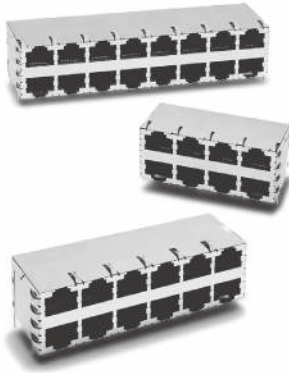


# PulseJack® 2xN RJ45 Connector

## 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
J2 and JX2 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions

# PulseJack® 2xN RJ45 Connector

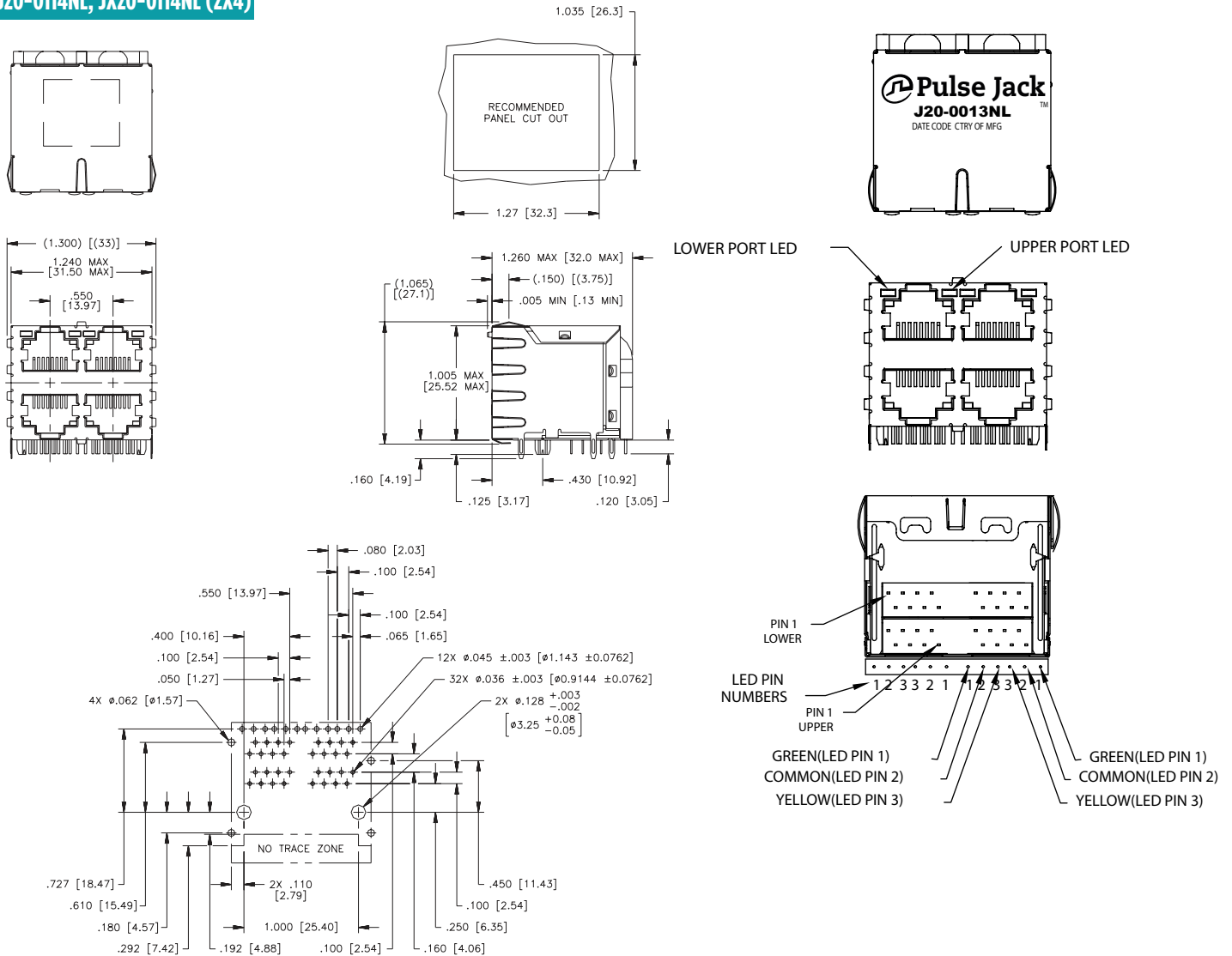
RJ45 Material Specification							
Part Number	Shield		Contact			Housing	
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification
J2 and JX2 Series	Brass	10-20µ inches Nickel over 10-20µ inches Brass	Phosphor Bronze	Nickel underplating and selective gold plating 30µ inches	Tin matte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



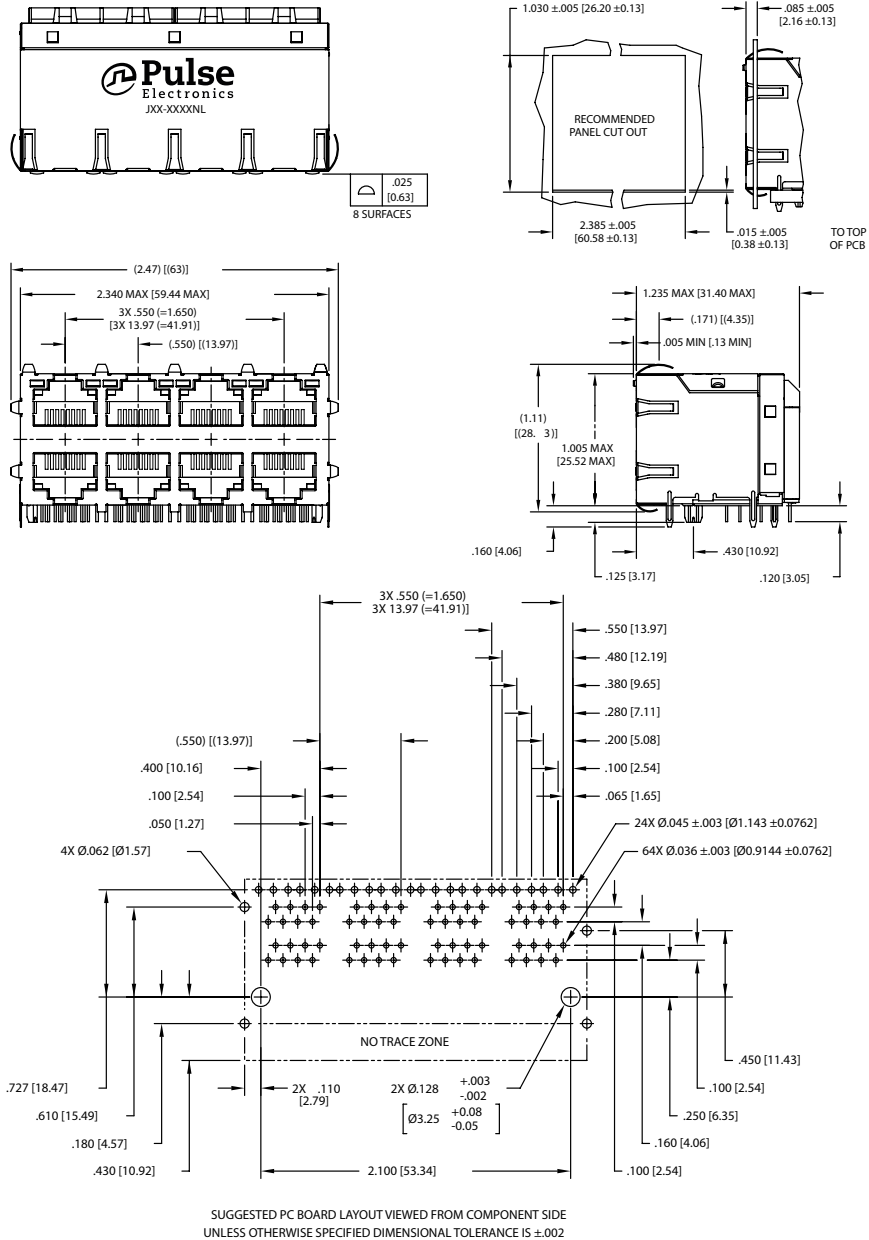
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS ±.002

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

# PulseJack® 2xN RJ45 Connector

## J2 Series Mechanicals

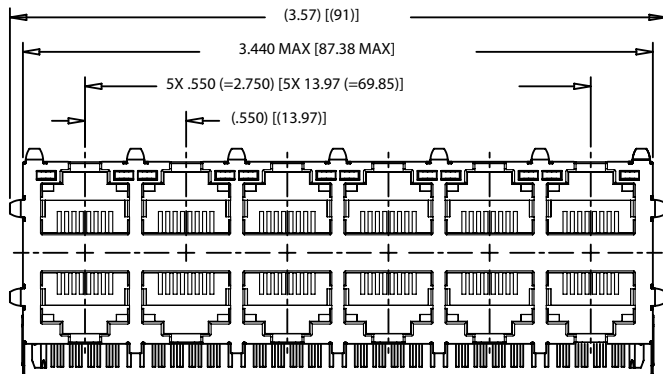
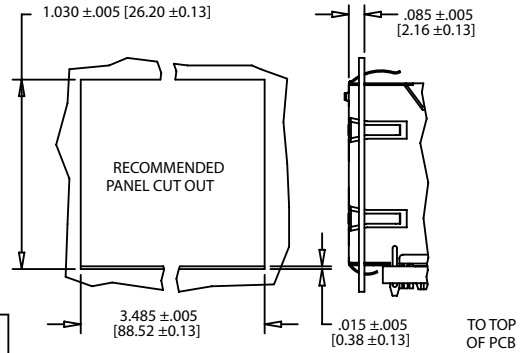
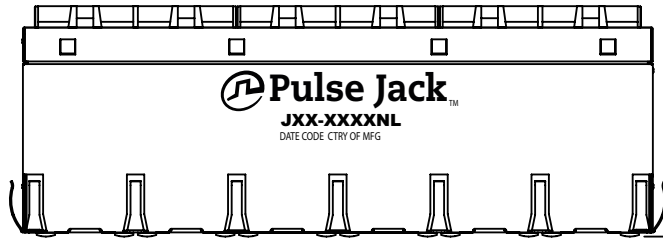
J20-0114NL, JX20-0114NL (2X4)



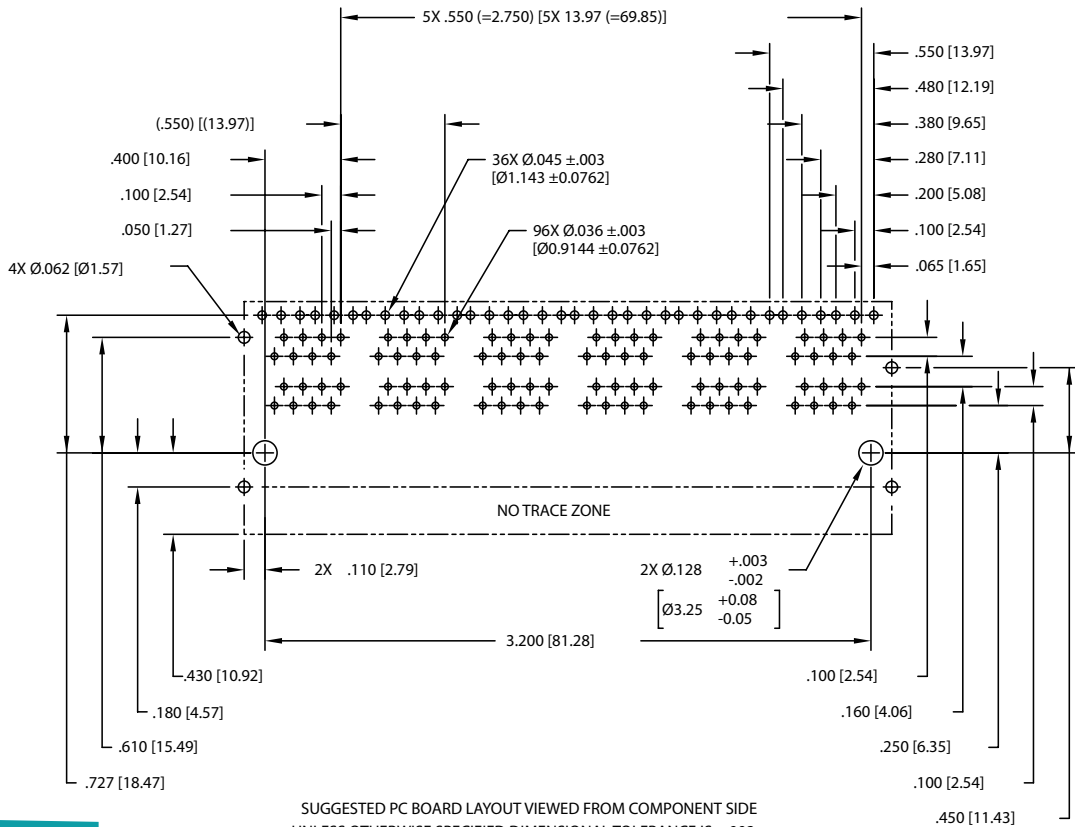
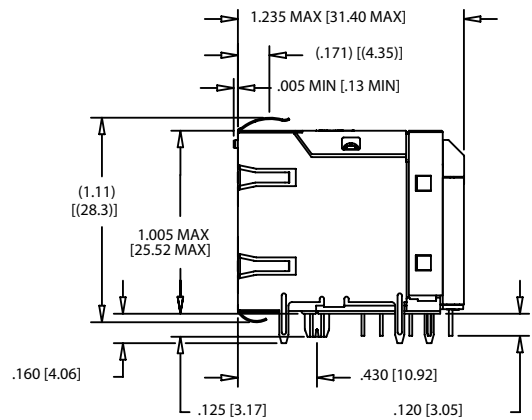
# PulseJack® 2xN RJ45 Connector

## J2 Series Mechanicals

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



.025 [0.63]  
12 SURFACES

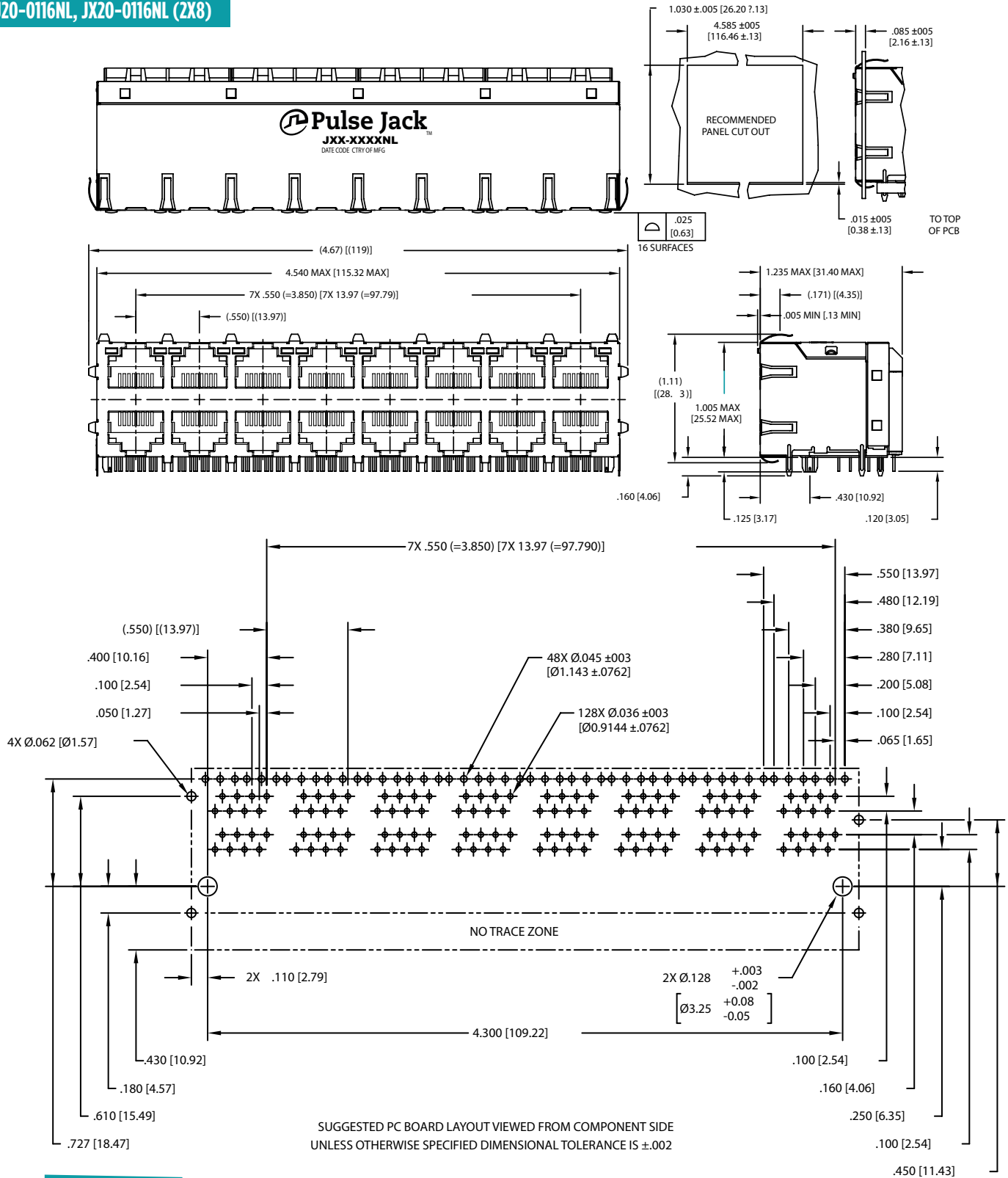


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS ±.002

# PulseJack® 2xN RJ45 Connector

## J2 Series Mechanicals

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

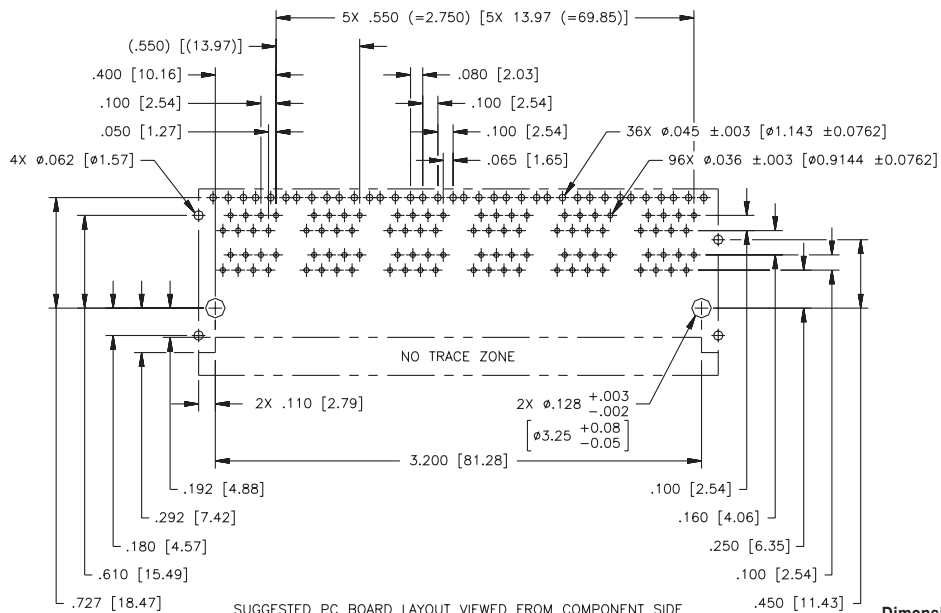
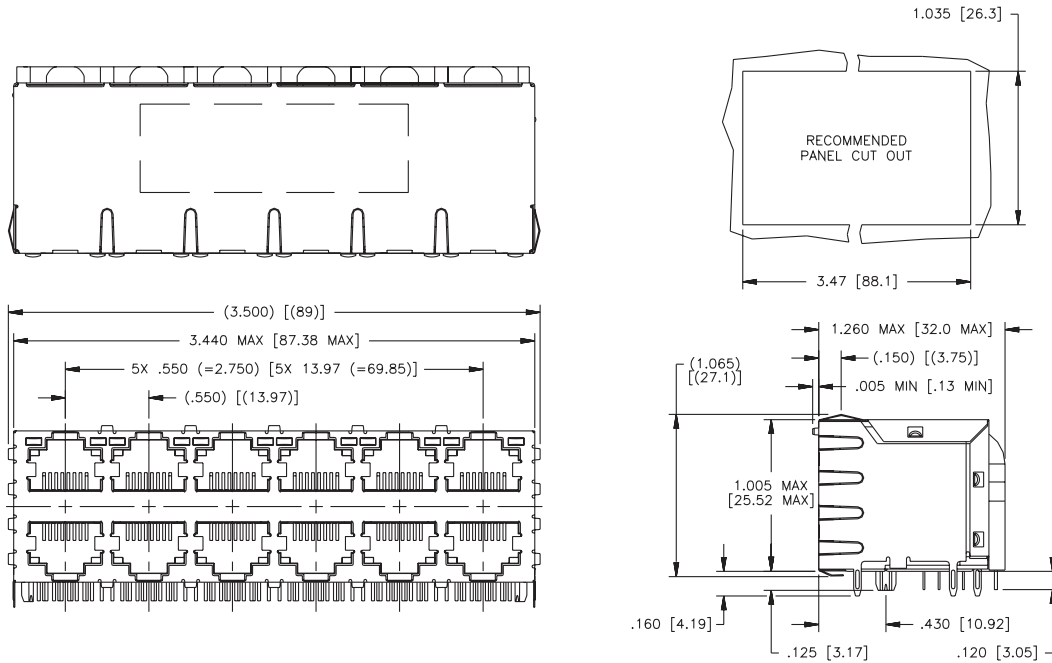


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS ±.002

# PulseJack® 2xN RJ45 Connector

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

2X6



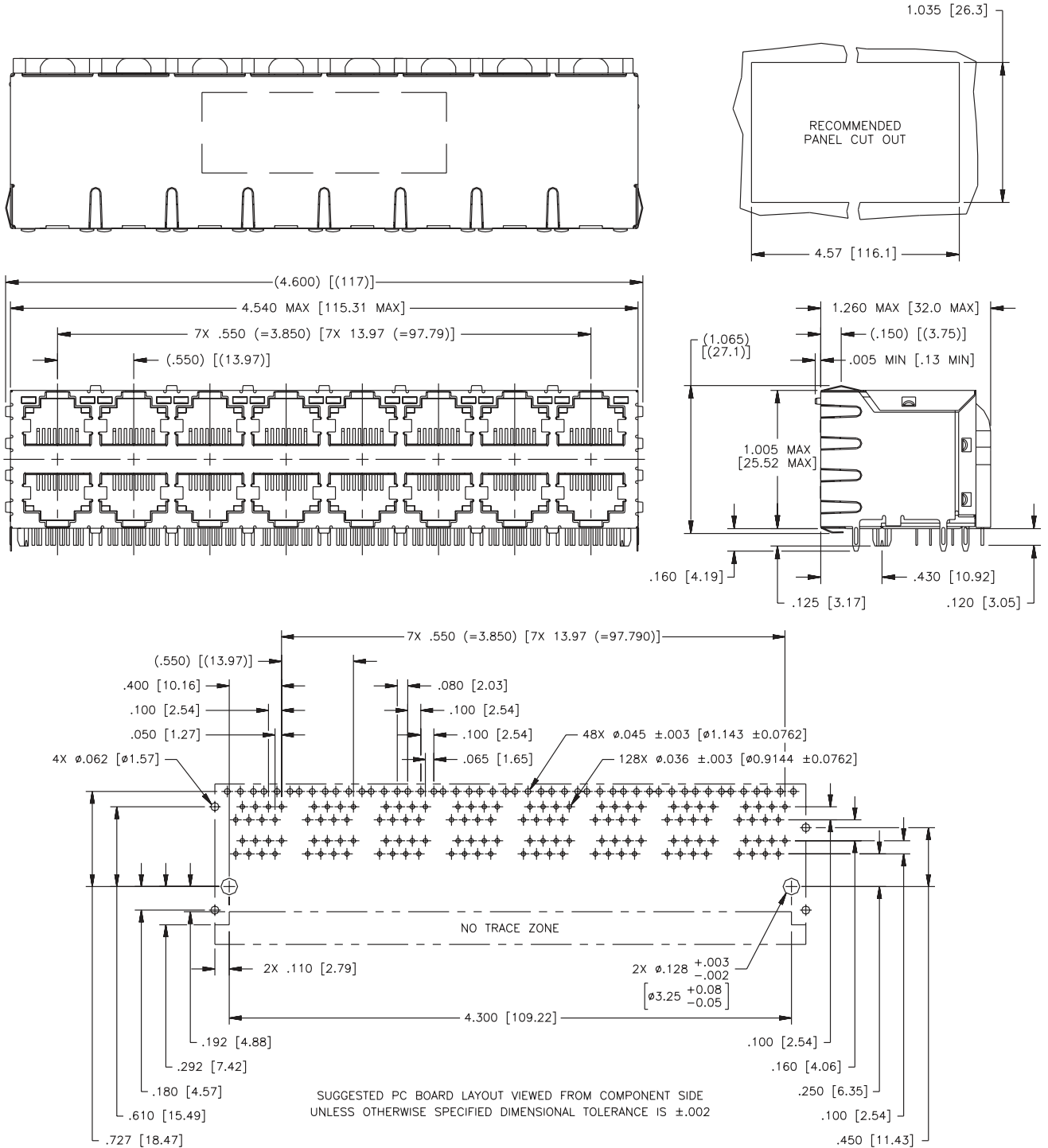
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE IS  $\pm 0.002$

Dimensions: Inches  
mm  
Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{.025}$

# PulseJack® 2xN RJ45 Connector

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

2X8

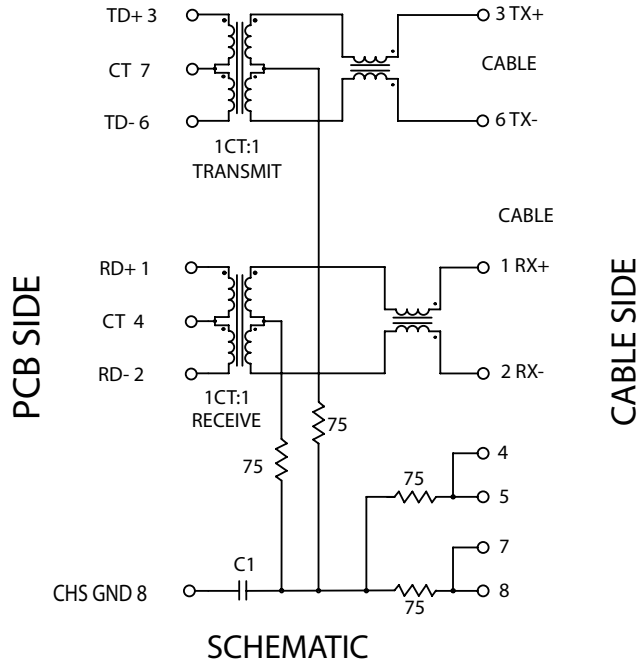


Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$

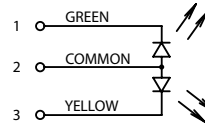
# PulseJack® 2xN RJ45 Connector

## 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

## For More Information:

Americas - [prodinfo@networkamericas@pulseelectronics.com](mailto:prodinfo@networkamericas@pulseelectronics.com) | Europe - [comms@pulseelectronics.com](mailto:comms@pulseelectronics.com) | Asia - [prodinfo@networkapac@pulseelectronics.com](mailto:prodinfo@networkapac@pulseelectronics.com)

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