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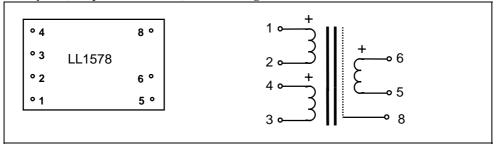
Microphone Input Transformers, Line-box Transformers LL1578 and LL1578XL

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	Spacing between	Recommended PCB	Isolation between windings /
	pins	rows of pins	hole diameter	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	38 x 24 x 17	38 x 24 x 20.5
Max. Length x Width x Height above PCB (mm)		
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	-5 dBU	0 dBU
Primaries connected in parallel (fig b), source impedance 50Ω	(sec. level +15 dBU)	(sec. level +20 dBU)
Primary level at 1 % THD, 50 Hz signal	+ 4 dBU	+12 dBU
Primaries connected in parallel (fig b), source impedance 50Ω	(sec. level +24 dBU	(sec level +32 dBU)
Frequency response +/- 0.5 dB to balanced input	30Hz – 20kHz	20Hz – 20kHz
Signal level 0 dBU, source 200 Ω , fig b, no termination		
Frequency response +/- 0.5 dB to balanced input	10Hz - 70kHz	6Hz – 50kHz
Signal level -10 dBU, source 50 Ω , fig b, load:	$40 \text{ k} \Omega + 200 \text{pF}$	$50 \text{ k} \Omega + 200 \text{pF}$

