LUNDAHL
− TRANSFORMERS −

|		International	Domestic
Tibeliusgatan 7			
S-761 50 NORRTÄLJE	Phone	+46 - 176 13930	0176-13930
SWEDEN	Fax	+46 - 176 13935	0176-13935

Zero Field Input Transformer
LL7101

In a Zero Field (ZF) transformer application, the magnetic field caused by the input signal is balanced by a feedback loop which includes the transformer's secondary winding. (See application example below). The feedback arrangement extends the low frequency range to almost DC in spite of the small size of the transformer.

Turns ratio: 1 + 1 : 1.38
Dims: (Length x Width x Height above PCB (mm))   28 x 18 x 11
Pin Layout (component side view) **and winding schematics**
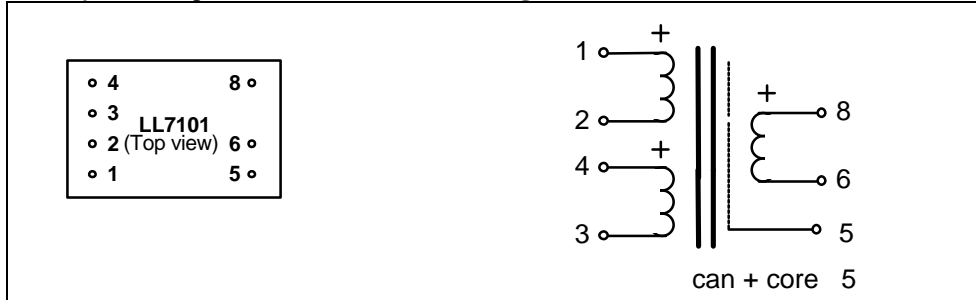
Housing: Mu-metal
Core: Mu-metal
Impregnation: Solventless epoxi resin
Spacing between pins: 3.81 mm (0.15")
Spacing between rows of pins: 20.32 mm (0.8")
Rec. PCB hole diameter: 1.5 mm
Weight: 16 g
Static resistance of each primary: 138 Ω
Static resistance of secondary: 28 Ω
Isolation between windings: 2 kV
Recommended primary resistance: 10 kΩ –– 20 kΩ

Principle design of Zero Field input circuitry:

Select R1, R2 for best CMR and for desired input impedance. R1 and R2 typically close to 5 k for a 10 k input.

Select R3 for best THD at low freq. R3 ~ 28 ohms

Select C such that $C*R_{sek}$ gives sufficient LF response.

R980626