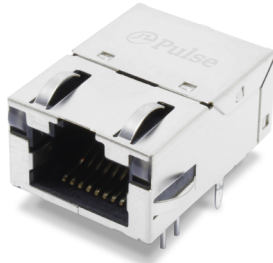


# Industrial Low profile PulseJack™ Integrated Connector

Rugged design for fast Ethernet and 1Gigabit connectivity



- Ⓢ Fully compliant to IEEE802.3 for 10/100/1000Base-T
- Ⓢ Open Inductance 350uH @ 8mA
- Ⓢ Compatible with market leading PHYs
- Ⓢ Rugged design for outdoor and industrial use
- Ⓢ Fully RoHS and Lead Free compliant-No exemptions
- Ⓢ Peak wave solder temperature 260°C

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

| Part Number | Data Rate  | Turns Ratio | LED Configuration (L/R) | EMI Fingers Configuration | Design Style       | Isolation (Pri:Sec) | Possible replacement to older design |
|-------------|------------|-------------|-------------------------|---------------------------|--------------------|---------------------|--------------------------------------|
| JXD1-1V07NL | 100Base-TX | 1.00 +/- 3% | Green-Orange/Yellow     | Top and Side              | 3W CMC on TX       | 2250VDC / 60sec     | JOG-0007NL                           |
| JXD1-1V17NL | 100Base-TX | 1.00 +/- 3% | Green-Orange/Yellow     | None                      | 2W CMC on RX       | 2250VDC / 60sec     | NEW                                  |
| JXD1-1V09NL | 1000Base-T | 1.00 +/- 3% | Green-Orange/Yellow     | Top and Side              | 3W CMC on PHY side | 2250VDC / 60sec     | JOG-0009NL                           |

Recommended replacements for older PulseJack latch-up products - JOG-00xxNL

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

| Part Number | Insertion Loss (MAX) | Return Loss (MIN) |            |            | Crosstalk (MIN) |            |        | CMRR (MIN) | DCR (J1-J2) (J3-J6) |
|-------------|----------------------|-------------------|------------|------------|-----------------|------------|--------|------------|---------------------|
|             | 1 - 100MHz           | 1 - 30MHz         | 30 - 60MHz | 60 - 80MHz | 1MHz            | 30 - 60MHz | 100MHz | 1 - 100MHz |                     |
| JXD1-1V07NL | -1.0dB               | -18dB             | -16dB      | -12dB      | -35dB           | -30dB      | -30dB  | -30dB      | 1.2 OHM max         |
| JXD1-1V17NL | -1.0dB               | -18dB             | -16dB      | -12dB      | -35dB           | -30dB      | -30dB  | -30dB      | 1.2 OHM max         |

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

| Part Number | Insertion Loss (MAX) | Return Loss (MIN) |            |             | Crosstalk (MIN) |            |        | CMRR (MIN) | DCR (J1-J2), (J3-J6) (J4-J5), (J7-J8) |
|-------------|----------------------|-------------------|------------|-------------|-----------------|------------|--------|------------|---------------------------------------|
|             | 1 - 125MHz           | 1 - 30MHz         | 30 - 60MHz | 60 - 100MHz | 1MHz            | 30 - 60MHz | 100MHz | 1 - 100MHz |                                       |
| JXD1-1V09NL | -1.2dB               | -18dB             | -16dB      | -10dB       | -38dB           | -33dB      | -30dB  | -30dB      | 1.2 OHM max                           |

### Notes:

1. ROHS Compliant:
2. Plastic housing: thermoplastic material with flammability rating UL94V-0 or better
3. Contacts plating: 30 micro-inch gold plating
4. Contacts base material: Phosphor bronze
5. Under plating: 50u inches min nickel
6. Solder Tail Plating: 100 min u 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. All parts are shipped in trays with 60pcs/tray - see page4 for details

### RJ45 Connector performance:

- Insulation Resistance : 500M Ohms Min
- Insertion force with the latch depressed : 22N Max
- Removal force with the latch depressed : 44N Max
- Durability : 750 Cycles

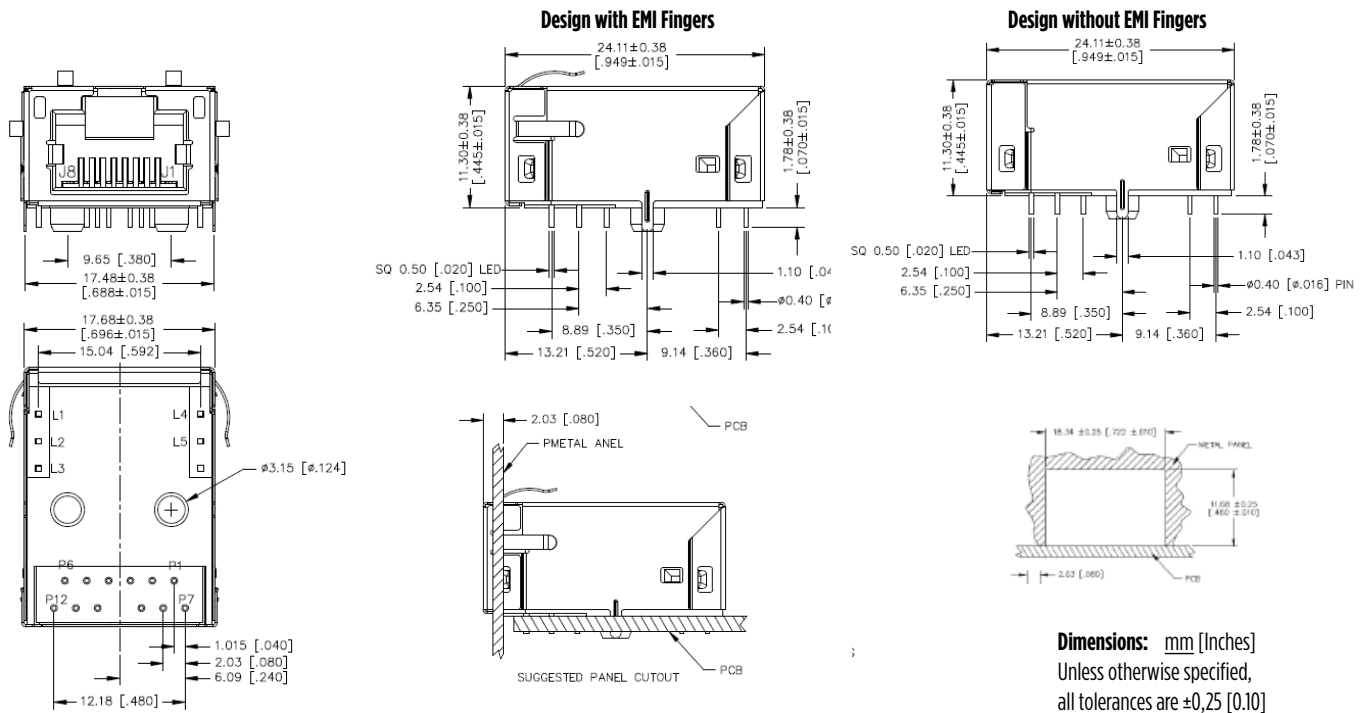
# Industrial Low profile PulseJack™ Integrated Connector

Rugged design for fast Ethernet and 1Gigabit connectivity

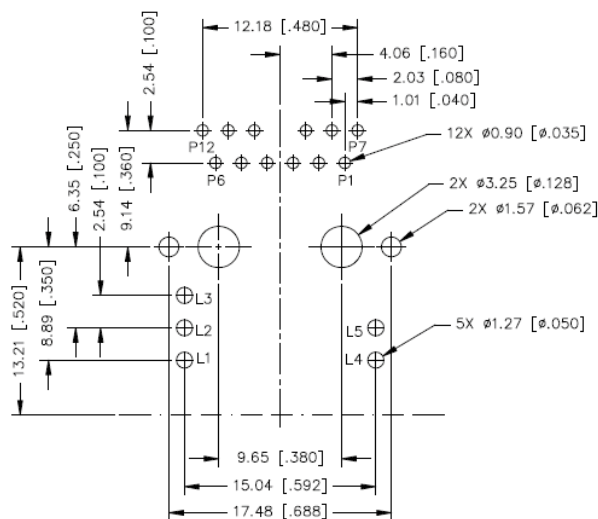


## MECHANICALS

JXD1-IVxxNL



## RECOMMENDED FOOTPRINT



SUGGESTED FOOTPRINT (COMPONENT SIDE SHOWN)

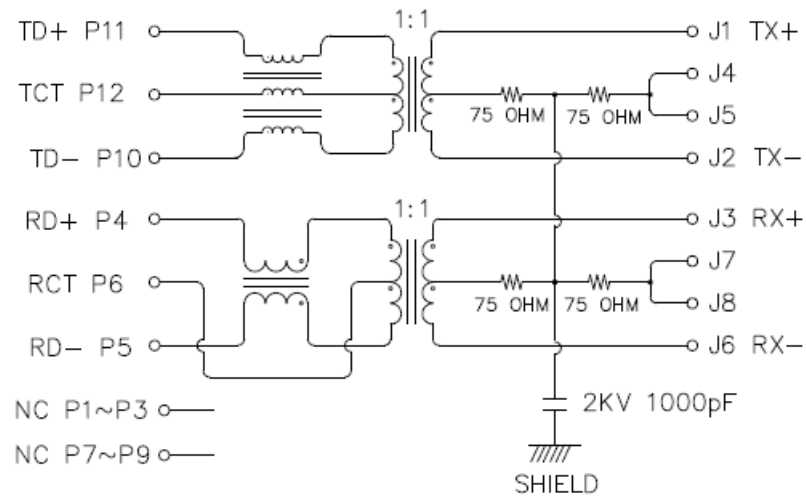
# Industrial Low profile PulseJack™ Integrated Connector

Rugged design for fast Ethernet and 1Gigabit connectivity

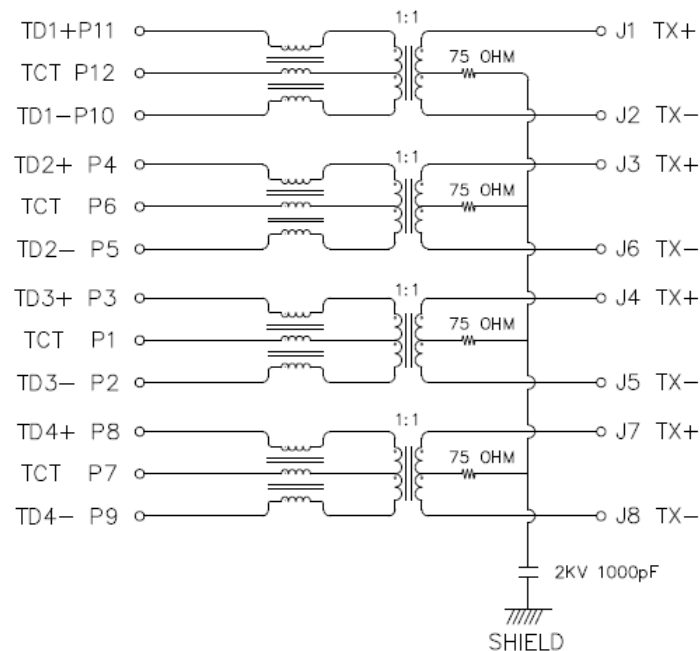


## SCHEMATICS

### JXD1-1V07NL, JXD1-1V17NL



### JXD1-1V09NL



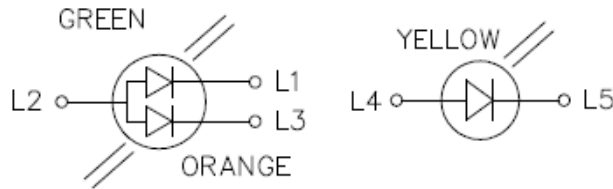
SUGGESTED FOOTPRINT (COMPONENT SIDE SHOWN)

# Industrial Low profile PulseJack™ Integrated Connector

Rugged design for fast Ethernet and 1Gigabit connectivity

## LED SCHEMATICS

JXD1-1V07/09/17NL

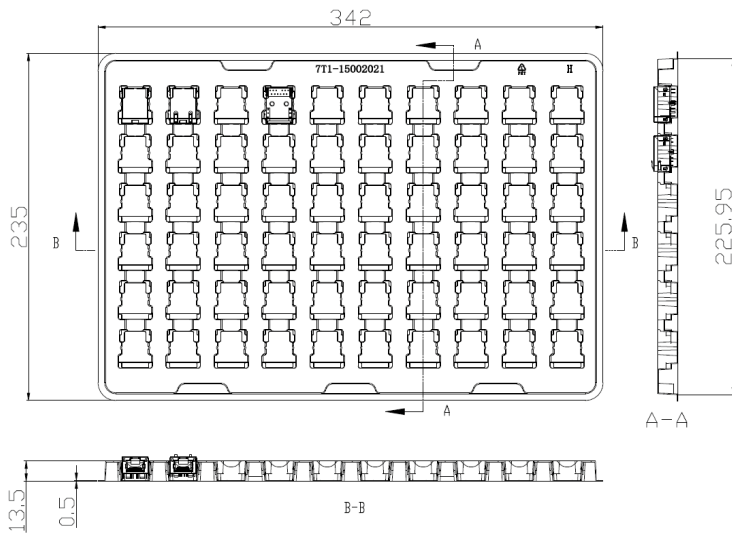


### LED SPECIFICATION

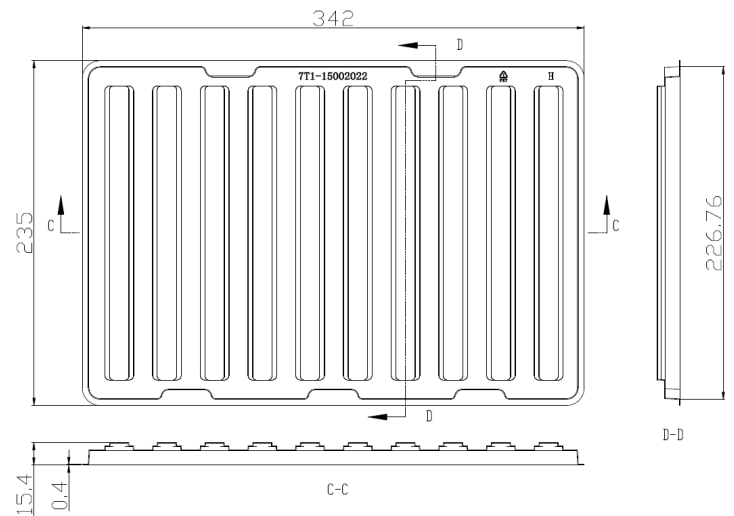
| EMITTING COLOR | $\lambda_p$ (nm) | $V_f @ I_f = 20\text{mA}$ | $I_r @ V_r = 5\text{V}$ |
|----------------|------------------|---------------------------|-------------------------|
| GREEN          | 570              | 1.7V-2.6V                 | 10 $\mu\text{A}$ max.   |
| YELLOW         | 590              | 1.7V-2.6V                 | 10 $\mu\text{A}$ max.   |
| ORANGE         | 610              | 1.7V-2.6V                 | 10 $\mu\text{A}$ max.   |

## PACKING DETAILS

### COMPONENT PACKING TRAY



### TOP PACKING COVER



1. **Material:** Conductive PET, 0.5mm thick
2. **Components per Tray:** 60 pcs
3. **Quantity per box:** 10x Tray = 600 pcs

### For More Information:

Americas - [prod\\_info\\_network\\_americas@yageo.com](mailto:prod_info_network_americas@yageo.com) | Europe - [prod\\_info\\_network\\_emea@yageo.com](mailto:prod_info_network_emea@yageo.com) | Asia - [prod\\_info\\_network\\_apac@yageo.com](mailto:prod_info_network_apac@yageo.com)

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