



Features and Benefits:

- ⑥ Complete Connector and magnetics in one package
- ⑥ IEEE802.3 compliant with 350uH at 8mA DC bias for 10/100Base-Tx (with PoE option) and 1000Base-T
- ⑥ Compatible with market leading Ethernet PHYs
- ⑥ Rugged design for outdoor and industrial use
- ⑥ Fully RoHS and Lead Free compliant
- ⑥ IR Reflow and Wave solder compatible

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 |
|-------------|------------|-------------|-------------------------|---------------------------|--------------------|---------------------|--------------------------------------|
| JXD1-1020NL | 100Base-TX | 1.00 +/- 3% | Yellow /Green | None | 2W CMC on TX | 2250VDC / 60sec | None |
| JXD1-1025NL | 100Base-TX | 1.00 +/- 3% | Yellow /Green | None | 2W CMC on RX | 2250VDC / 60sec | 4 Pair 30W |
| JXD1-1022NL | 1000Base-T | 1.00 +/- 3% | Yellow /Green | None | 3W CMC on PHY side | 2250VDC / 60sec | None |

100Base-TX

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 | | |
| JXD1-1020NL | -1.2dB | -16dB | -12dB | -10dB | -35dB | -30dB | -30dB | -30dB | 1.2 0HM max |
| JXD1-1025NL | -1.2dB | -16dB | -12dB | -10dB | -35dB | -30dB | -30dB | -30dB | 1.2 0HM max |

1000Base-T

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 ~ 80MHz | 80 ~ 100MHz | 1MHz | 30 ~ 60MHz | | |
| JXD1-1022NL | -1.2dB | -18dB | -12dB | -10dB | -38dB | -33dB | -30dB | -30dB | 1.2 0HM max |

Notes:

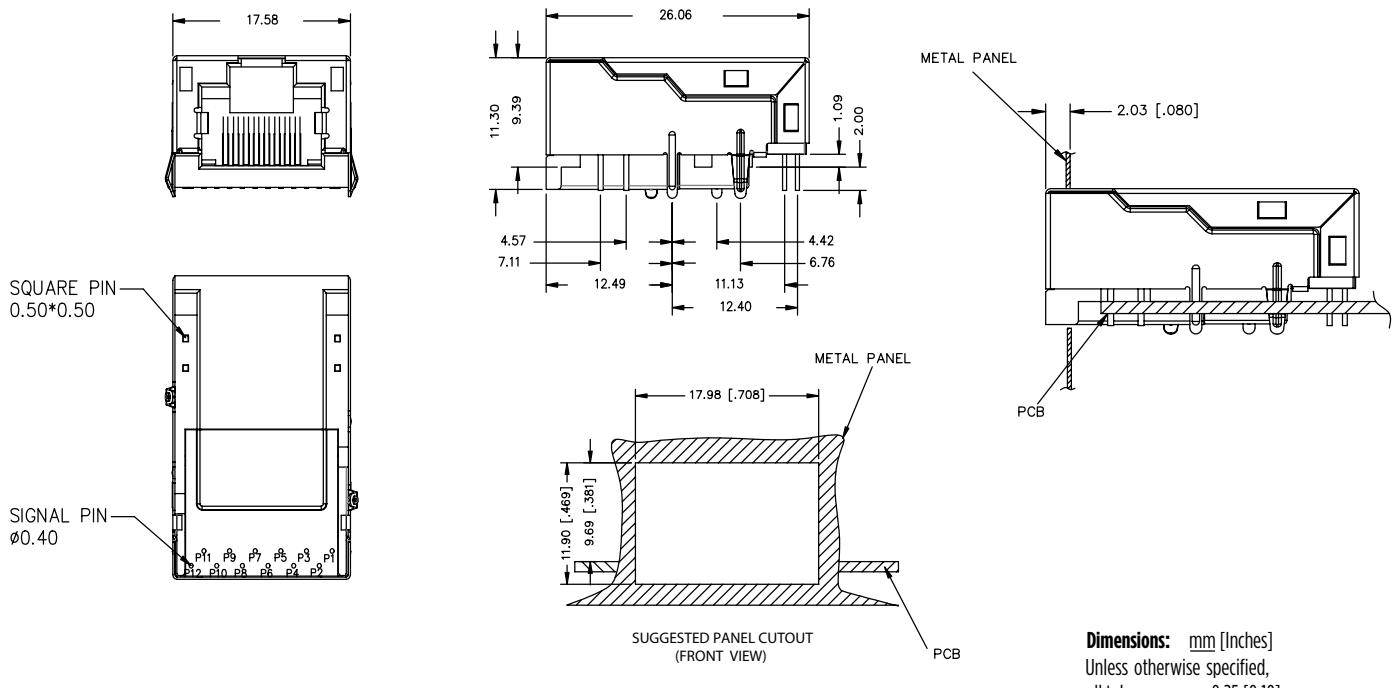
1. ROHS Compliant:
2. Plastic housing: LCP material with flammability rating UL94V-0
3. Contacts plating: 30 micro-inch gold plating
4. Contacts base material: Phosphor bronze
5. Under plating: 50u inches min nickel
6. Solder Tail Plating: 100 min u inches 100% tin, matte finish
7. Metal shield - nickel plating on Brass
8. Jack cavity conforms to FCC part 68 subpart 9. PCB plating: HASL
10. Storage temperature: -40°C to 85°C
11. All parts are shipped in trays with 50pcs/tray - see page4 for details
12. Compliance to J-STD:
 - A. J-STD-002: solderability at 245°C DIP and L00K test
 - B. J-STD-020: level 1, no moisture sensitive
 - C. J-STD-075: W2, 270°C maximum through wave solder
 - D. J-STD-075: R7, 245°C maximum through reflow solder process

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

MECHANICALS

JXD1-102xNL

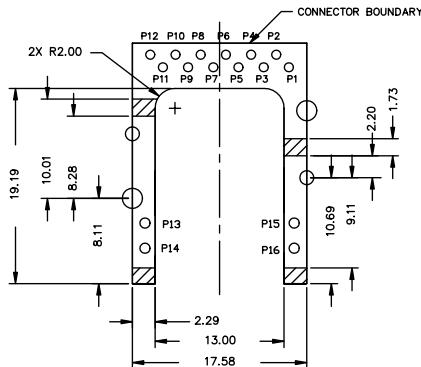


Dimensions: mm [Inches]
Unless otherwise specified,
all tolerances are $\pm 0,25$ [0.10]

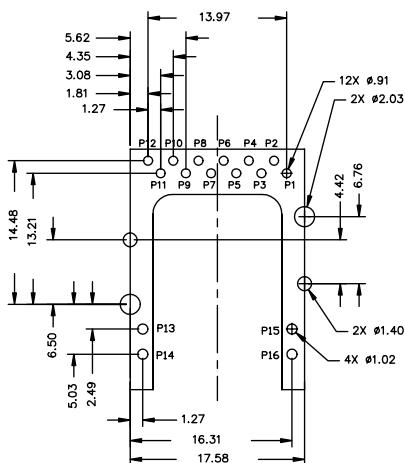
RECOMMENDED LAYOUT AND FOOTPRINT

Dimensions: mm

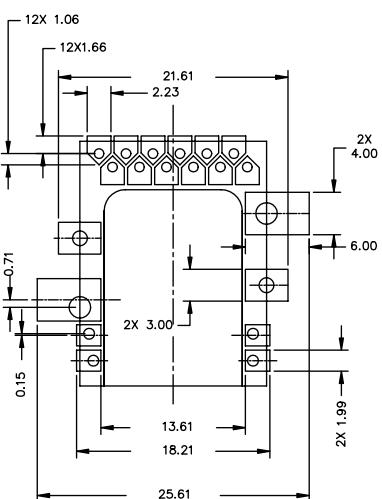
Unless otherwise specified, all tolerances are $\pm 0,25$ [0.10]



STAND OFF ARE
(COMPONENT SIDE VIEW)



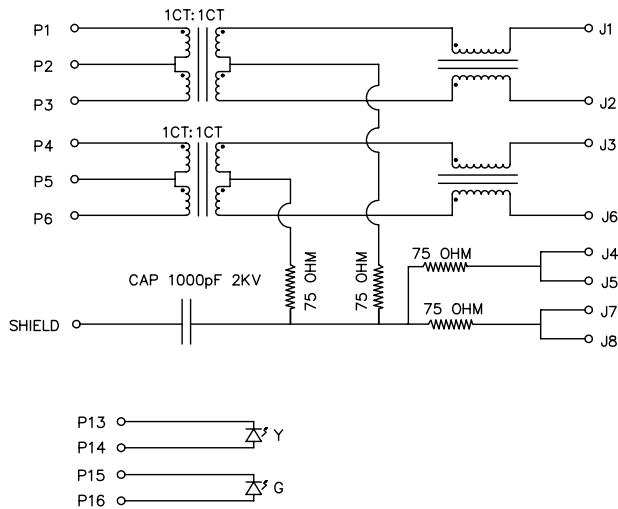
RECOMMENDED PCB LAYOUT (COMPONENT SIDE VIEW)



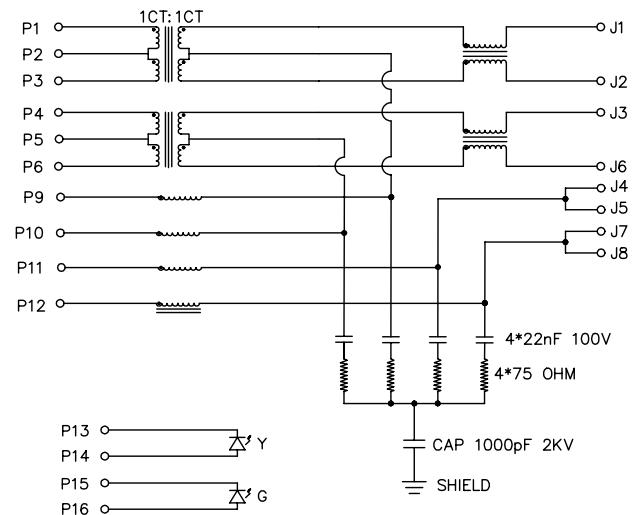
SUGGESTED PCB THR SOLDER PAD LAYOUT
(COMPONENT SIDE SHOWN)

SCHEMATICS

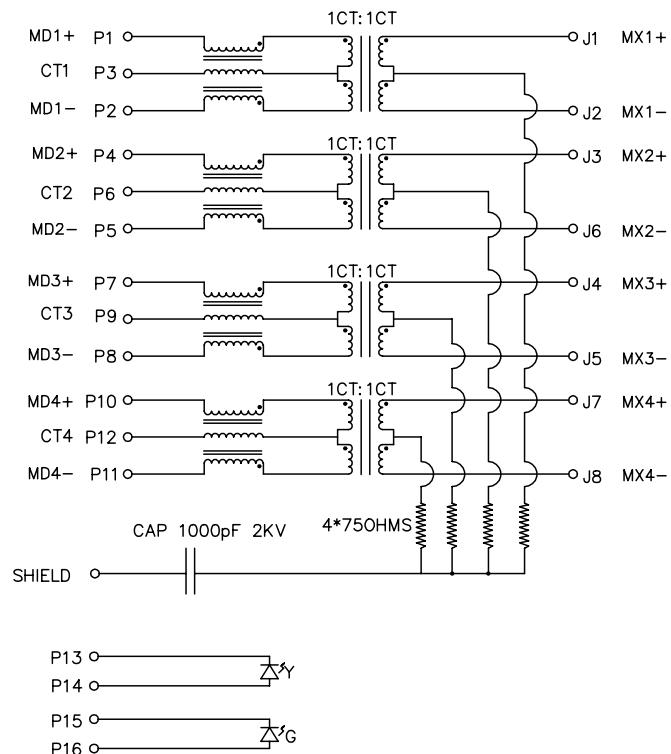
JXD1-020NL



JXD1-1025NL



JXD1-1022NL



Rugged design for fast Ethernet and 1Gigabit connectivity Industrial THR, Mid-Mount PulseJack™ Integrated Connector

LED SCHEMATICS

JXD1-1020/22/25NL

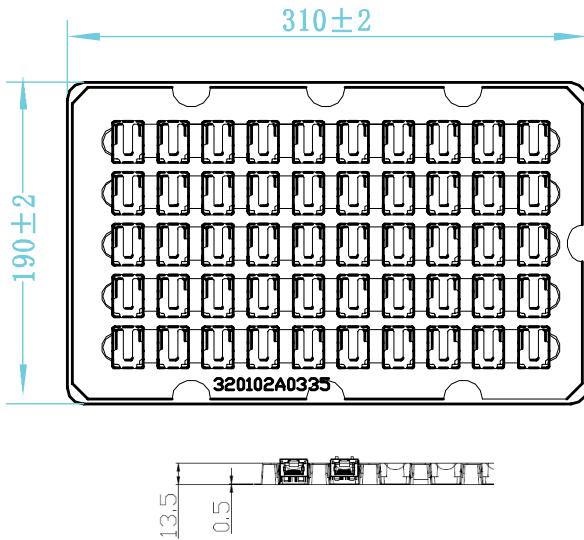


LED SPECIFICATION

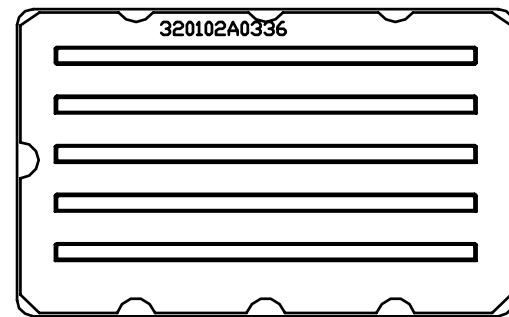
| EMITTING COLOR | λ_p (nm) | $V_f@I_f=20mA$ | $I_r @V_r=5V$ |
|----------------|------------------|----------------|-----------------|
| GREEN | 570 | 1.7V-2.6V | 10 μ A max. |
| YELLOW | 590 | 1.7V-2.6V | 10 μ A max. |

PACKING DETAILS

COMPONENT PACKING TRAY



TOP PACKNG COVER



- 1. Material:** Conductive PET, 0.5mm thick
- 2. Components per Tray:** 50pcs
- 3. Quantity per box:** 124xTray = 1200pcs

For More Information:

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