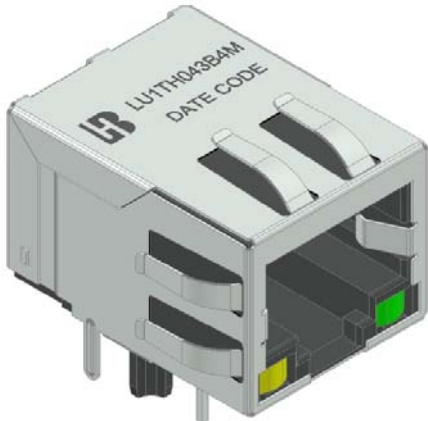


**“LAN-MATE” SERIES Description:**  
**10/100 Base-T RJ45 1x1 Integrated**  
**Magnetics Connector**  
**P/N: LU1TH043B4M**



**Feature**



- Complying with requirement of IEEE 802.3u 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 10/100 BASE transmission over UTP-5 cable
- Complying with ROHS requirements.
- Operating temperature range: -40°C to +85°C .
- Storage temperature range: -40°C to +85°C .
- Recommended panel

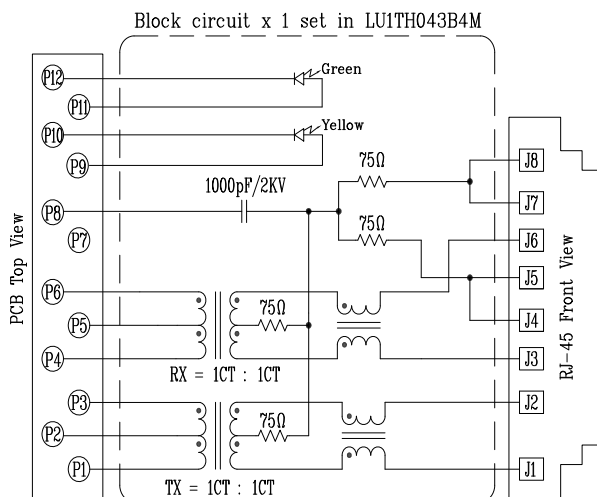
| LED    | Forward*V(Max) | (TYP) |
|--------|----------------|-------|
| YELLOW | 2.5V           | 2.1V  |
| GREEN  | 2.4V           | 2.2V  |

\*With a forward current of 20mA

| Electrical Specifications @ 25°C |                   |          |   |                                 |                       |
|----------------------------------|-------------------|----------|---|---------------------------------|-----------------------|
| Part Number                      | Turns Ratio (±2%) |          | OCL (uH Min)<br>@ 100KHz/0.1V<br>with 8mA DC Bias | Cross talk (dB Min)<br>1-100MHz | HI-POT<br>DC2250V/1mA |
|                                  | TX                | RX       |   |                                 |                       |
| LU1TH043B4M                      | 1CT: 1CT          | 1CT: 1CT | 350   | -40                             |                       |

| Continue    |                                     |                                  |          |                          |
|-------------|-------------------------------------|----------------------------------|----------|--------------------------|
| Part Number | Insertion Loss (dB Max)<br>1-100MHz | Return Loss (dB Min) @ Load 100Ω |          | CMR (dB Min)<br>1-100MHz |
|             |                                     | 1-30MHz                          | 60-80MHz |                          |
| LU1TH043B4M | -1.1                                | -18                              | -12      | -35                      |

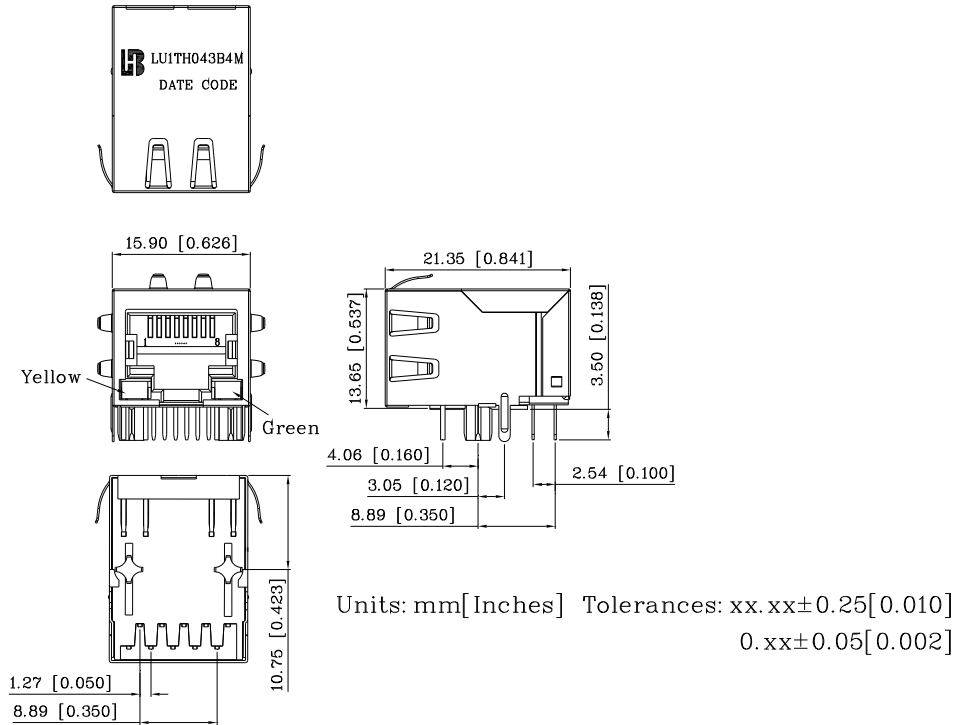
**Schematic**



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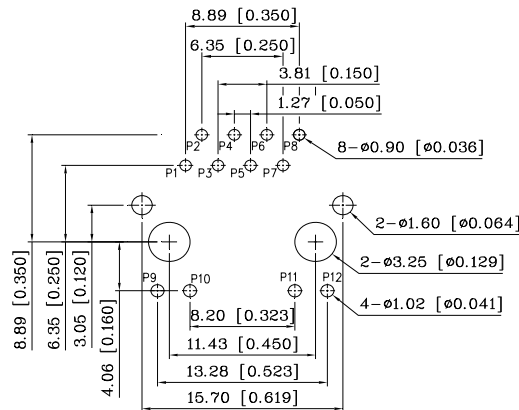


**Mechanical**



- |                     |   |   |
|---------------------|---|---|
| 1. Plastic Material | : | Thermoplastic (UL 94V-0), Black Housing   |
| 2. Metal Shield     | : | Brass, 20u" inches thick Nickel           |
| 3. Spring Wire      | : | Phosphor Bronze with gold plated & Nickel |
| 4. Solder Pin       | : | Phosphor Bronze with solder Plated        |
| 5. Durability       | : | 750 Mating cycles Min.                    |

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



Unless otherwise specified,  
all dimension tolerance are:  $\pm 0.08 [\pm 0.003]$

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**Ordering Information**

