

**“LAN-MATE” SERIES DESCRIPTION :**  
**1000 BASE-T RJ45 1 x 1 INTEGRATED**  
**MAGNETICS CONNECTOR**  
**P/N:KLA1T109 LF**



**Feature**

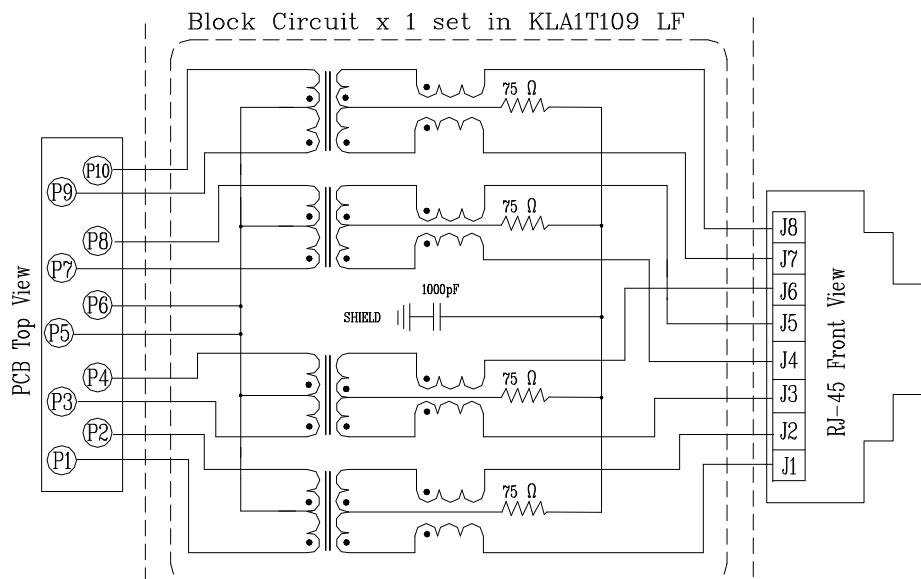


- Compliance with FCC standard.
- Complies with requirement of IEEE 802.3ab standards.
- RJ-45 connector integrated with transformer/impedance resistor/high voltage capacitor.
- Size same as RJ-45 connector to save PCB board space.
- Reduced EMI radiation to improve EMI performance.
- Design for 1000 BASE transmission over UTP-5 cable.
- Compliance with ROHS requirements.
- Operating temperature range: 0°C to +70°C.
- Storage temperature range: -25°C to +85°C.

Electrical Specifications @ 25°C							
Part Number	Turns Ratio (±5%)		OCL(uH Min) @100KHz/0.1V with 8mA DC Bias	Cross talk (dB Min)			HI-POT (Vrms)
	TX	RX		0.3-30MHz	30-60MHz	60-100MHz	
KLA1T109 LF	1CT:1CT	1CT:1CT	350	-40	-35	-30	1500

Continue								
Part Number	Insertion Loss (dB Max)	Return Loss (dB Min) @ Load 100Ω				CMR (dB Min)		
		1-100MHz	1-30MHz	30-40MHz	40-50MHz	50-80MHz	1-30MHz	30-60MHz
KLA1T109 LF	-1.0	-16	-13.5	-11.5	-10	-30	-25	-20

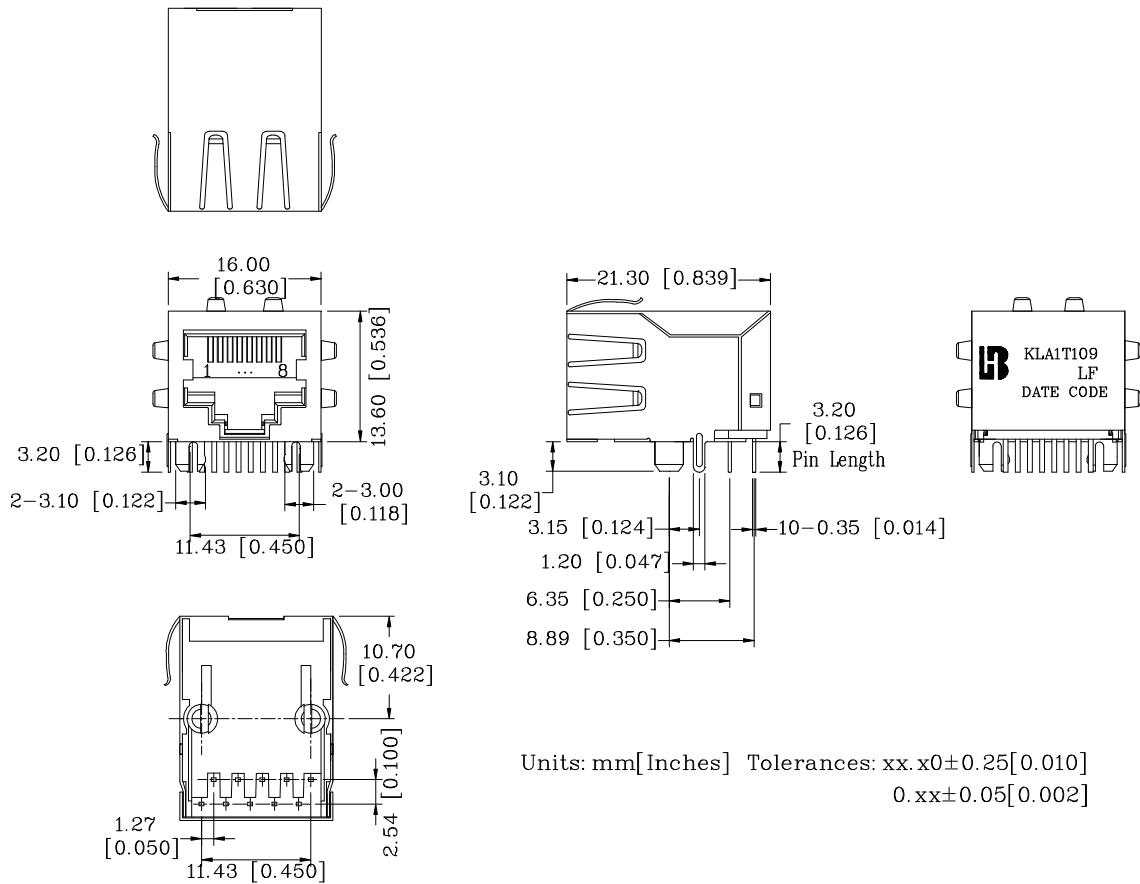
**Schematic**



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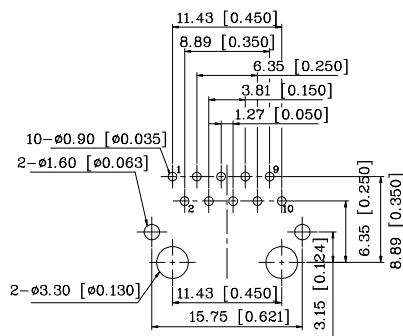


**Mechanical**



- 1. Plastic Material : Thermoplastic (UL 94V-0), Black Housing
- 2. Metal Shield : Brass, 20u" inches thick Nickel
- 3. Spring Wire : 0.45mm Dia. Phosphor bronze with 0.1524 \*10<sup>-6</sup>m gold plated & 1.524\*10<sup>-6</sup> m thick Nickel
- 4. Solder Pin : 0.5x0.35mm, SUS430 with solder Plated
- 5. Durability : 750 Mating cycles Min.

**PCB Layout Mounting Hole (Top View)**



Unless otherwise specified,  
 all dimension tolerance are: ±0.08 [±0.003]