

Tube microphone output transformer LL1940

LL1940 is a high turns ratio transformer designed for tube microphones. Conventionally, this type of transformer has a mu metal lamination core for minimum distortion and maximum transparency. For the LL1940 we have chosen a silicon iron C-core (with approx 10 times as high distortion compared to mu metal) to add more "transformer character" to the signal. The transformer has an internal Faraday shield for optimal output balance, but no housing.

Turns ratio:

9:1+1 Pin layout (viewed from component side) and winding schematics:

∘5 ∘4	LL1940 Top view	10 ° 9 °	$1 \stackrel{+}{\longrightarrow} \frac{1}{2} \begin{bmatrix} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$
• 3			
• 2		7 o	
● 1		6 •	II 7
•			Core 3 o

Dimensions (L x W x H above PCB, in mm)	31 x 25 x 16
Spacing between pins	3.81 mm (0.15")
Spacing between rows of pins	22.86 mm (0.9")
Rec. PCB hole diameter:	1.5 mm
Weight:	35 g
Static resistance of primary (pins 1-4):	1.5 kΩ
Static resistance of each secondary (pins 6-7, 9-10):	34Ω
Max primary signal level.	18V RMS at 20Hz
	45V RMS at 50 Hz
Primary no load impedance	30 kΩ at 50 Hz
Frequency response. Source impedance 10k. Load 600 ohms	20 Hz - 50 kHz + 0 / - 3 dB
Secondaries connected in parallel	$40Hz - 30 \ kHz \ + 0 \ / -1 \ dB$
Frequency response. Source impedance 50k. Load 600 ohms	50 Hz - 40 kHz + 0 / - 3 dB
Secondaries connected in parallel	
Distortion. Source impedance 10k.	Approx 1% THD at
	50Hz, 20dBU primary level.
Isolation between windings/ between windings and core:	4 kV / 2 kV



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