

## “LAN-MATE”SERIES

### SINGLE RJ45 CONNECTOR MODULE WITH INTEGRATED

### 10/100 BASE-TX MAGNETICS

- RJ-45 connector integrated with X’FMR/impedance resistor/high voltage capacitor.
- Size same as RJ-45 connector to save PCB board space.
- Reduce EMI radiation, improve EMI performance.
- Design for 100 BASE transmission over UTP-5 cable.
- Operating temperature range: 0°C to +70°C
- Storage temperature range: -40°C to +125°C



LU1SXXX



LU1SJ11

#### Electrical specifications @ 25°C

OCL(100KHz, 0.1Vrms with 8mA/DC Bias) : 350 uH Min.

Part Number	Insertion Loss (dB Max)	Return Loss (dB Min)					Rise Time (10-90%) nS Typ	Differential to Common Mode Rejection (dB Min)		CMRR (dB Min)			
		0.3-10 MHz	30MHz	40MHz	50MHz	60MHz		80MHz	0.3-100MHz		0.3-60MHz		60-100MHz
										TX	RX	TX	RX
LU1S041	-1.15	-16	-14	-13.5	-13	-10	2.5	-30		-			
LU1S041A	-1.15	-16	-14	-13.5	-13	-10	-	-		-45	-40	-40	-35
LU1S041B	-1.15	-16	-14	-13.5	-13	-10	-	-		-45	-40	-40	-35
LU1S041C	-1.15	-16	-14	-13.5	-13	-10	-	-		-45	-40	-40	-35
LU1S516	-1.15	-16	-14	-13.5	-13	-10	2.5	-30		-			
LU1S516A	-1.15	-16	-14	-13.5	-13	-10	2.5	-		-			
LU1S516B	-1.1	-20Typ	-	-	-14	-11.5Typ	-	30-50MHz	100MHz	-			
								-37 dB Typ	-30 dB Typ				
LU1S516E	-1.15	-16	-14	-13.5	-13	-10	-	-30		-			
LU1S516G	-1.15	-16	-14	-13.5	-13	-12	2.5	-30		-			
LU1S516-S	-1.15	-16	-14	-13.5	-13	-10	2.5	-30		-			
LU1SJ11	-1.1	0.3-60MHz		60-100MHz			2.5	-30		-			
		-14		-10									

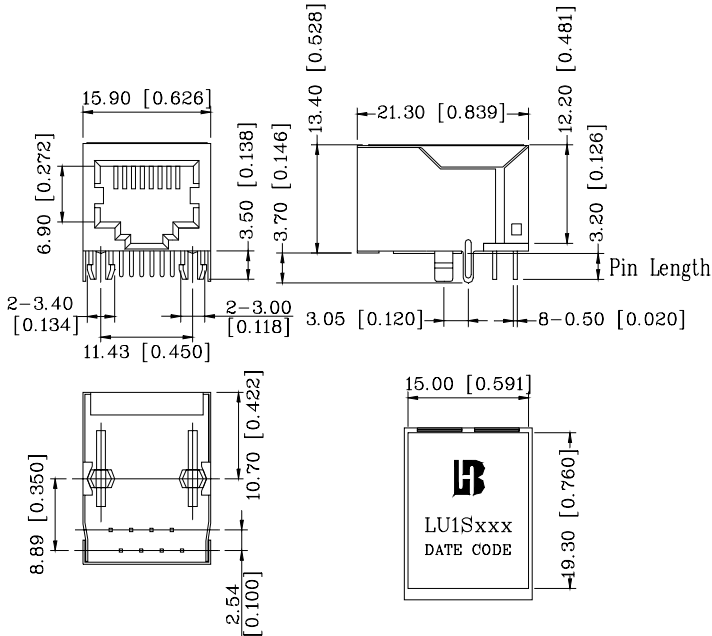
Number	Turns Ratio (±5%)		CW/W (pF Max)	L.L (uH Max)		HI-POT (Vrms)	Cross Talk (dB Min)		
	TX	RX		TX	RX		0.3-60MHz	0.3-80MHz	60-100MHz
LU1S041	1CT:1CT		28	0.5		1500	-	-35	
LU1S041A	1CT:1CT		28	0.5		1500	-40	-	-38
LU1S041B	1CT:1CT		28	0.3		1500	-40	-	-38
LU1S041C	1CT:1CT		28	0.4		1500	-40	-	-38
LU1S516	1CT:1	1CT:1CT	28	0.4		1500	-	-35	-
LU1S516A	1CT:1	1CT:1CT	28	0.4		1500	30MHz	50MHz	100MHz
							-55	-45	-35
LU1S516B	1CT:1	1CT:1CT	-	-		1500	0.3-30MHz		60-100MHz
							-45		-35
LU1S516E	1CT:1CT		-	-		1500	-35		
LU1S516G	1CT:1	1CT:1CT	28	0.4		1500	-	-35	-
LU1S516-S	1CT:1	1CT:1CT	28	0.4		1500	-	-35	-
LU1SJ11	1CT:1CT		28	0.5		1500	-	-35	-

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## SINGLE RJ45 CONNECTOR MODULE WITH INTEGRATED 10/100 BASE-TX MAGNETICS

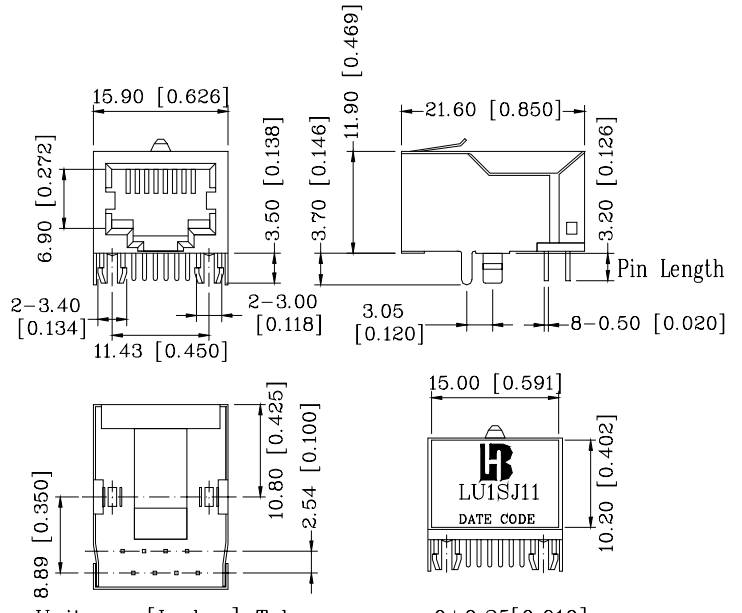
### Mechanicals

#### LU1SXXXX



Units: mm[Inches] Tolerances: xx.x0±0.25[0.010]  
0.xx±0.05[0.002]

#### LU1SJ11

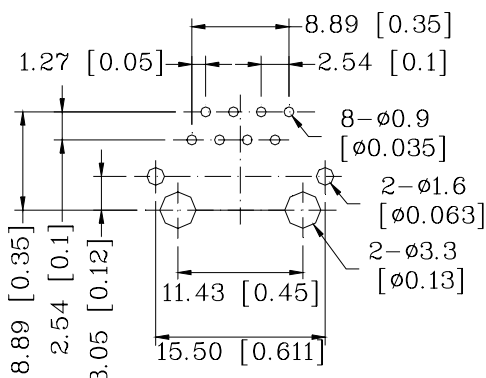


Units: mm[Inches] Tolerances: xx.x0±0.25[0.010]  
0.xx±0.05[0.002]

- Physical char :
1. Plastic Material : PBT 15% Glass Filled( UL 94V-0 ), Black Housing
  2. Metal Shield : Brass C2680-H, 20u Nickel Plated, t=0.25mm
  3. Spring Wire : 0.45mm Dia. Phosphor bronze over with 6u gold plated
  4. Solder Pin : 0.4x0.4mm, Phosphor bronze with solder Solder plated
  5. Durability : 300 Mating cycles Min.

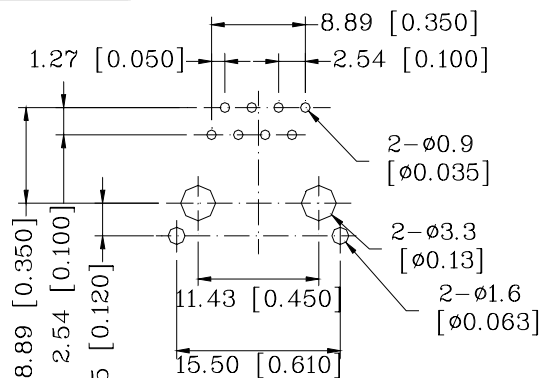
### PCB Layout Mounting Hole (Top View)

#### LU1SXXXX



Units: mm[Inches]  
Tolerances: xx.x0±0.25[0.010]  
0.xx±0.05[0.002]

#### LU1SJ11

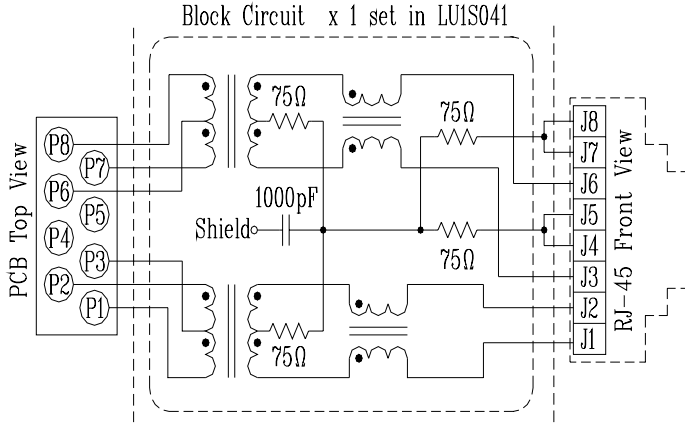


Units: mm[Inches]  
Tolerance: xx.x0±0.25[0.010]  
0.xx±0.05[0.002]

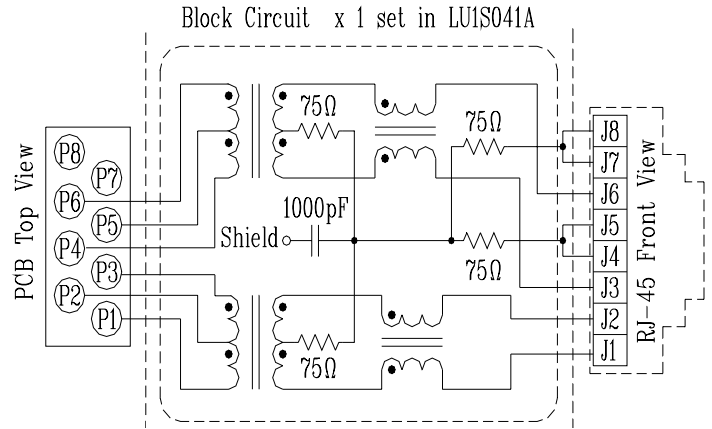
**“LAN-MATE”SERIES**  
**SINGLE RJ45 CONNECTOR MODULE WITH INTEGRATED**  
**10/100 BASE-TX MAGNETICS**

**Schematics**

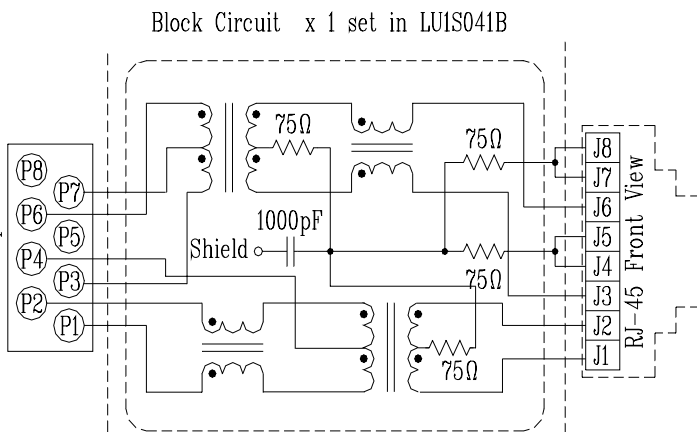
**LU1S041**



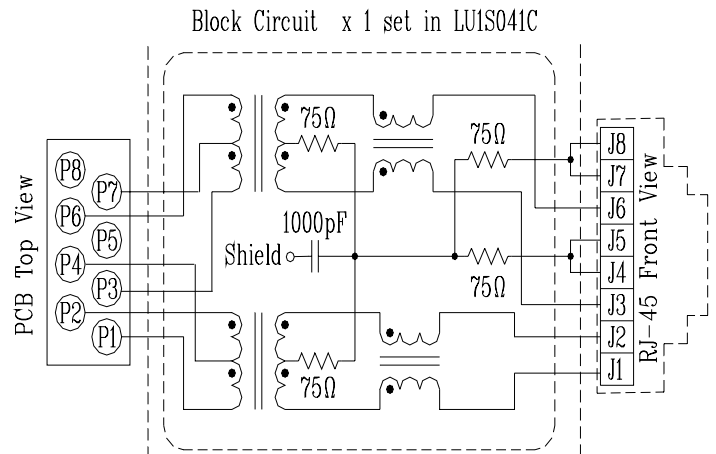
**LU1S041A**



**LU1S041B**



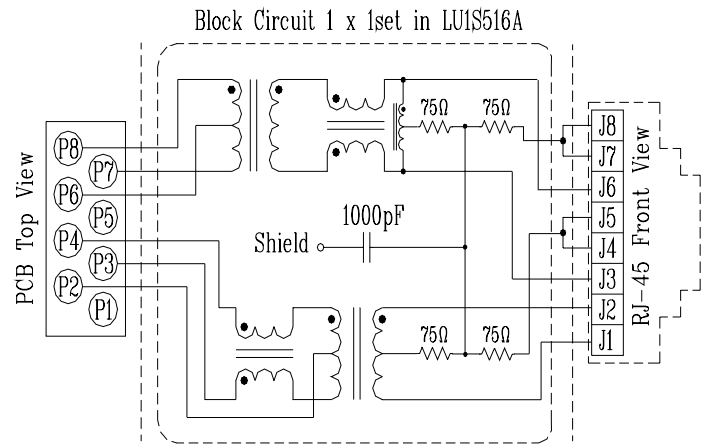
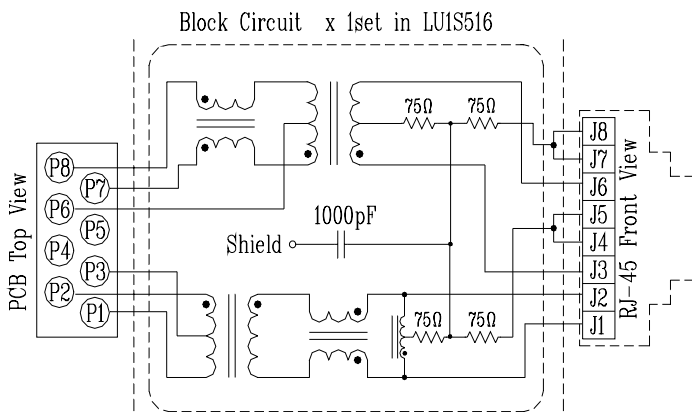
**LU1S041C**



**LU1S516**

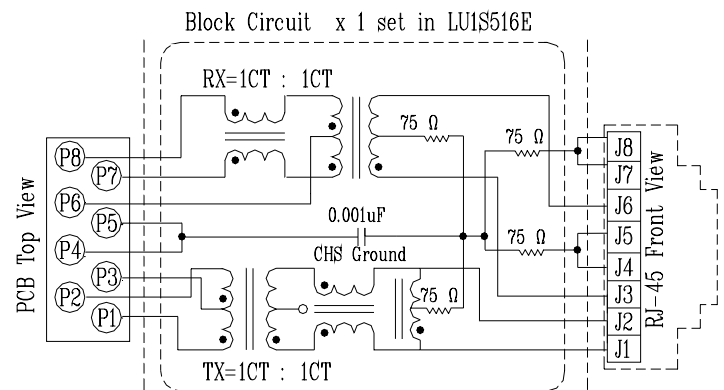
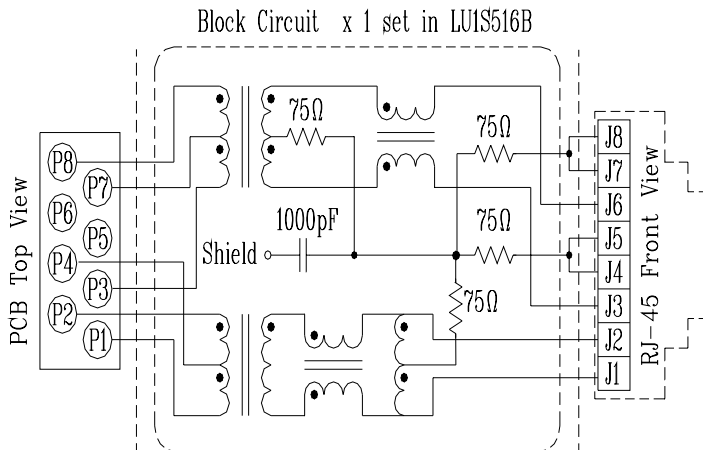
**LU1S516A**

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**10/100 BASE-TX MAGNETICS**



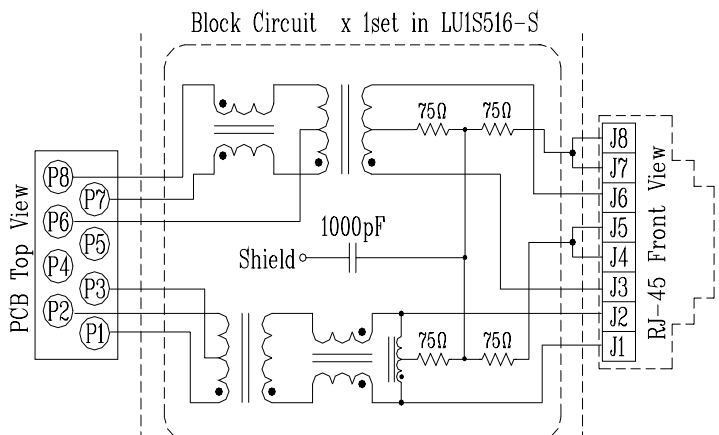
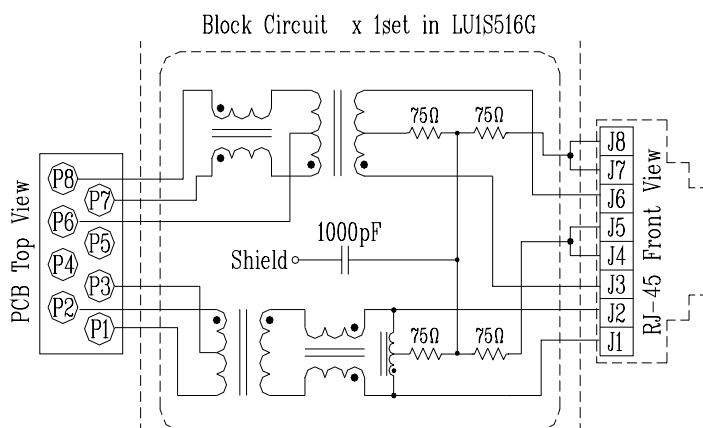
**LU1S516B**

**LU1S516E**



**LU1S516G**

**LU1S516-S**



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**LU1SJ11**

