

# PulseJack™

## 1X1 Tab-Up RJ45

100 Base-TX RJ45 1X1 Tab-Up 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 |                 |
| JXR1-0001NL              | YES         | -         | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |
| JXR1-0005NL              | NO          | -         | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |
| JXR1-0011NL              | YES         | G/Y       | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |
| JXR1-0015NL              | NO          | G/Y       | -1.0                                    | -20                     | -16       | -10            | -30              | -20             | -40                   | -35            | -30             | 1500            |

#### Notes:

- When ordering JXR0-0011NL supplied in **Tape and Reel**, please add a "T" on the end of the part code - e.g. JXR1-0011NL becomes JXR1-0011NLT.
- Maximum Reflow Solder Temperature: 2x SRP 260°C for 5 seconds with LEDs and 2x SRP 260°C for 10 seconds without LEDs

### RJ45 Durability Testing Rating

| Part Number   | Mating Force<br>(MAX) | Unmating Force<br>(MAX) | Durability     | Plug to Jack<br>Retention (MIN) |
|---------------|-----------------------|-------------------------|----------------|---------------------------------|
| JXR1 - 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           |
| JXR1 - 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>over 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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## 1X1 Tab-Up RJ45

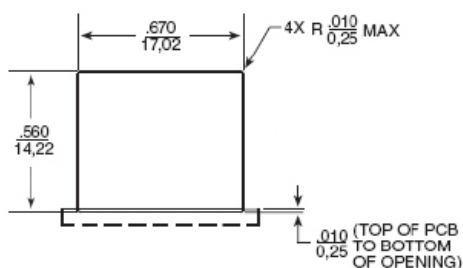
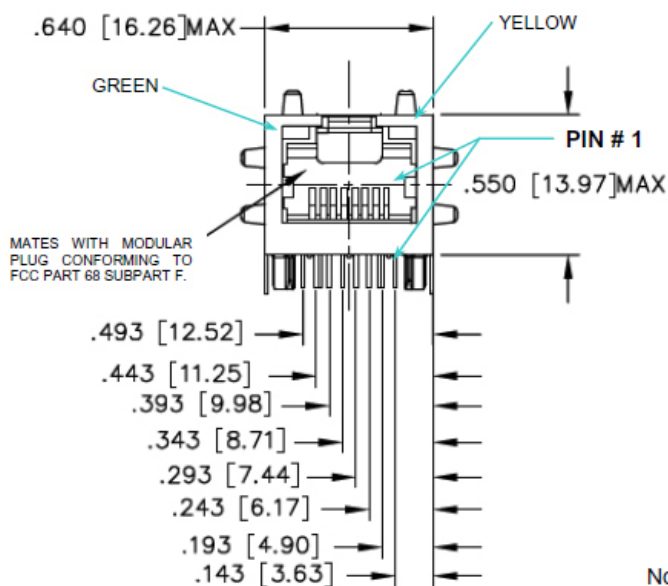
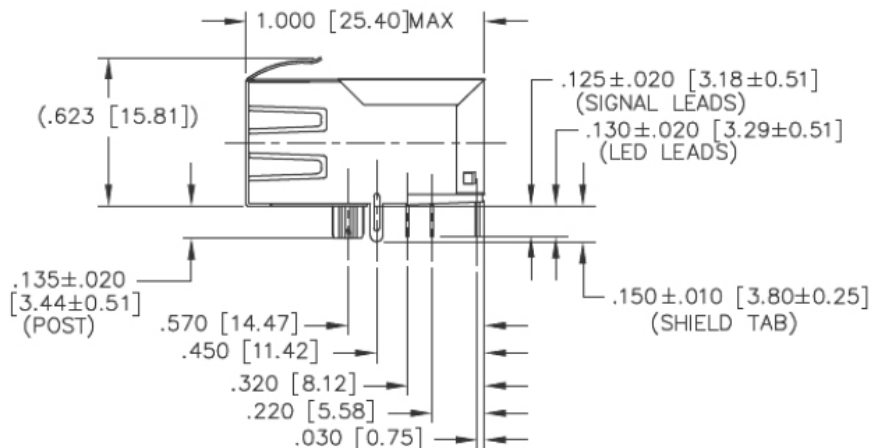
100 Base-TX RJ45 1X1 Tab-Up 8 pin Integrated Magnetics Connector, designed for industrial rated applications and is suitable for reflow solder mounting.

### Mechanicals

JXR1-0001/JXR1-0011NL

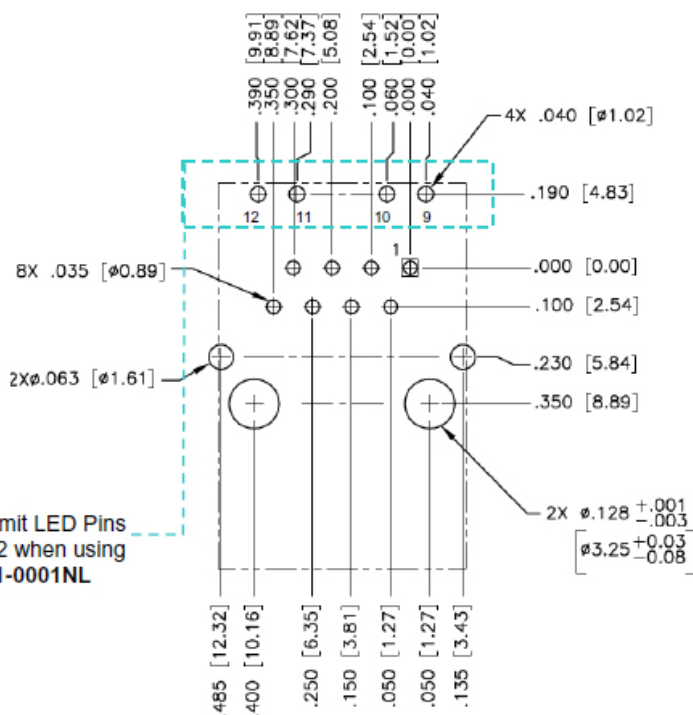
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

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



FACE VIEW

RECOMMENDED PANEL CUTOUT



Note:

Omit LED Pins #9 to #12 when using JXR1-0001NL

RECOMMENDED PCB LAYOUT VIEWED FROM COMPONENT SIDE

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

J437.D (03/19)

# PulseJack™

## 1X1 Tab-Up RJ45

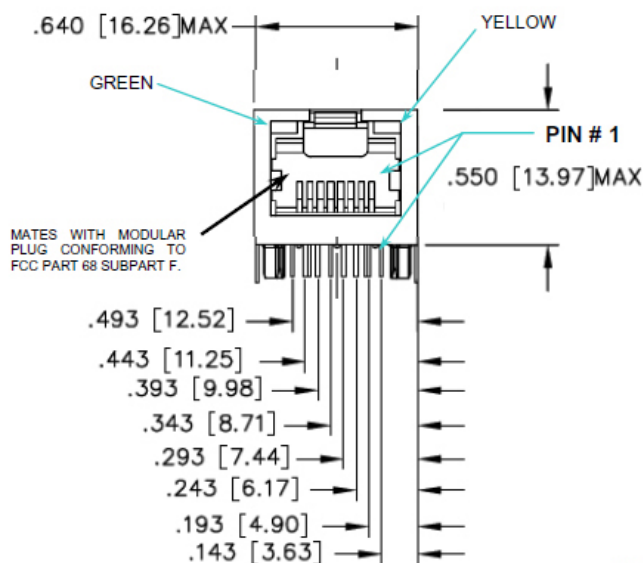
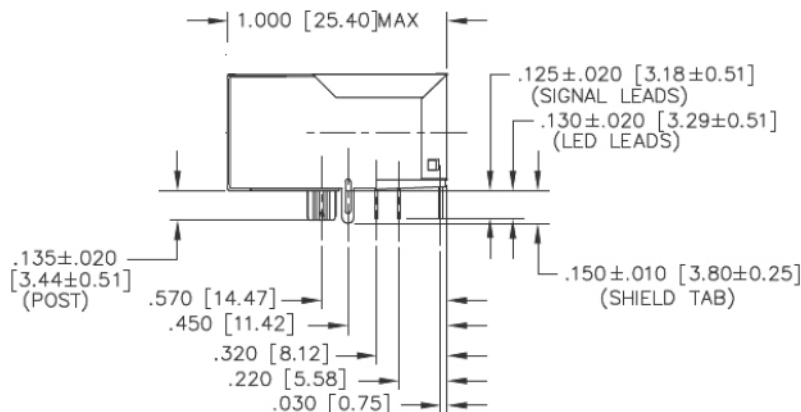
100 Base-TX RJ45 1X1 Tab-Up 8 pin Integrated Magnetics Connector, designed for industrial rated applications and is suitable for reflow solder mounting.

### Mechanicals (continued)

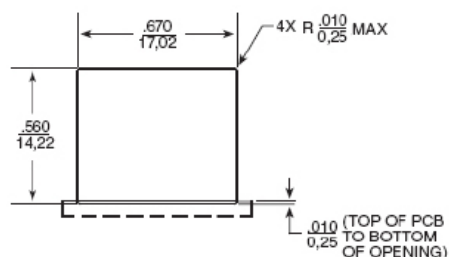
JXR1-0005/JXR1-0015NL

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

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

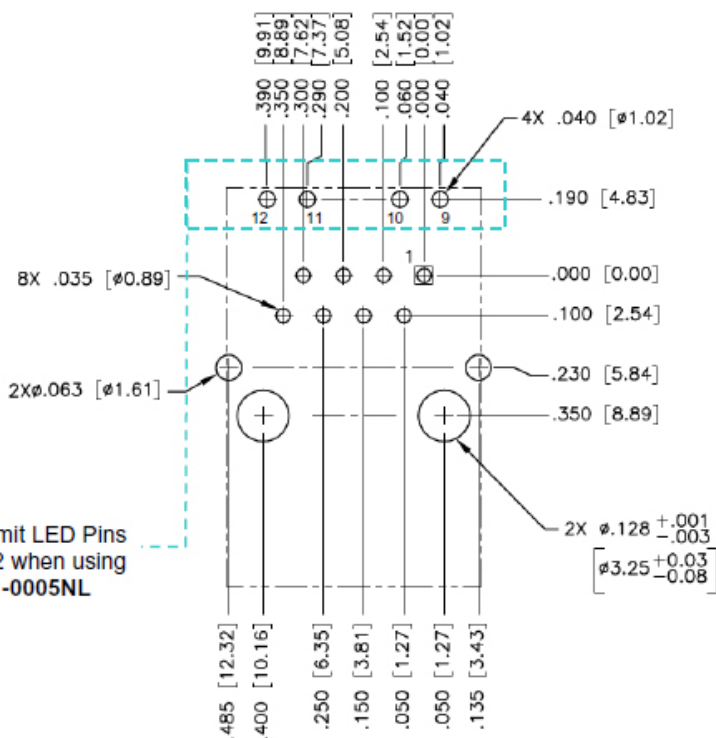


MATES WITH MODULAR  
PLUG CONFORMING TO  
FCC PART 68 SUBPART F.



FACE VIEW

### RECOMMENDED PANEL CUTOUT



Note: Omit LED Pins  
#9 to #12 when using  
JXR1-0005NL

### RECOMMENDED PCB LAYOUT VIEWED FROM COMPONENT SIDE

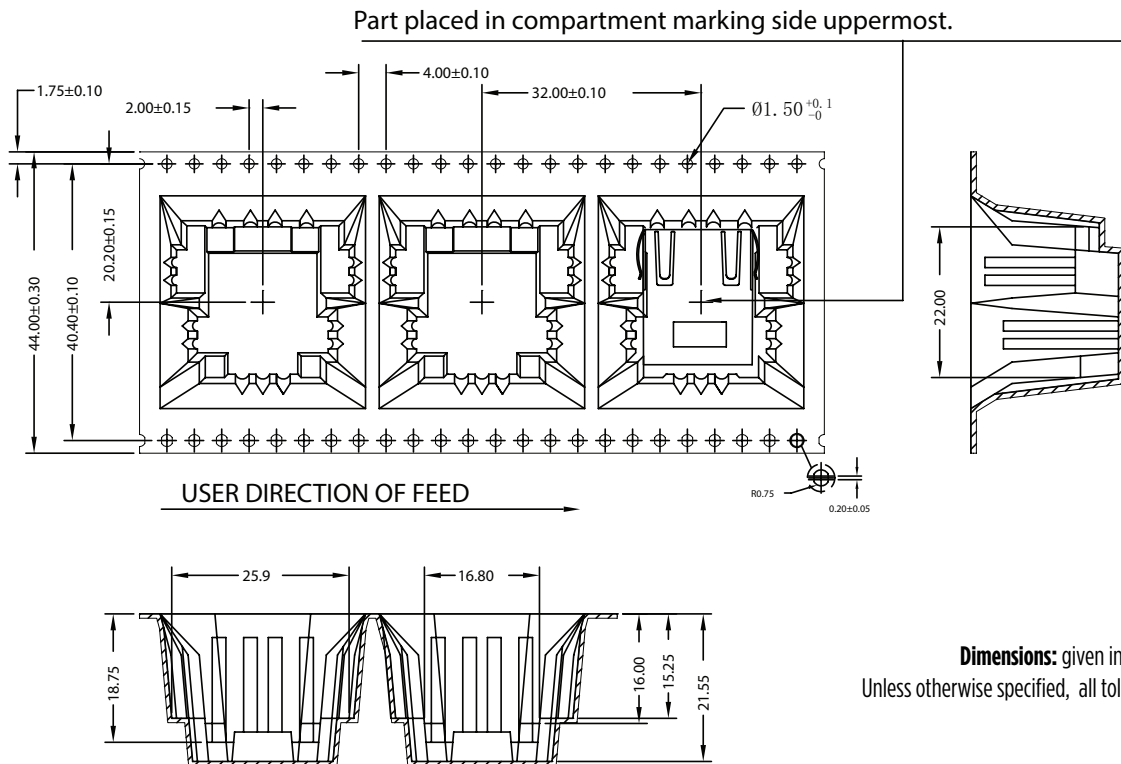
PCB LAYOUT DIMENSIONS REFERENCED TO PIN#1 AND  
 $\pm .003$  UNLESS OTHERWISE SPECIFIED

# PulseJack™

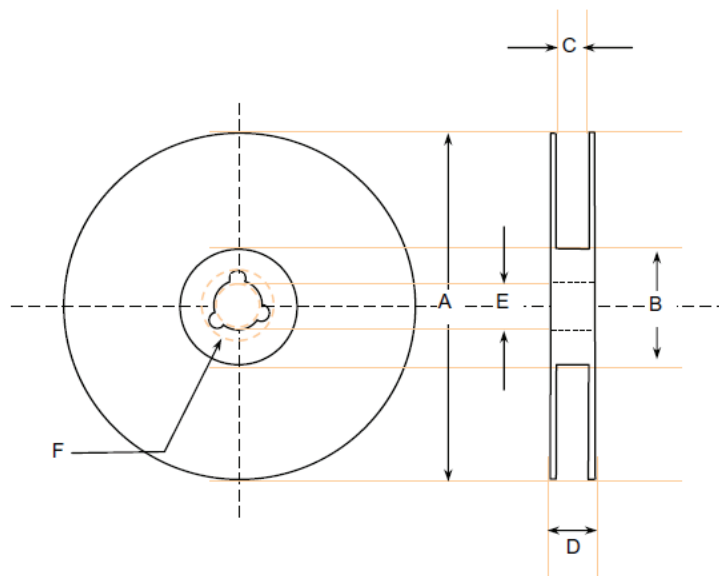
## 1X1 Tab-Up RJ45

100 Base-TX RJ45 1X1 Tab-Up 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 ±0.15



#### PACKING SPECIFICATION:

JXR1-00xxNLT = TAPE and REEL .....80 parts/reel  
JXR1-00x1NL = TUBE .....25 parts  
JXR1-00x5NL = TUBE .....30 parts

#### REEL SPECIFICATION in mm

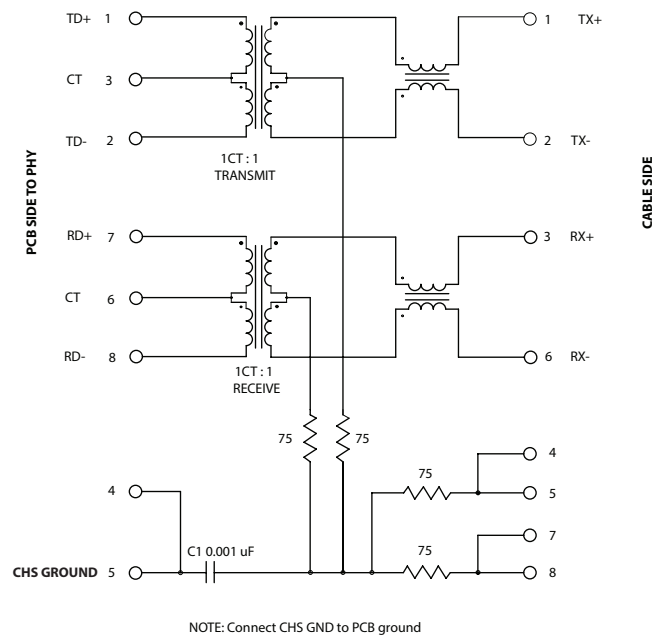
|                    |                   |                   |
|--------------------|-------------------|-------------------|
| A = Ø 360.0 ±/-2.0 | C = Ø 45.4 ±/-1.0 | C = Ø 13.1 ±/-0.3 |
| B = Ø 100.0 ±/-0.5 | D = Ø 50.4 ±/-1.0 | D = Ø 21.0 ±/-0.5 |

# PulseJack™

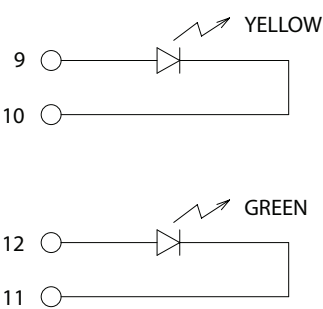
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### Electrical Schematic



### LED Specification



| Emitted Color          | Green                  | Yellow                  |
|------------------------|------------------------|-------------------------|
| Wavelength (nm)        | 585 nm                 | 2.1 V                   |
| Brightness (mCD)       | 8 to 12 TYP.<br>@ 20mA | 8 to 12 TYP.<br>@ 20 mA |
| Viewing Angle          | 100°                   | 100°                    |
| Power Dissipation (Pd) | 68 mW MAX              | 68 mW MAX               |
| DC Forward Current     | 25 mA MAX              | 30 mA MAX               |
| Reverse Voltage (Vr)   | 5.0 V MAX              | 5.0 V MAX               |

### For More Information:

Americas - [prodinfonetworkamericas@pulseelectronics.com](mailto:prodinfonetworkamericas@pulseelectronics.com) | Europe - [comms-Apps-Europe@pulseelectronics.com](mailto:comms-Apps-Europe@pulseelectronics.com) | Asia - [prodinfonetworkapac@pulseelectronics.com](mailto:prodinfonetworkapac@pulseelectronics.com)

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