

“LAN-MATE” SERIES
1000 BASE-T RJ45 1 x 1 INTEGRATED MAGNETICS CONNECTOR
1000 BASE-T MAGNETICS

- RJ-45 needs to be matched 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.
- Isolation @ 60Hz: Input to output: 1500Vrms.
- Compliance with ROHS requirements.
- Operating temperature range: 0 to +70 .
- Storage temperature range: -25 to +85 .



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Electrical Specifications @ 25

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	
KLA1S109 LF	1CT: 1CT	1CT: 1CT	350	-40	-35	-30	1500
KLA1S109D LF	1CT: 1CT	1CT: 1CT	350	-40	-35	-30	1500
KLA1S109FCP-1 LF	1CT:1CT	1CT:1CT	350	-40	-35	-30	1500
KLA1S109F-1 LF	1CT:1CT	1CT:1CT	350	-40	-35	-30	1500

Continue

Part Number	Insertion Loss (dB Max)	Return Loss (dB Min) @ Load 100				CMR (dB Min)		
		1-100MHz	1-30MHz	30-40MHz	40-50MHz	50-80MHz	1-30MHz	30-60MHz
KLA1S109 LF	-1.0	-16	-13.5	-11.5	-10	-30	-25	-20
KLA1S109D LF	-1.0	-16	-13.5	-11.5	-10	-30	-25	-20
KLA1S109FCP-1 LF	-1.0	-16	-13.5	-11.5	-10	-30	-25	-20
KLA1S109F-1 LF	-1.0	-16	-13.5	-11.5	-10	-30	-25	-20

For customized parts or more detailed information, please log on www.bothhandusa.com or write to sales@bothhandusa.com

NOTE: 1. Differential to Common Mode Rejection (dB Min)

1-30MHz	30-60MHz	60-100MHz
-43	-37	-33

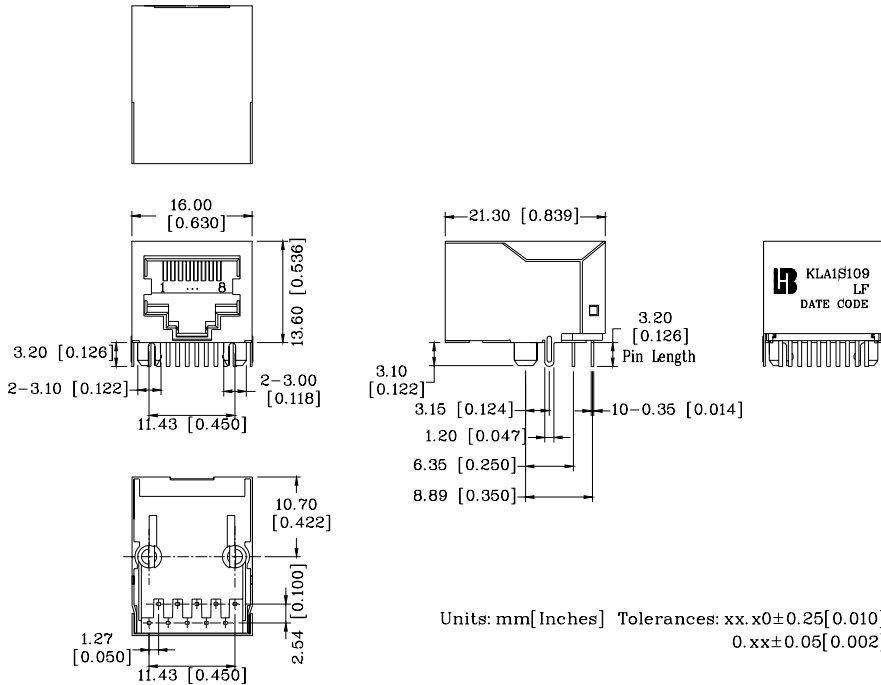
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Mechanicals

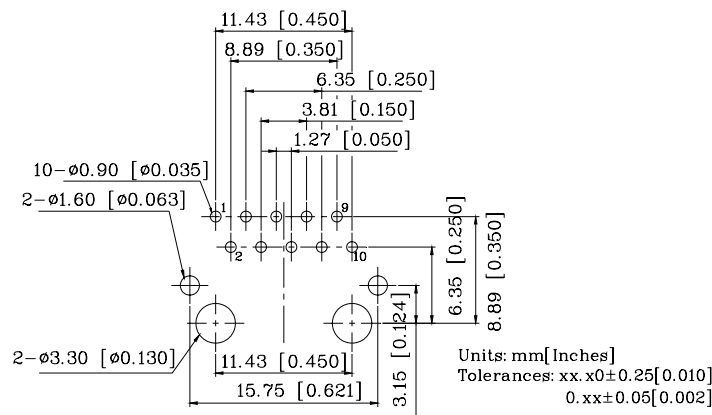
KLA1SXXX LF



- 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 *10⁻⁶m gold plated & 1.524*10⁻⁶ 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)

KLA1SXXX LF



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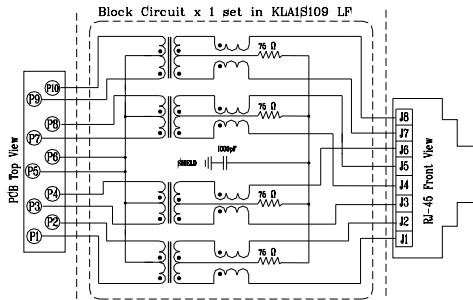
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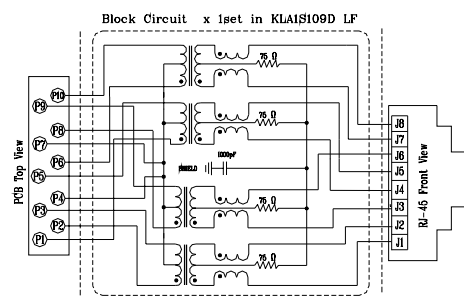
Specification	Packing Manner	Q'ty per Tube/Reel	Q'ty/ Inner box	Q'ty/ Carton
KLA1SXXX LF	TUBE	30	480	1920
KLA1TXXX LF	TUBE	26	416	1664

Schematics

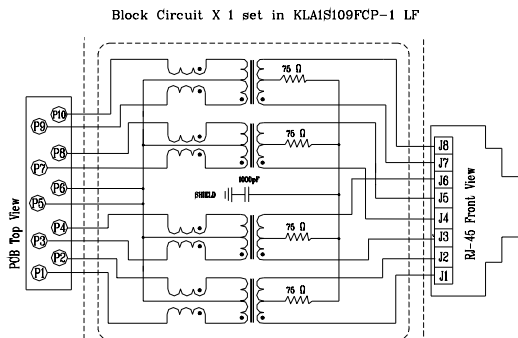
KLA1S109 LF



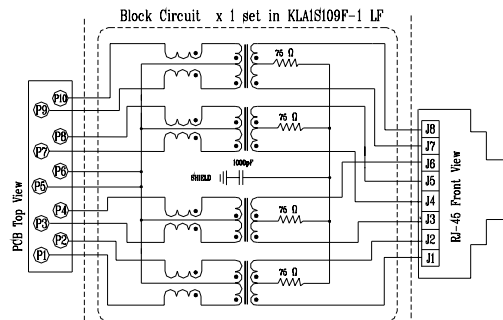
KLA1S109D LF



KLA1S109FCP-1 LF



KLA1S109F-1 LF



Part Numbering System

Example BHJack Part Number:

K	L	A	1	S	109	LF
代表非 MD	TAB DOWN	1000 BASE (802.3U)	Number of parts	Shield type	for different circuit	RoHS
機構	RJ-45 JACK		"1" : single port	S: standard shield T: with spring tab on top and side D: spring tab on side E: spring tab on top		