

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

- Complies 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.
- Use smd chip choke
- Compliance with ROHS requirements.
- Operating temperature range: 0°C to +70°C.



**Electrical specifications @ 25°C**

| Part Number   | Insertion Loss<br>(dB Max) | Return Loss<br>(dB Min) |        |        |        |        | Cross Talk<br>(dB Min) |           |            |
|---------------|----------------------------|-------------------------|--------|--------|--------|--------|------------------------|-----------|------------|
|               | 0.3-100MHz                 | 30MHz                   | 40 MHz | 50 MHz | 60 MHz | 80 MHz | 0.3-30 MHz             | 30-60 MHz | 60-100 MHz |
| KHU1S041Q6 LF | -1.15                      | -16                     | -14    | -13.5  | -13    | -10    | -40                    | -35       | -30        |
| KHU1S041Q7 LF | -1.15                      | -16                     | -14    | -13.5  | -13    | -10    | -40                    | -35       | -30        |
| KHU1S041F7 LF | -1.15                      | -16                     | -14    | -13.5  | -13    | -10    | -40                    | -35       | -30        |

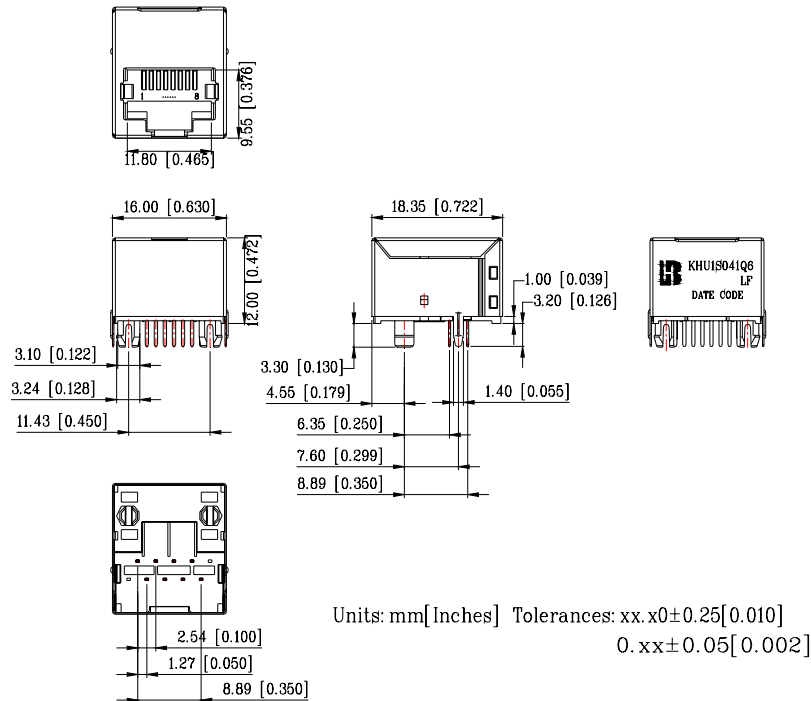
**Continue**

| Number        | Turns Ratio<br>(±5%) |         | OCL (uH Min)<br>@ 100KHz/0.1V<br>with 8mA DC Bias | C <sub>w/w</sub><br>(pF Max) | L.L<br>(uH Max) | HI-POT<br>(Vrms) | CMR<br>(dB Min) |           |            |
|---------------|----------------------|---------|---------------------------------------------------|------------------------------|-----------------|------------------|-----------------|-----------|------------|
|               | TX                   | RX      |                                                   |                              |                 |                  | 1-30MHz         | 30-60 MHz | 60-125 MHz |
| KHU1S041Q6 LF | 1CT:1CT              | 1CT:1CT | 350                                               | 28                           | 0.4             | 1500             | -30             | -25       | -20        |
| KHU1S041Q7 LF | 1CT:1CT              | 1CT:1CT | 350                                               | 28                           | 0.4             | 1500             | -30             | -25       | -20        |
| KHU1S041F7 LF | 1CT:1CT              | 1CT:1CT | 350                                               | --                           | --              | 1500             | -30             | -25       | -20        |

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**Mechanicals**

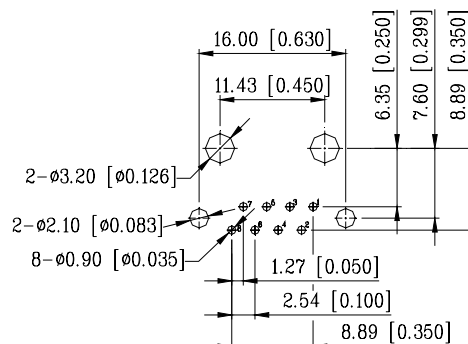
**KHU1SXXXQ6 LF**



- |                     |                                                   |
|---------------------|---------------------------------------------------|
| 1. Plastic Material | : Thermoplastic (UL 94V-0), Black Housing         |
| 2. Metal Shield     | : Brass, 20u" inches thick Nickel                 |
| 3. Spring Wire      | : Phosphor bronze with selective gold plating     |
| 4. Solder Pin       | : 0.46x0.3 mm, Phosphor bronze with solder Plated |
| 5. Durability       | : 750 Mating cycles Min.                          |

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

**KHU1SXXXQ6 LF**



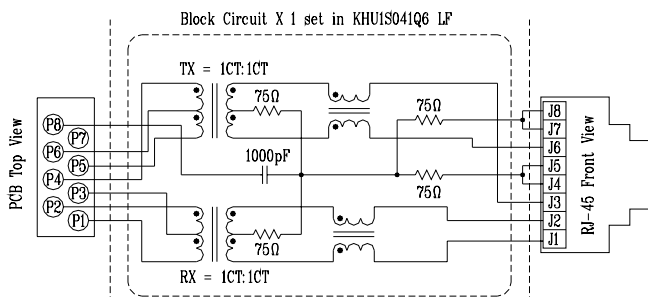
Units: mm[Inches] Tolerances: x.x0±0.25[0.010]  
0.xx±0.05[0.002]

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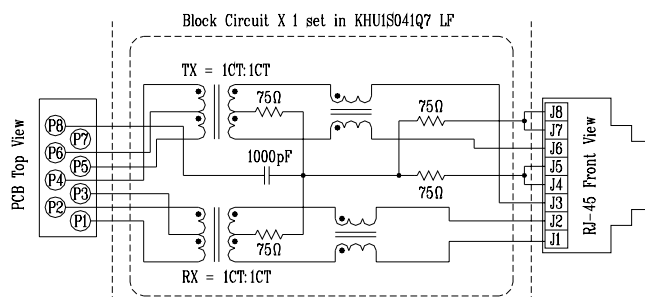
| Specification | Packing Manner | Q'ty per Tube | Q'ty/ Inner box | Q'ty/ Carton |
|---------------|----------------|---------------|-----------------|--------------|
| HU1SXXXXX6 LF | TUBE           | 30            | 750             | 3000         |

**Schematics**

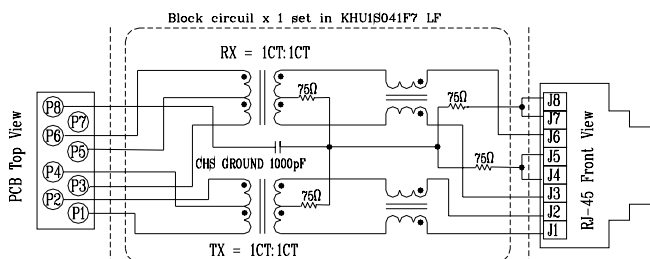
**KHU1S041Q6 LF**



**KHU1S041Q7 LF**



**KHU1S041F7 LF**



**Part Numbering System**

**Example BHJack Part Number:**

|             |                            |                      |                                      |                                   |                       |            |           |
|-------------|----------------------------|----------------------|--------------------------------------|-----------------------------------|-----------------------|------------|-----------|
| <b>K</b>    | <b>H</b>                   | <b>U</b>             | <b>1</b>                             | <b>S</b>                          | <b>041Q</b>           | <b>6</b>   | <b>LF</b> |
| 代表非MD<br>機構 | TAB Vertical<br>RJ-45 JACK | 100 BASE<br>(802.3U) | Number of parts<br>“1” : single port | Shield type<br>S: standard shield | for different circuit | 高度<br>12mm | RoHS      |