

PULSEJACK™

PowerJack G-UP10



Description:

10/100 Base-TX RJ45 Multi-port with LEDs and integrated magnetics – Designed for most leading PHY manufacturers with the addition of Power Feeding over the signal pairs according to IEEE 802.3.AF



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

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

RoHS Compliant Part No.	Port Option	LEDs ¹ L/R	Insertion Loss TX/RX (dB TYP)	Return Loss (dB TYP) 100Ω (±15Ω)				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	1-50 MHz	50-130 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	5lbs./2.268kgs.	5lbs./2.268kgs.	500 Insertions	20lbs./9.072kgs.

RJ45 Material Specification

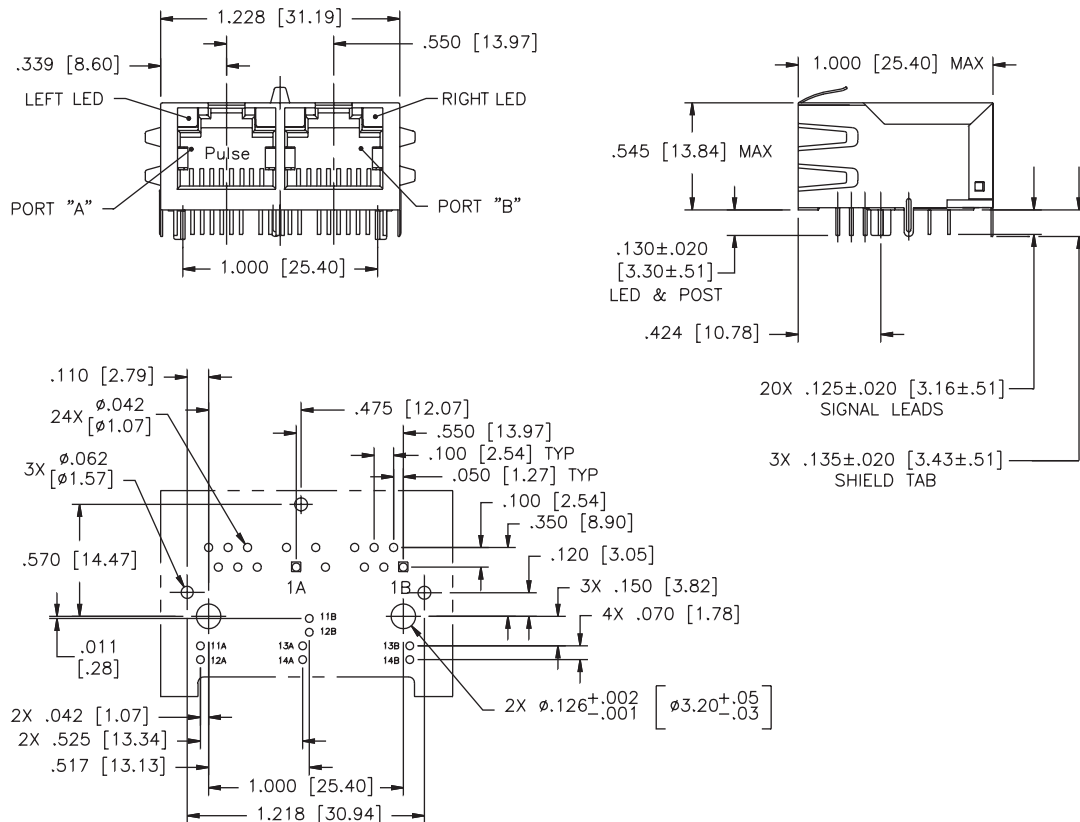
Part Number	Shield		Contact			Housing	
	Material	Finish	Material	Plating Area	Solder Area ²	Material	Specification
JG0 Series	Brass	10-20μ inches thick nickel over 10-20μ inches thick brass	Phosphor Bronze	30μ inches gold over 30-80μ inches nickel	Tin matte finish	Thermoplastic	UL 94 V-0

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

2. NL parts are tin matte finish over nickel.

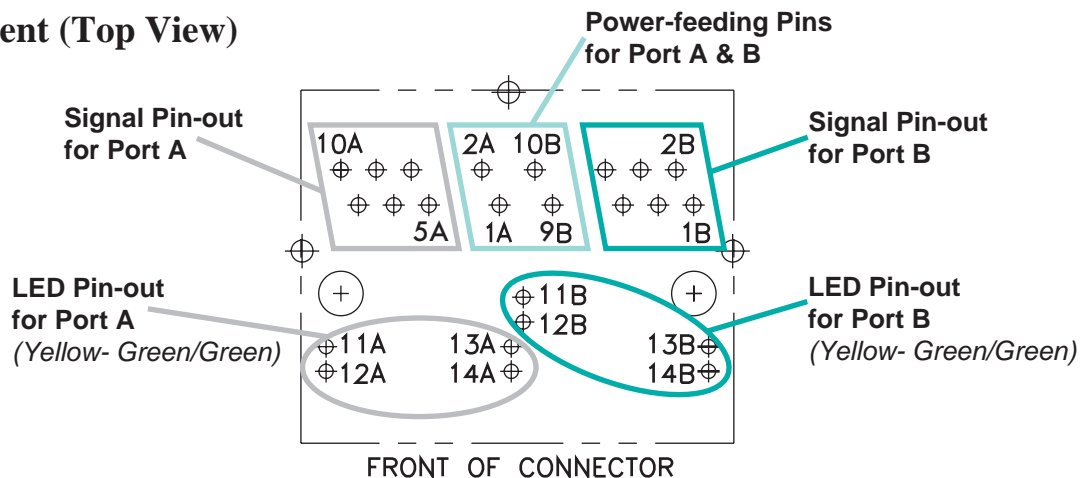
Mechanicals

JG0-0031 NL Dual Port PoE Solution



SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ± 0.003 UNLESS OTHERWISE SPECIFIED

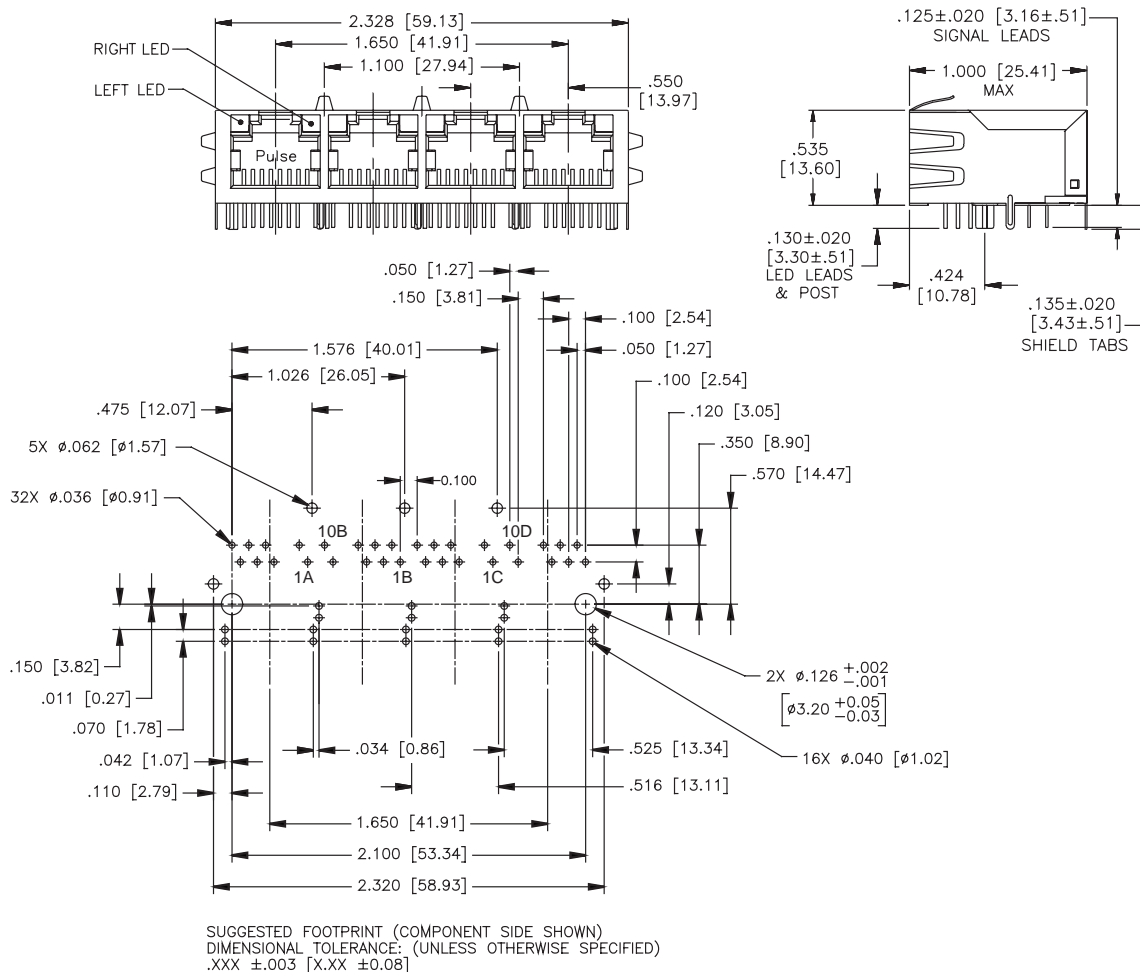
Pin Assignment (Top View)



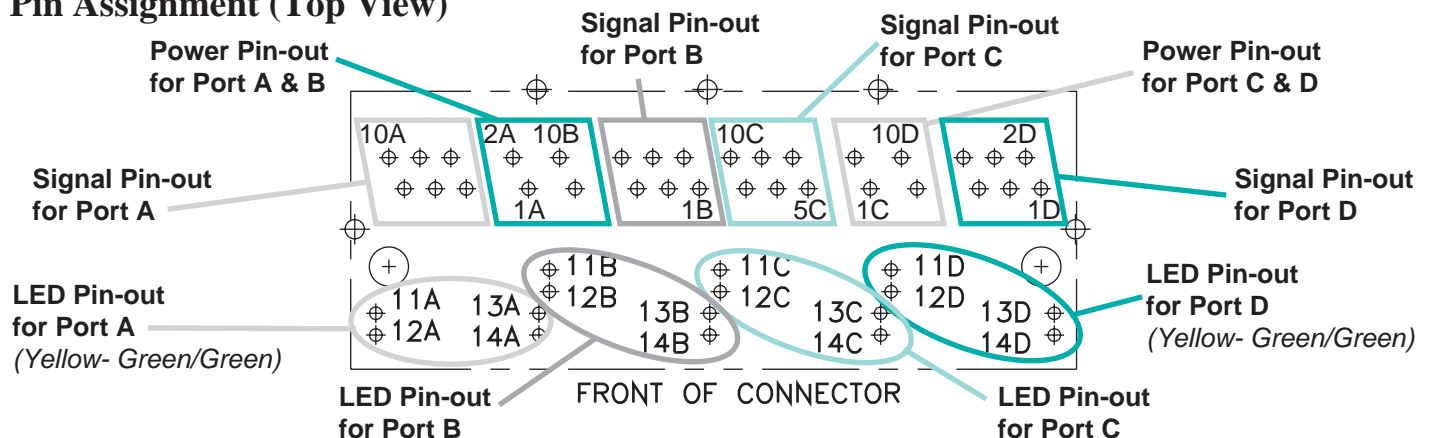
NOTE: Pins 3A, 4A, 7B and 8B are removed from component to simplify PCB layout and separation of Power, Signal and Ground planes.

Mechanicals

JG0-0032NL Quad Port PoE Solution



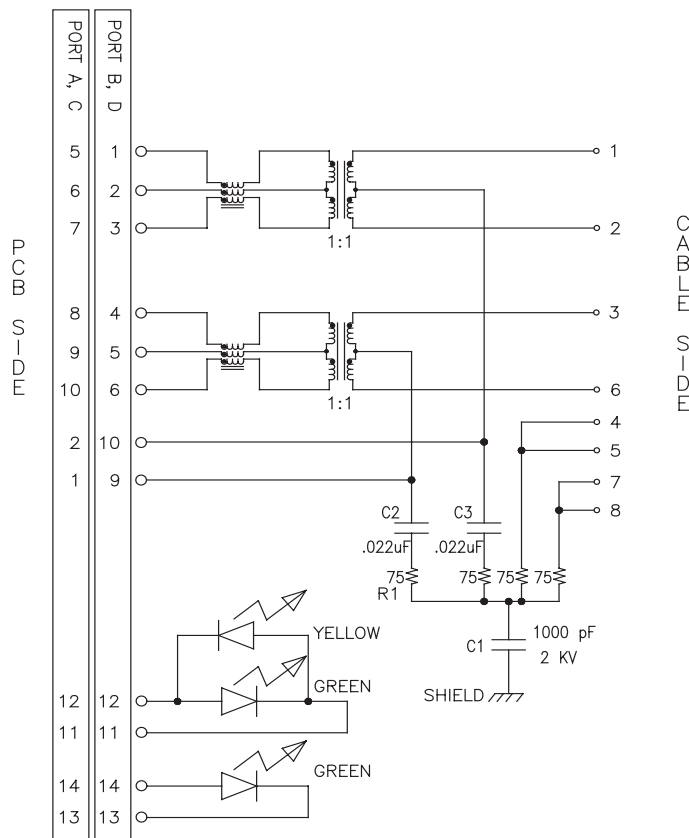
Pin Assignment (Top View)



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

Schematic

JG0-0031NL/0032NL



LED SPECS (Rating At 25°C Ambient):

COLOR		Peak wave length λ_{Pnm}	Spectral halfwidth $\Delta\lambda_{nm}$	Forward Voltage @20mA(V)		Luminous intensity @10mA(mcd)		Forward Current (mA)	Power Dissipation (mW)
				Min.	Max.	Min.	Typ.		
Green/ Yellow	White Diffused	565	30	1.7	2.8	3.0	7.0	30	100
		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

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