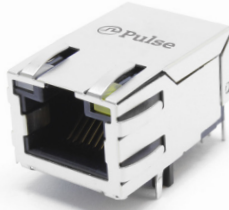


# 100Base-TX PulseJack™ Integrated Connector

Rugged design for industrial and outdoor use



## Features and Benefits:

- Ⓢ Fully compliant to IEEE802.3.u for 100Base-Tx
- Ⓢ Compatible with market leading PHYs
- Ⓢ Rugged design for outdoor and industrial use
- Ⓢ Fully RoHS and Lead Free compliant
- Ⓢ Peak wave solder temperature 260°C
- Ⓢ Recommended replacements for older PulseJack latch-up products - J10xxXxxNL

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

| Part Number | Inductance  | Turns Ratio | LED Configuration (L/R) | EMI Fingers Configuration | IC Design Style | Isolation (Pri:Sec) | Possible replacement to older design |
|-------------|-------------|-------------|-------------------------|---------------------------|-----------------|---------------------|--------------------------------------|
| JXD7-0V05NL | 350uH @ 8mA | 1.00 +/- 2% | Green/Yellow            | Top and Side              | AUTOMDIX        | 2250VDC / 60sec     | J1011F21PNL                          |
| JXD7-0V06NL | 350uH @ 8mA | 1.00 +/- 2% | Green/Yellow            | None                      | AUTOMDIX        | 2250VDC / 60sec     | J1011F01PNL                          |
| JXD7-0V07NL | 350uH @ 8mA | 1.00 +/- 2% | Yellow/Green            | Top and Side              | AUTOMDIX        | 2250VDC / 60sec     | J1026F21CNL                          |
| JXD7-0V08NL | 350uH @ 8mA | 1.00 +/- 2% | Yellow/Green            | None                      | AUTOMDIX        | 2250VDC / 60sec     | J1012F01CNL                          |
| JXD7-0V09NL | 350uH @ 8mA | 1.00 +/- 2% | Yellow/Green            | Top and Side              | AUTOMDIX        | 2250VDC / 60sec     | J1012F21CNL                          |

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

| Part Number | Insertion Loss (Max) | Return Loss (Min) |            |            | Crosstalk (Min) |            |        | CMRR (Min) |              |
|-------------|----------------------|-------------------|------------|------------|-----------------|------------|--------|------------|--------------|
|             | 1 ~ 100MHz           | 1 ~ 30MHz         | 30 ~ 60MHz | 60 ~ 80MHz | 1MHz            | 30 ~ 60MHz | 100MHz | 1 ~ 100MHz | 100 ~ 150MHz |
| JXD7-0V05NL | -1.2dB               | -16dB             | -12dB      | -10dB      | -40dB           | -35dB      | -30dB  | -30dB      | -20dB        |
| JXD7-0V06NL | -1.2dB               | -16dB             | -12dB      | -22dB      | -40dB           | -35dB      | -30dB  | -30dB      | -20dB        |
| JXD7-0V07NL | -1.2dB               | -16dB             | -12dB      | -22dB      | -40dB           | -35dB      | -30dB  | -30dB      | -20dB        |
| JXD7-0V08NL | -1.2dB               | -16dB             | -12dB      | -22dB      | -40dB           | -35dB      | -30dB  | -30dB      | -20dB        |
| JXD7-0V09NL | -1.2dB               | -16dB             | -12dB      | -22dB      | -40dB           | -35dB      | -30dB  | -30dB      | -20dB        |

#### Notes:

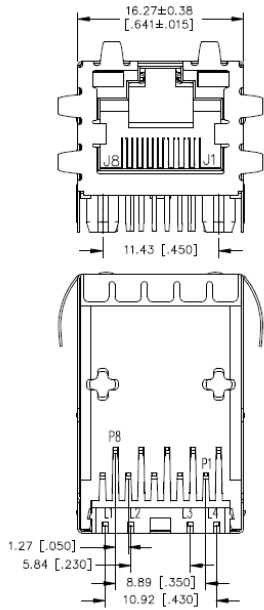
1. ROHS Compliant:
2. Plastic housing: thermoplastic material with flammability rating UL 94V-0 or better
3. Contacts plating: 30 micro-inch gold plating
4. Contacts base material: Phosphor bronze
5. Under plating: 30 micro-inch min nickel
6. Solder Tail Plating: 100 micro-inch (min), inches 100% tin, matte finish
7. Metal shield nickel plating on stainless steel
8. Jack cavity conforms to FCC part 68 subpart
9. PCB plating: HASL
10. Storage temperature: -40°C to +85°C
11. Compliance to J-STD:
  - A. J-STD-002: solderability at 245°C DIP and LOOK test
  - B. J-STD-020: level 1, no moisture sensitive
  - C. J-STD-075: W2, 270°C maximum through wave solder
12. The NL suffix part comes in trays with 50pcs/tray.

*Rugged design for industrial and outdoor use*

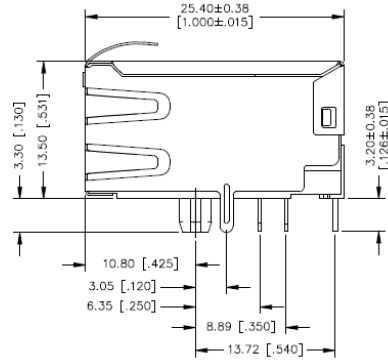


## Mechanicals

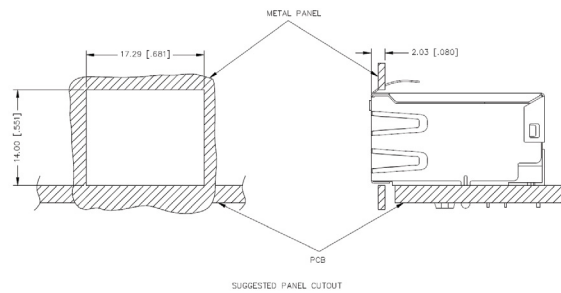
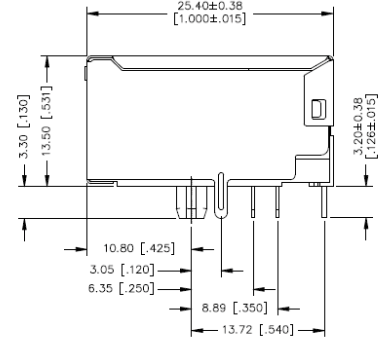
**JXD7-0VXXNL**



## Design with EMI Fingers

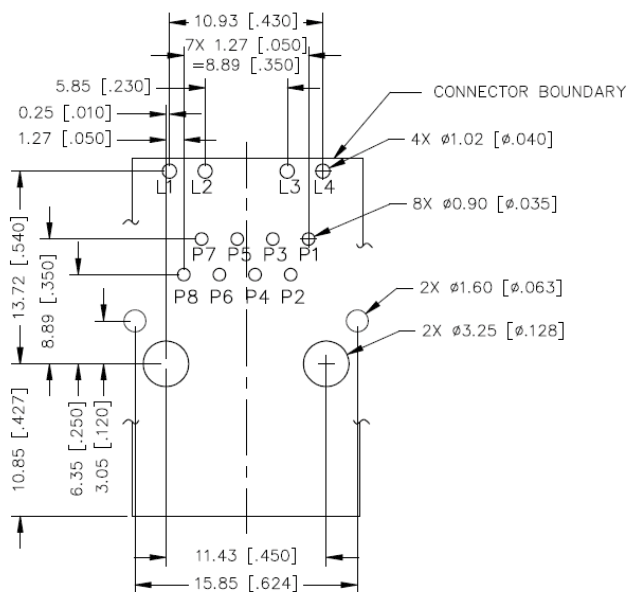


## Design without EMI Fingers



**Dimensions:** mm [Inches]  
Unless otherwise specified,  
all tolerances are  $\pm 0,25$  [0.10]

## Recommended Footprint



**Dimensions:** mm [Inches]  
Unless otherwise specified,  
all tolerances are  $\pm 0,25$  [0.10]

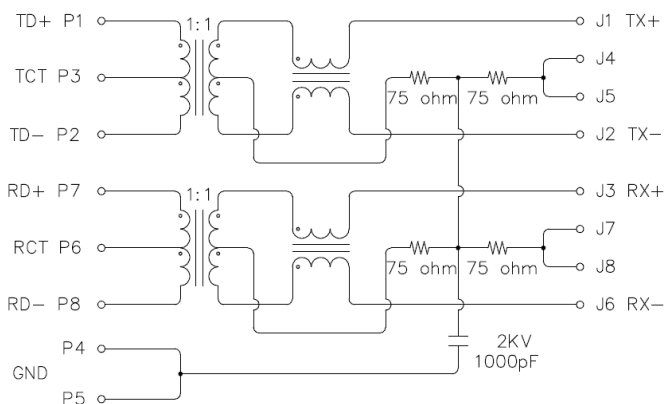
# 100Base-TX PulseJack™

## Integrated Connector

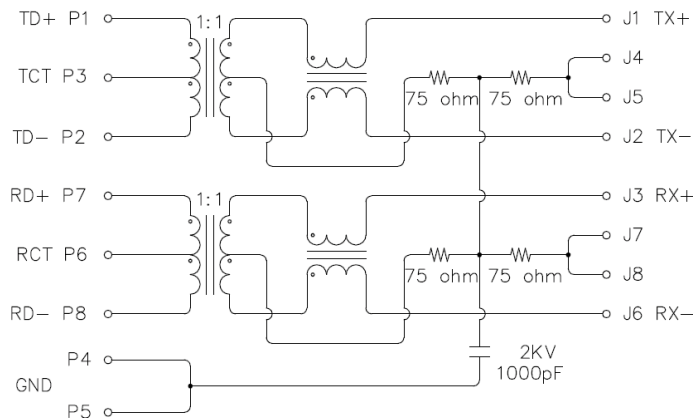
*Rugged design for industrial and outdoor use*

### SCHEMATICS

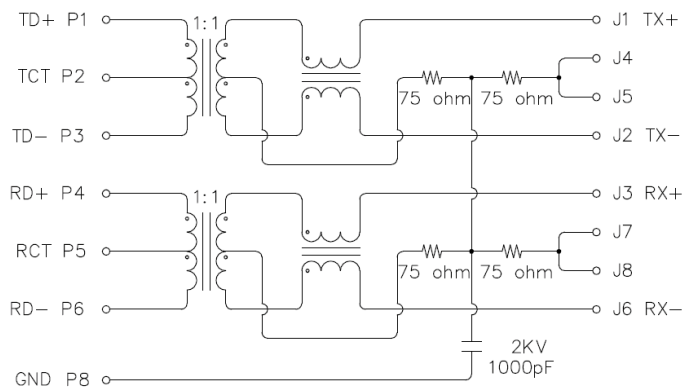
#### JXD7-0V05NL, JXD7-0V06NL



#### JXD7-0V07NL



#### JXD7-0V08NL, JXD7-0V09NL



# 100Base-TX PulseJack™

## Integrated Connector

Rugged design for industrial and outdoor use

### LED SCHEMATICS

#### JXD7-0V05NL, JXD7-0V06NL

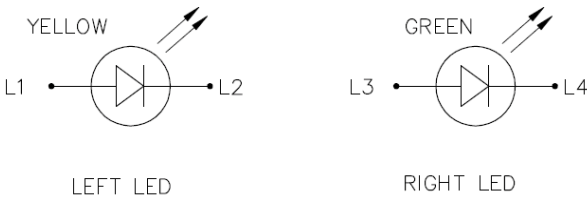


SCHEMATIC

#### LED SPECIFICATION

| EMITTING COLOR | $\lambda_p$ (nm) | $V_f@I_f=20\text{mA}$ | $I_r @V_r=5\text{V}$  |
|----------------|------------------|-----------------------|-----------------------|
| GREEN          | 565              | 1.7V-2.6V             | 10 $\mu\text{A}$ max. |
| YELLOW         | 585              | 1.7V-2.6V             | 10 $\mu\text{A}$ max. |

#### JXD7-0V07NL, JXD7-0V08NL, JXD7-0V09NL



SCHEMATIC

#### LED SPECIFICATION

| EMITTING COLOR | $\lambda_p$ (nm) | $V_f@I_f=20\text{mA}$ | $I_r @V_r=5\text{V}$  |
|----------------|------------------|-----------------------|-----------------------|
| GREEN          | 565              | 1.7V-2.6V             | 10 $\mu\text{A}$ max. |
| YELLOW         | 585              | 1.7V-2.6V             | 10 $\mu\text{A}$ 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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