

“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.

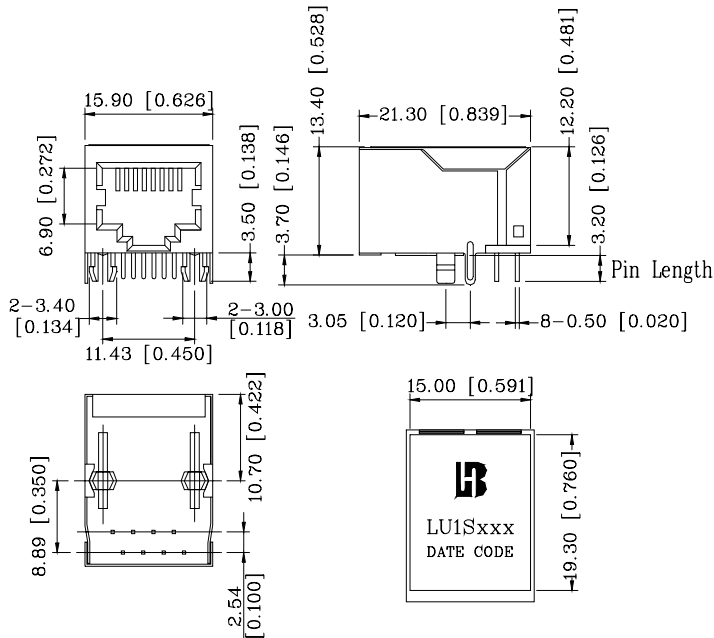
| Part Number | Insertion Loss (dB Max) | Return Loss (dB Min) | | | | | Rise Time (10-90%) nS Typ | Differential to Common Mode Rejection (dB Min) | | CMRR (dB Min) | | | |
|-------------|-------------------------|----------------------|-------|-----------|-------|----------|---------------------------|--|------------|---------------|-----------|-----|-----------|
| | | 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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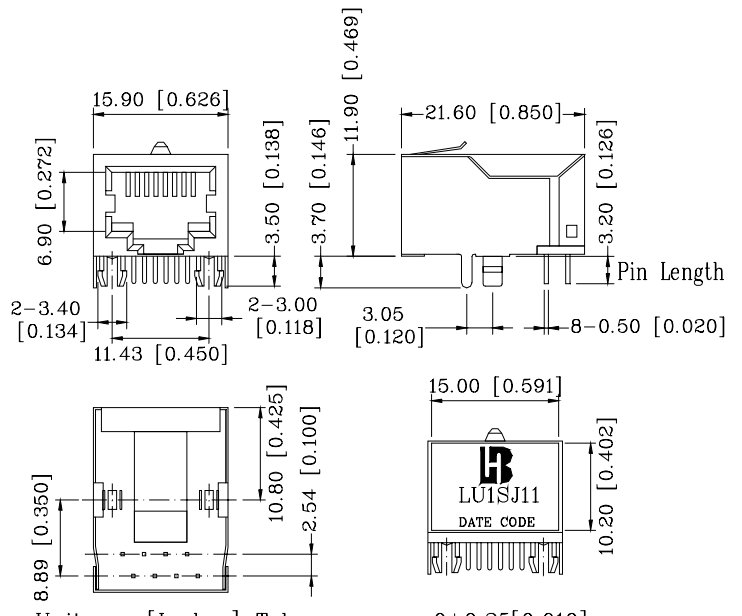
Mechanicals

LU1SXXX



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

LU1SJ11

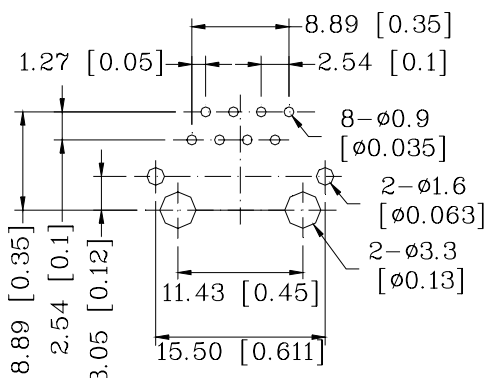


Units: mm[Inches] Tolerances: xx.x0±0.25[0.010]
0.xx±0.05[0.002]

- 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.

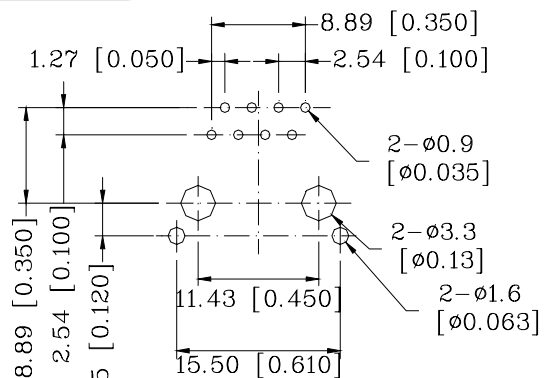
PCB Layout Mounting Hole (Top View)

LU1SXXX



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

LU1SJ11

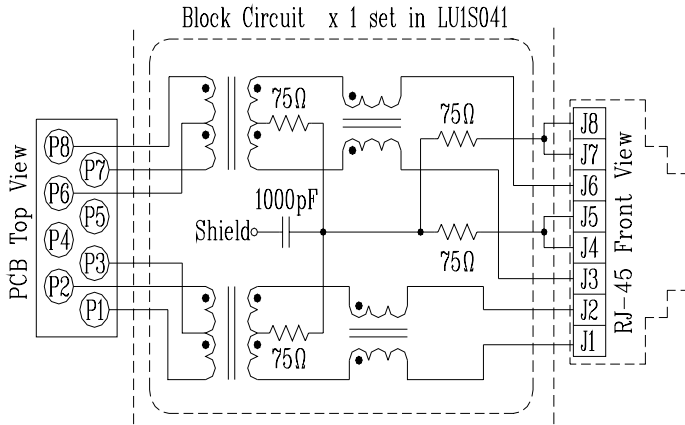


Units: mm[Inches]
Tolerance: xx.x0±0.25[0.010]
0.xx±0.05[0.002]

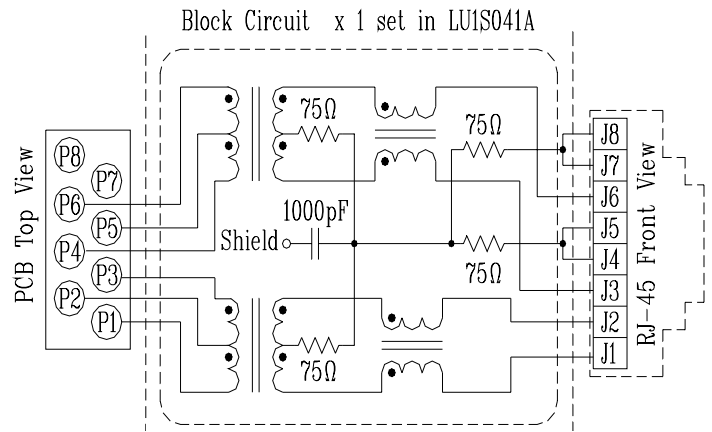
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Schematics

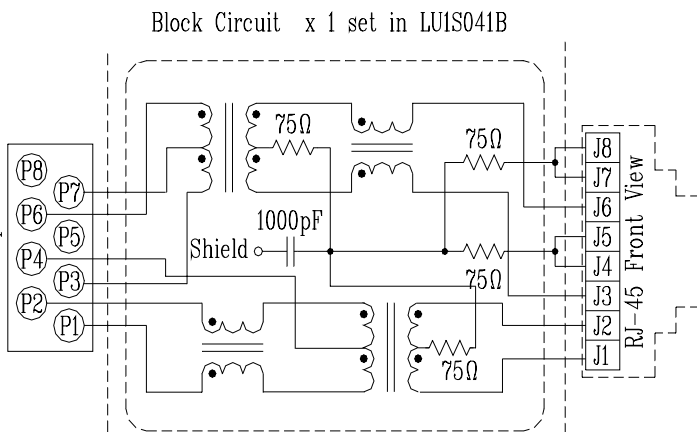
LU1S041



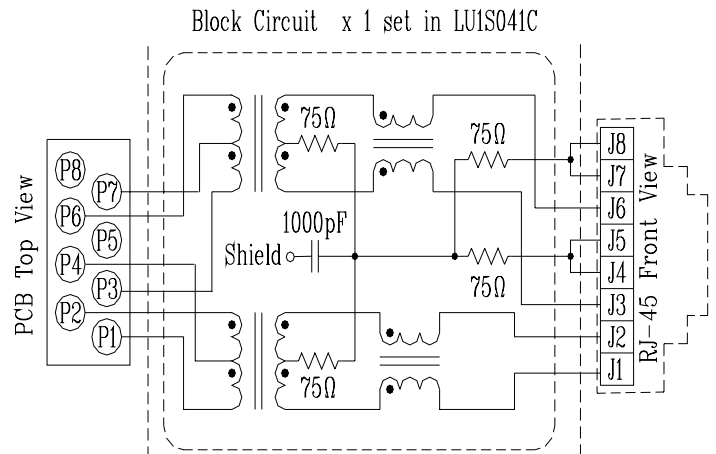
LU1S041A



LU1S041B



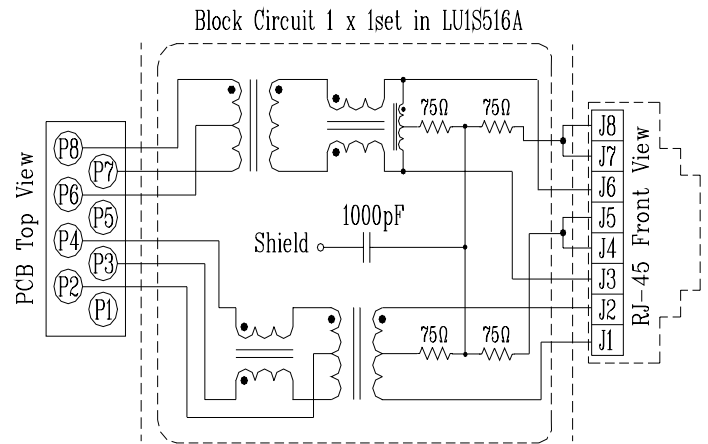
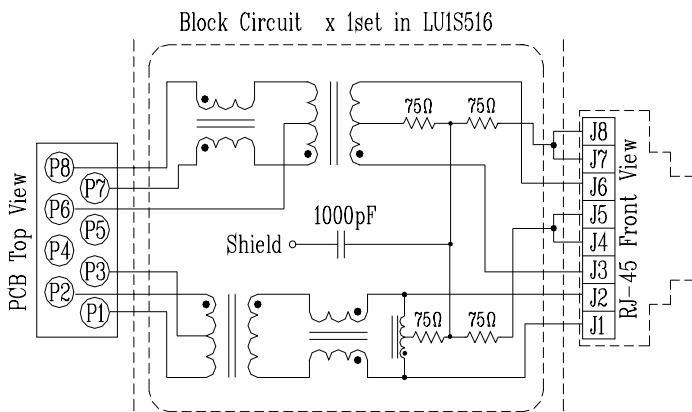
LU1S041C



LU1S516

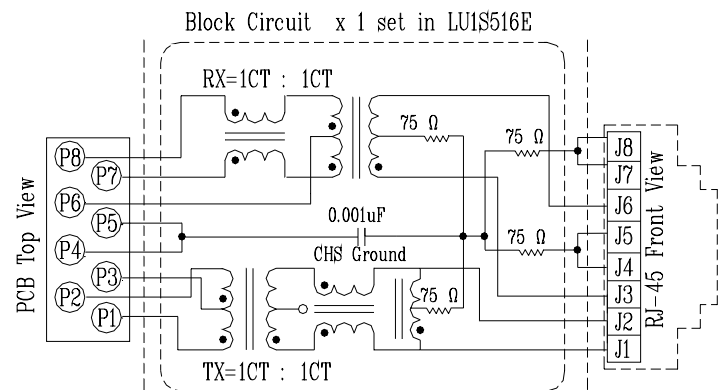
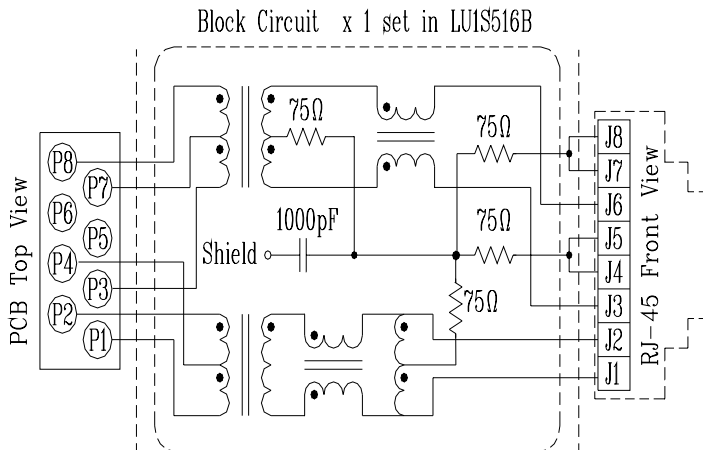
LU1S516A

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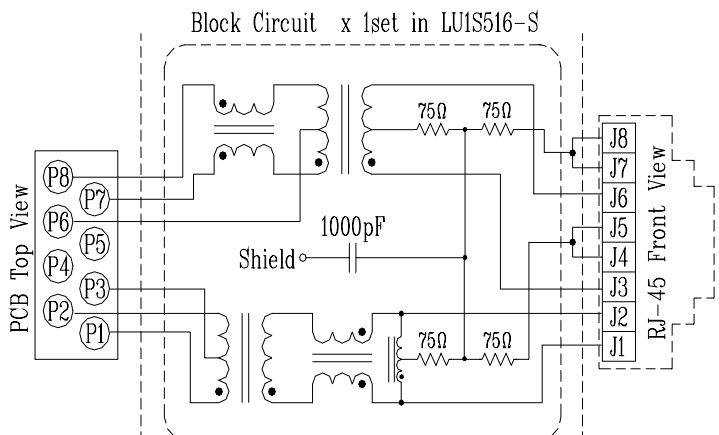
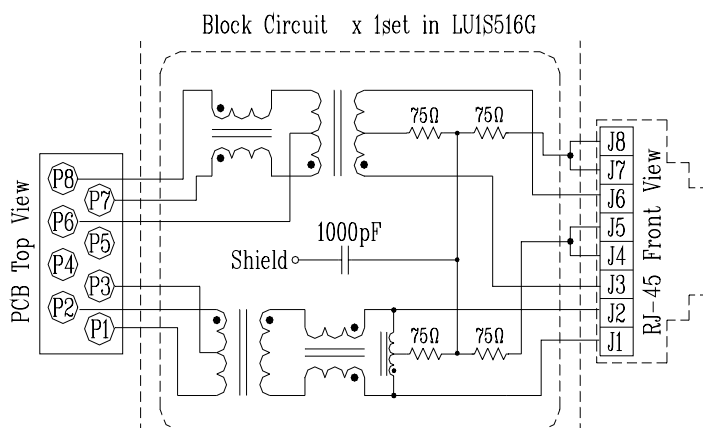
LU1S516B

LU1S516E



LU1S516G

LU1S516-S



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