

## Description:

100/1000 Base-T single port (1x1) RJ45 integrated connector module (ICM), designed to support Network Interface Cards (NIC), LAN-on-Motherboard (LOM), and PC applications. Available in TAB-UP configuration and with or without LEDs.



## Features and Benefits:

- Ⓜ Compliant with IEEE 802.3 standard
- Ⓜ 350µH minimum OCL with 8mA bias current
- Ⓜ Suitable for CAT 5 and 6 Fast Ethernet cable or better UTP
- Ⓜ High performance for maximum EMI suppression
- Ⓜ RoHS peak wave solder temperature rating 260°C

### Electrical Specifications @ 25°C - Operating Temperature 0°C to +70°C

| RoHS Part Number | Tab Orientation | LEDs L/R | Insertion Loss TX/RX (dB) | Return Loss (dB TYP)<br>100Ω (± 15 Ω) |          |        |           |            | Crosstalk (dB TYP) |           |            | Common Mode Rejection (dB TYP) |             | Hipot @ 60Hz 1 MIN |
|------------------|-----------------|----------|---------------------------|---------------------------------------|----------|--------|-----------|------------|--------------------|-----------|------------|--------------------------------|-------------|--------------------|
|                  |                 |          |                           | 1-100 MHz                             | 1-10 MHz | 30 MHz | 60-80 MHz | 80-100 MHz | 1-10 MHz           | 30-60 MHz | 60-100 MHz | 1-125 MHz                      | 125-500 MHz |                    |
| JKO-0114NL       | UP              | G/G      | -1.0                      | -20                                   | -16      | -12    | -10       | -40        | -35                | -30       | -30        | -20                            | 2250 VDC    |                    |
| JKO-0116NL       | UP              | Y-G/G    | -1.0                      | -20                                   | -16      | -12    | -10       | -40        | -35                | -30       | -30        | -20                            | 2250 VDC    |                    |
| JKO-0117NL       | UP              | NONE     | -1.0                      | -20                                   | -16      | -12    | -10       | -40        | -35                | -30       | -30        | -20                            | 2250 VDC    |                    |
| JKO-0136NL       | UP              | Y-G/G    | -1.0                      | -20                                   | -16      | -12    | -10       | -40        | -35                | -30       | -30        | -20                            | 2250VDC     |                    |
| JKO-0187NL       | UP              | G/G      | -1.0                      | -20                                   | -16      | -12    | -10       | -40        | -35                | -30       | -30        | -20                            | 2250VDC     |                    |
| JKO-0193NL       | UP              | G/Y      | -1.0                      | -20                                   | -16      | -12    | -10       | -40        | -35                | -30       | -30        | -20                            | 2250VDC     |                    |

Notes: 1. LEDs Left/Right: **G** = green; **Y** = yellow; **Y-G** = Bicolor

### RJ45 Durability Testing Rating

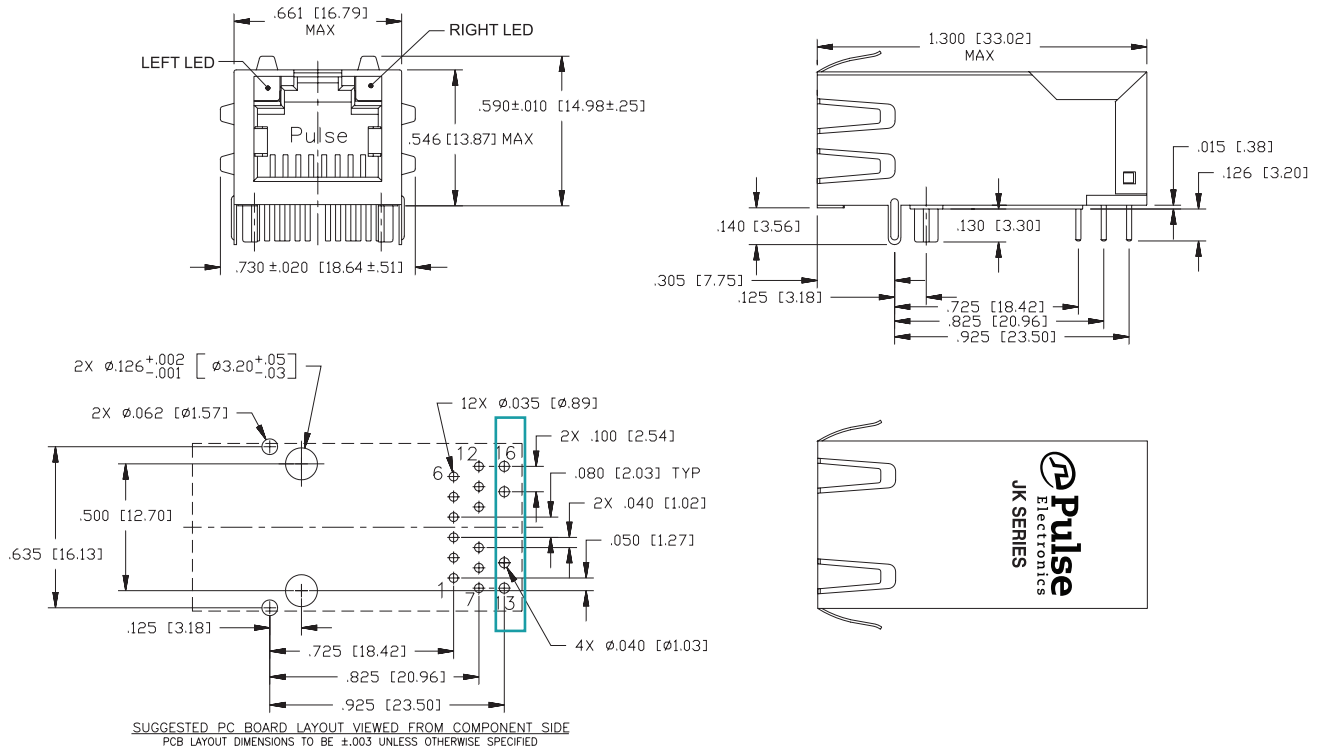
| Part Number      | Mating Force (MAX) | Unmating Force (MAX) | Durability     | Plug to Jack Retention (MIN) |
|------------------|--------------------|----------------------|----------------|------------------------------|
| <b>JK Series</b> | 5 lbs./2.268 kgs.  | 5 lbs./2.268 kgs.    | 750 Insertions | 20 lbs./9.072 kgs.           |

### RJ45 Material Specification

| Part Number      | Shield   |                                       | Contact         |  |                  | Housing       |               |     |
|------------------|----------|---------------------------------------|-----------------|--|------------------|---------------|---------------|-----|
|                  | Material | Finish                                | Material        | Plating Area                           | Solder Area      | Material      | Specification | MSL |
| <b>JK Series</b> | Brass    | 30-50µ inches thick Nickel over brass | Phosphor Bronze | 50µ inches gold over 50µ inches nickel | Tin matte finish | Thermoplastic | UL 94 V-0     | 1   |

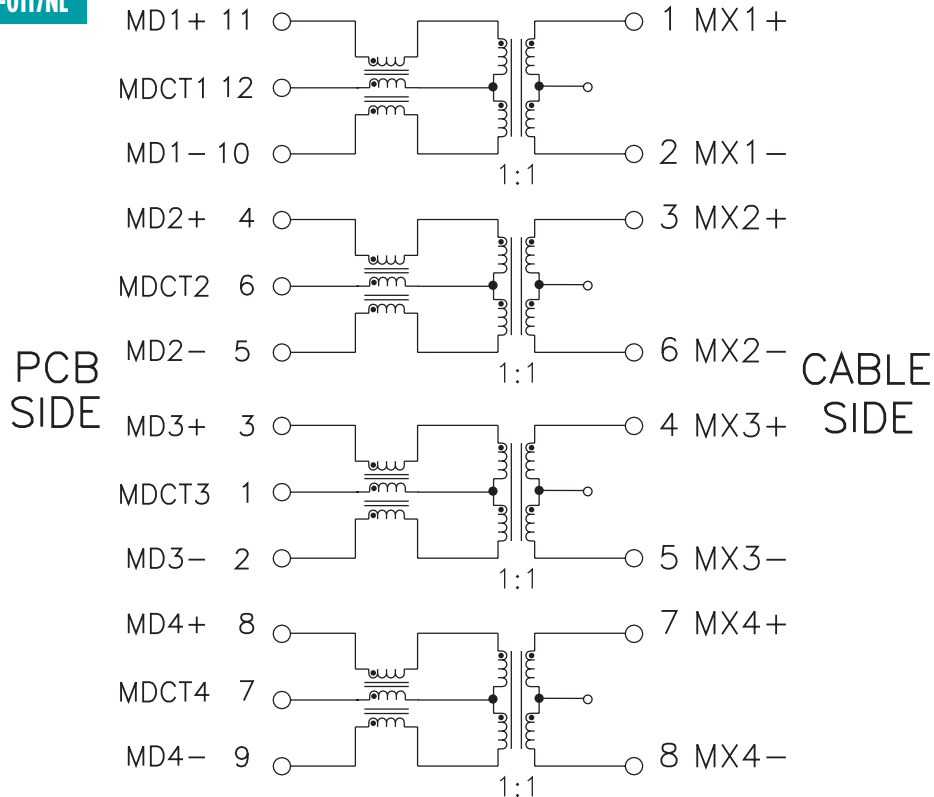
Notes: 1. Connector dimensions comply with FCC dimension requirements. 2. MSL = Moisture Sensitivity Level class limits = 1 to 5, highest (1) to lowest (5)

### Mechanicals



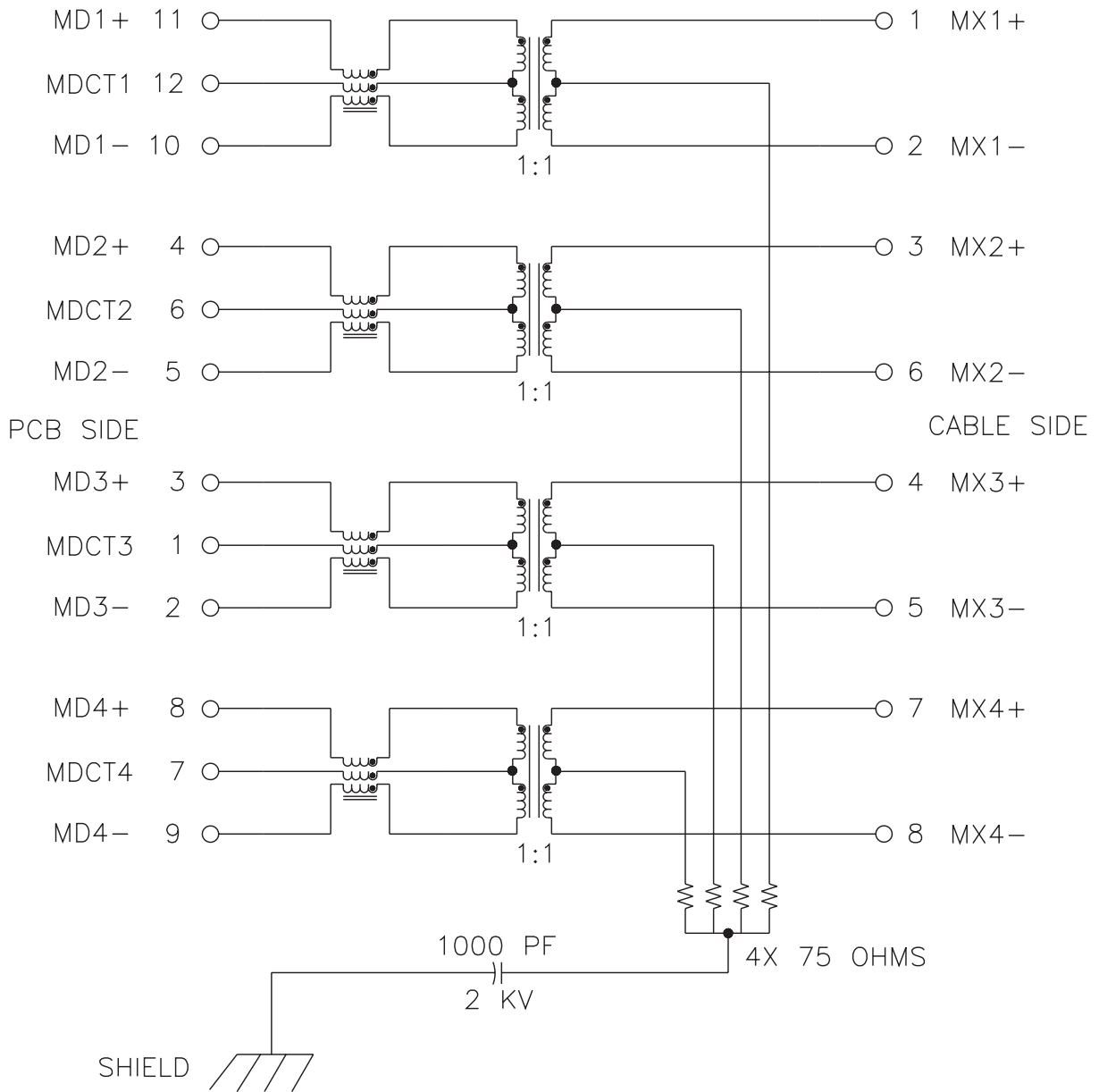
### Schematic

JKO-0114NL, JKO-0116NL, JKO-0117NL



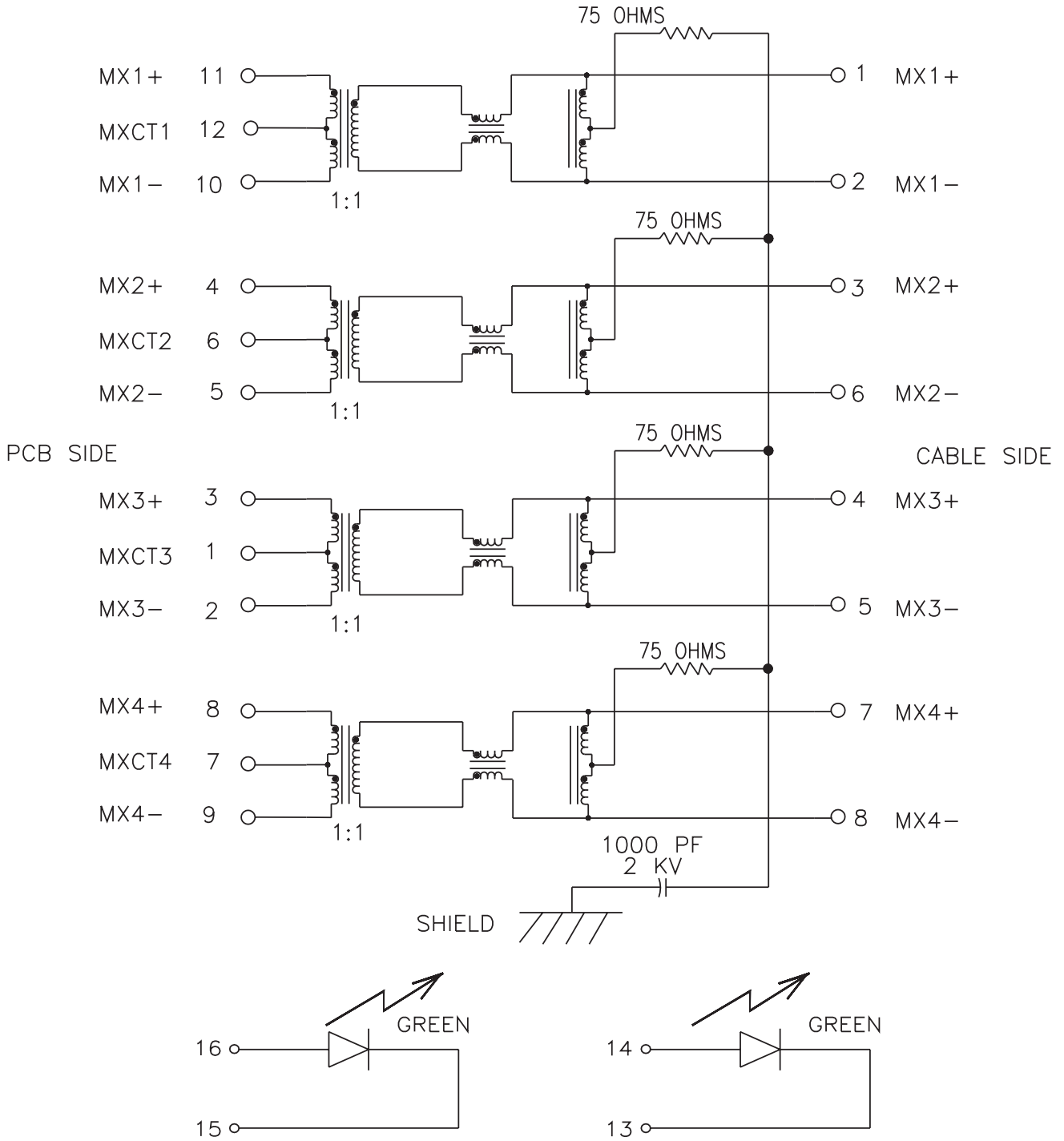
Schematic (continued)

JK0-0136NL



Schematic (continued)

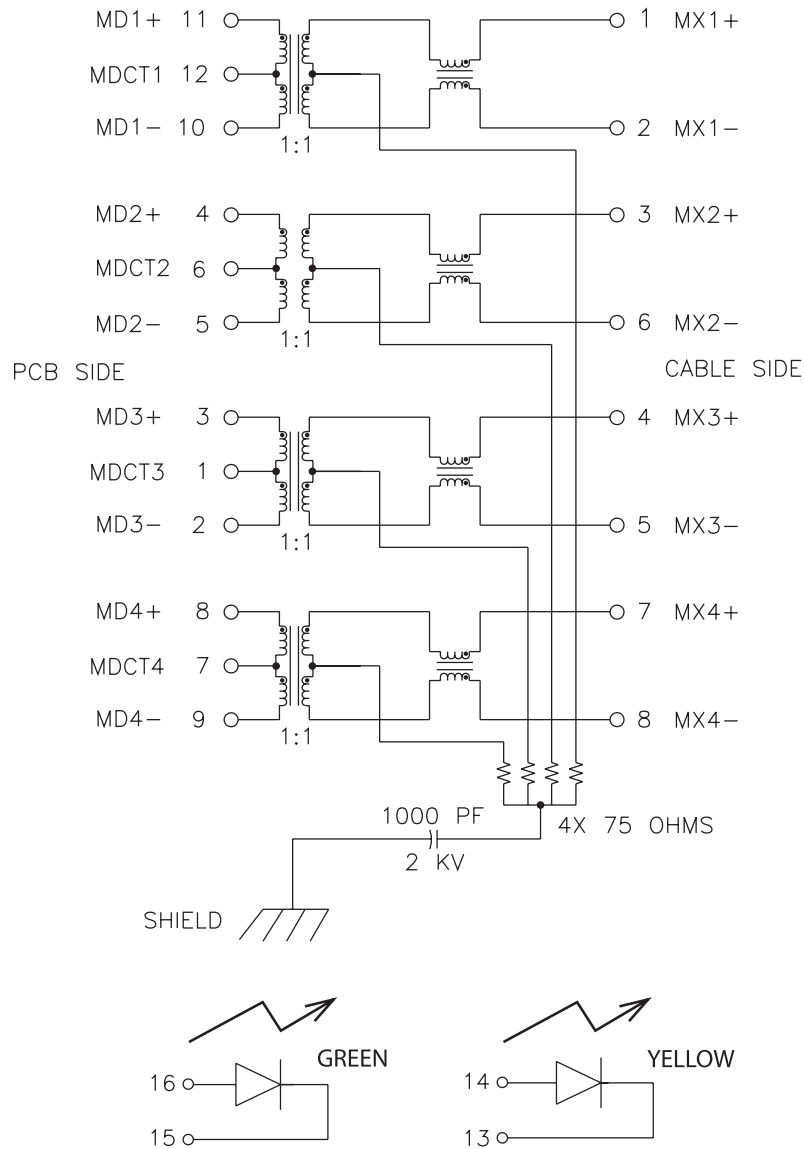
JKO-0187NL



# PulseJack™ Gigabit

## Schematic (continued)

JKO-0193NL



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