

# PULSEJACK™



## Low Profile 1x1 Tab-Up

### Description:




10/100/1000 Base-T RJ45 single port (1x1) Tab-UP integrated magnetics connector, designed to support applications, such as Network Interface Cards (NIC), LAN-on-Motherboard (LOM), and PC applications.



### Features and Benefits:

-  RoHS “NL” peak solder rating 260°C
-  Low height and small footprint to minimize board space

### Electrical Performance Summary:

-  Meets IEEE 802.3 specification
-  350µH minimum OCL with 8mA bias current
-  High performance for maximum EMI suppression

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

Part Number	Magnetics/Speed	Speed	Side EMI Tabs	Insertion Loss TX/RX (dB)	Return Loss (dB TYP) 100Ω (±15Ω)					Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)	Hipot (MIN)
					1-100 MHz	1-10 MHz	30 MHz	60-80 MHz	80-100 MHz	1-10 MHz	32-65 MHz	65-100 MHz		
J0G-0001NL	8 core / T/C	10/100/1000BT	Horizontal	-1.2	-18	-18	-12	-10	-40	-35	-30	-30	1500Vrms	
J0G-0002NL	8 core / T/C	10/100/1000BT	Vertical	-1.0	-18	-18	-12	-10	-40	-35	-30	-30	1500Vrms	
J0G-0003NL	8 core / T/C	10/100/1000BT	No Tabs	-1.0	-18	-18	-12	-10	-40	-35	-30	-30	1500Vrms	
J0G-0007NL	4 core / C/T	10/100BT	Horizontal	-1.0	-18	-18	-12	-10	-40	-35	-30	-30	1500Vrms	
J0G-0009NL	8 core / C/T	10/100/1000BT	Vertical	-1.0	-18	-18	-12	-10	-40	-35	-30	-30	1500Vrms	

Notes: 1. LEDs Left/Right: G = green; Y = yellow; Y-G = Bicolor.  
2. J0G-0003NL is supplied without EMI tabs; refer to mechanical drawing (page 5) for explanation of EMI tabs.

### RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
J0G Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

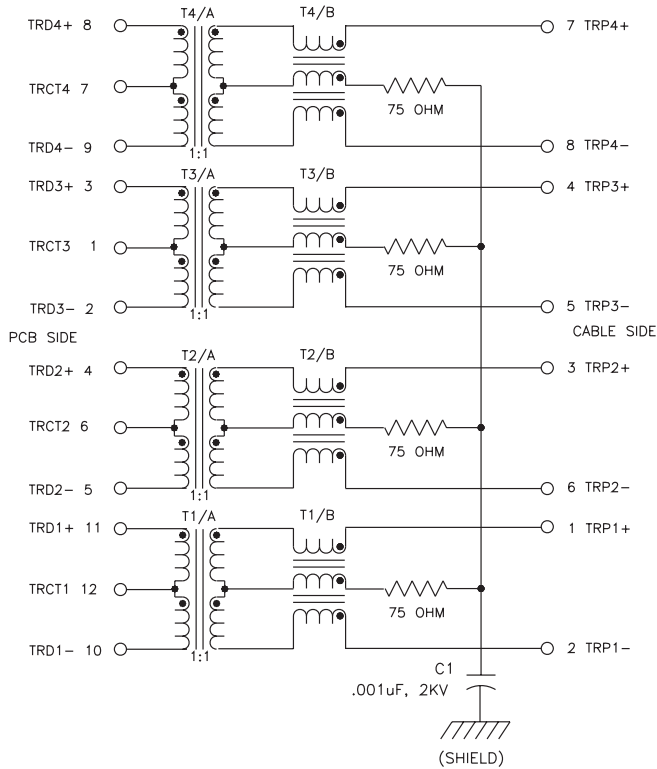
### RJ45 Material Specification

Part Number	Shield		Contact			Housing		MSL <sup>2</sup> Rating
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification	
J0G Series	Brass	20-40µ inches thick nickel over brass	Phosphor Bronze	15µ inches gold over 30-80µ inches nickel	All NL parts are tin matte finish over nickel	Thermoplastic	UL 94 V-0	1

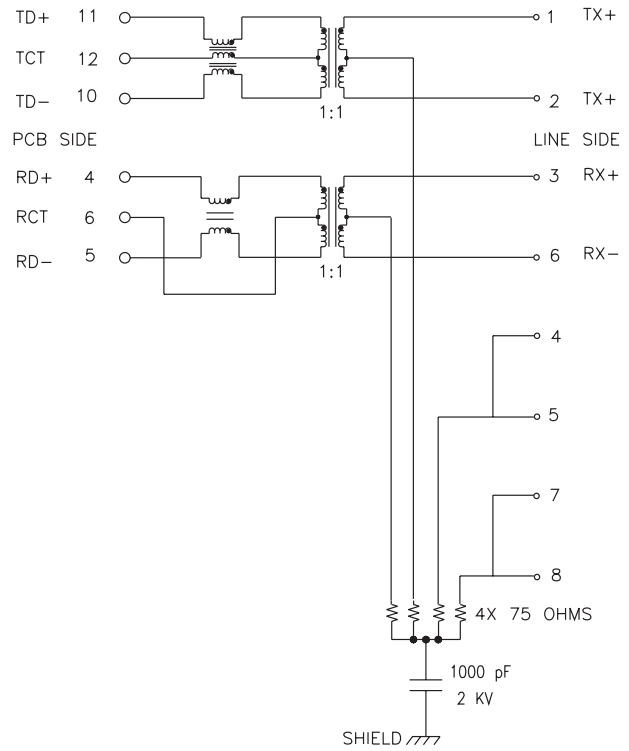
Notes: 1. Connector dimensions comply with FCC dimension requirements.  
2. MSL - Moisture Sensitivity Level class limits = 1 to 5 (Highest: 1; Lowest: 5).

### Schematics

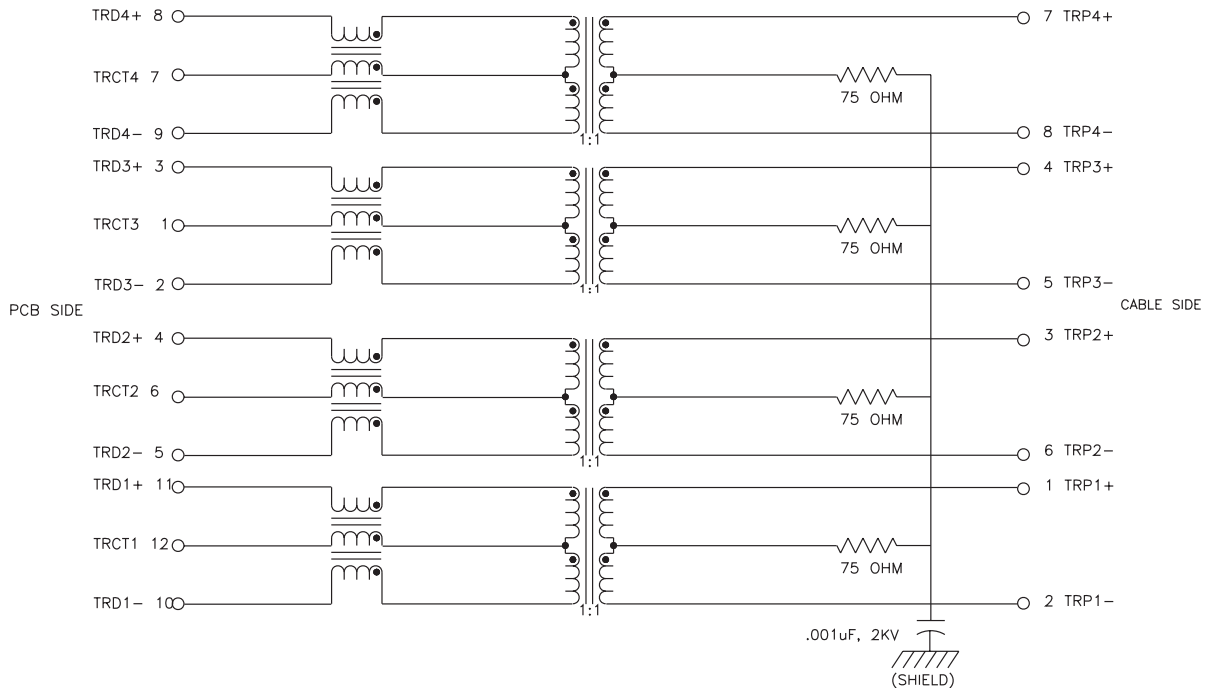
#### J0G-0001NL / J0G-0002NL / J0G-0003NL



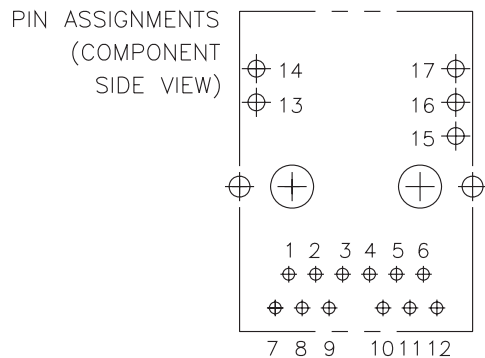
#### J0G-0007NL



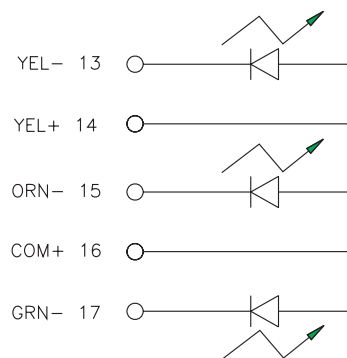
#### J0G-0009NL



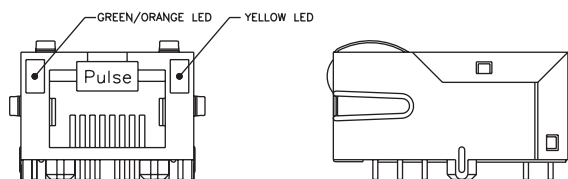
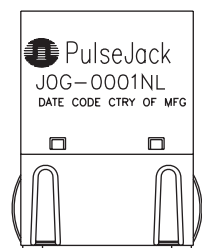
### Pin Assignments



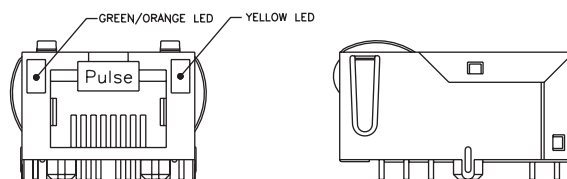
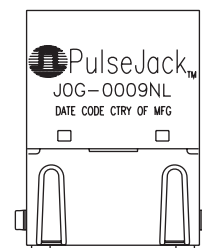
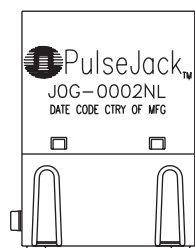
### LED Configuration



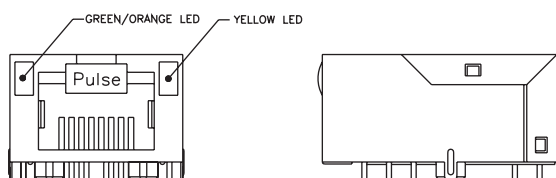
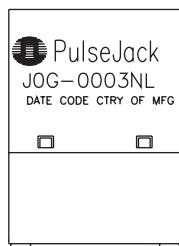
#### JOG-0001NL



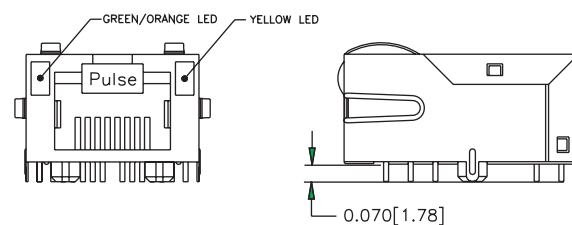
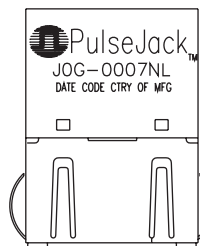
#### JOG-0002NL / JOG-0009NL



#### JOG-0003NL

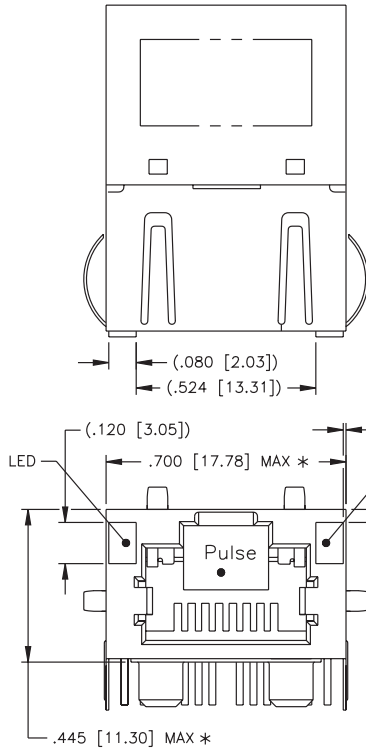


#### JOG-0007NL



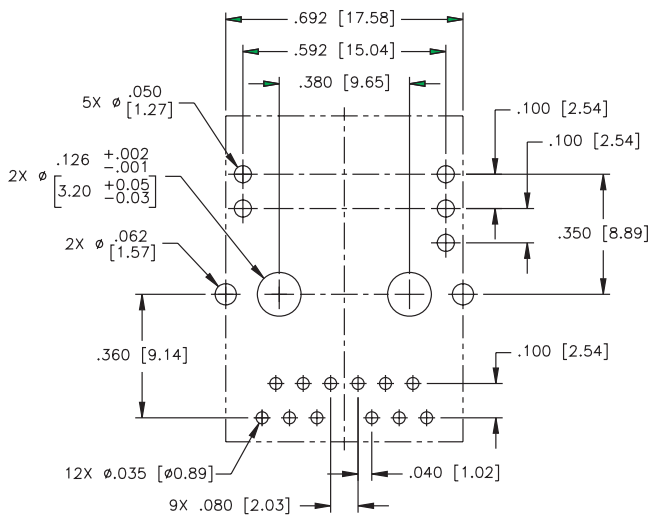
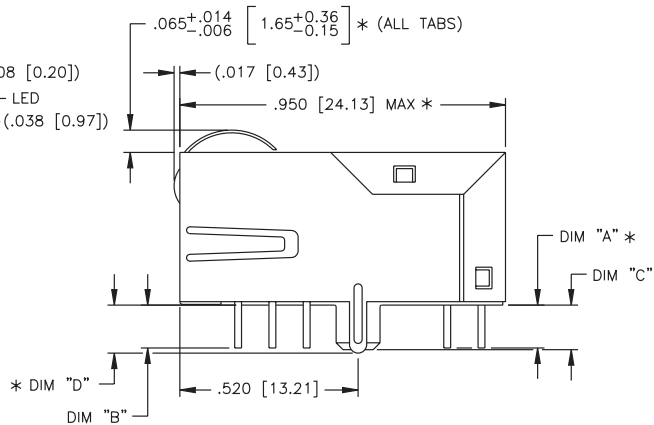
### Mechanicals

J0G-0001NL / 0002NL / 0003NL / 0007NL / 0009NL

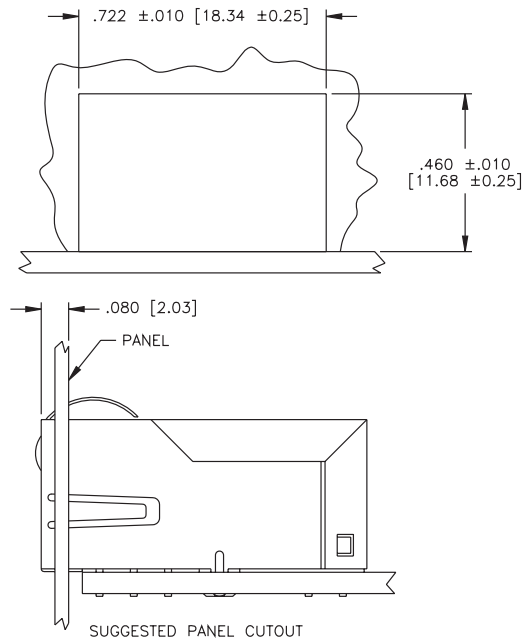


### Measurements (in./mm)

Part No.	Dim "A" (Signal Pins)	Dim "B" (LED Pins)	Dim "C" (Post)	Dim "D" (Shield Tab)	EMI Tab Config.
J0G-0001NL	.125/3,18	.125/3,18	.130/3,30	.140/3,56	Fig.1
J0G-0002NL/0009NL	.070/1,78	.070/1,78	.070/1,78	.070/1,78	Fig.2
J0G-0003NL	.125/3,18	.125/3,18	.130/3,30	.140/3,56	Fig.3
J0G-0007NL	.070/1,78	.070/1,78	.070/1,78	.070/1,78	Fig.1



SUGGESTED FOOTPRINT (COMPONENT SIDE SHOWN)  
 DIMENSIONAL TOLERANCE: (UNLESS OTHERWISE SPECIFIED)  
 .XXX ±.003 [X.XX ±0.08]



### EMI Tabs Configuration

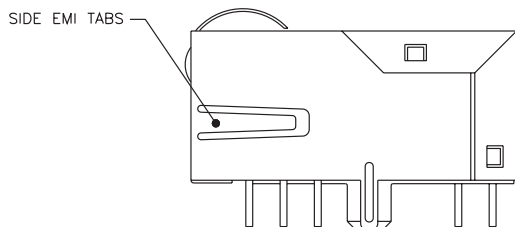


FIGURE 1 (HORIZONTAL SIDE EMI TABS)

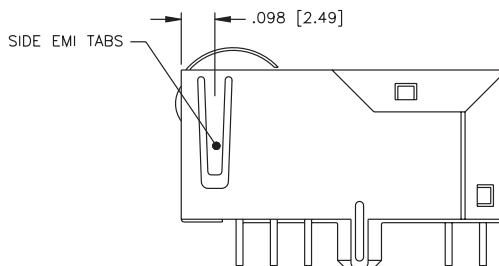


FIGURE 2 (VERTICAL SIDE EMI TABS)

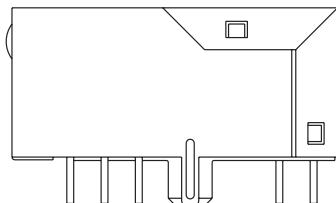


FIGURE 3 (NO EMI TABS)

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