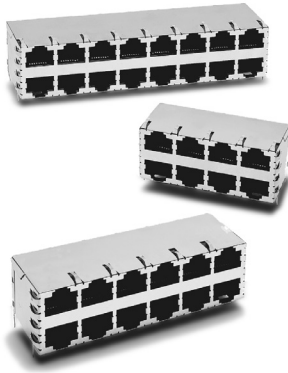


PulseJack™ 2xN RJ45 Connector



Description:

100 Base-TX (Fast Ethernet) RJ45 2xN Integrated Connector Module (ICM) with or without LEDs - Designed to support Switch and Gateway applications.



Features and Benefits:

- Ⓜ RoHS peak wave solder temperature rating 260°C
- Ⓜ Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP
- Ⓜ Internal magnetics are 100% electrically tested for HI-POT and functionality
- Ⓜ Internal magnetics options available
- Ⓜ 350µH minimum OCL with 8mA bias current
- Ⓜ High performance for maximum EMI suppression

Electrical Specifications @ 25°C - Operating Temperature 0°C to +70°C

| RoHS Compliant Part Number (Number of Ports) | No. of Ports | LEDs L/R | Insertion Loss (dB TYP) | Return Loss (dB TYP) 100Ω (±15Ω) | | | | | Crosstalk (dB TYP) | | | Common Mode Rejection (dB TYP) | |
|-------------------------------------------------|--------------|-------------|----------------------------|----------------------------------------|----------|-----------|-----------|-----------|-----------------------|-----------|------------|-----------------------------------|------------|
| | | | | 1-65 MHz | 1-10 MHz | 10-30 MHz | 30-60 MHz | 60-80 MHz | 1-30 MHz | 30-60 MHz | 60-100 MHz | 1-50 MHz | 50-150 MHz |
| J20-0013NL | 4 | G/Y, G/Y | -1 | -20 | -16 | -12 | -12 | -40 | -35 | -30 | -30 | -20 | |
| J20-0114NL | 8 | G/Y, G/Y | -1 | -20 | -16 | -12 | -12 | -40 | -35 | -30 | -30 | -20 | |
| J20-0115NL | 12 | G/Y, G/Y | -1 | -20 | -16 | -12 | -12 | -40 | -35 | -30 | -30 | -20 | |
| J20-0116NL | 16 | G/Y, G/Y | -1 | -20 | -16 | -12 | -12 | -40 | -35 | -30 | -30 | -20 | |
| JX20-0114NL* | 8 | G/Y, G/Y | -1 | -20 | -16 | -12 | -12 | -40 | -35 | -30 | -30 | -20 | |
| JX20-0115NL* | 12 | G/Y, G/Y | -1 | -20 | -16 | -12 | -12 | -40 | -35 | -30 | -30 | -20 | |
| JX20-0116NL* | 16 | G/Y, G/Y | -1 | -20 | -16 | -12 | -12 | -40 | -35 | -30 | -30 | -20 | |

Notes:

1. (*) Operating Temperature: -40°C to +85°C
2. Bi-color LEDs: G = green; Y = yellow for each port

RJ45 Durability Test Rating

| Part Number | Mating Force (MAX) | Unmating Force (MAX) | Durability | Plug to Jack Retention (MIN) |
|-------------------|--------------------|----------------------|----------------|------------------------------|
| J2 and JX2 Series | 5 lbs./2.268 kgs. | 5 lbs./2.268 kgs. | 750 Insertions | 20 lbs./9.072 kgs. |

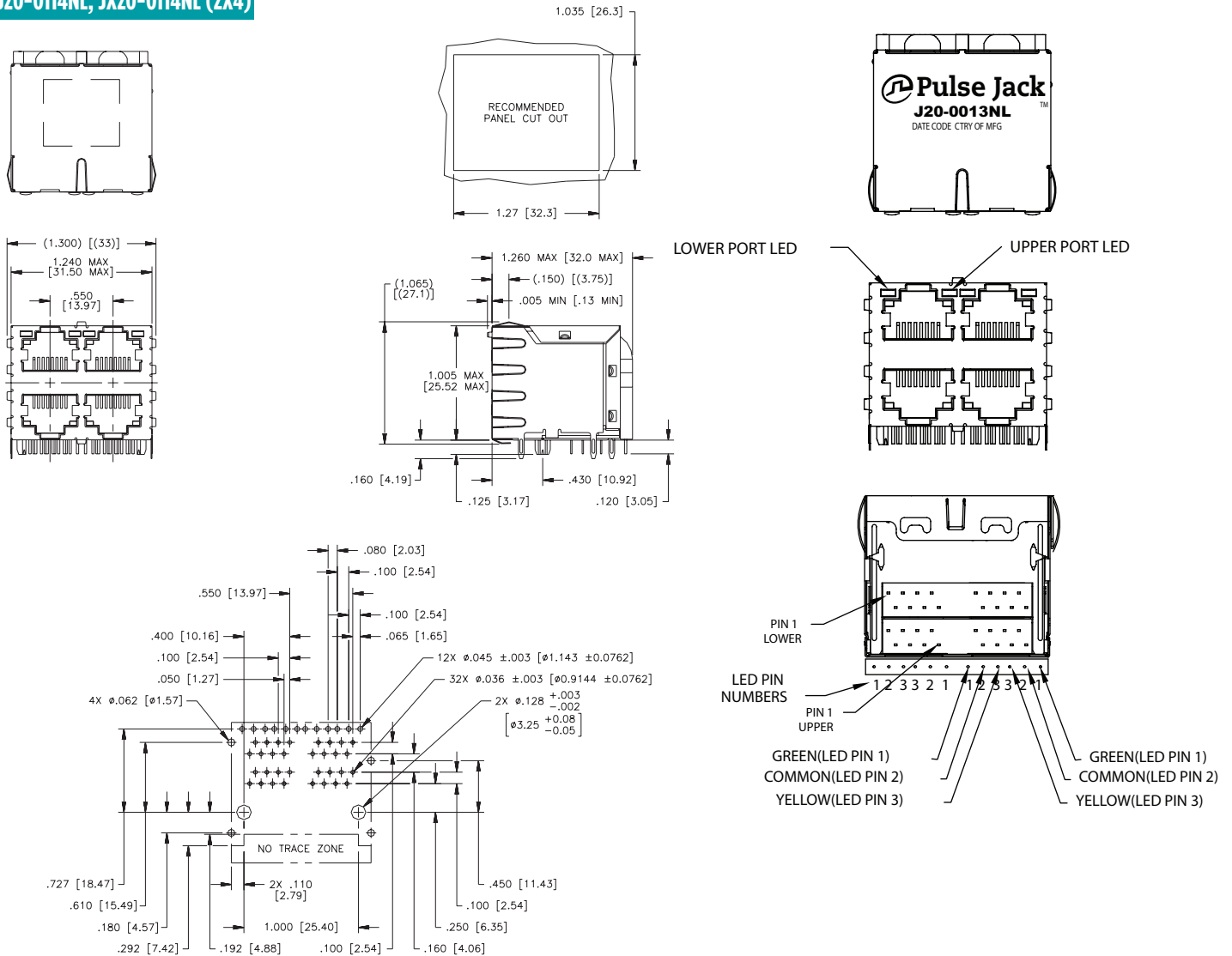
| RJ45 Material Specification | | | | | | | |
|-----------------------------|----------|-----------------------------------------------|-----------------|-----------------------------------------------------------|------------------|---------------|---------------|
| Part Number | Shield | | Contact | | | Housing | |
| | Material | Finish | Material | Plating Area | Solder Area | Material | Specification |
| J2 and JX2 Series | Brass | 10-20μ inches Nickel over 10-20μ inches Brass | Phosphor Bronze | Nickel underplating and selective gold plating 30μ inches | Tin matte finish | Thermoplastic | UL 94 V-0 |

Notes:

1. All connector part numbers starting with the series prefix J2 and JX2 comply to the above limits. 2. Connector dimensions comply with FCC dimension requirement.

J2 Series Mechanicals

J20-0114NL, JX20-0114NL (2X4)

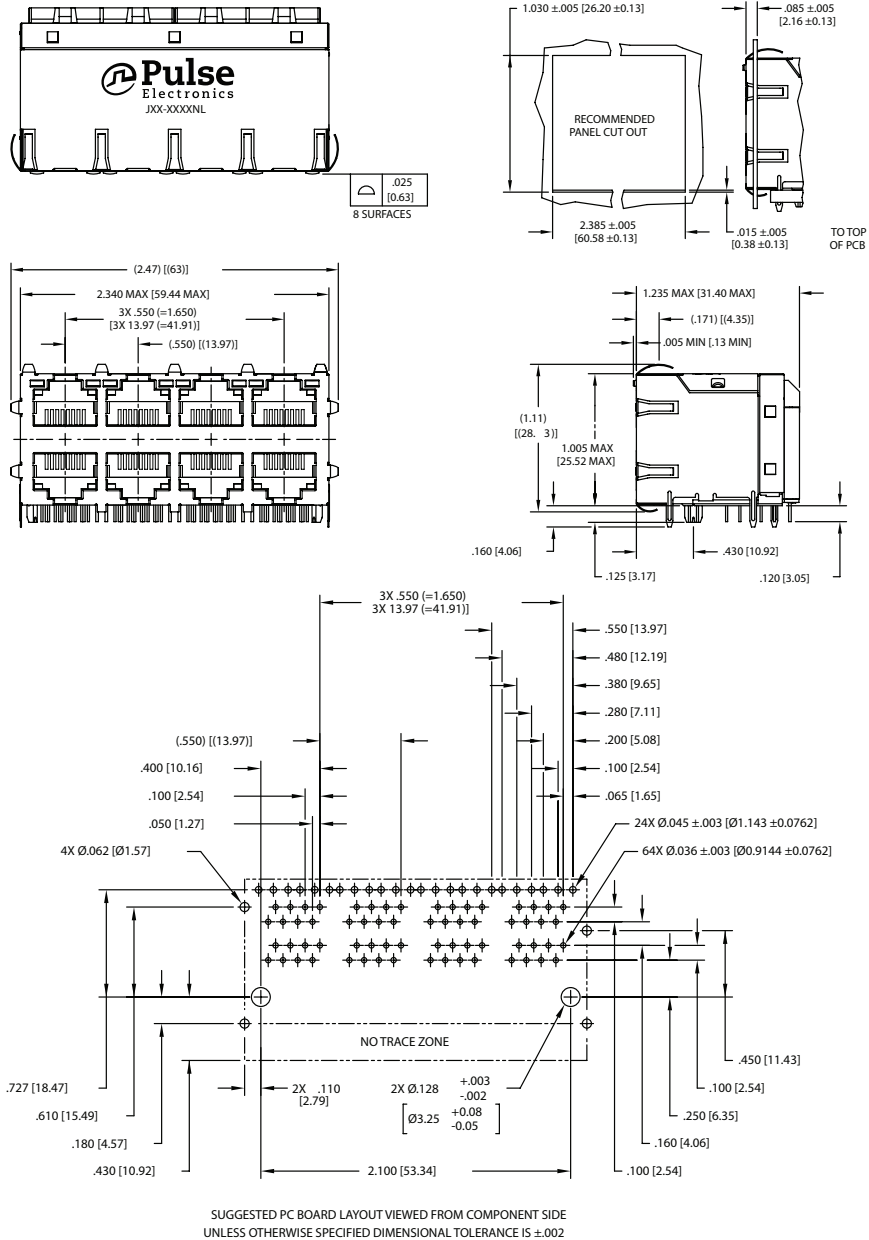


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS ±.002

Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are ± .010,
0,25

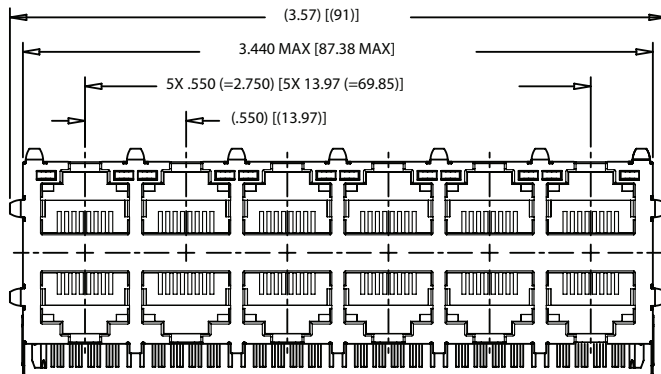
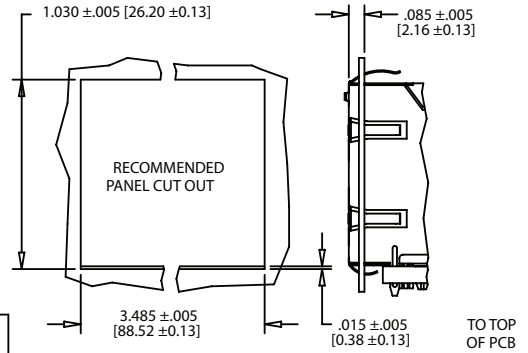
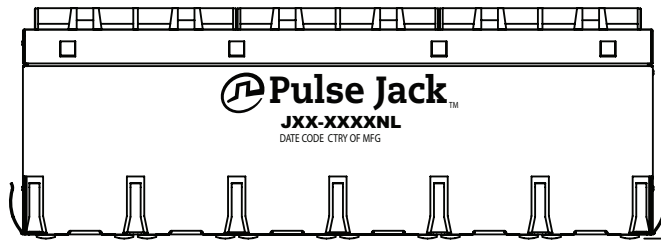
J2 Series Mechanicals

J20-0114NL, JX20-0114NL (2X4)

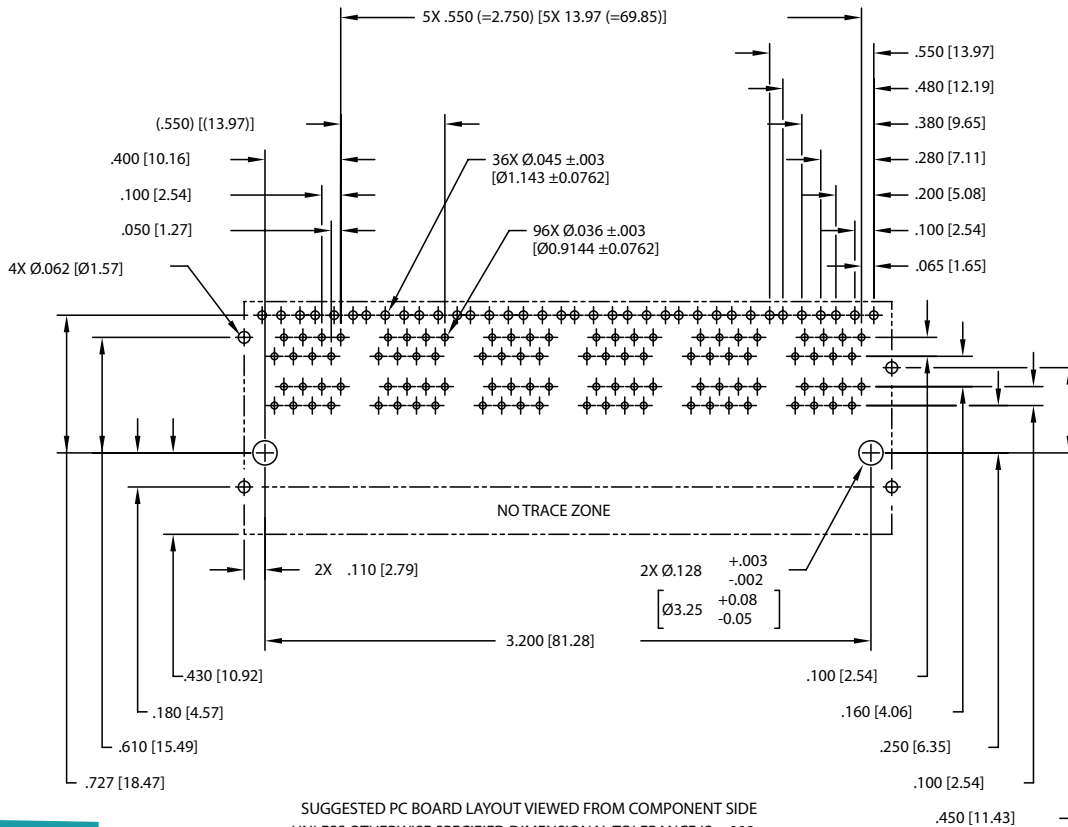
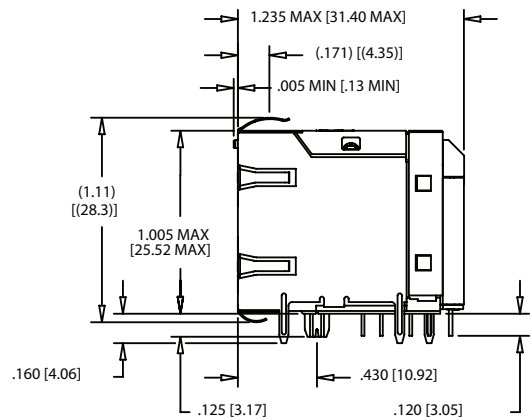


J2 Series Mechanicals

J20-0115NL, JX20-0115NL (2X6)



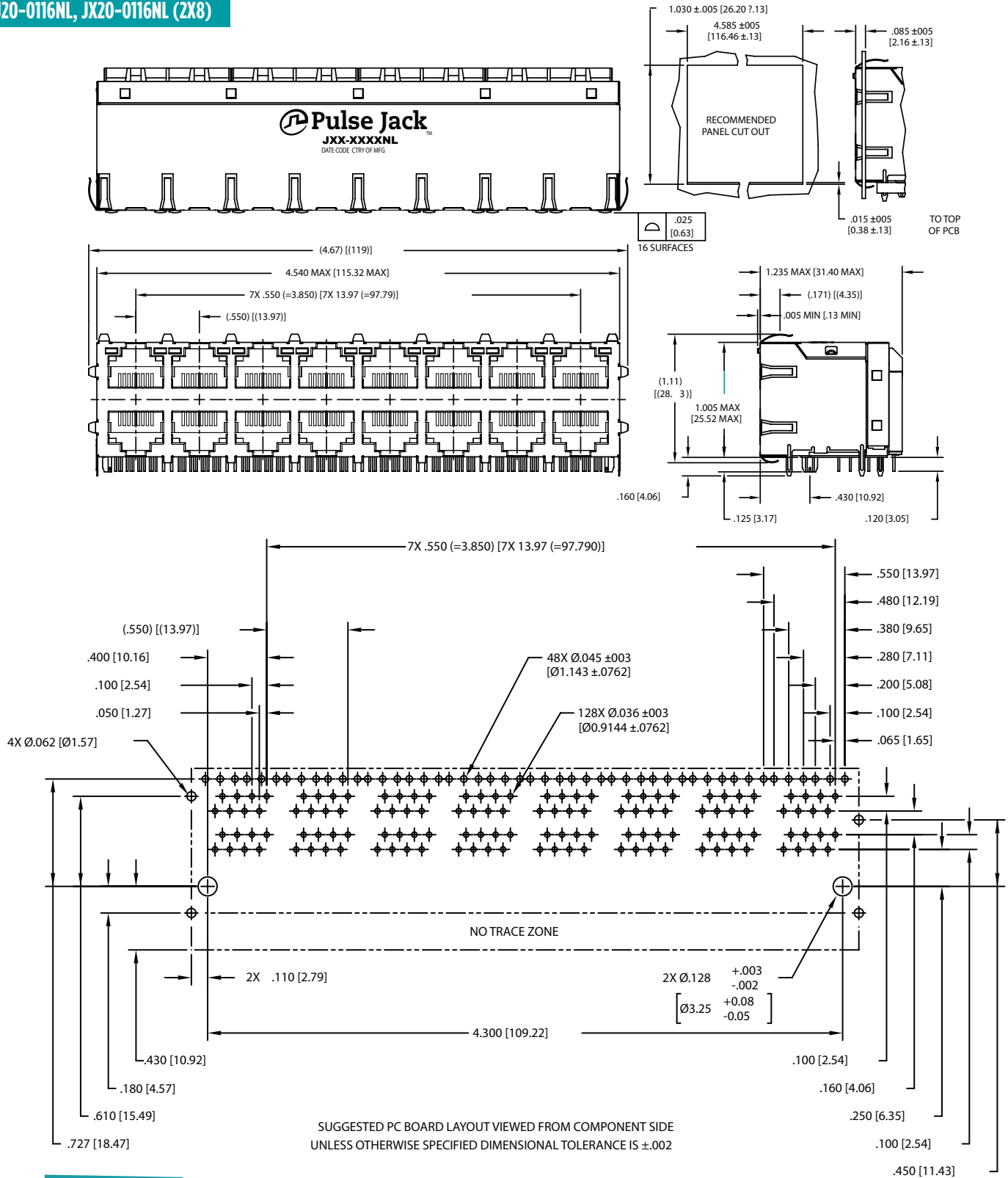
.025 [0.63]
12 SURFACES



SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS ±.002

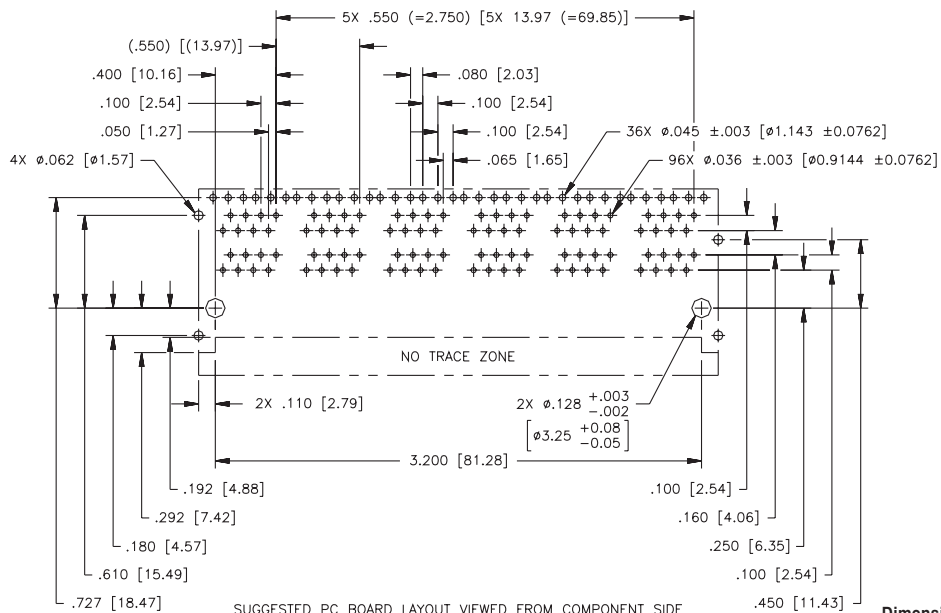
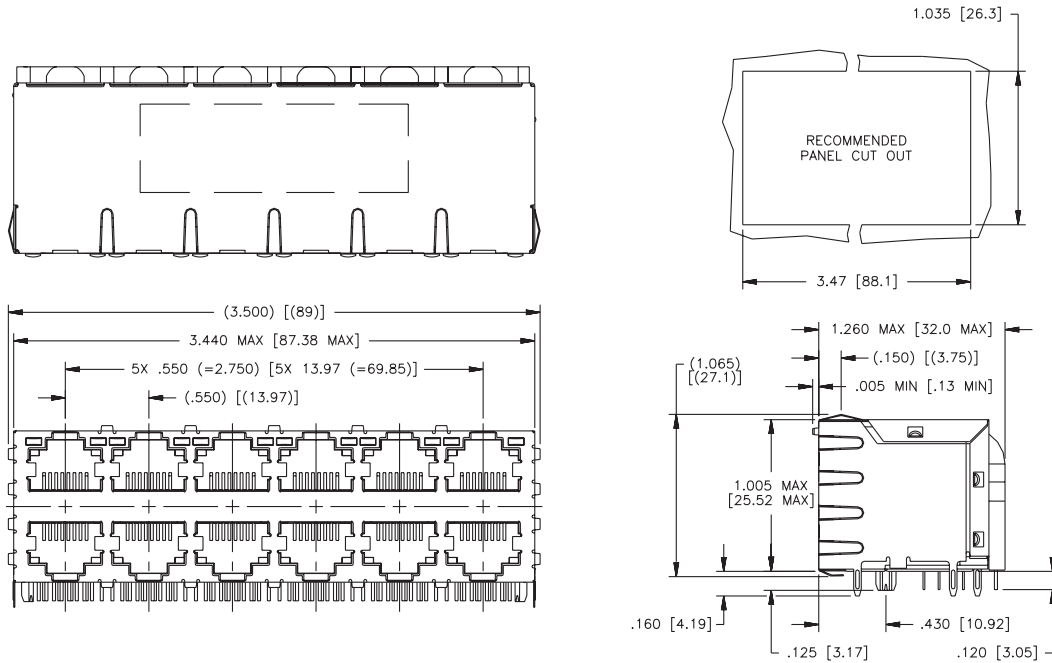
J2 Series Mechanicals

J20-0116NL, JX20-0116NL (2X8)



J2 Series (With LEDs) Mechanicals (not PoE Enabled)

2X6

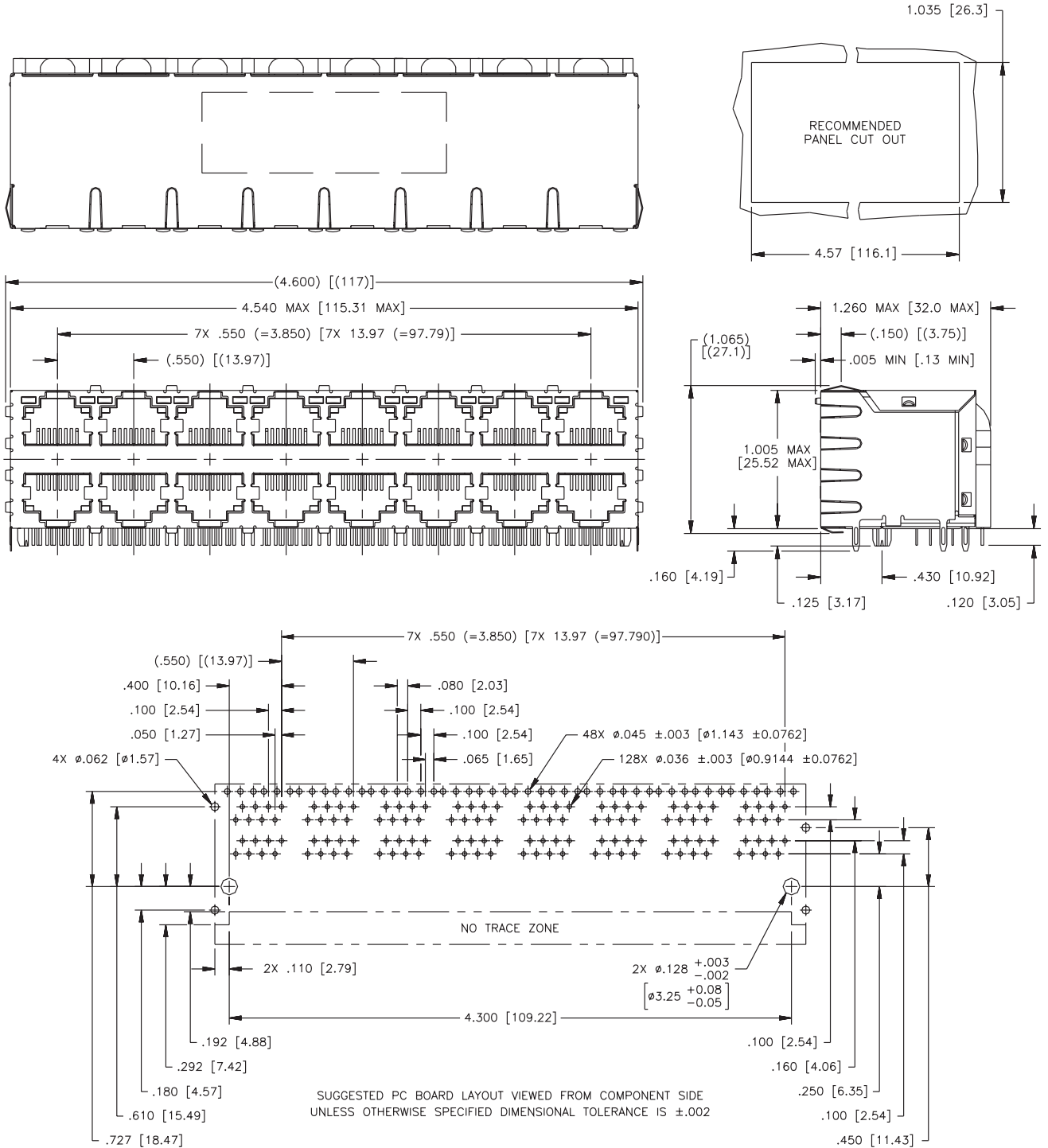


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS \pm .002

Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are \pm .010
0,25

J2 Series (With LEDs) Mechanicals (not PoE Enabled)

2X8

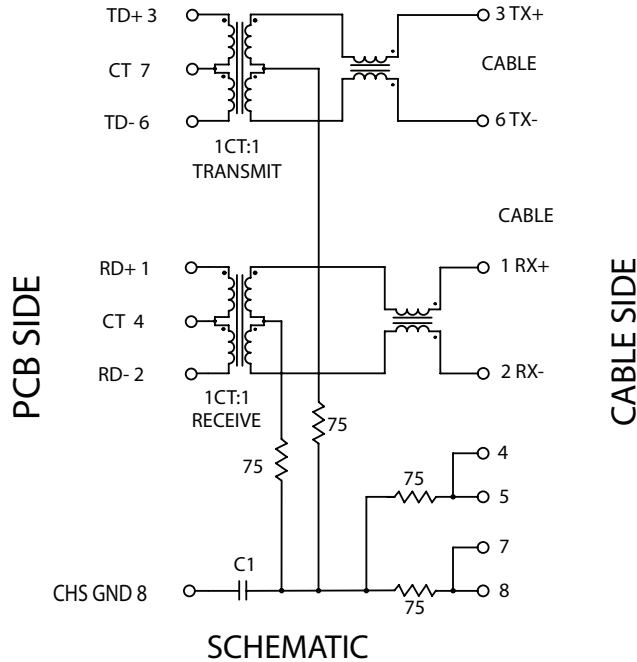


Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

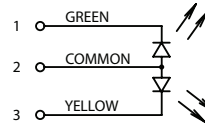
PulseJack™ 2xN RJ45 Connector

J2 Series Electrical Schematics

J20-XXXXNL and JX20-XXXXNL



LED Configuration



| LED ELECTRICAL SPECIFICATIONS | | |
|--------------------------------------------|----------------|------------------|
| EMMITTED COLOR | GREEN | YELLOW |
| WAVE LENGTH (If = 20 mA) | 570 nm | 590 nm |
| BRIGHTNESS - MIN TO MAX (mcd) If - (mA) | 5 TO 12 20 | 3.5 TO 8.5 20 |
| VIEWING ANGLE | 120° | 120° |
| POWER DISSIPATION (Pd) | 85 mW MAXIMUM | 85 mW MAXIMUM |
| FORWARD CURRENT (0.1 ms PULSE) | 160 mA MAXIMUM | 160 mA MAXIMUM |
| FORWARD VOLTAGE (Vf) (If = 20 mA) | 2.8 V MAXIMUM | 2.8 V MAXIMUM |

NOTE: PER VENDOR'S SPECIFICATION

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