

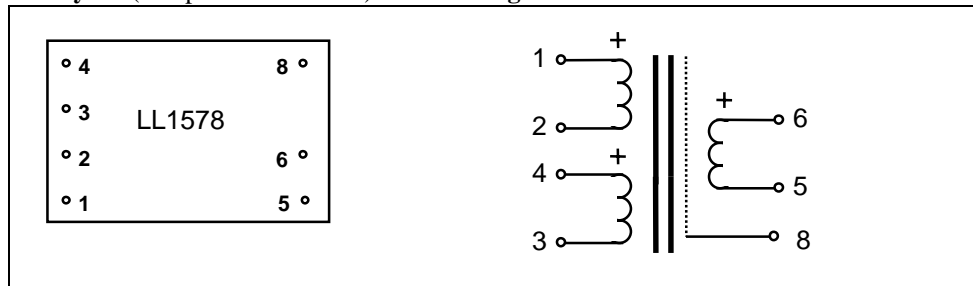
Microphone Input Transformers, Line-box Transformers LL1578 and LL1578XL

The LL1578 and the LL1578XL are high performance microphone input transformers/line-box transformers with high permeability mu-metal cores and high bandwidth coils. The LL1578 and the LL1578XL use the same pin-out as our well known microphone transformer LL1538.

In the LL1578XL the core is about 45% larger than in the LL1578, resulting in a higher signal level capability. In both types, primary and secondary windings are separated by electrostatic shields. The very low leakage inductance and thus excellent frequency response is achieved by a two-coil, three-section per coil winding structure.

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

Pin layout (component side view) and winding schematics:



Turns ratio	Spacing between pins	Spacing between rows of pins	Recommended PCB hole diameter	Isolation between windings / between windings and shield
1 + 1 : 10	5.08 mm (0.2")	27.94 mm (1.1")	1.5 mm	4 kV / 2 kV

	LL1578	LL1578XL
Dimensions Max. Length x Width x Height above PCB (mm)	38 x 24 x 17	38 x 24 x 20.5
Weight	46 g	65 g
Static resistance of each primary	12 Ω	15 Ω
Static resistance of secondary	880 Ω	960 Ω
Primary level at 0.2 % THD, 50 Hz signal Primaries connected in parallel (fig b), source impedance 50Ω	-5 dBU (sec. level +15 dBU)	0 dBU (sec. level +20 dBU)
Primary level at 1 % THD, 50 Hz signal Primaries connected in parallel (fig b), source impedance 50Ω	+ 4 dBU (sec. level +24 dBU)	+12 dBU (sec level +32 dBU)
Frequency response +/- 0.5 dB to balanced input Signal level 0 dBU, source 200 Ω, fig b, no termination	30Hz – 20kHz	20Hz – 20kHz
Frequency response +/- 0.5 dB to balanced input Signal level -10 dBU, source 50 Ω, fig b, load:	10Hz – 70kHz 40 k Ω + 200pF	6Hz – 50kHz 50 k Ω + 200pF

