

# PulseJack™

## Low Profile 1x1 Tab-Up



### Description:

100/1000Base-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:

- Compliant with IEEE 802.3 standard
- 350μH minimum OCL with 8mA bias current
- High performance for maximum EMI suppression
- Low height and small footprint to minimize board space
- RoHS peak wave solder temperature rating 260°C

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

| Part Number | Speed      | Side EMI Tabs | Insertion Loss<br>TX/RX<br>(dB) | Return Loss<br>(dB TYP)<br>100Ω (±15Ω) |        |           |            | Crosstalk<br>(dB TYP) |           |            | Common Mode Rejection<br>(dB TYP) | Hipot<br>(MIN) |
|-------------|------------|---------------|---------------------------------|----------------------------------------|--------|-----------|------------|-----------------------|-----------|------------|-----------------------------------|----------------|
|             |            |               | 1-100 MHz                       | 1-10 MHz                               | 30 MHz | 60-80 MHz | 80-100 MHz | 1-10 MHz              | 32-65 MHz | 65-100 MHz | 1-125 MHz                         | @ 60Hz 1 MIN   |
| JOG-0001NL  | 1000Base-T | Horizontal    | -1.2                            | -18                                    | -18    | -12       | -10        | -40                   | -35       | -30        | -30                               | 1500Vrms       |
| JOG-0003NL  | 1000Base-T | No Tabs       | -1.0                            | -18                                    | -18    | -12       | -10        | -40                   | -35       | -30        | -30                               | 1500Vrms       |
| JOG-0007NL  | 100Base-TX | Horizontal    | -1.0                            | -18                                    | -18    | -12       | -10        | -40                   | -35       | -30        | -30                               | 1500Vrms       |
| JOG-0009NL  | 1000Base-T | Vertical      | -1.0                            | -18                                    | -18    | -12       | -10        | -40                   | -35       | -30        | -30                               | 1500Vrms       |

### Notes:

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

### RJ45 Durability Test Rating

| Part Number | Mating Force (MAX) | Unmating Force (MAX) | Durability     | Plug to Jack Retention (MIN) |
|-------------|--------------------|----------------------|----------------|------------------------------|
| JOG 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 |                         |
| JOG Series  | Brass    | 20-40μ inches thick nickel over brass | Phosphor Bronze | 15μ inches gold over 30-80μ inches nickel | Tin matte finish over nickel | Thermoplastic | UL 94 V-0     | 1                       |

### Notes:

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

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

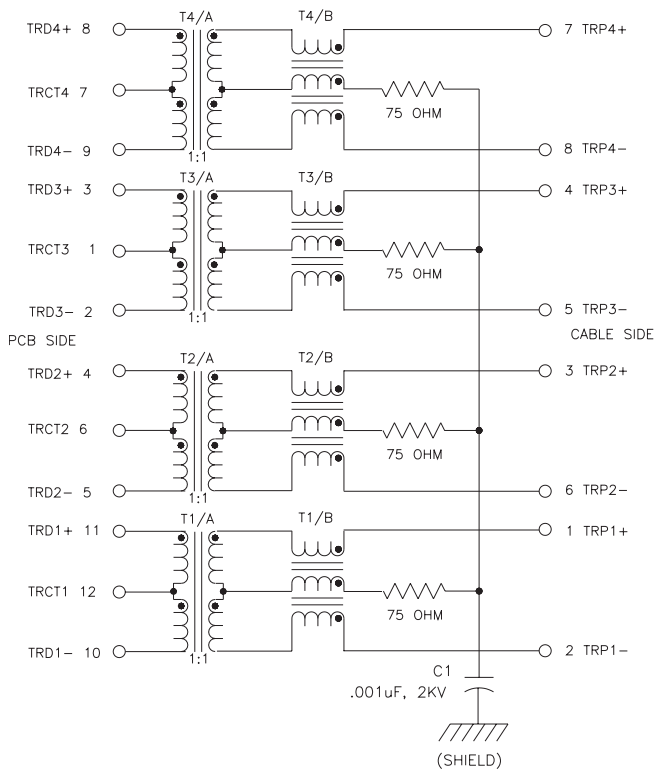
Shanghai 86 21 62787060

China 86 755 33966678

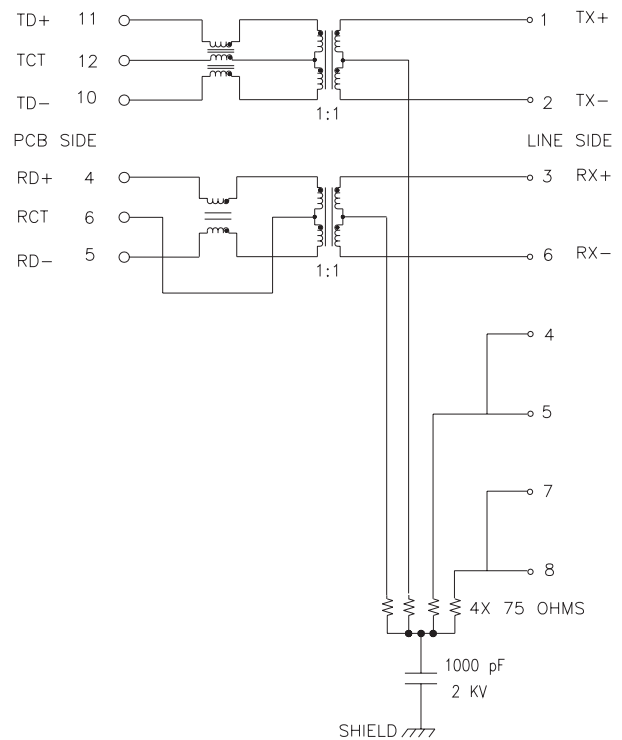
Taiwan 886 3 4356768

## Schematics

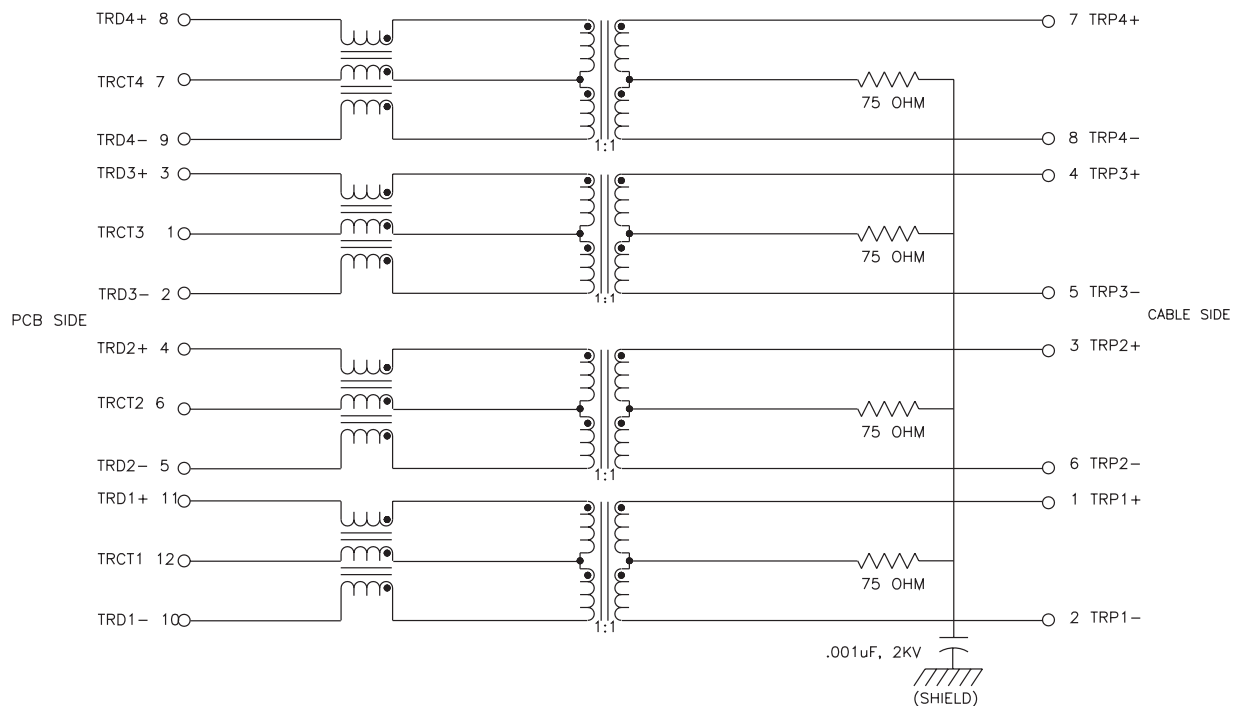
### JOG-0001NL / JOG-0003NL



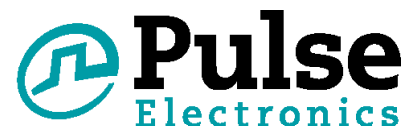
### JOG-0007NL



### JOG-0009NL

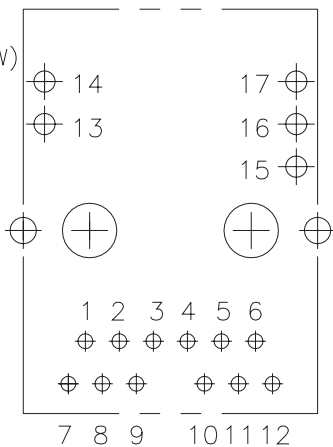


# PulseJack™ Low Profile 1x1 Tab-Up

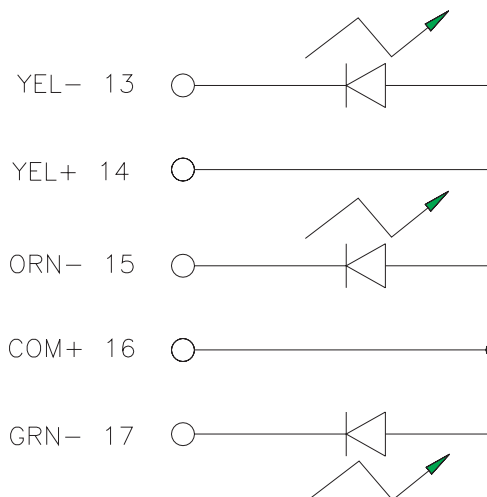


## Pin Assignments

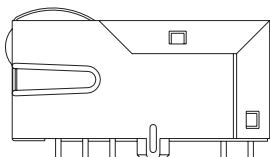
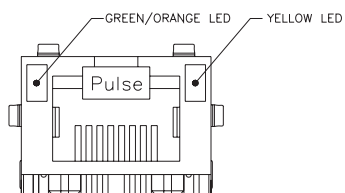
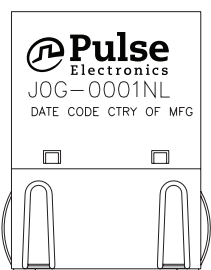
PIN ASSIGNMENTS  
(COMPONENT SIDE VIEW)



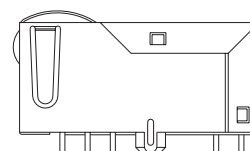
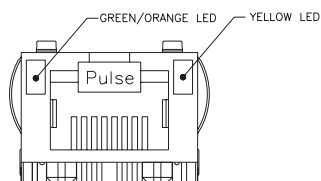
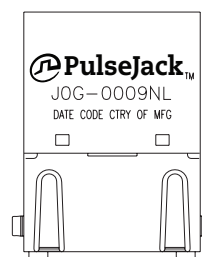
## LED Configuration



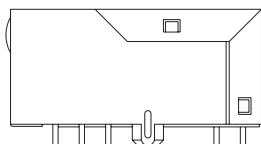
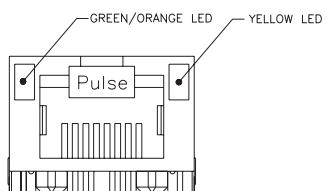
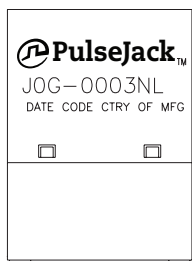
### JOG-0001NL



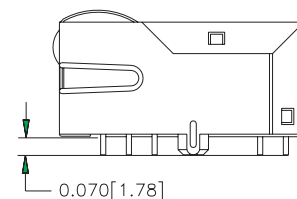
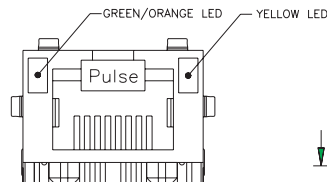
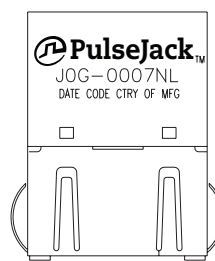
### JOG-0009NL



### JOG-0003NL



### JOG-0007NL

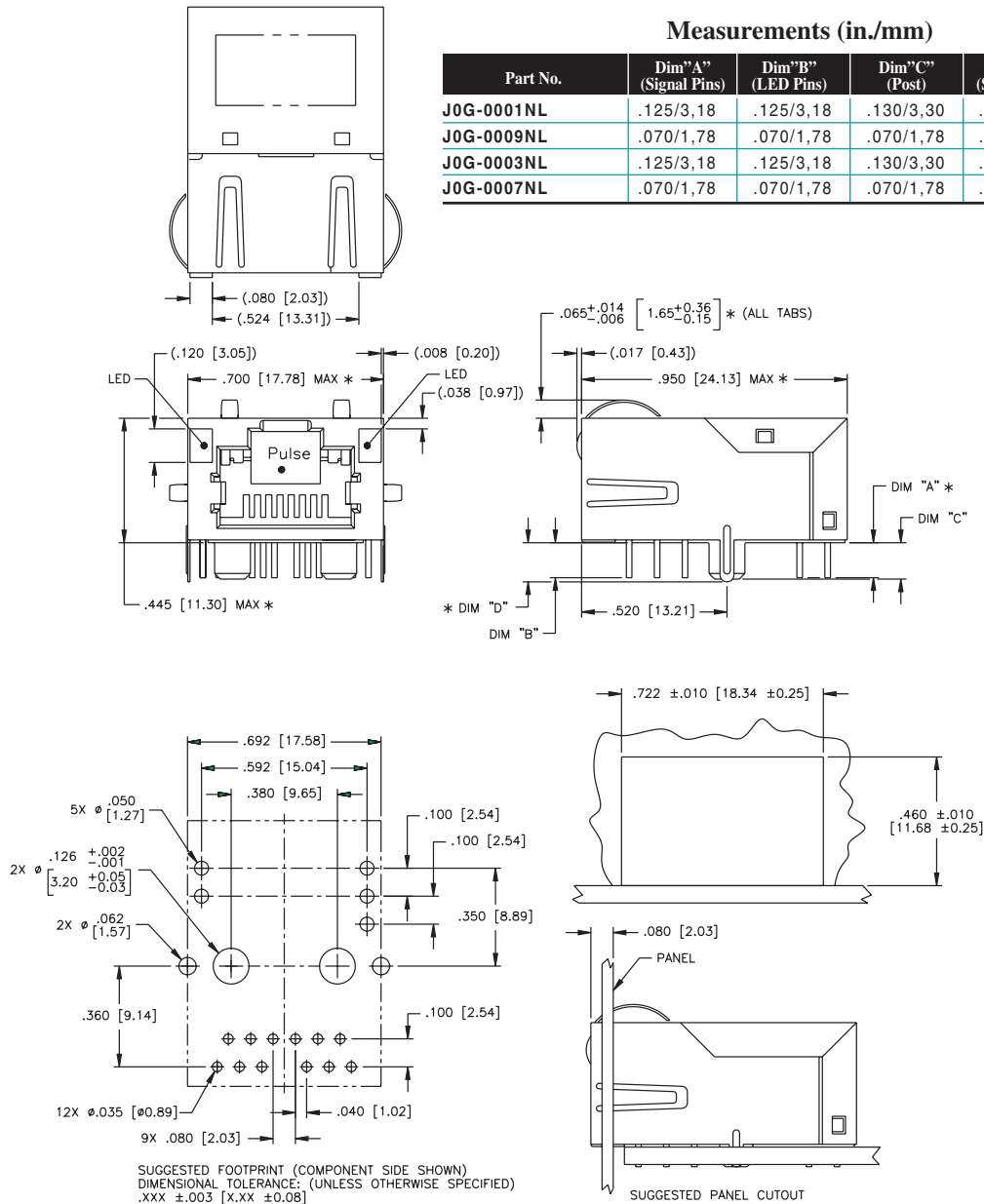


### Mechanicals

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

Measurements (in./mm)

| Part No.   | Dim"A"<br>(Signal Pins) | Dim"B"<br>(LED Pins) | Dim"C"<br>(Post) | Dim"D"<br>(Shield Tab) | EMI Tab<br>Config. |
|------------|-------------------------|----------------------|------------------|------------------------|--------------------|
| J0G-0001NL | .125/3,18               | .125/3,18            | .130/3,30        | .140/3,56              | Fig.1              |
| J0G-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              |



# PulseJack™

## 2xN PoE Gigstack

### EMI Tabs Configuration

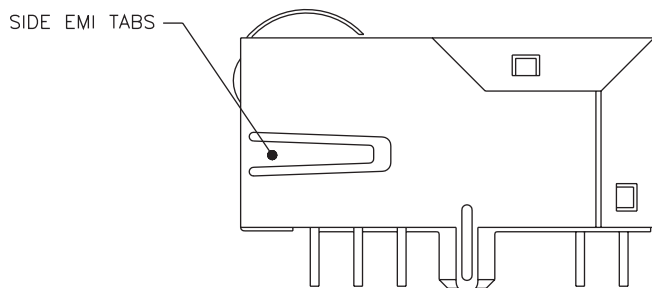


FIGURE 1 (HORIZONTAL SIDE EMI TABS)

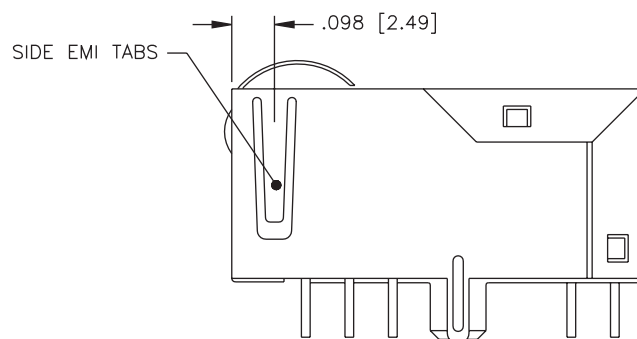


FIGURE 2 (VERTICAL SIDE EMI TABS)

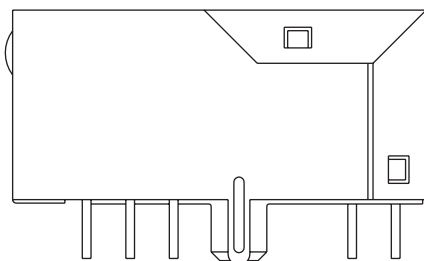


FIGURE 3 (NO EMI TABS)

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