

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 "NL" peak solder rating 260°C, non-RoHS peak solder rating 235°C
- For RoHS part, add suffix NL⁴
- Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP

Electrical Performance Summary:

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

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

Part Number	Turns Ratios		Mech. Drawing	EMI Fingers	LEDs ¹ (L/R)	Insertion Loss (dB TYP)	Return Loss (dB TYP) 100 Ω ±15 Ω					Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (Vrms)
	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	1-50 MHz	50-150 MHz	
J0006D01B	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0006D21	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0006D21B	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0011D01	1CT:1	1CT:1	C	No	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0011D01B	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0011D21	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0011D21B	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0011D21E	1CT:1	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0012D21	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0018D21	1CT:1.414	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0018D21E	1CT:1.414	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0024D21	1CT:2	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0024D21B	1CT:2	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D01	1CT:1	1CT:1	D	No	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D01B	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D01E	1CT:1	1CT:1	A	No	G/G	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D01F ²	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D21	1CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D21B	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D21E	1CT:1	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D21F ²	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0026D21G ³	1CT:1	1CT:1	B	YES	YG/G	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0033D21	1.25CT:1	1CT:1	E	YES	N/A	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0035D21B	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-10	-40	-35	-30	-30	-20	1500
J0073D01B	1CT:2.5	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-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. 3. Bi-color Left LED.
2. LEDs with internal resistor. 4. Add suffix "NL" for RoHS compliant parts (e.g. J006D21 changes to J006D21NL).

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

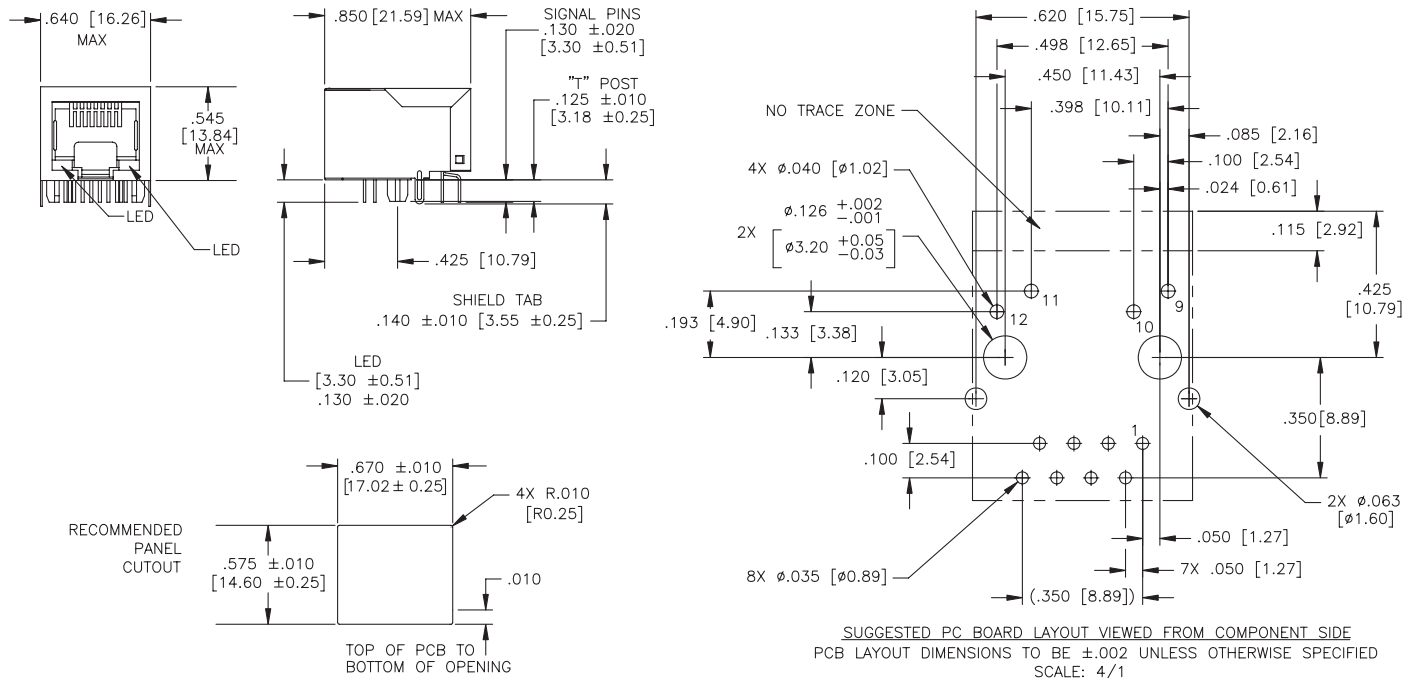
Part Number	Shield		Contact		Solder Area ²	Housing		MSL ³ Rating
	Material	Finish	Material	Plating Area		Material	Specification	
J0 Series	Brass	10-20m inches Nickel over 10-20m inches Brass	Phosphor Bronze	Nickel underplating and selective gold plating 15µ inches	120µ inches Sn90/Pb10 over 50µ inches nickel	Thermoplastic	UL 94 V-0	1

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

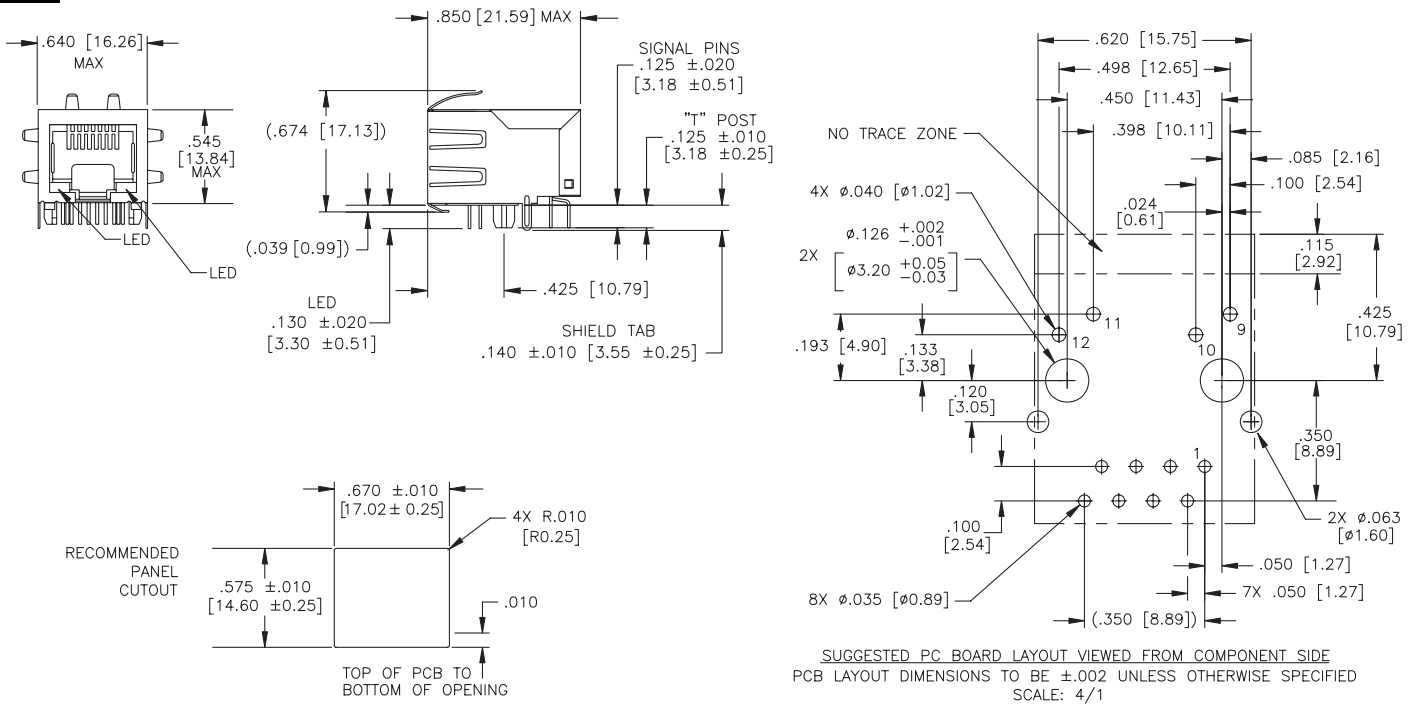
USA 858 674 8100 • UK 44 1483 401 700 • France 33 3 84 35 04 04 • Singapore 65 6287 8998 • Shanghai 86 21 32181071 • China 86 769 5538070 • Taiwan 886 2 26980228

J0 Series Mechanicals

A



B



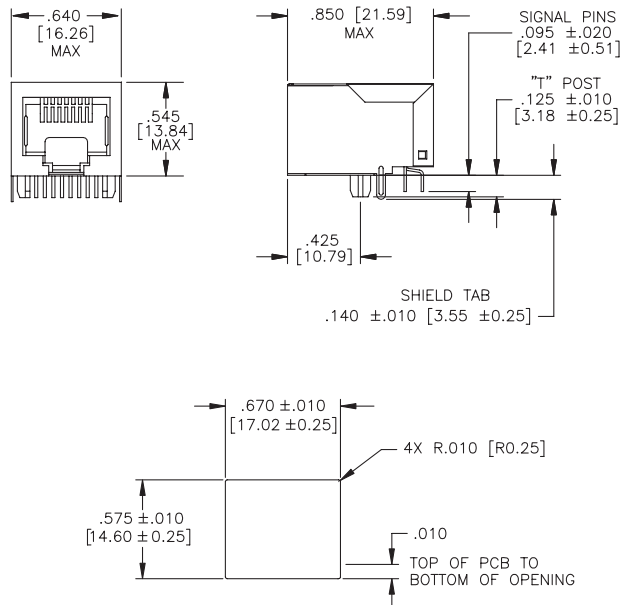
Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,
all tolerances are $\pm .010$
 $\frac{0.25}{0.25}$

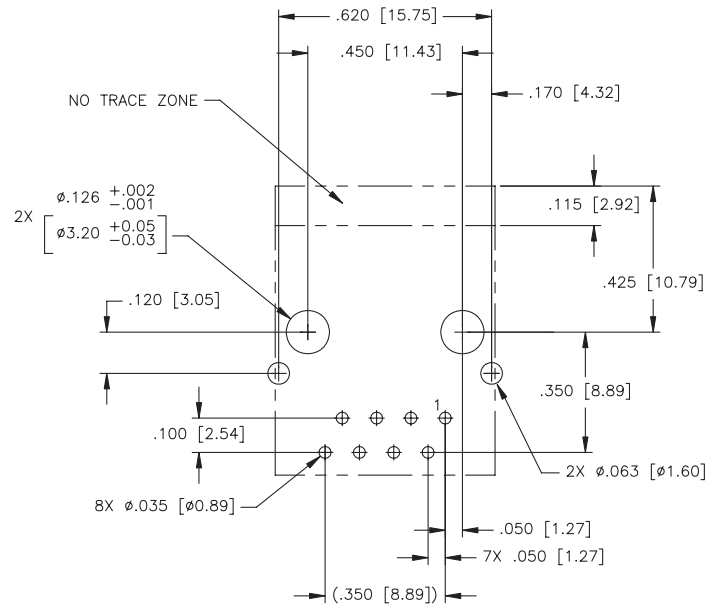


J0 Series Mechanicals

C

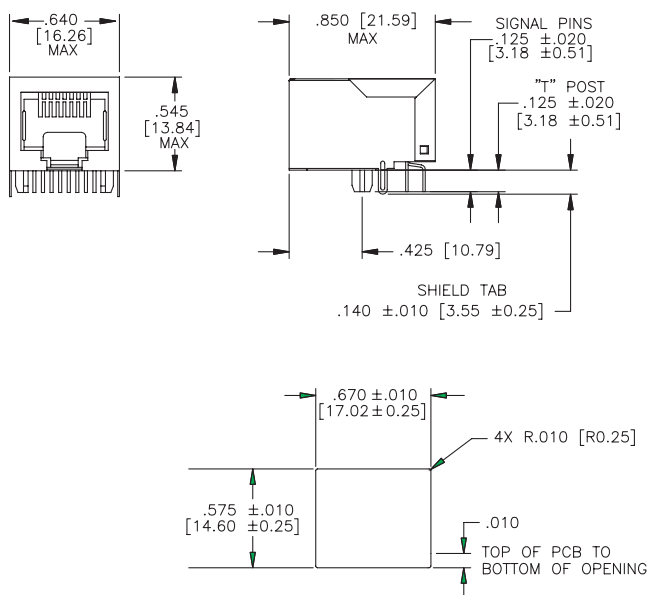


RECOMMENDED PANEL CUTOUT

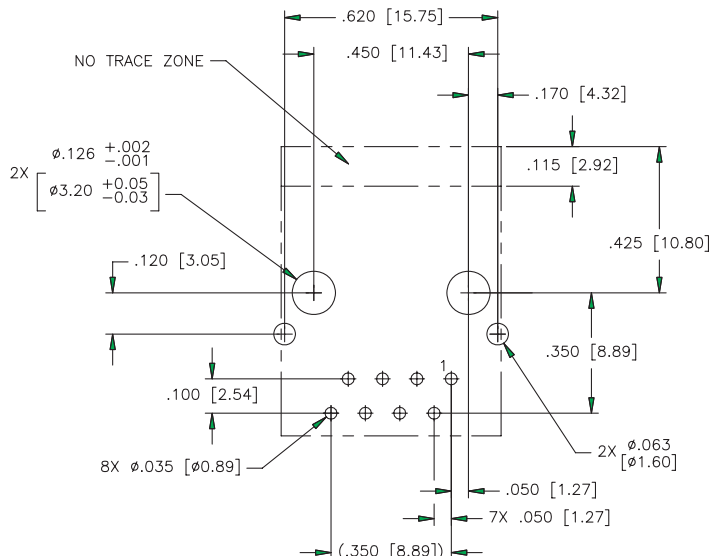


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
SCALE: 4/1

D



RECOMMENDED PANEL CUTOUT

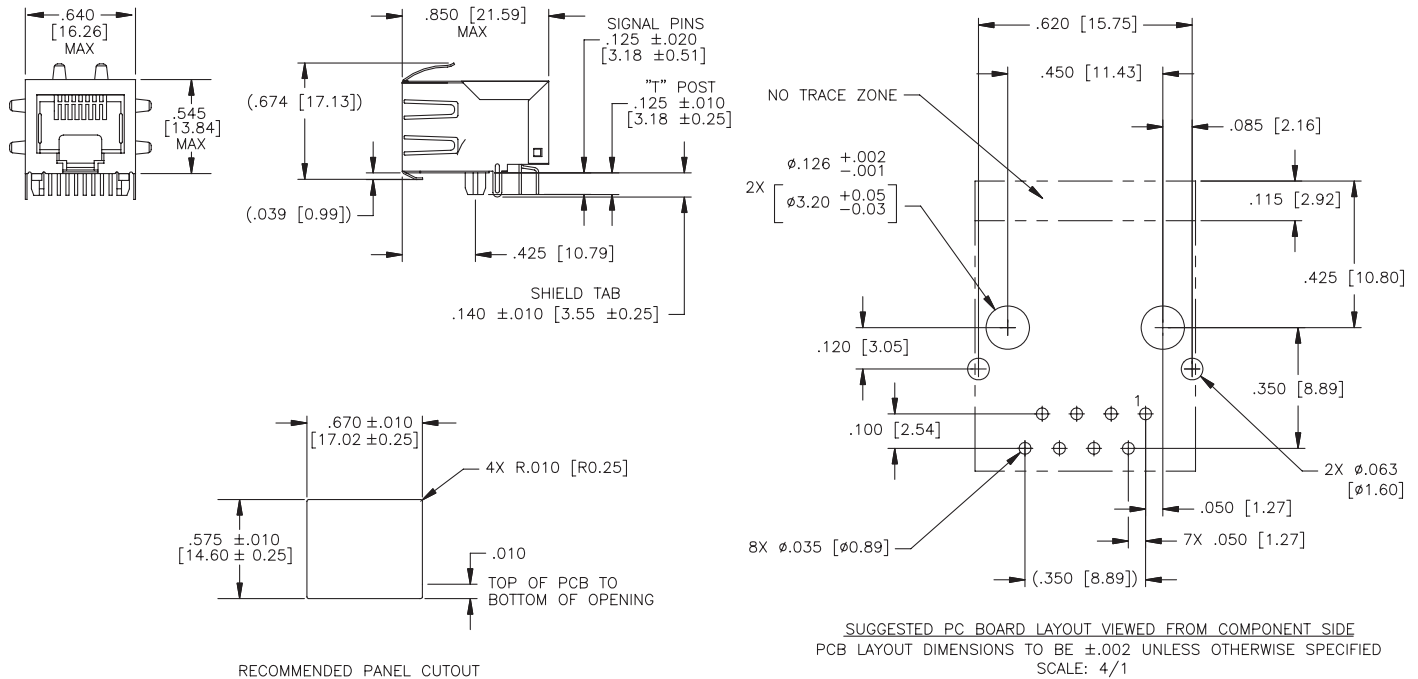


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
SCALE: 4/1

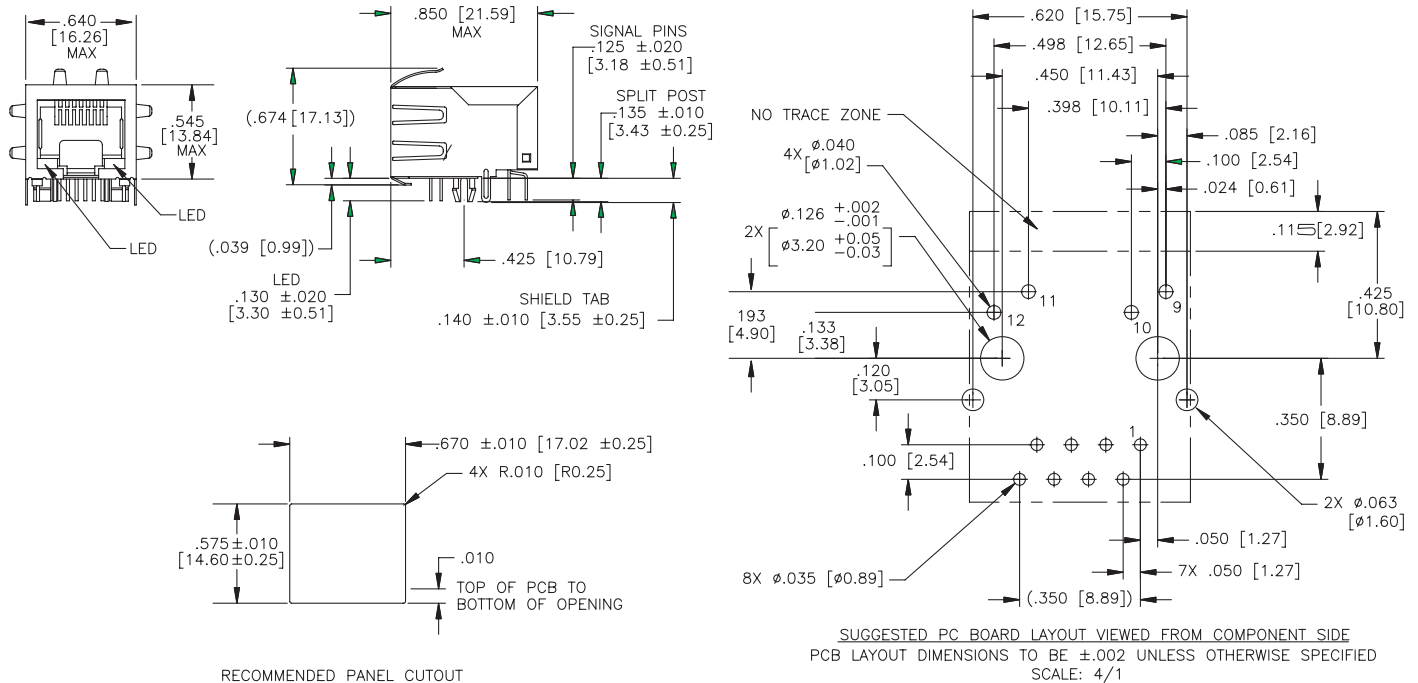
Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are ± .010
0.25

J0 Series Mechanicals

E



F

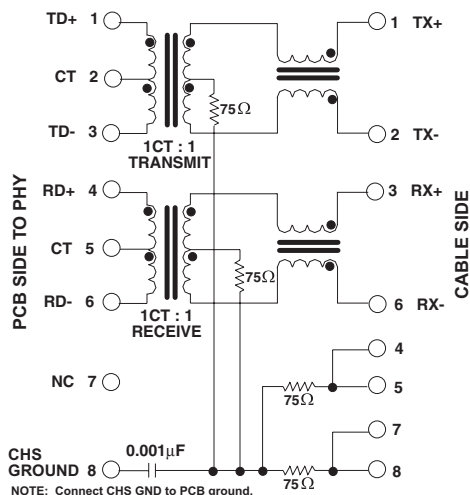


Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are ± .010
0.25

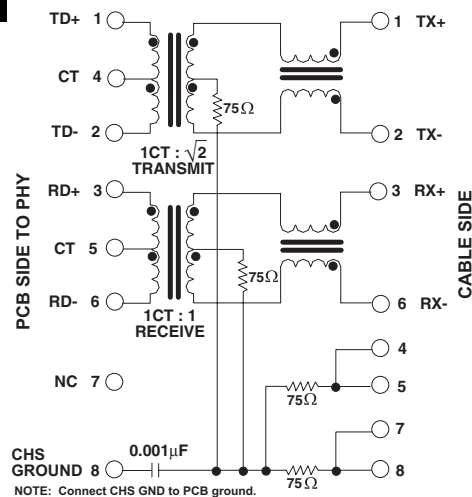


J0 Series Electrical Schematics (continued)

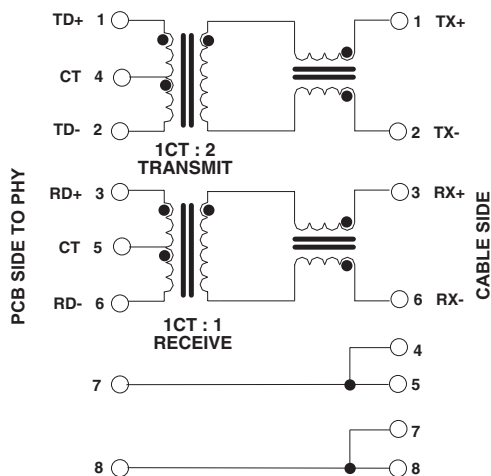
J0012



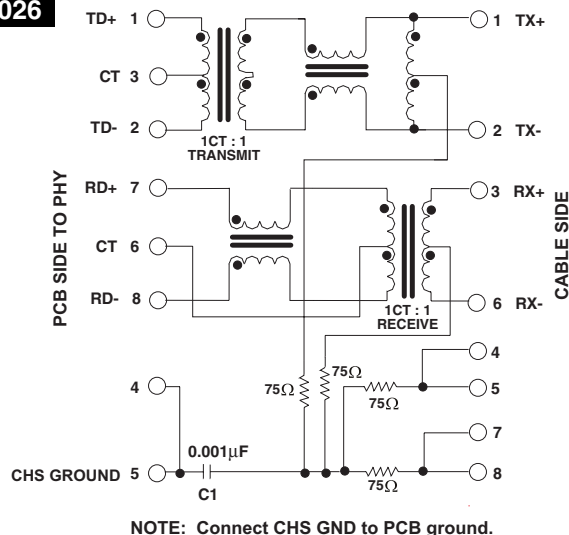
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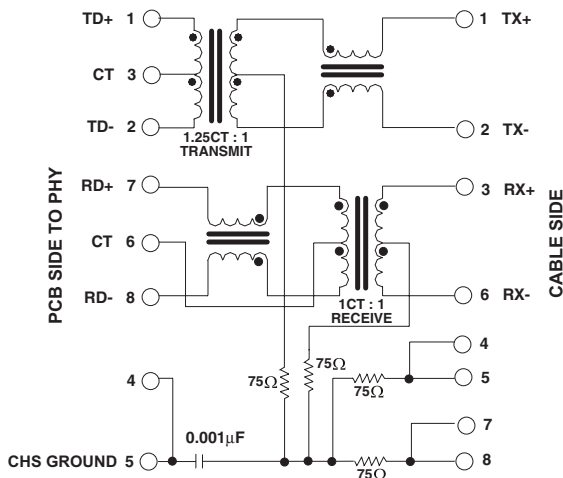
J0024



J0026

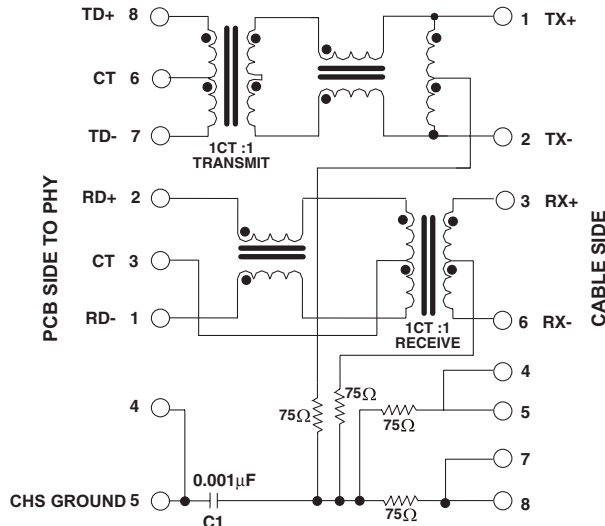


J0033



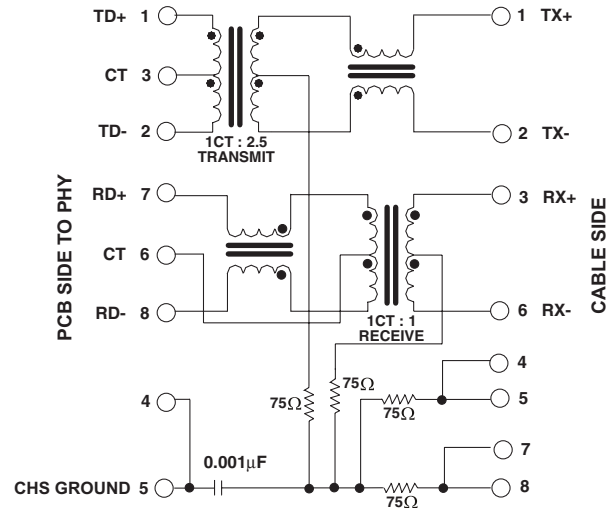
J0 Series Electrical Schematics (*continued*)

J0035



NOTE: Connect CHS GND to PCB ground.

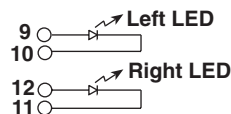
J0073



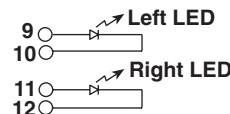
NOTE: Connect CHS GND to PCB ground.

LED Configuration

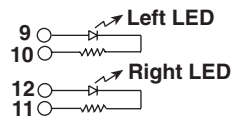
LED = "B & E" Specification (LEDs without internal resistors)



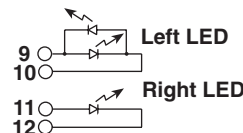
LED = "M" Specification (LEDs without internal resistors)



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).

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