

“LAN-MATE” SERIES

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

P/N: KRU1T041X-44 LF

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Feature



- 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 10/100 BASE transmission over UTP-5 cable.
- Compliance with ROHS requirements.
- Operating temperature range: 0 to +70 .
- Storage temperature range: -25 to +85 .
- Recommended panel

| Part Number | Standard LED | Forward*V(Max) | (TYP) |
|-------------|--------------|----------------|-------|
| 4           | GREEN        | 2.6V           | 2.2V  |
| 4           | GREEN        | 2.6V           | 2.2V  |

V\*With a forward current 20mA

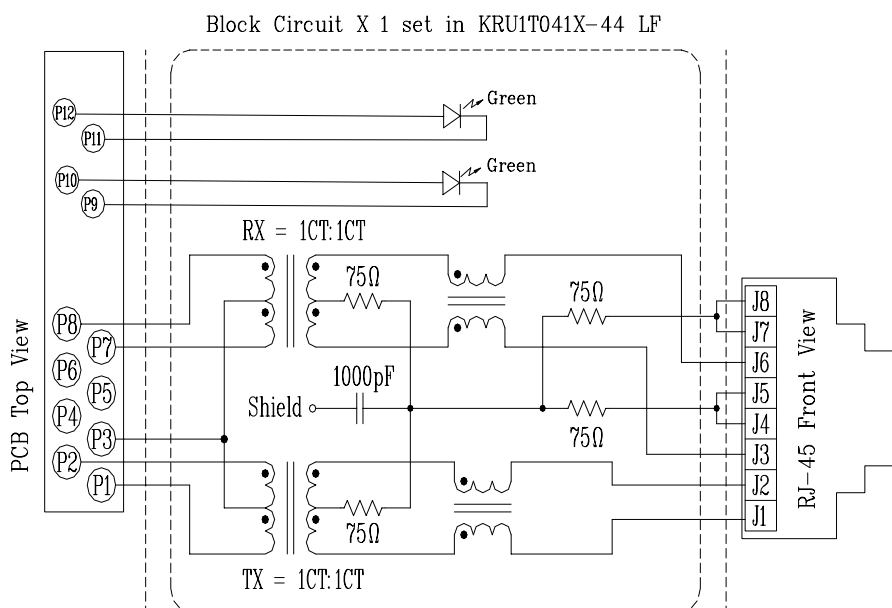
Electrical Specifications @ 25°C

| Part Number     | Turns Ratio (±5%) |         | OCL(uH Min)<br>@ 100KHz/0.1V<br>with 8mA DC Bias | Cross talk (dB Min) |          |           | HI-POT (Vrms) |
|-----------------|-------------------|---------|--|---------------------|----------|-----------|---------------|
|                 | TX                | RX      |  | 0.3-30MHz           | 30-60MHz | 60-100MHz |               |
| KRU1T041X-44 LF | 1CT:1CT           | 1CT:1CT | 350  | -40                 | -35      | -30       | 1500          |

Continue

| Part Number     | Insertion Loss (dB Max) | Return Loss (dB Min) |       |       |       |       | CMR (dB Min) |          |           |
|-----------------|-------------------------|----------------------|-------|-------|-------|-------|--------------|----------|-----------|
|                 |                         | 30MHz                | 40MHz | 50MHz | 60MHz | 80MHz | 1-30MHz      | 30-60MHz | 60-125MHz |
| KRU1T041X-44 LF | -1.15                   | -16                  | -14   | -13.5 | -13   | -10   | -30          | -25      | -20       |

Schematic



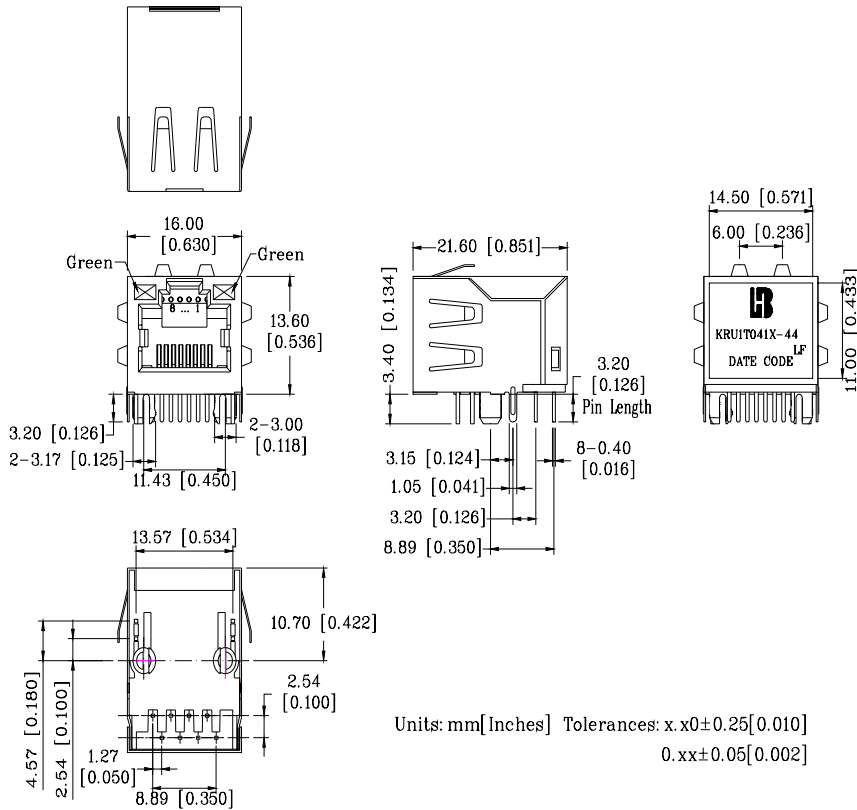
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**Mechanical**



- 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 0.762\*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)**

