

# PULSEJACK™

## 1XN Giggle-Up 10 Designed to support Vitesse/Cicada Transceivers



### Description:

10/100/1000 Base-TX RJ45 1XN Tab-UP Integrated Connector Module (ICM) with or without LEDs, designed to support such applications as: SOHO (ADSL modems), LAN-on-Motherboard (LOM), Hub and Switches.



### Features and Benefits:

- SimpliPHY'd™ magnetics, designed for CICADA's Gigabit PHY
- 1XN Tab-UP 10-pin RJ45 with internal magnetics
- Options: 1X2, 1X4, and 1X8 10/100/1000 Base-TX
- Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP
- Internal magnetics are 100% electrically tested for HI-POT and functionality

### Electrical Performance Summary:

- Internal magnetics options available
- Meets or exceeds IEEE 802.3ab standard for 1000Base-T
- 350  $\mu$ H minimum OCL with 8 mA bias current
- High performance for maximum EMI suppression
- Minimum 1500 Vrms isolation per IEEE 802.3 requirement

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

| New Part Number<br>(Number of Ports) | Tab Option | LEDs L/R | Insertion Loss<br>TX/RX<br>(dB TYP) | Return Loss<br>(dB TYP)<br>100 Ω (±15 Ω) |          |        | Crosstalk<br>(dB TYP) |          |           | Common Mode Rejection<br>(dB TYP) |           | Hipot<br>(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    |
| JG0-0079 (1X2)                       | UP         | G/G      | -1.0                                | -20                                      | -16      | -12    | -40                   | -35      | -30       | -30                               | -20       | 1500 Vrms      |
| JG0-0078 (1X4)                       | UP         | —        | -1.0                                | -20                                      | -16      | -12    | -40                   | -35      | -30       | -30                               | -20       | 1500 Vrms      |
| JG0-0061 (1X4)                       | UP         | Y-G/Y-G  | -1.0                                | -20                                      | -16      | -12    | -40                   | -35      | -30       | -30                               | -20       | 1500 Vrms      |
| JG0-0062 (1X8)                       | UP         | G/G      | -1.0                                | -20                                      | -16      | -12    | -40                   | -35      | -30       | -30                               | -20       | 1500 Vrms      |
| JG0-0080 (1X8)                       | UP         | —        | -1.0                                | -20                                      | -16      | -12    | -40                   | -35      | -30       | -30                               | -20       | 1500 Vrms      |

#### NOTES:

- Both transmit and receive channels meet IEEE 802.3 specifications.
- Different electrical and mechanical specifications can be accommodated. Contact Pulse Applications Engineering.

### RJ45 Durability Testing Rating

| Part Number | Mating Force<br>(MAX) | Unmating Force<br>(MAX) | Durability     | Plug to Jack Retention (MIN) |
|-------------|-----------------------|-------------------------|----------------|------------------------------|
| JG Series   | 5 lbs./2.268 kgs.     | 5 lbs./2.268 kgs.       | 750 Insertions | 20 lbs./9.072 kgs.           |

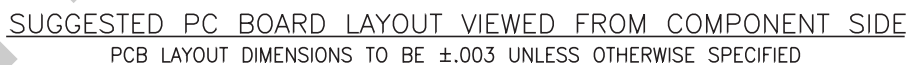
### RJ45 Material Specification

| Part Number | Shield   |                                            | Contact         |                                                     |                                                              | Housing       |               |
|-------------|----------|--------------------------------------------|-----------------|-----------------------------------------------------|--------------------------------------------------------------|---------------|---------------|
|             | Material | Finish                                     | Material        | Plating Area                                        | Solder Area                                                  | Material      | Specification |
| JG Series   | Brass    | 20-40 $\mu$ inches thick nickel over brass | Phosphor Bronze | 30 $\mu$ inches gold over 30-80 $\mu$ inches nickel | 75-300 $\mu$ inches tin-lead over 75-300 $\mu$ inches nickel | Thermoplastic | UL 94 V-0     |

#### Notes:

- All connector part numbers starting with the series prefix JG comply to the above limits.
- Connector dimensions comply with FCC dimension requirements.

**JG0-0079**

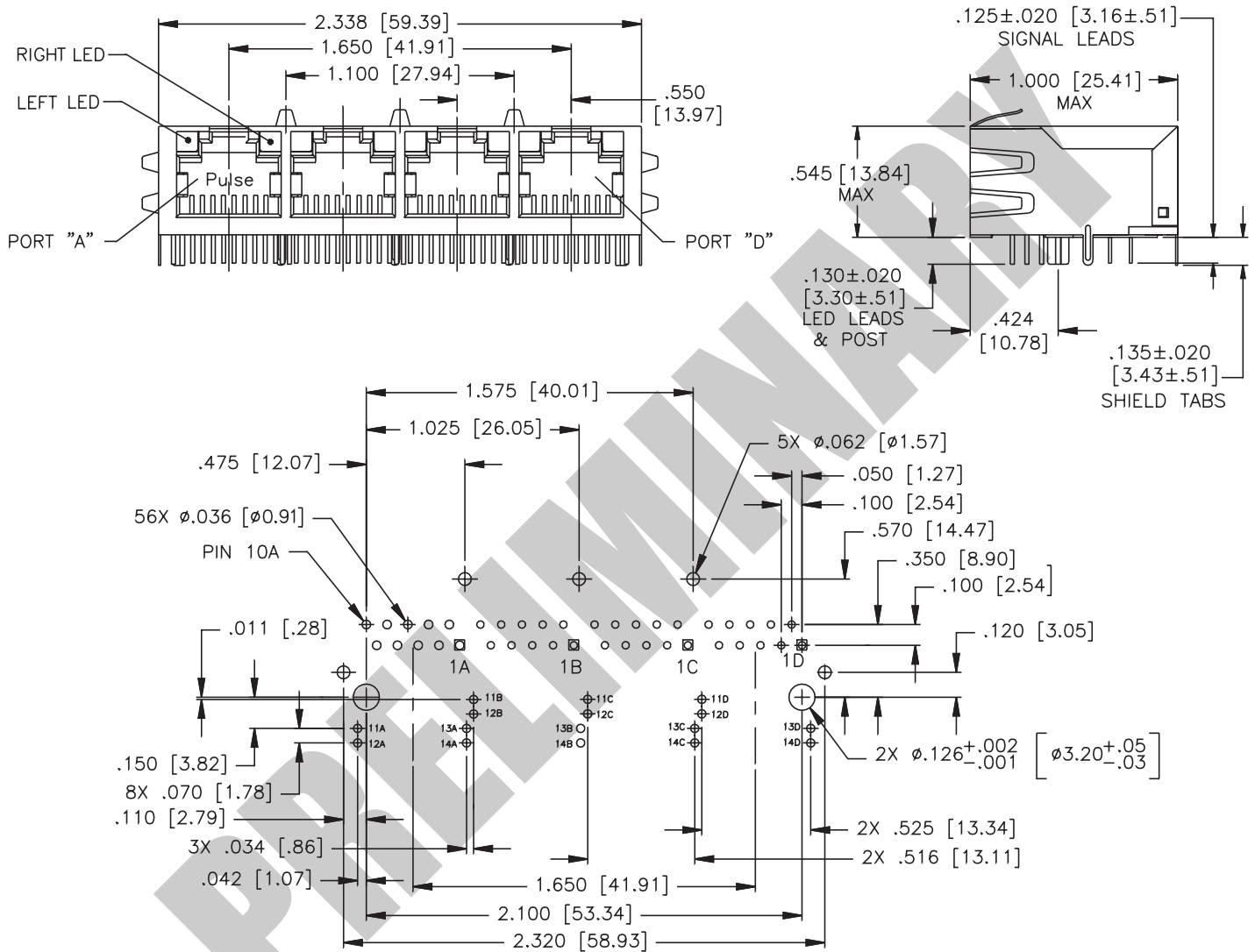


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### Mechanicals

JG0-0078/61



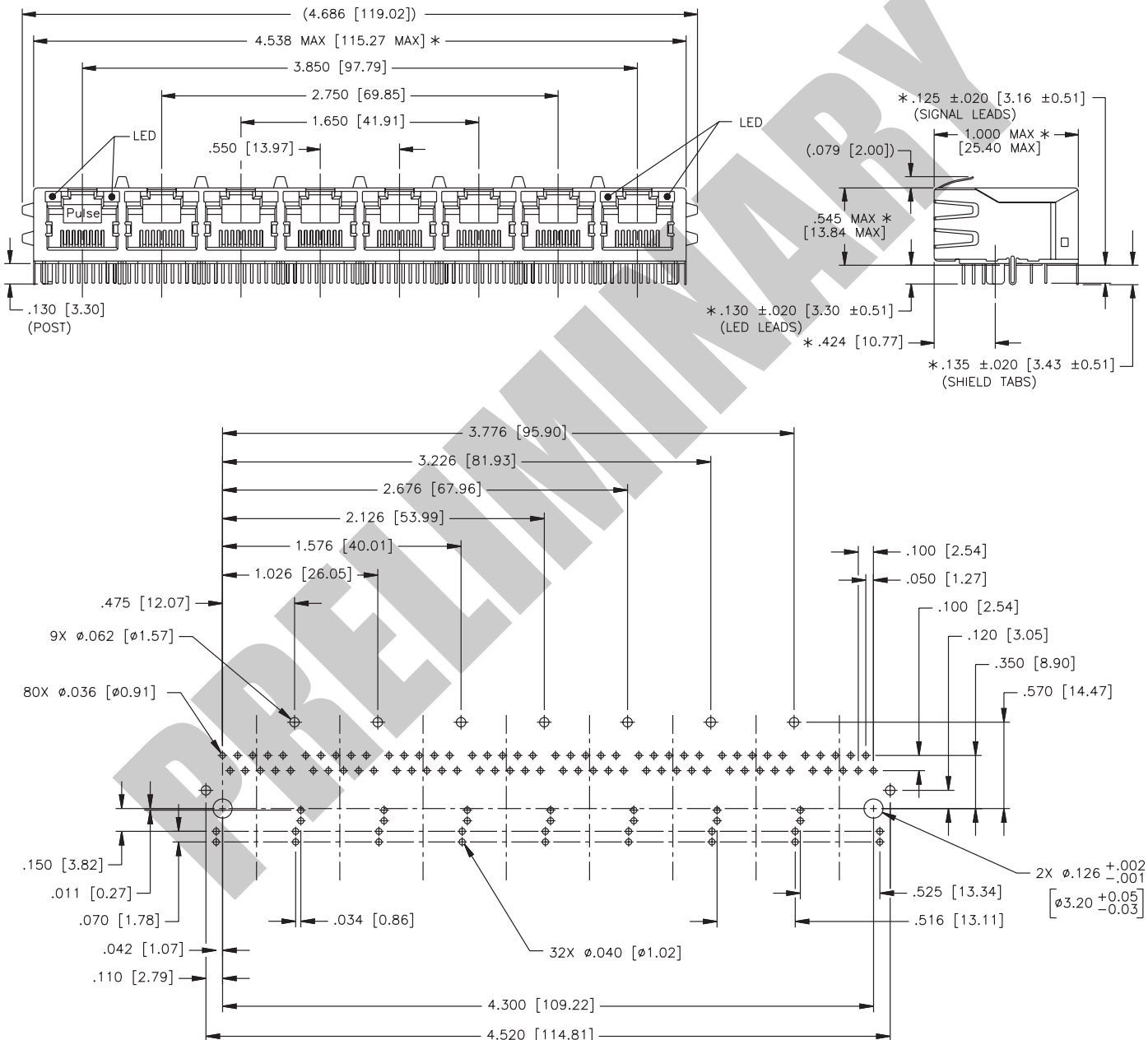
PC Board Layout Component Side Shown  
PCB LAYOUT DIMENSIONS TO BE  $\pm .003$  UNLESS OTHERWISE SPECIFIED

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## 1XN Giggle-Up 10 Designed to support Vitesse/Cicada Transceivers

### Mechanicals

JG0-0062



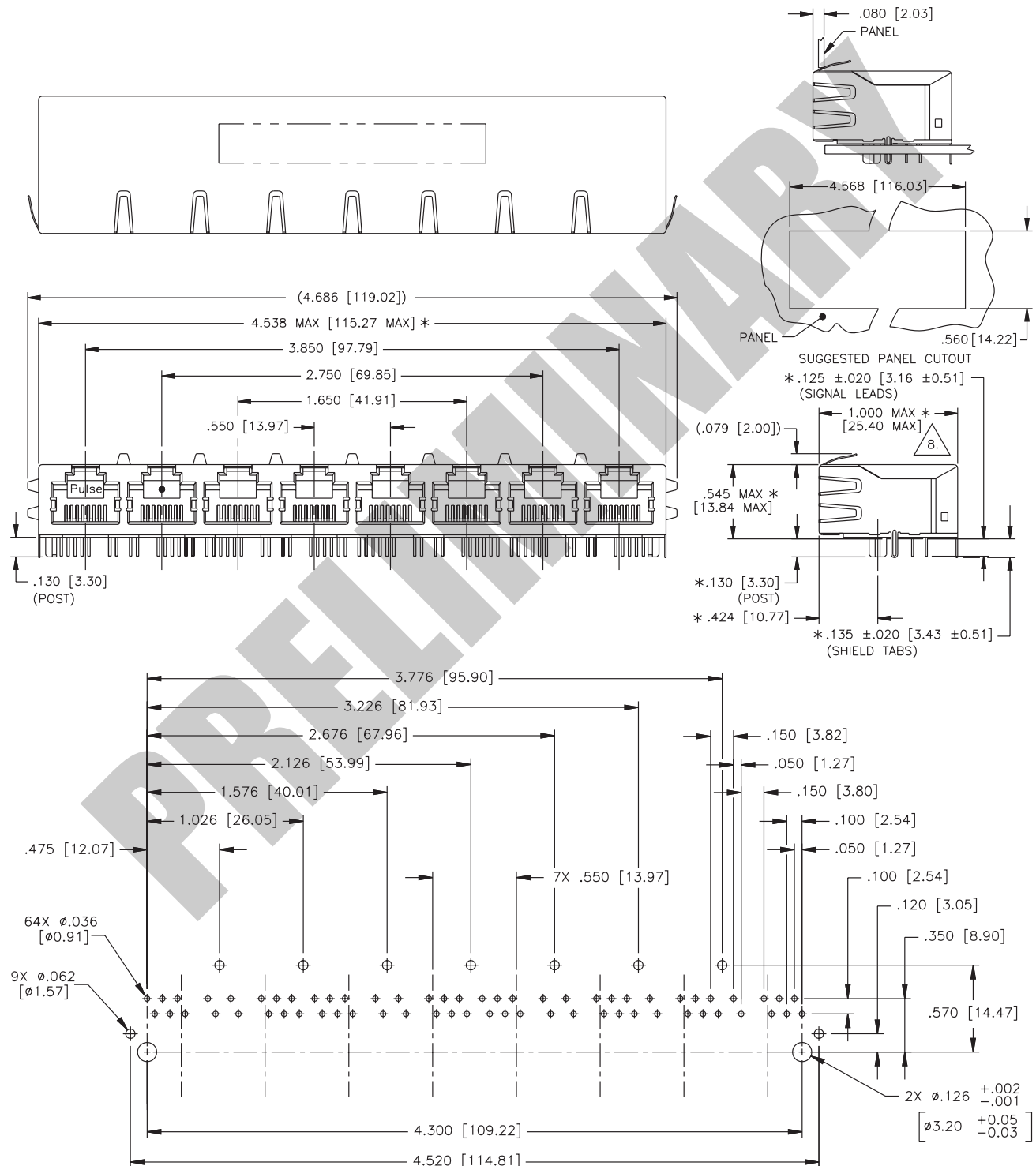
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## Mechanicals

**JG0-0080**



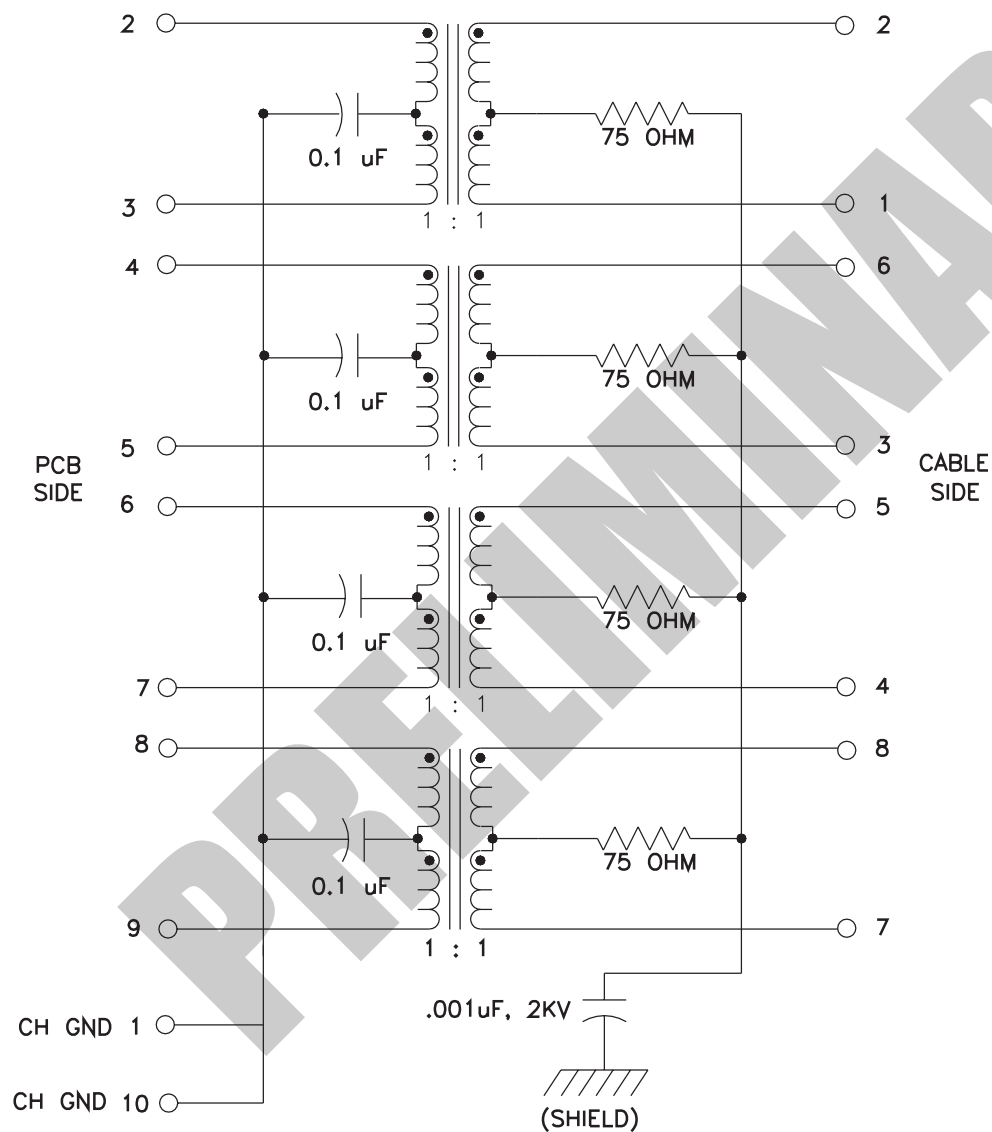
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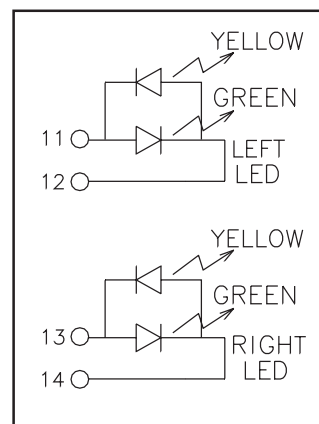


## Schematic

JG0-0061/JG0-0062



JG0-0061  
JG0-0062



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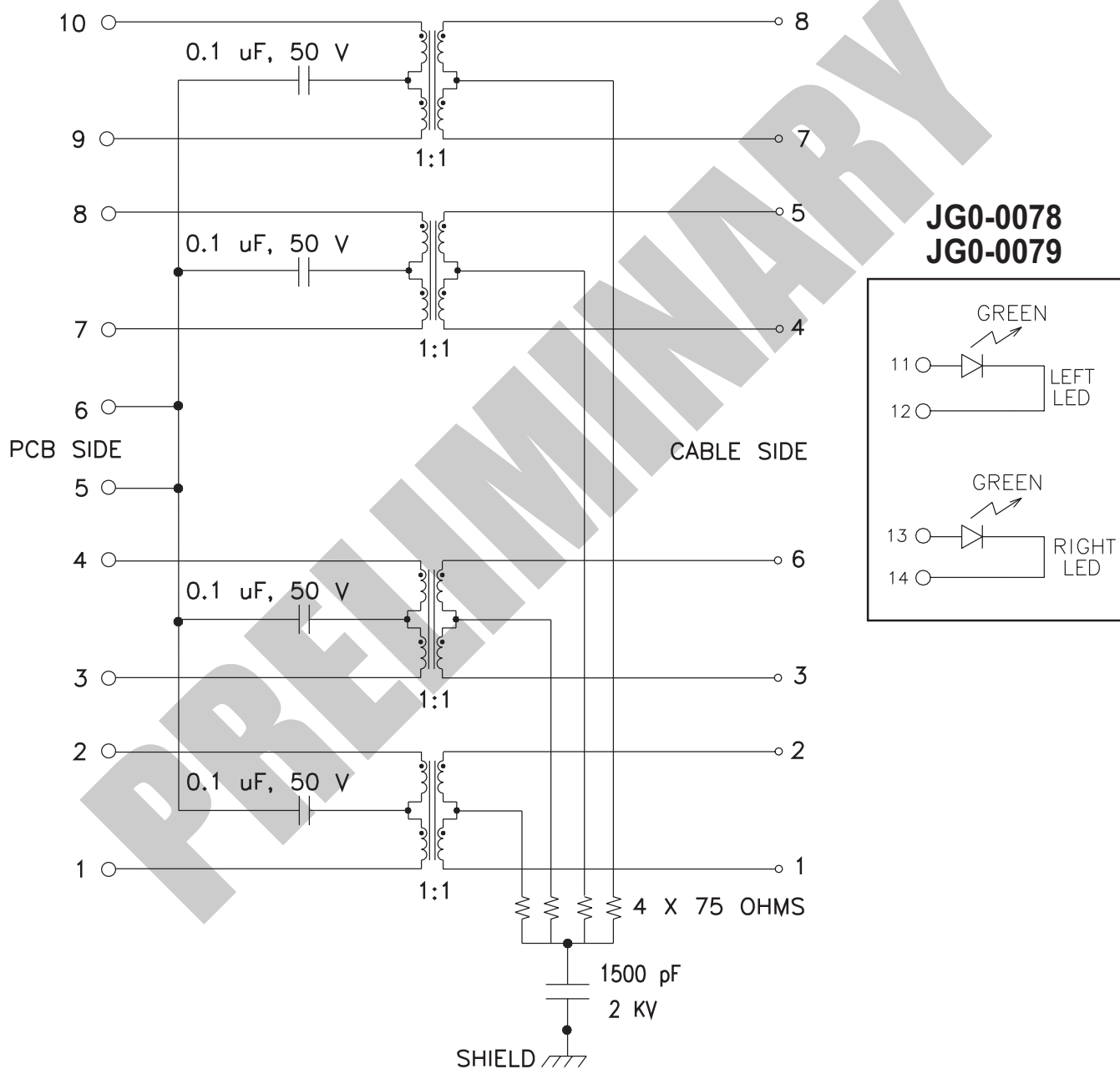
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## Schematic

JG0-0078/JG0-0079



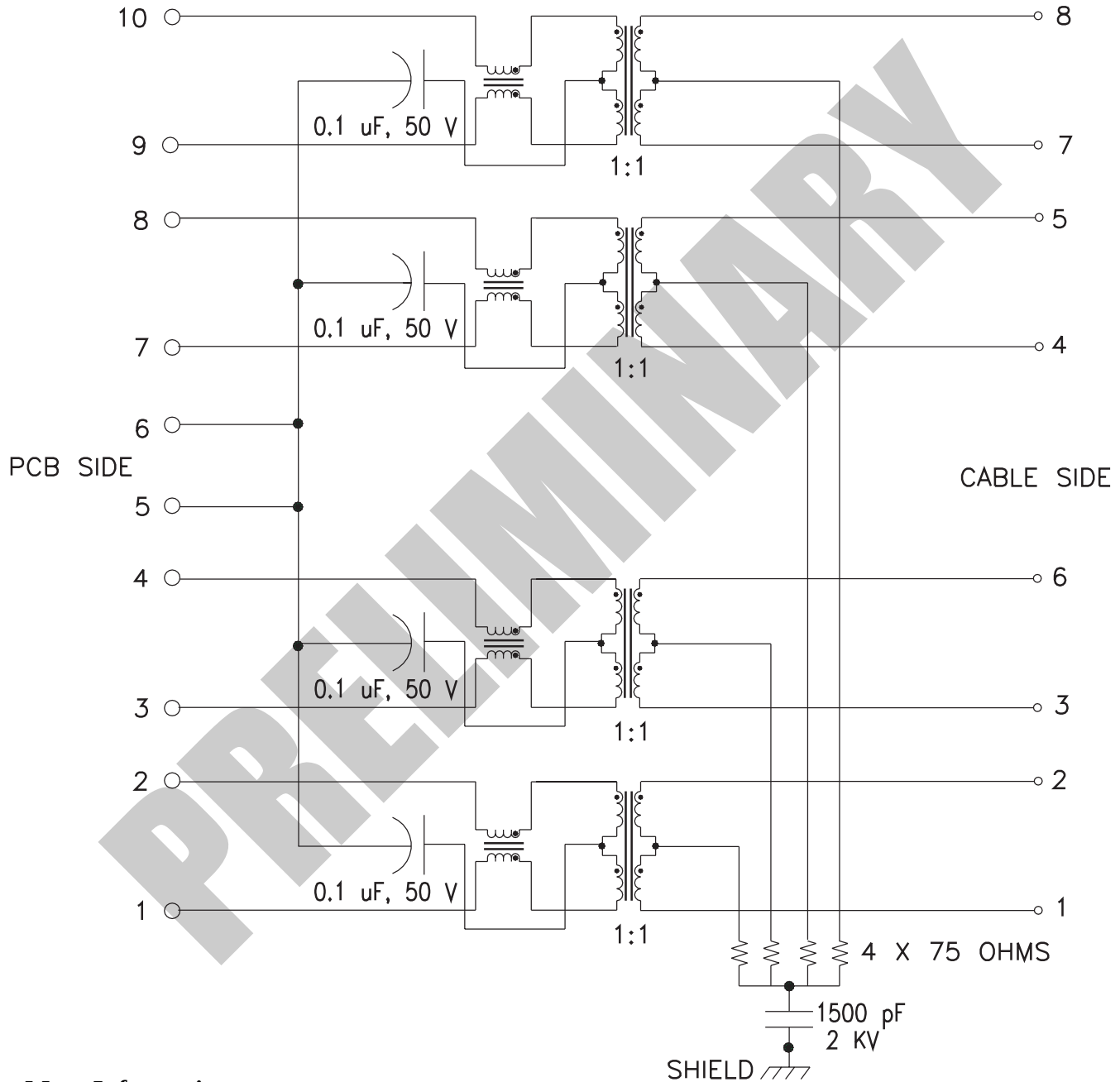
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### Schematic

JG0-0080



### For More Information :

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