ω	975 Ω
<b>Distortion</b> (primaries connected in parallel, source impedance 200Ω )	0.2 % @ 0 dBu (0.775V rms) primary level, 50 Hz 1 % @ + 10 dBu (2.5 V rms) primary level, 50 Hz	0.2 % @ + 3 dBu (1.1V rms) primary level, 50 Hz 1 % @ + 13 dBu (3.5V rms) primary level, 50 Hz
<b>Self resonance point</b>	> 120 kHz	> 120 kHz
<b>Optimum termination for best square-wave response</b> (Connection 1:5, source imp. 200Ω )	No termination necessary	No termination necessary
<b>Frequency response</b> (source 200 Ω, no termination)	10 Hz - 100 kHz +/- 0.3 dB	10 Hz - 80 kHz +/- 0.3 dB
<b>Isolation between windings/ between windings and shield</b>	4 kV / 2 kV	4 kV / 2 kV

