LUNDAHL
– TRANSFORMERS –

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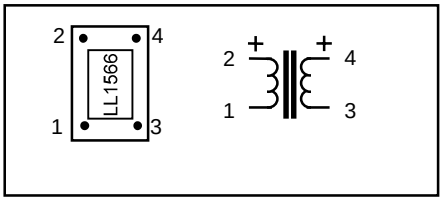
Pulse Transformer
LL1566

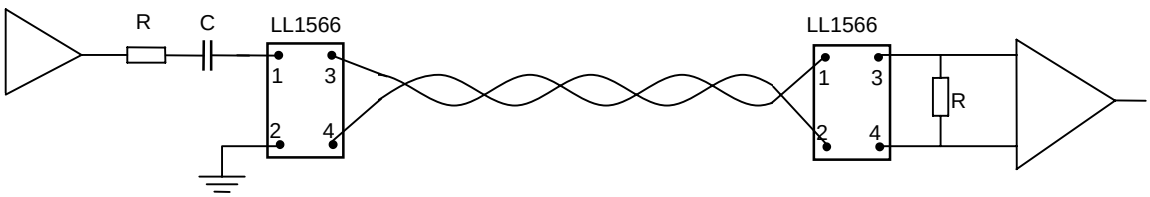
LL1566 is a pulse transformer designed for digital audio. It is designed with a rather large amorphous metal core and has thus low copper resistance, high signal tolerance and low internal capacitance. The amorphous core has a very high mu. Thus, when used, the transformer should be protected from DC current.

Turns ratio: 1:1
Dims: (Length x Width x Height above PCB (mm)) 15 x 9 x 11
Pin Layout (Top View) **and Winding Schematic**



Spacing between pins 1 and 2: 10.16 mm (0.4")
Spacing between pins 1 and 3: 5.08 mm (0.2")
Rec. PCB hole diameter: 1.5 mm
Weight 2 grams
Core Amorphous core material
Static resistance of primary (Pins 1 - 2)**:** 1.0 Ω
Static resistance of secondary (Pins 3 - 4)**:** 1.1 Ω
Maximum signal • time before saturation: 160 µVs
Primary leakage inductance: 2.6 µH
Total coupling capacitance: < 15 pF
Winding capacitance: < 1 pF
Pulse shape distortion (level drop), square wave signal, Source and load 110 ohms
5Vp-p, 7 kHz max 20%
5V p-p 44 kHz max 5%
Source impedance: 0 -- 500 Ω
Optimum load impedance: 200 Ω
Frequency response
Source and load 75 ohms 2 kHz - 10MHz (+0 to -3dB)
Source and load 110 ohms 2 kHz - 13 MHz (+0 to -3dB)
Rise time
Source and load 75 ohms 15 ns
Source and load 110 ohms 12 ns
Isolation between windings: 2 kV

Application example:
Drive and reception of a digital audio line.
R is cable impedance (50 - 200 ohms). Chose C so RC >> 1/f



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