

# PULSEJACK™

## 1x1 Tab-DOWN RJ45



### Description:

10/100 Base-TX RJ45 1x1 Tab-DOWN with LEDs 8-pin (J0 series) integrated magnetics connector (ICM), designed to support applications, such as SOHO (ADSL modems), LAN-on-Motherboard (LOM), Hub and Switches.



### Features and Benefits:

- Ⓜ RoHS-5 peak wave solder temperature rating 235°C
- Ⓜ RoHS-6 peak wave solder temperature rating 260°C
- Ⓜ Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP

### Electrical Performance Summary:

- Ⓜ Meets or exceeds IEEE 802.3 standard for 100Base-T
- Ⓜ 350µH minimum OCL with 8mA bias current
- Ⓜ Minimum 1500Vrms isolation per IEEE 802.3 requirement

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

RoHS-5 Part No.	RoHS-6 Part No.	Turns Ratios		Mech. Drawing	EMI Fingers	LEDs <sup>1</sup> (L/R)	Insertion Loss (dB TYP)	Return Loss (dB TYP) 100W ±15W					Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)	Hipot (Vrms) @60Hz 1 MIN
		TX	RX					1-65 MHz	1-10 MHz	10-30 MHz	30-60 MHz	60-80 MHz	1-30 MHz	30-60 MHz	60-100 MHz		
J0006D01B	J0006D01BNL	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0006D21	J0006D21NL	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0006D21B	J0006D21BNL	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D01	J0011D01NL	1CT:1	1CT:1	C	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D01B	J0011D01BNL	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D21	J0011D21NL	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D21B	J0011D21BNL	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D21E	J0011D21ENL	1CT:1	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0012D21	J0012D21NL	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0018D21	J0018D21NL	1CT:1.414	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0018D21E	J0018D21ENL	1CT:1.414	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0024D21	J0024D21NL	1CT:2	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0024D21B	J0024D21BNL	1CT:2	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01	J0026D01NL	1CT:1	1CT:1	D	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01B	J0026D01BNL	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01E	J0026D01ENL	1CT:1	1CT:1	A	No	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01F <sup>2</sup>	J0026D01FNL <sup>2</sup>	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21	J0026D21NL	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21B	J0026D21BNL	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21E	J0026D21ENL	1CT:1	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21F <sup>2</sup>	J0026D21FNL <sup>2</sup>	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21G <sup>3</sup>	J0026D21GNL <sup>3</sup>	1CT:1	1CT:1	B	YES	YG/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0033D21	J0033D21NL	1.25CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0035D21B	J0035D21BNL	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0073D01B	J0073D01BNL	1CT:2.5	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500

Notes: 1. LEDs Left/Right: G=green, Y=yellow, N/A=none, YG=Bi-color LED Yellow Green. 2. LEDs with internal resistor. 3. Bi-color Left LED. 4. RoHS-5 - Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Product contains lead in applications considered as solders. 5. RoHS-6 - Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Some internal connections may contain lead in high temperature solder (solder alloys containing more than 85% lead).

### RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
J0 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

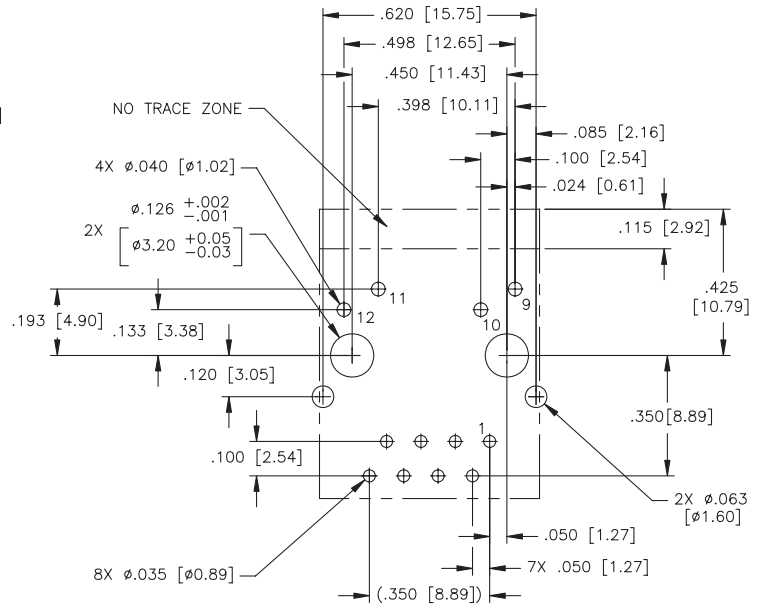
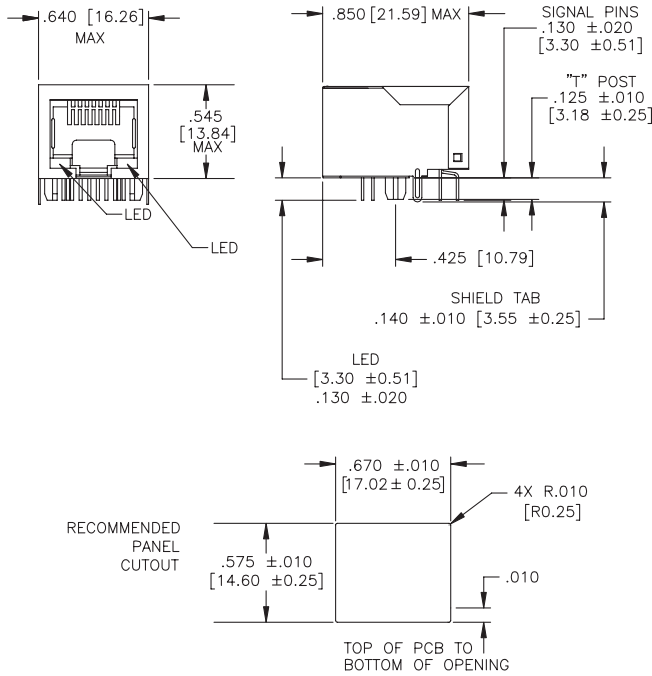
### RJ45 Material Specification

Part Number	Shield		Contact		Housing		MSL <sup>3</sup> Rating	
	Material	Finish	Material	Plating Area	Material	Specification		
J0 Series	Brass	10-20m inches Nickel over 10-20m inches Brass	Phosphor Bronze	Nickel underplating and selective gold plating 15µ inches	120µ inches Sn90/Pb10 over 50µ inches nickel	Thermoplastic	UL 94 V-0	1

Notes: 1. Connector dimensions comply with FCC dimension requirements. 2. RoHS-6 parts are tin matte finish over nickel. 3. MSL = Moisture Sensitivity Level rating from 1 to 5 (highest rating = 1, lowest rating = 5)

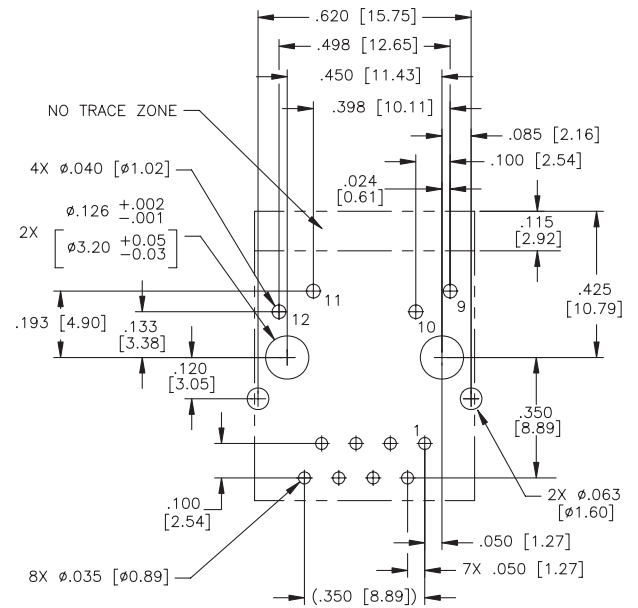
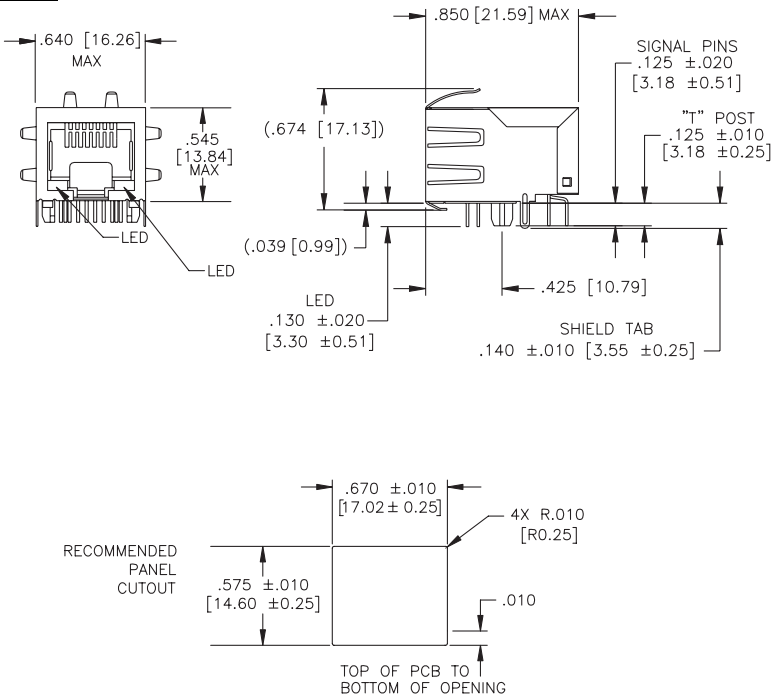
### J0 Series Mechanicals

**A**



SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
 PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED  
 SCALE: 4/1

**B**



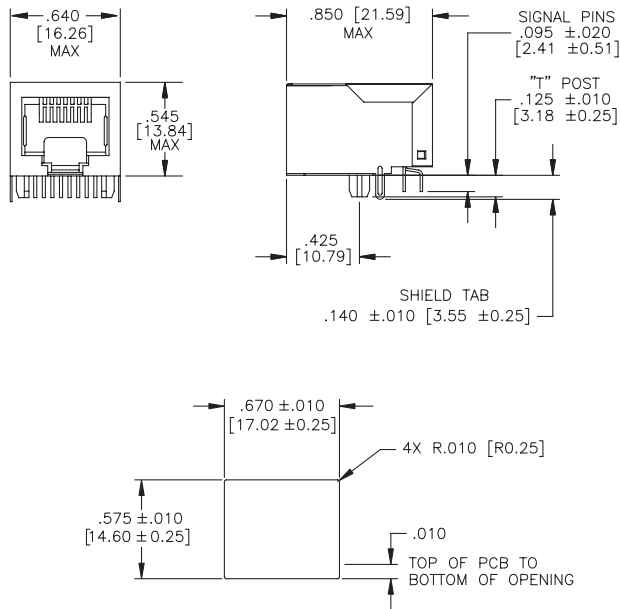
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
 PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED  
 SCALE: 4/1

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
 Unless otherwise specified,  
 all tolerances are  $\pm \frac{.010}{.25}$

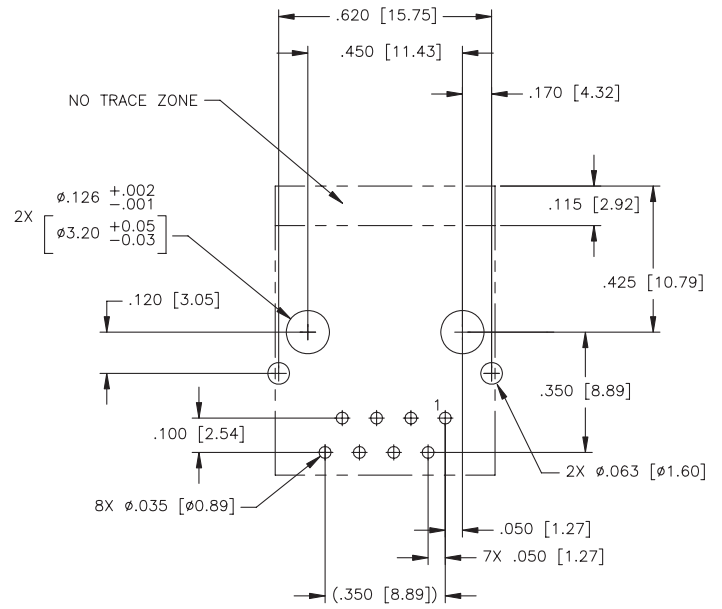


### J0 Series Mechanicals

**C**

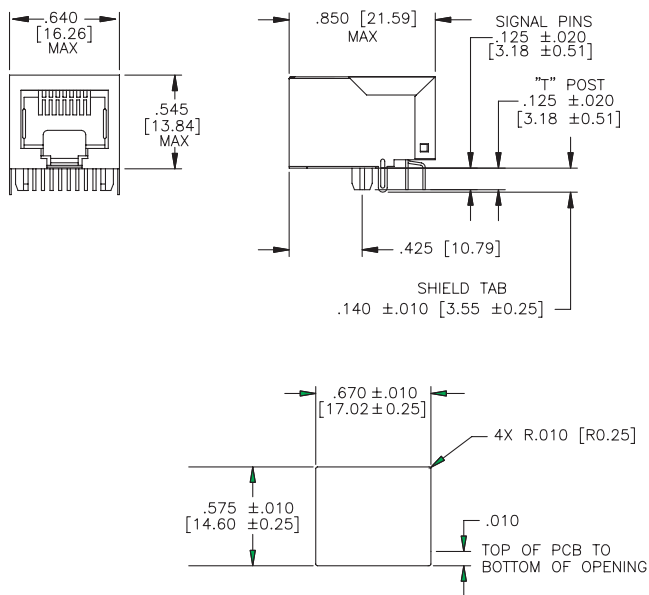


RECOMMENDED PANEL CUTOUT

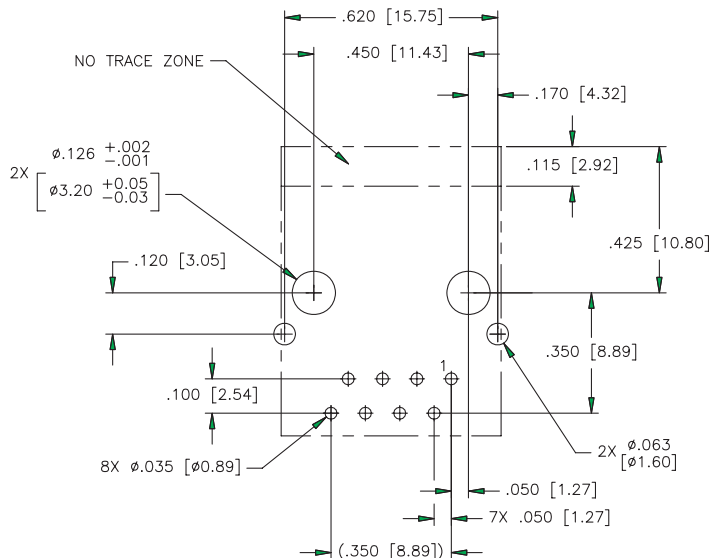


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED  
SCALE: 4/1

**D**



RECOMMENDED PANEL CUTOUT

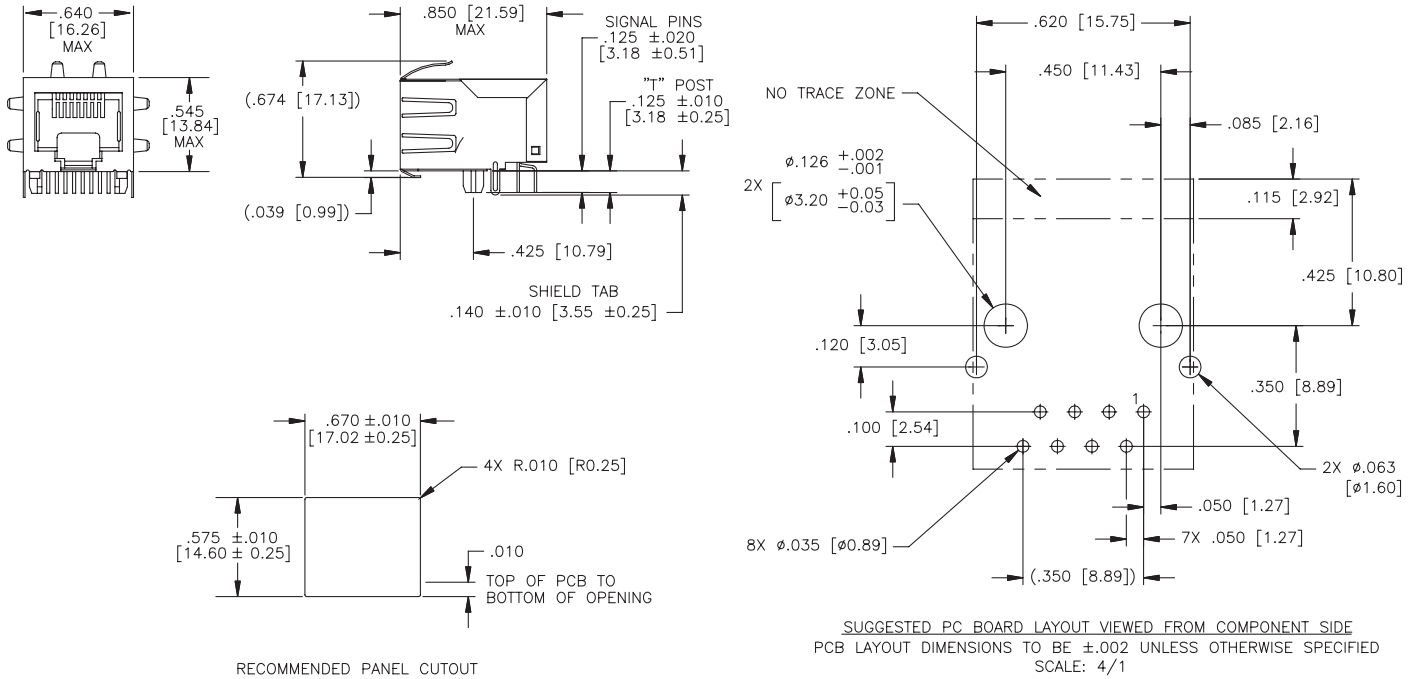


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE  
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED  
SCALE: 4/1

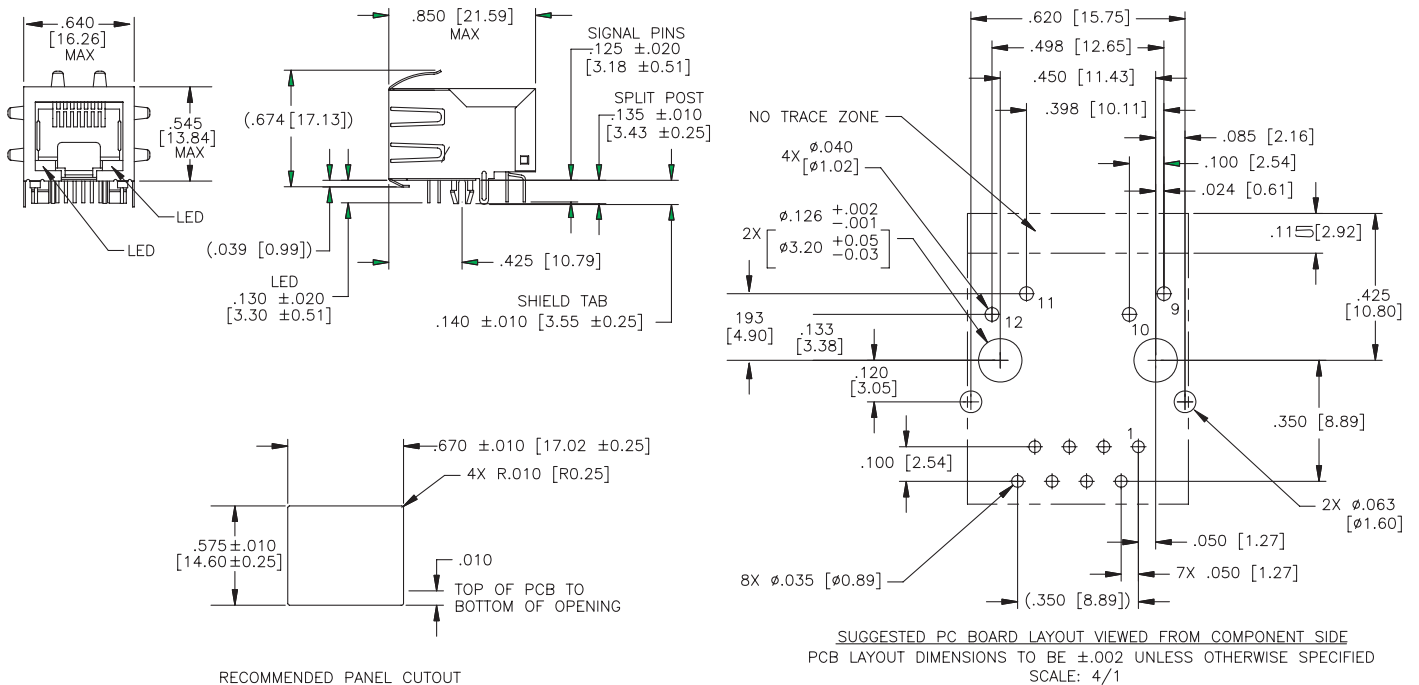
Dimensions: Inches  
mm  
Unless otherwise specified,  
all tolerances are ± .010  
0.25

### J0 Series Mechanicals

**E**



**F**

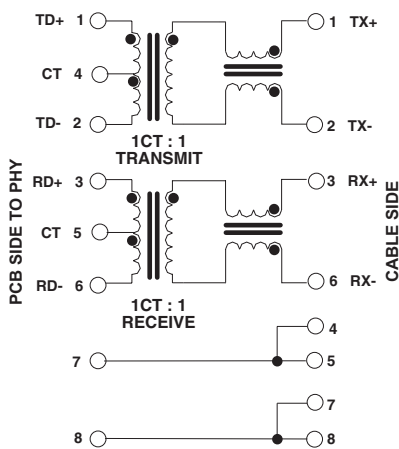


Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified,  
all tolerances are ±  $\frac{.010}{0.25}$

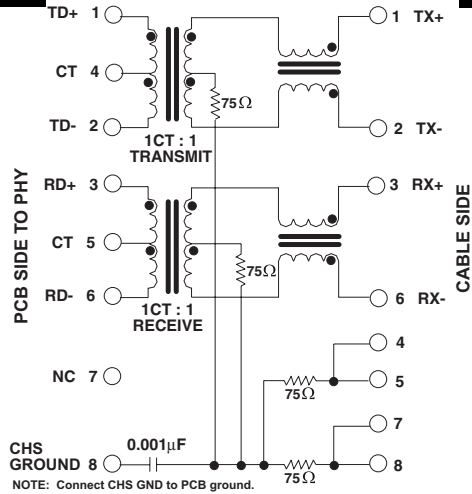


### J0 Series Electrical Schematics

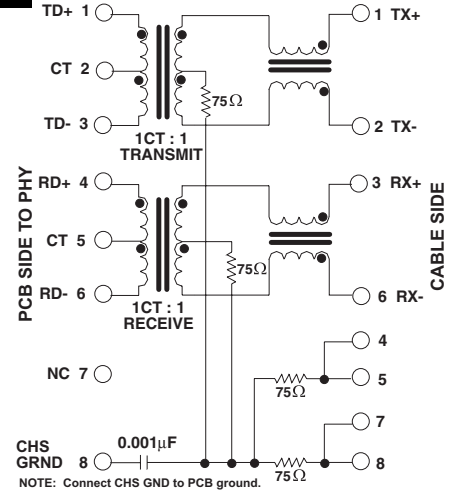
**J0006**



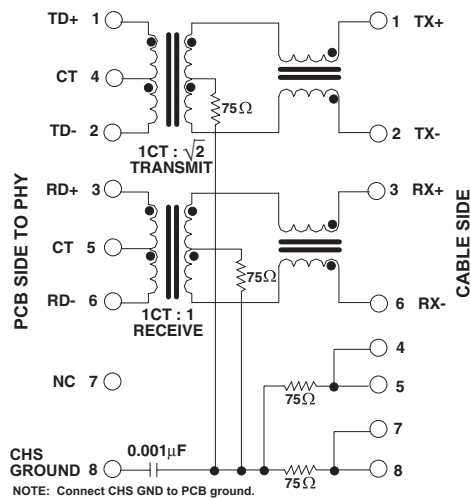
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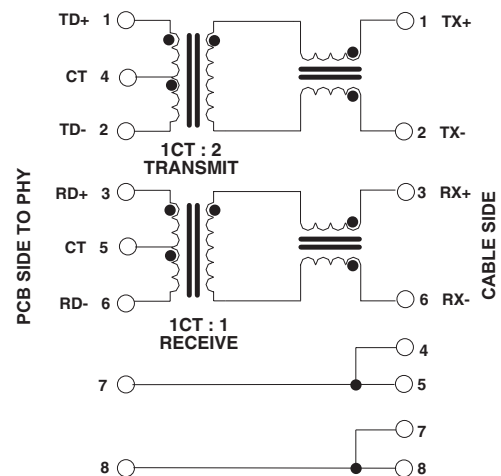
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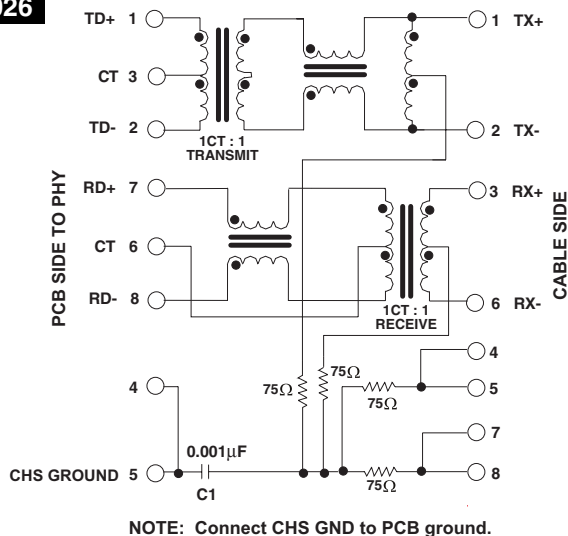
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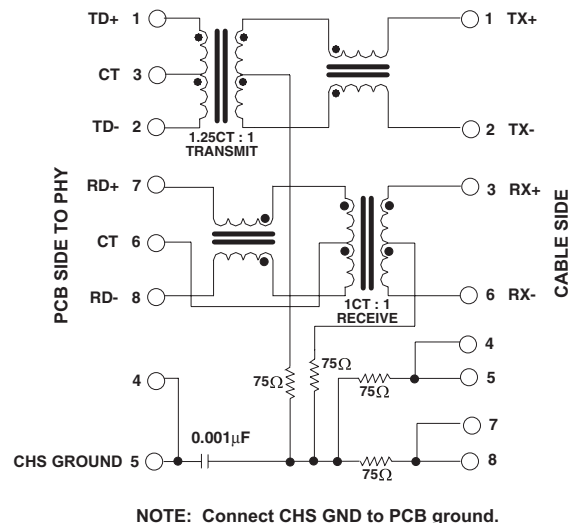
**J0024**



**J0026**

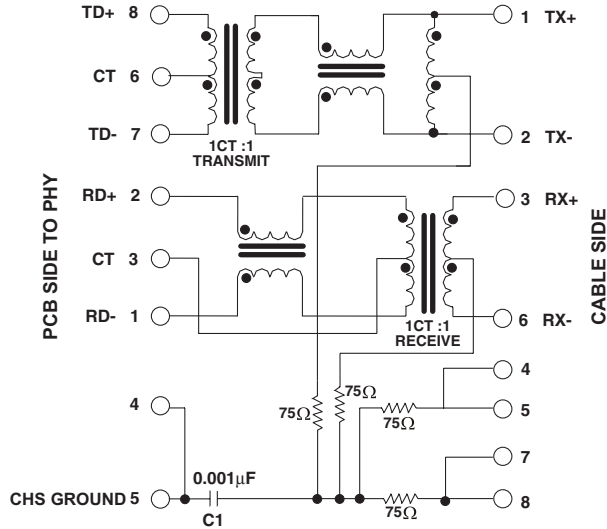


**J0033**



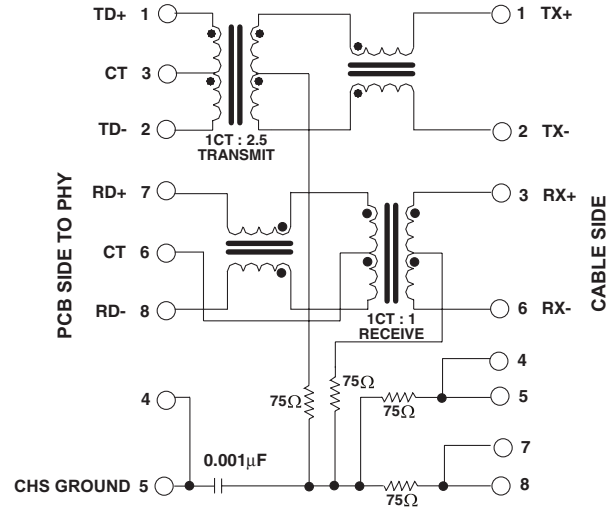
### J0 Series Electrical Schematics (continued)

**J0035**



NOTE: Connect CHS GND to PCB ground.

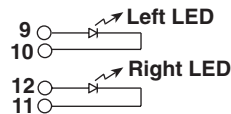
**J0073**



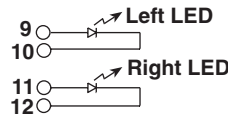
NOTE: Connect CHS GND to PCB ground.

### LED Configuration

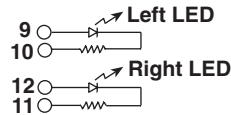
**LED = "B & E" Specification**  
(LEDs without internal resistors)



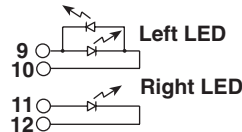
**LED = "M" Specification**  
(LEDs without internal resistors)



**LED = "F" Specification**  
(LEDs with internal resistors)



**LED = "G" Specification**  
(Bi-color LED option with internal resistors)



Standard LED	Wavelength	Forward* V(MAX)	(TYP)
Yellow	585 nm	2.5 V	2.1 V
Green	565 nm	2.5 V	2.2 V

\* Using an internal resistor within the LED increases the voltage rating of the diode from 2.5 V to 5.0 V (assumes bias current = 20 mA).

### For More Information:

**Pulse Worldwide Headquarters**

12220 World Trade Drive  
San Diego, CA 92128  
U.S.A.

[www.pulseeng.com](http://www.pulseeng.com)  
TEL: 858 674 8100  
FAX: 858 674 8262

**Pulse Northern Europe**

3 Huxley Road  
Surrey Research Park  
Guildford, Surrey GU2 5RE  
United Kingdom

TEL: 44 1483 401700  
FAX: 44 1483 401701

**Pulse Southern Europe**

Zone Industrielle  
F-39270  
Orgelet  
France

TEL: 33 3 84 35 04 04  
FAX: 33 3 84 25 46 41

**Pulse China Headquarters**

No. 1  
Industrial District  
Changan, Dongguan  
China

TEL: 86 769 85538070  
FAX: 86 769 85538870

**Pulse North China**

Room 1503  
XinYin Building  
No. 888 YiShan Road  
Shanghai 200233  
China

TEL: 86 21 54643211/2  
FAX: 86 21 54643210

**Pulse South Asia**

150 Kampong Ampat  
#07-01/02  
KA Centre  
Singapore 368324

TEL: 65 6287 8998  
FAX: 65 6280 0080

**Pulse North Asia**

No. 26  
Kao Ching Road  
Yang Mei Chen  
Taoyuan Hsien  
Taiwan, R. O. C.

TEL: 886 3 4641811  
FAX: 886 3 4641911

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