

# PulseJack™

## 1XN, Tab-Up, PoE

### Description:

100 Base-TX (Fast Ethernet) RJ45 1xN Integrated Connector Module (ICM) with LEDs -  
Designed to support PoE applications



### Features and Benefits:

- RoHS peak wave solder temperature rating 260°C
- Unique design ensures a separation of >2.0mm between Power, Signal and Ground pins.
- Compact design includes integrated magnetics, bi-color LEDs
- 350μH minimum OCL with 8mA bias current
- Meets IEEE 802.3 specification

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

RoHS Compliant Part Number	Number of Ports	LEDs <sup>1</sup> L/R	Insertion Loss TX/RX (dB TYP)	Return Loss (dB TYP) 100Ω (± 15 Ω)				Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (Vrms MIN)
			1-100 MHz	1-10 MHz	30 MHz	60-80 MHz	1-10 MHz	30-60 MHz	60-100 MHz	1-125 MHz	125-500 MHz	@ 60Hz 1 MIN	
JG0-0031NL	1x2	Y-G/G	-0.15	-20	-16	-12	-40	-35	-30	-20	-20		1500
JG0-0032NL	1x4												

### Notes:

1. LEDs Left/Right: **Y-G** = Bi-color: yellow/green; **G** = green.

### RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JG0 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

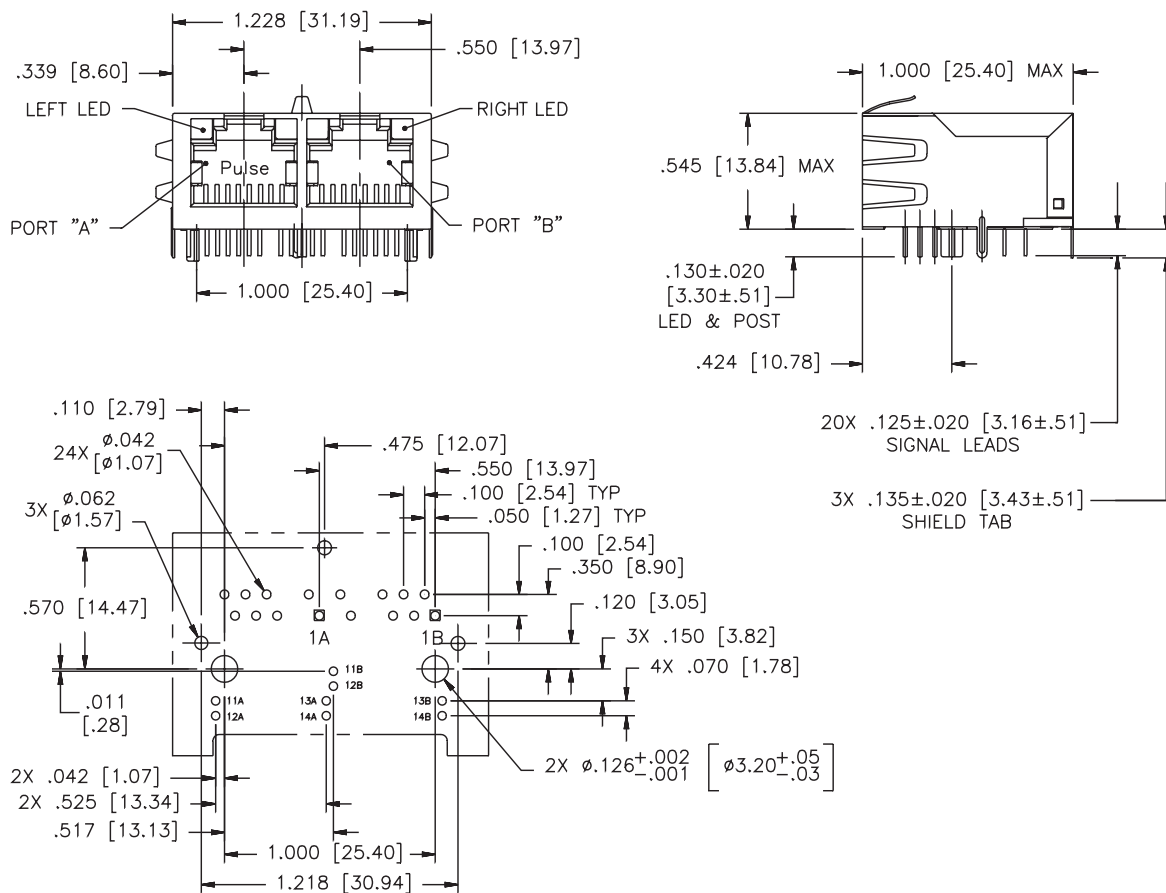
### RJ45 Material Specification

Part Number	Shield		Contact			Housing	
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification
JG0 Series	Brass	10-20μ inches thick nickel over 10-20μ inches thick brass	Phosphor Bronze	30μ inches gold over 30-80μ inches nickel	Tin matte finish	Thermoplastic	UL 94 V-0

**Notes:** 1. Connector dimensions comply with FCC dimension requirements.

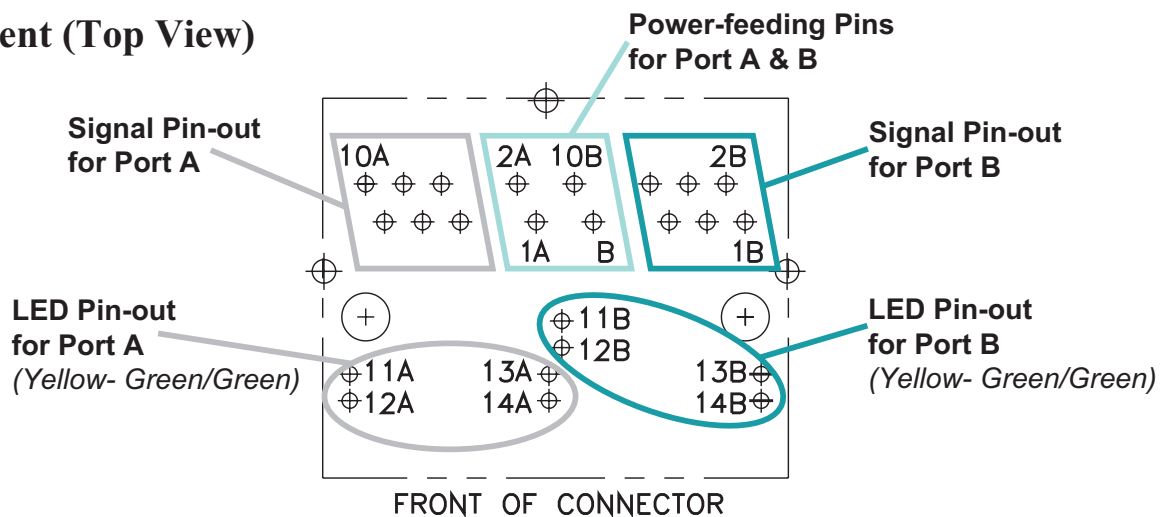
### Mechanicals

JG0-0031NL



SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
PCB LAYOUT DIMENSIONS TO BE ±.003 UNLESS OTHERWISE SPECIFIED

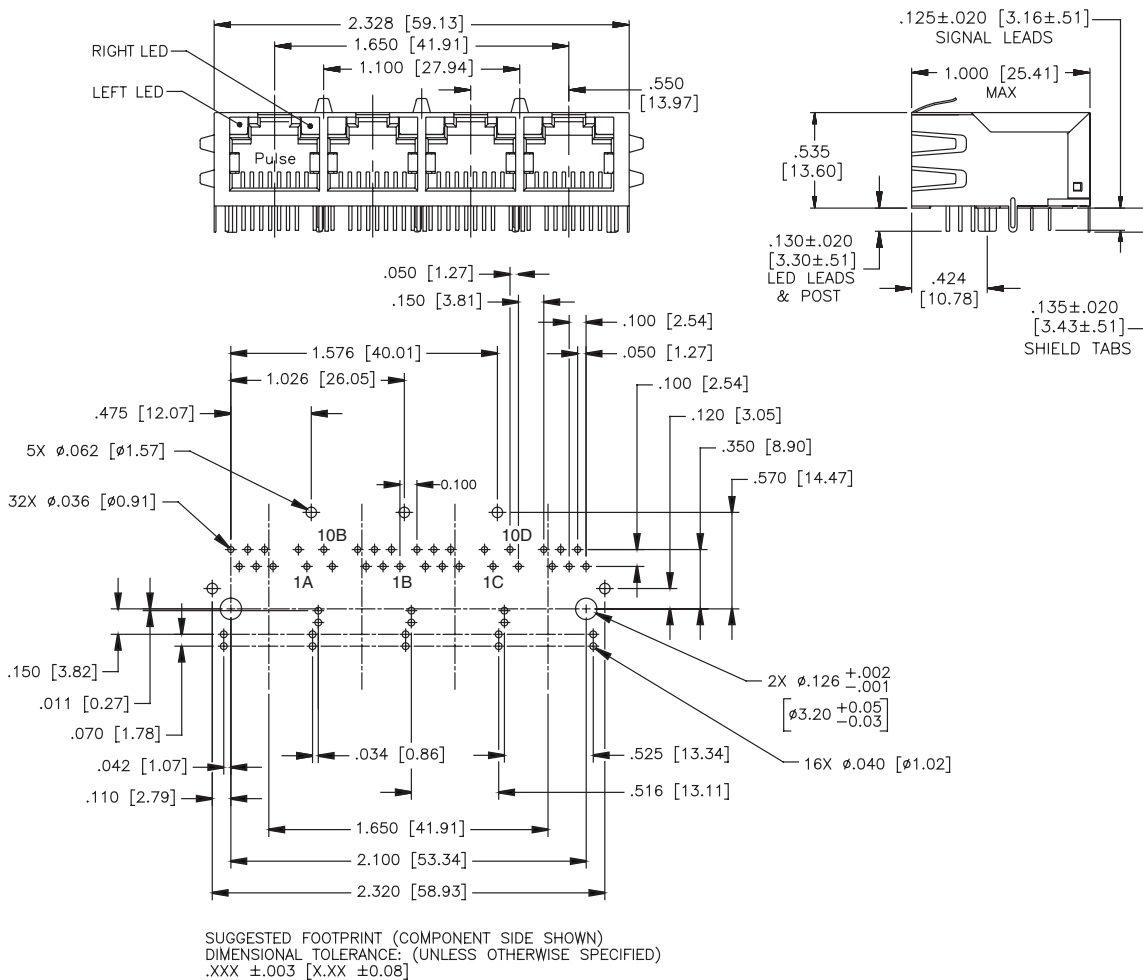
### Pin Assignment (Top View)



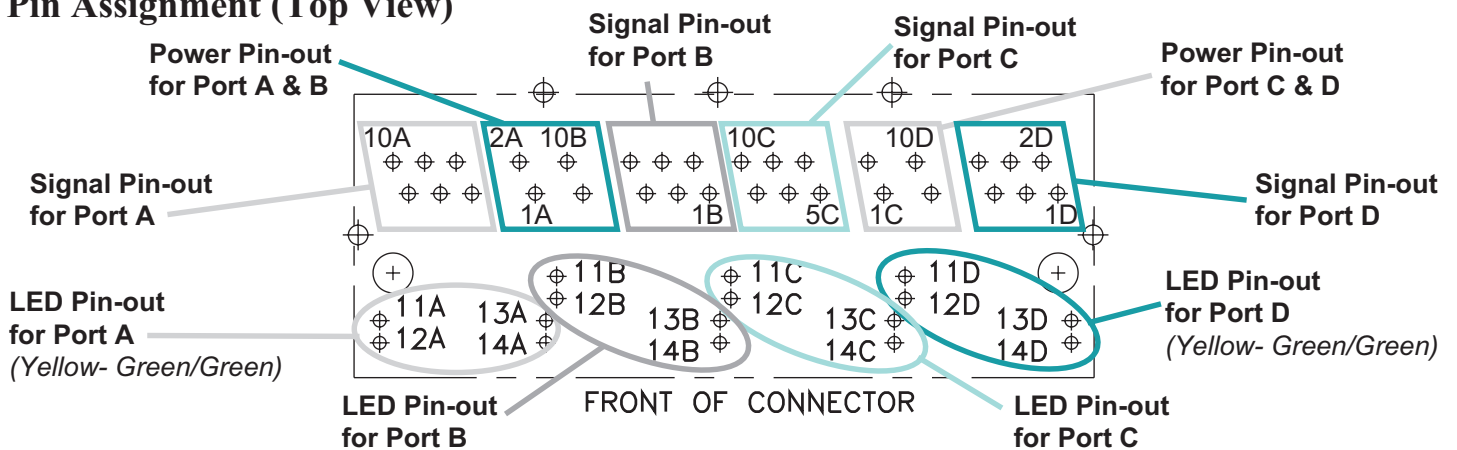
**NOTE:** Pins 3A, 4A, 7B and 8B are removed from component to simplify PCB layout and separation of Power, Signal and Ground planes.

## Mechanicals

**JG0-0032NL**



## Pin Assignment (Top View)



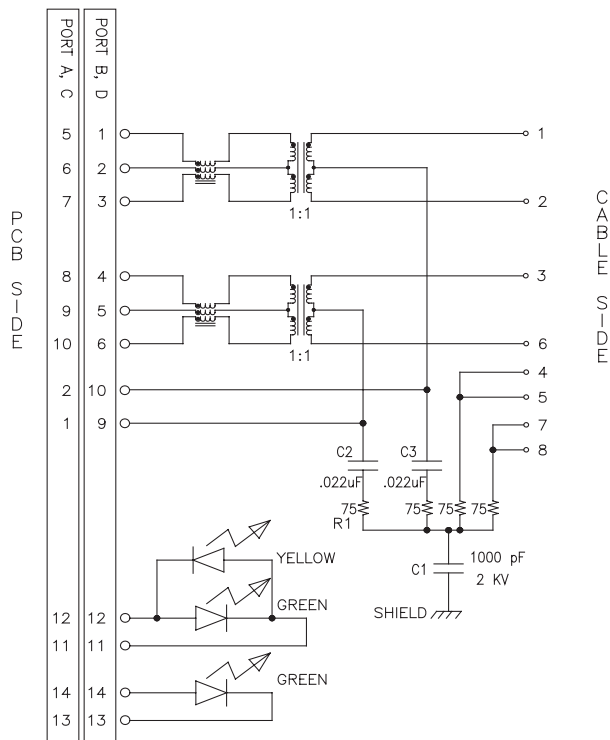
**NOTE:** Some pins are removed from component to simplify PCB layout and separation of Power, Signal and Ground planes.

# PulseJack™

## PowerJack G-UP 10

### Schematic

JG0-0031NL/0032NL



LED SPECS (Rating At 25°C Ambient):

COLOR		Peak wave length λPnm	Spectral halfwidth Δλnm	Forward Voltage @20mA(v)		Luminous intensity @10mA(mcd)		Forward Current (mA)	Power Dissipation (mW)
Emitted	Lens			Min.	Max.	Min.	Typ.		
Green/	White Diffused	565	30	1.7	2.8	3.0	7.0	30	100
Yellow		585	35	1.7	2.8	1.2	7.0	20	60
Green	Green Diffused	564~574	30	1.7	2.8	5	15	30	84

### For More Information:

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

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