

# PulseJack™

## 1X1 Tab-Down RJ45

100 Base-TX RJ45 1X1 Tab-Down 8 pin Integrated Magnetics Connector, designed for industrial rated applications and is suitable for reflow solder mounting.



### Features and Benefits:

- Ⓜ High Temperature rated parts designed for use in Pin-in-Paste processing with 260°C max reflow temperature
- Ⓜ Meets IEEE802.3 specification
- Ⓜ 350µH minimum OCL with 8mA DC bias current
- Ⓜ Extended Temperature range from -40°C to 85°C

### Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

| Part Number <sup>1</sup> | EMI Fingers | LED (L/R) | Insertion Loss<br>1 - 65MHz<br>(dB TYP) | Return Loss<br>(dB TYP) |           |                | CCMR<br>(dB TYP) |                 | Crosstalk<br>(dB TYP) |                |                 | Hipot<br>(Vrms) |
|--------------------------|-------------|-----------|---|-------------------------|-----------|----------------|------------------|-----------------|-----------------------|----------------|-----------------|-----------------|
|                          |             |           |   | 1 - 10<br>MHz           | 30<br>MHz | 60 - 80<br>MHz | 1 - 50<br>MHz    | 50 - 130<br>MHz | 1 - 10<br>MHz         | 30 - 60<br>MHz | 60 - 100<br>MHz |                 |
| JXRO-0001NL              | YES         | -         | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |
| JXRO-0005NL              | NO          | -         | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |
| JXRO-0011NL              | YES         | G/Y       | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |
| JXRO-0015NL              | NO          | G/Y       | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |

#### Notes:

- When ordering JXRO-0011NL supplied in **Tape and Reel**, please add a "T" on the end of the part code - e.g. JXRO-0011NL becomes JXRO-0011NLT.
- Maximum Reflow Solder Temperature: 2x SRP 260°C for 5 seconds with LEDs and 2x SRP 260°C for 10 seconds

### RJ45 Durability Testing Rating

| Part Number   | Mating Force<br>(MAX) | Unmating Force<br>(MAX) | Durability     | Plug to Jack<br>Retention (MIN) |
|---------------|-----------------------|-------------------------|----------------|---------------------------------|
| JXRO - Series | 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       |               | MSL <sup>2</sup> |
|---------------|----------|--|--------------------|--|---------------------------------|---------------|---------------|------------------|
|               | Material | Finish   | Material           | Plating Area   | Solder Area                     | Material      | Specification | Rating           |
| JXRO - Series | Brass    | 10-20m inches Nickel over<br>10-20m inches Brass | Phosphor<br>Bronze | Nickel underplating and<br>selective gold plating 30µ inches | Matte Tin finish<br>oyer Nickel | Thermoplastic | UL 94 V-0     | 3                |

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

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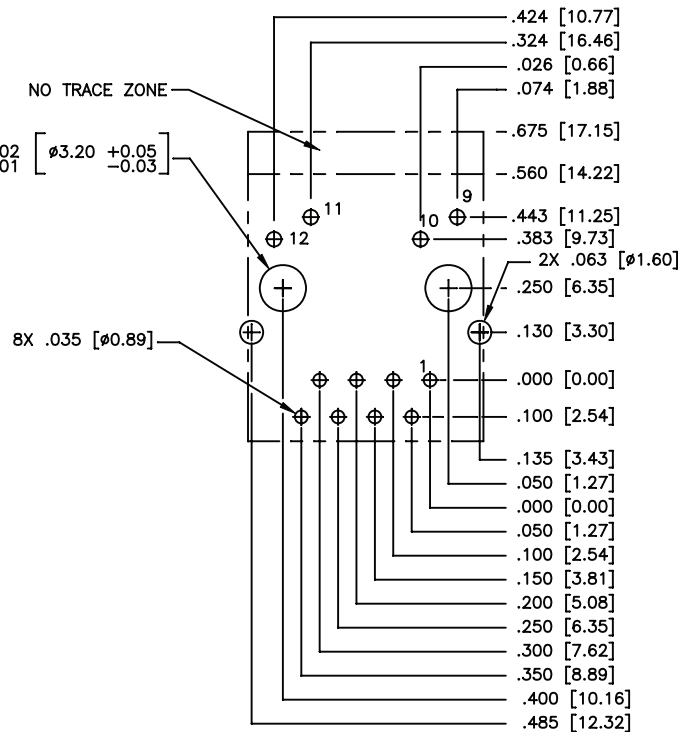
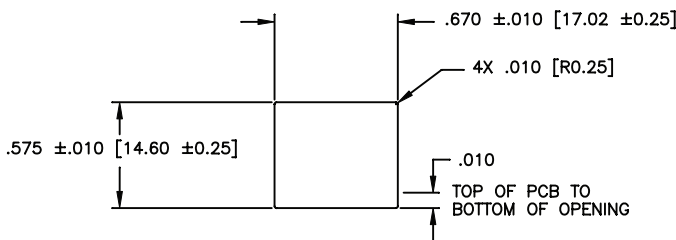
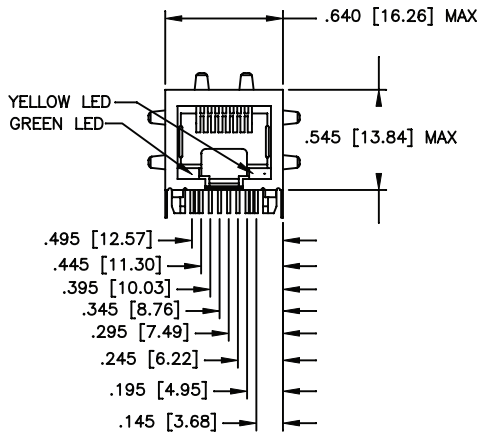
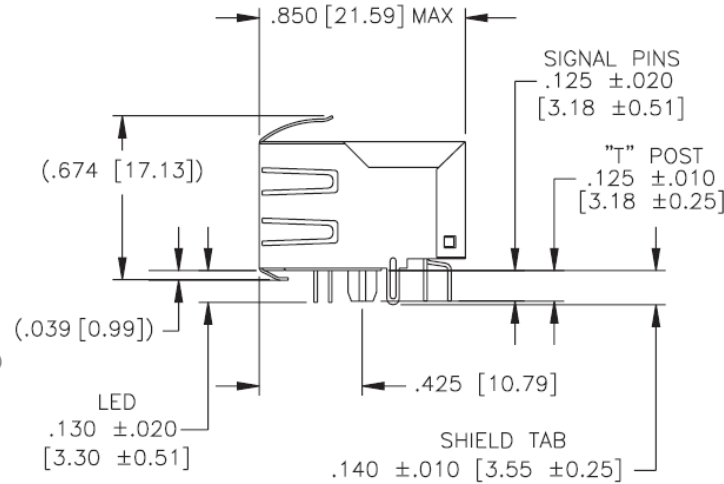


### Mechanicals

JXRO-0001/JXRO-0011NL

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0.25}$



### RECOMMENDED PANEL CUTOUT

### RECOMMENDED PCB LAYOUT VIEWED FROM COMPONENT SIDE

PCB LAYOUT DIMENSIONS REFERENCED TO PIN#1 AND ±.003 UNLESS OTHERWISE SPECIFIED

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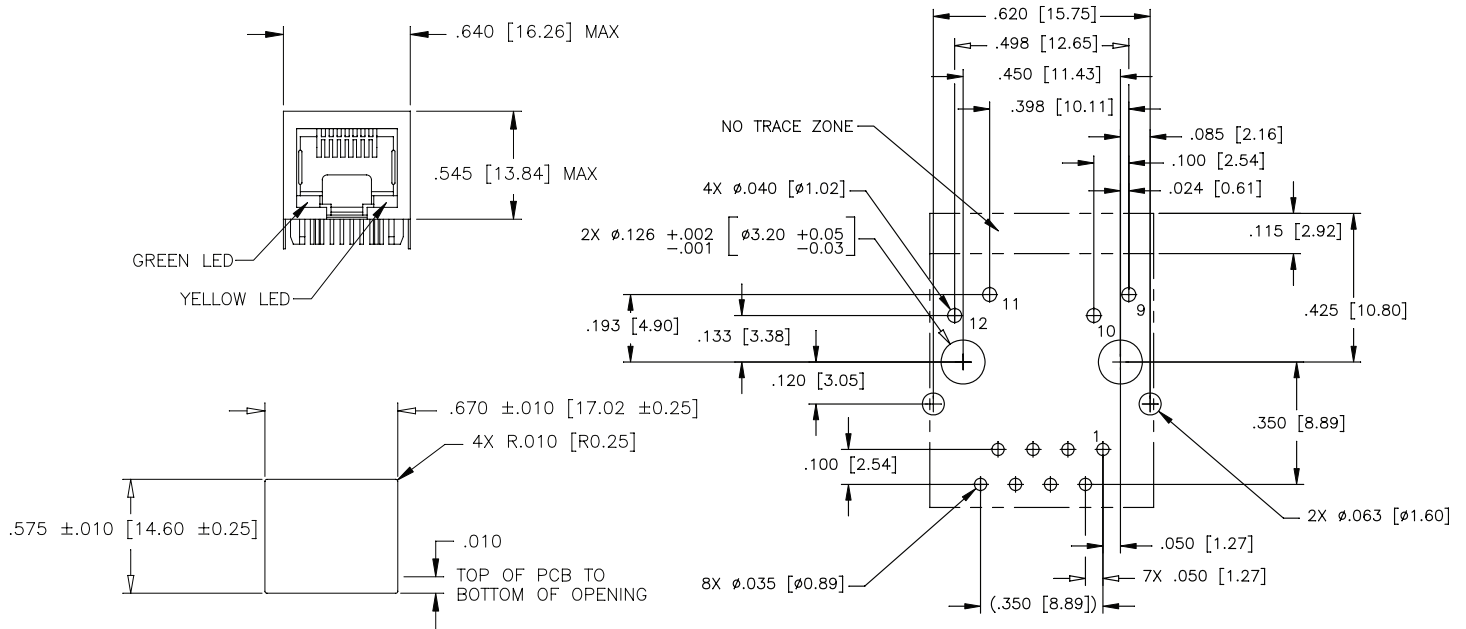
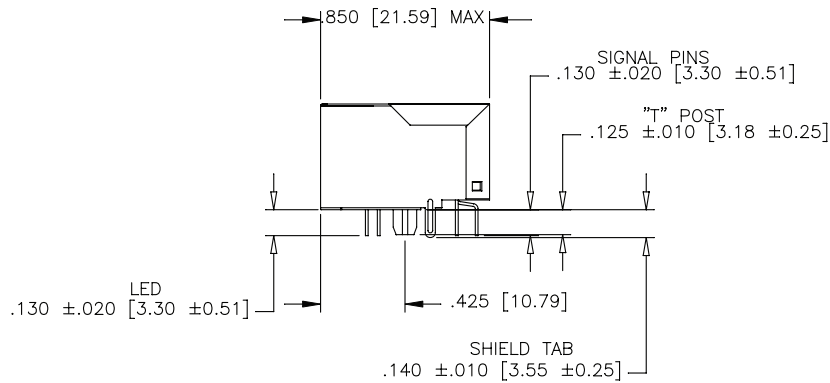


## Mechanicals (continued)

JXR0-0005NL/JXR0-0015NL

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0,25}$



**RECOMMENDED PANEL CUTOUT**

**RECOMMENDED PCB LAYOUT VIEWED FROM  
COMPONENT SIDE**

PCB LAYOUT DIMENSIONS REFERENCED TO PIN#1 AND  
 $\pm .003$  UNLESS OTHERWISE SPECIFIED

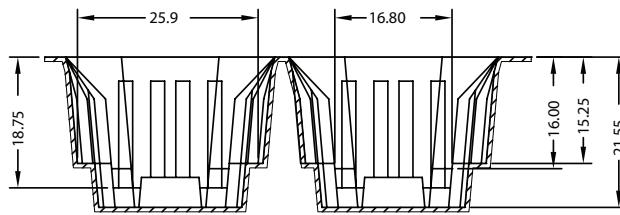
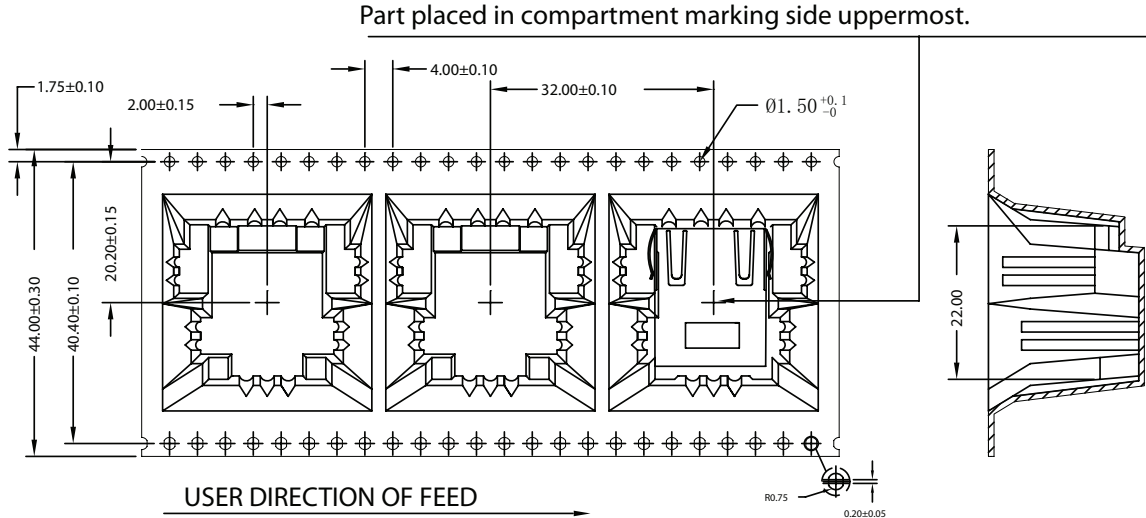
# PulseJack™

## 1X1 Tab-Down RJ45

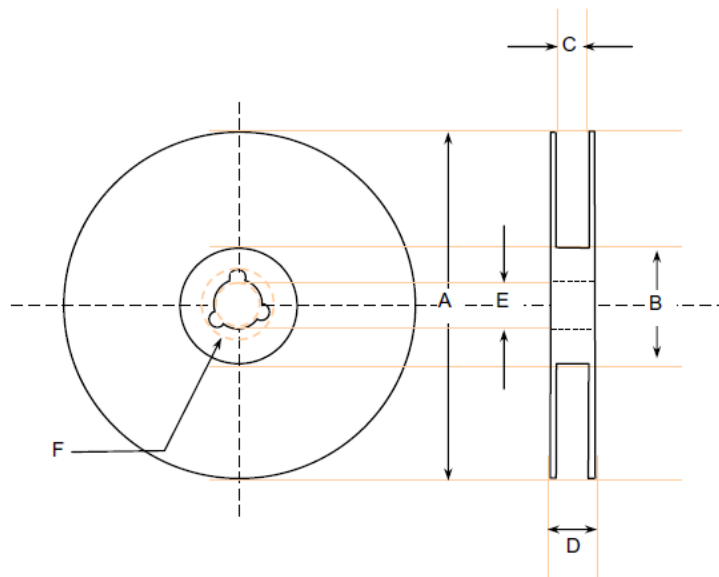
100 Base-TX RJ45 1X1 Tab-Down 8 pin Integrated Magnetics Connector, designed for industrial rated applications and is suitable for reflow solder mounting.



### Tape and Reel Specification



**Dimensions:** given in mm  
Unless otherwise specified, all tolerances are  $\pm 0.15$



#### PACKING SPECIFICATION:

JXR0-00xxNLT = TAPE and REEL .....80 parts/reel  
JXR0-00xxNL = TRAY .....25 parts

#### REEL SPECIFICATION in mm

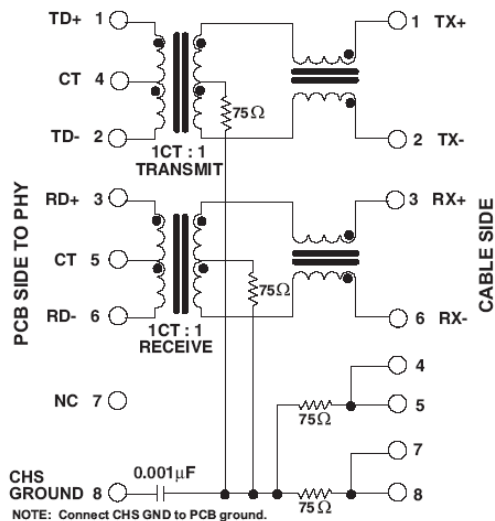
A =  $\varnothing$  360.0  $\pm$ 2.0    C =  $\varnothing$  45.4  $\pm$ 1.0    C =  $\varnothing$  13.1  $\pm$ 0.3  
B =  $\varnothing$  100.0  $\pm$ 0.5    D =  $\varnothing$  50.4  $\pm$ 1.0    D =  $\varnothing$  21.0  $\pm$ 0.5

# PulseJack™

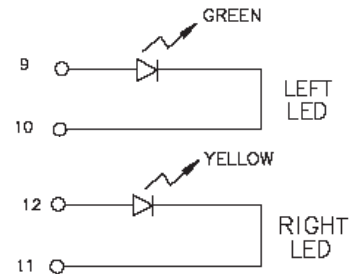
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### Electrical Schematic



### LED Specification



| Standard LED | Wavelength | Forward* V (MAX) | (TYP) |
|--------------|------------|------------------|-------|
| Yellow       | 585 nm     | 2.5 V            | 2.1 V |
| Green        | 565 nm     | 2.5 V            | 2.2 V |

\* Assumes bias current = 20mA

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