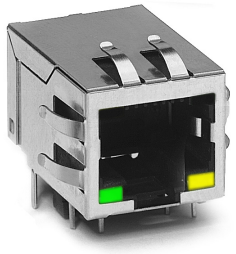
PulseJack™

1x1 Tab-DOWN RJ45

Description:

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



J0006D21BNL shown

Features and Benefits:

- *RoHS 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-TX*
- *350 µH 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 Compliant Part Number	Turns Ratios		Mech. Drawing	EMI Fingers	LEDs[1] (L/R)	Insertion Loss (dB TYP)	Return Loss (dB TYP) 100W ±15W				Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (VDC)
	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	1 MIN
J0006D01BNL	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0006D21NL	1CT:1	1CT:1	D	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0006D21BNL	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0011D01NL	1CT:1	1CT:1	C	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0011D01BNL	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0011D21NL	1CT:1	1CT:1	D	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0011D21BNL	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0011D21ENL	1CT:1	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0012D21NL	1CT:1	1CT:1	D	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0018D21NL	1CT:1.414	1CT:1	D	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0018D21ENL	1CT:1.414	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D01NL	1CT:1	1CT:1	C	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D01BNL	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D01ENL	1CT:1	1CT:1	A	No	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D21NL	1CT:1	1CT:1	D	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D21BNL	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D21ENL	1CT:1	1CT:1	B	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D21FNL[2]	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J0026D21GNL[3]	1CT:1	1CT:1	B	YES	YG/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J00-0014NL	1CT:1	1CT:1	C	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J00-0045NL	1CT:1	1CT:1	A	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J00-0061NL	1CT:1	1CT:1	F	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250
J00-0065NL	1CT:1	1CT:1	E	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	2250

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.

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

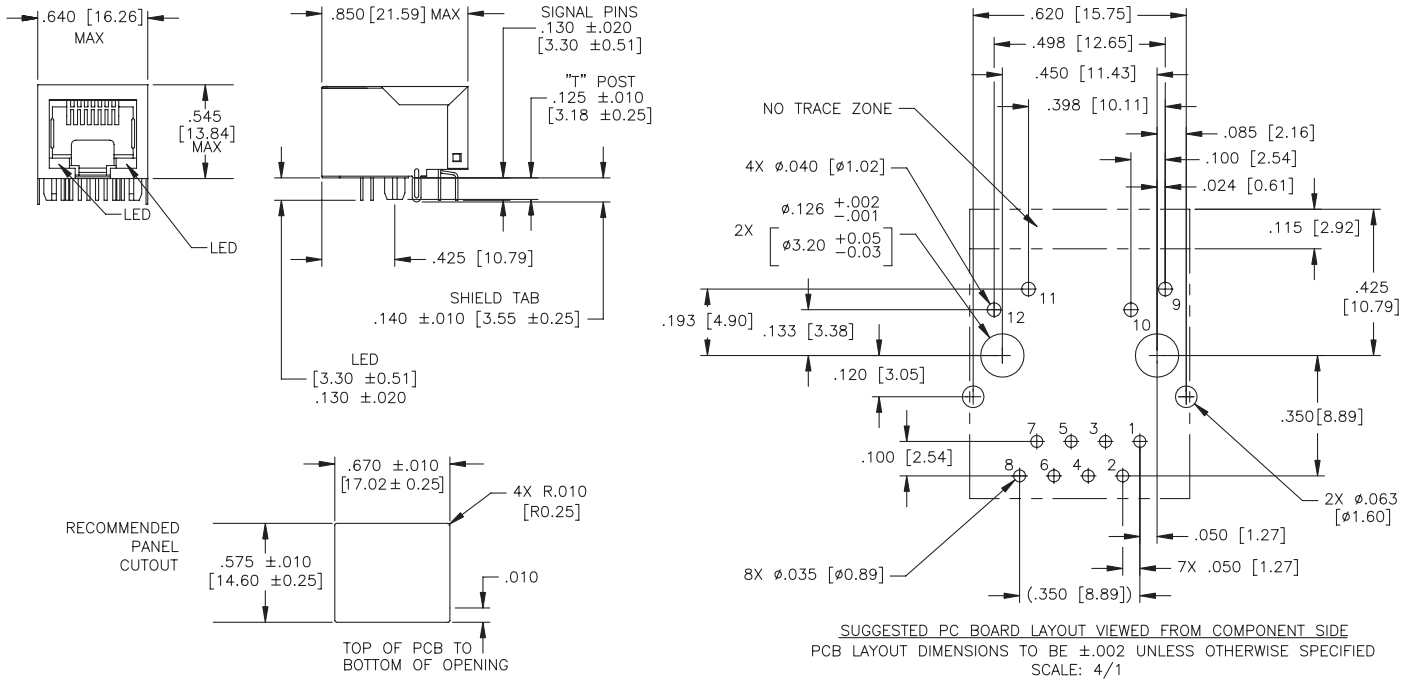
Part Number	Shield			Contact		Housing		MSL[3] Rating
	Material	Finish	Material	Plating Area	Solder Area[2]	Material	Specification	
J0 Series	Brass	10-20m inches Nickel over 10-20m inches Brass	Phosphor Bronze	Nickel underplating and selective gold plating 15µ inches	120µ inches SN100 over 50µ inches nickel	Thermoplastic	UL 94 V-0	1

Notes: **1. Connector** dimensions comply with FCC dimension requirements.
2. RoHS parts are tin matte finish over nickel.
3. MSL = Moisture Sensitivity Level rating from 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

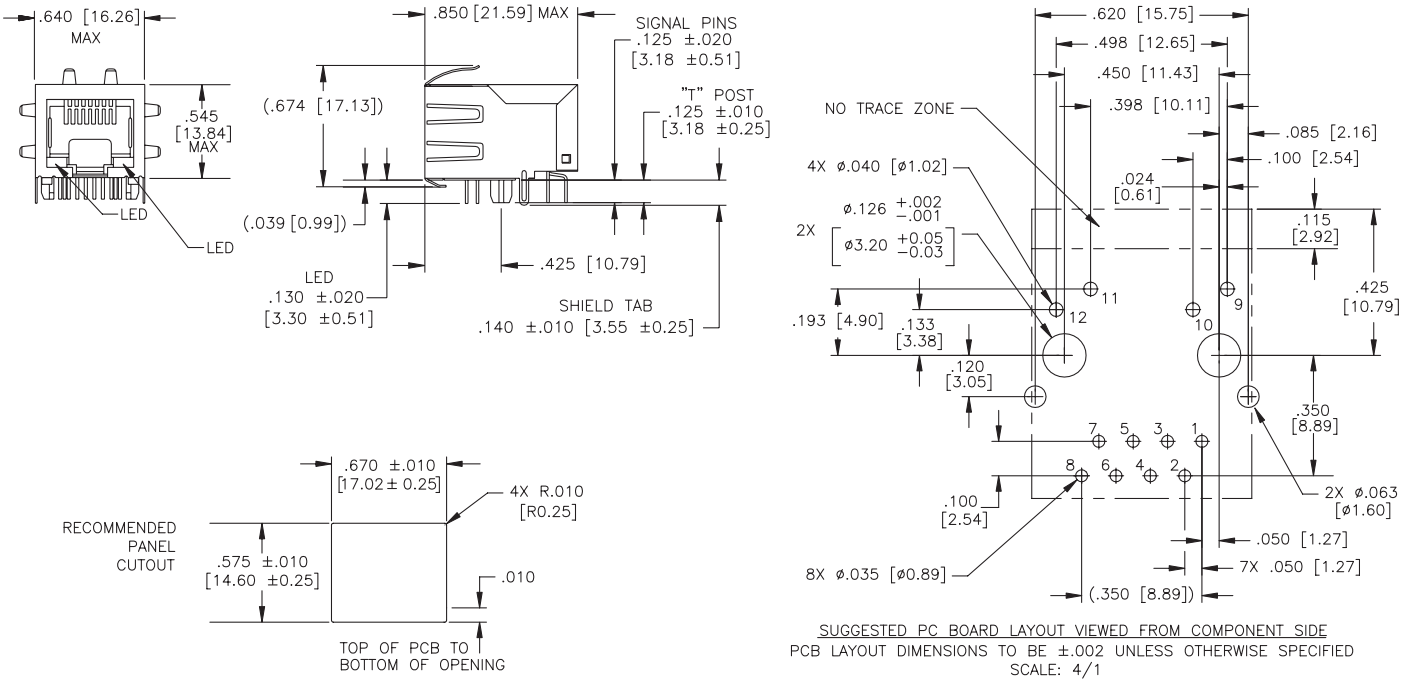
J0 Series Mechanicals

A



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

B



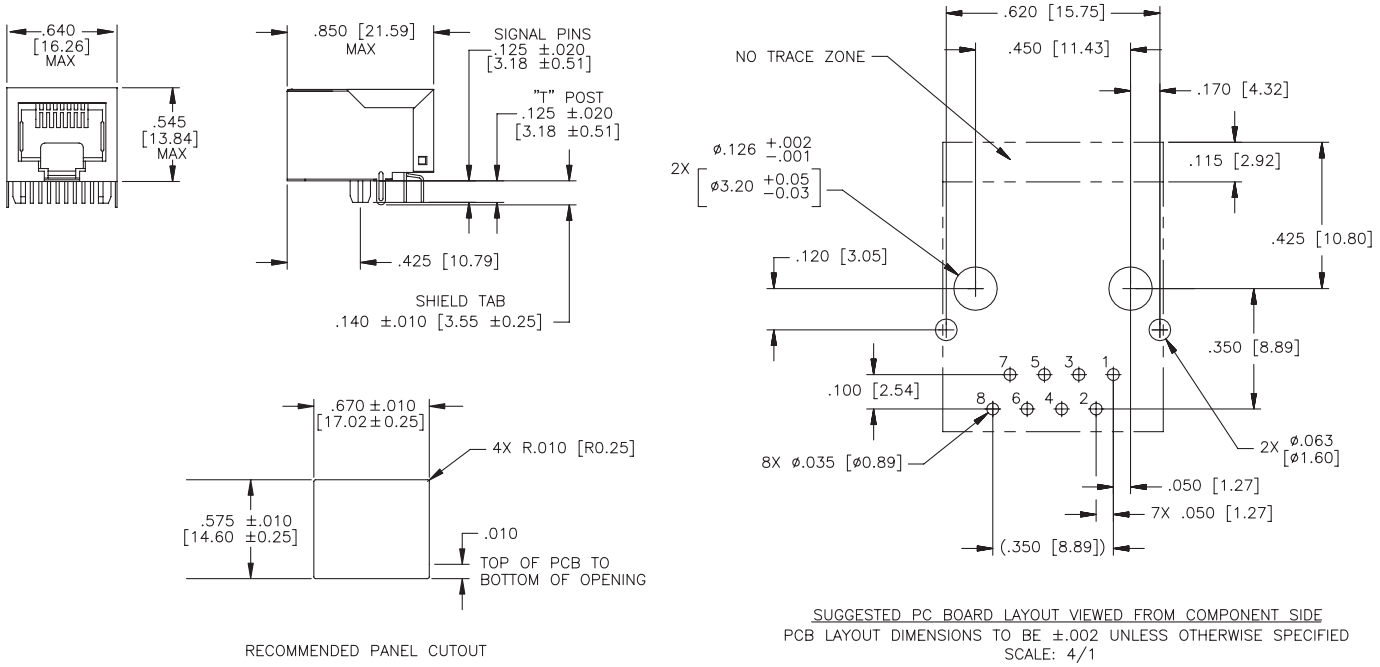
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
SCALE: 4/1

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

J0 Series Mechanicals *(continued)*

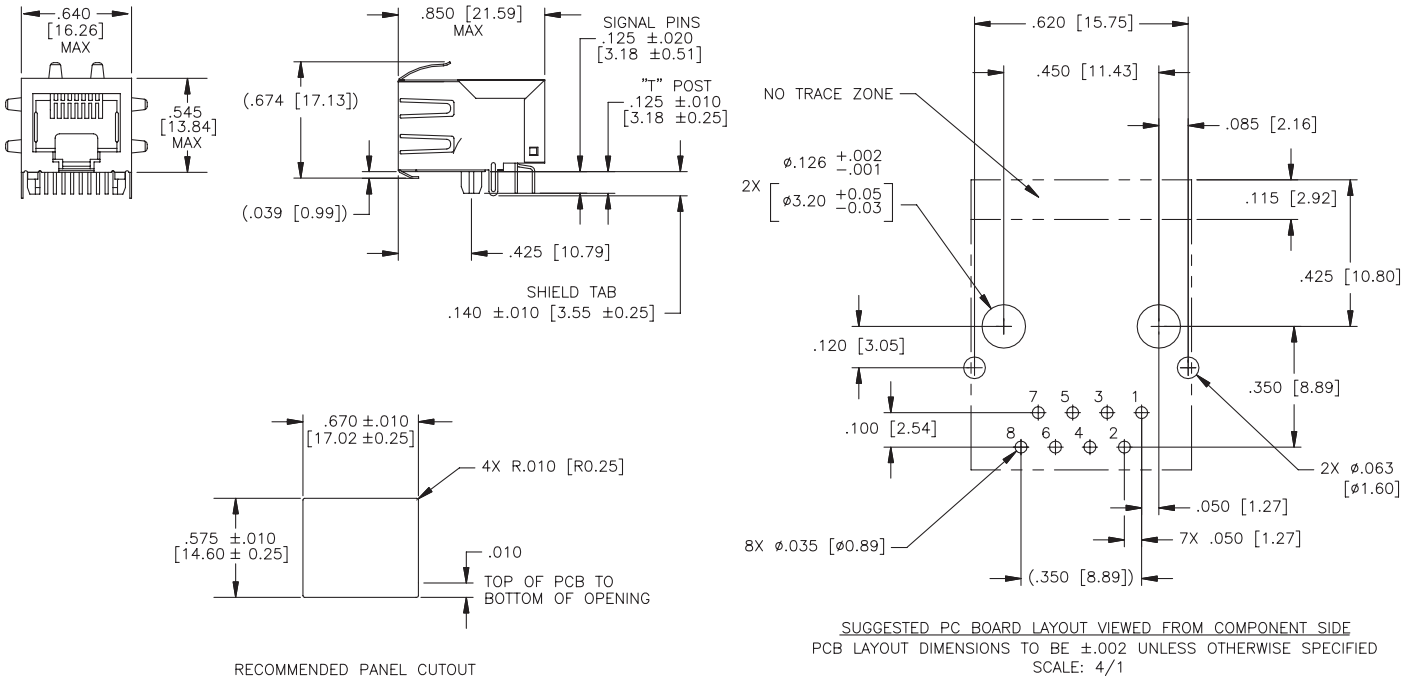
C



Dimensions: Inches / mm

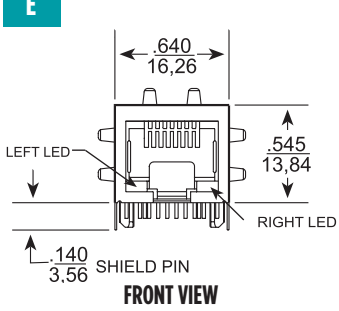
Unless otherwise specified, all tolerances are ± .010 / 0,25

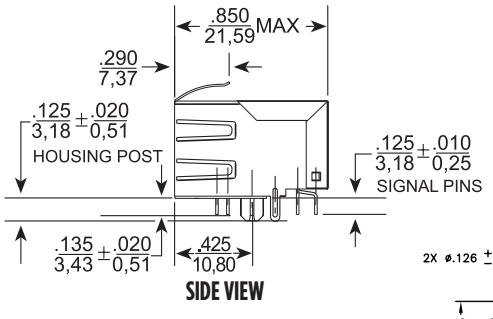
D

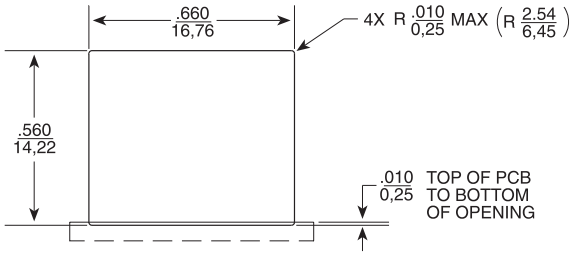


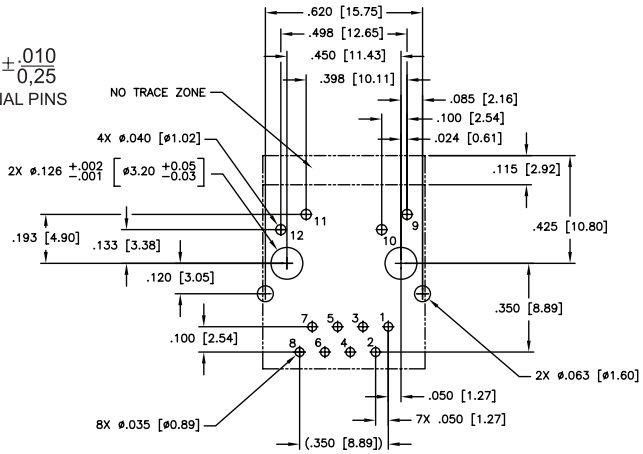
J0 Series Mechanicals *(continued)*

E







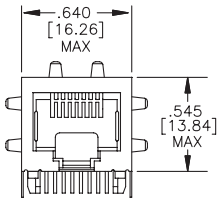


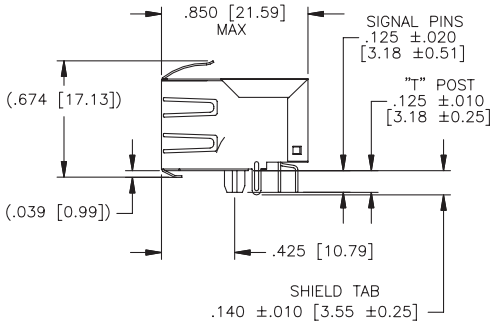
View from PCB component side

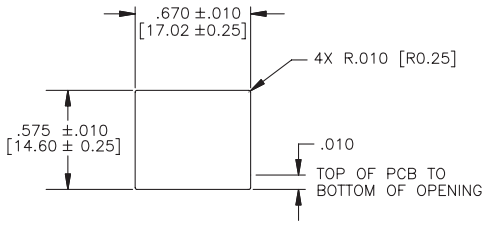
Dimensions: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

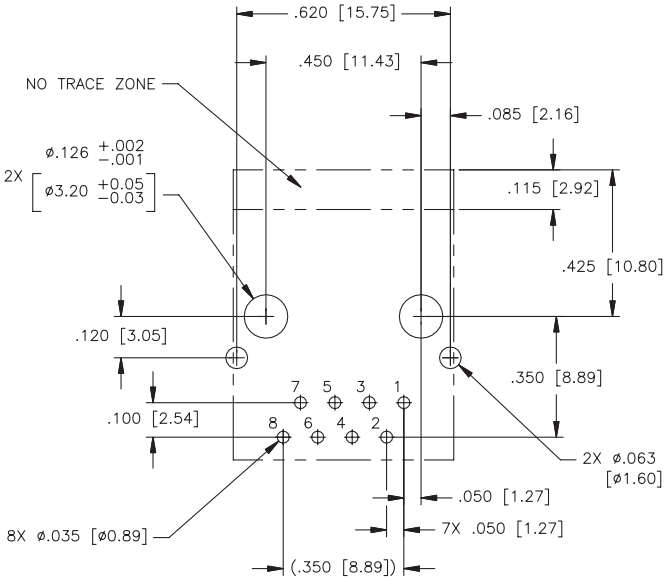
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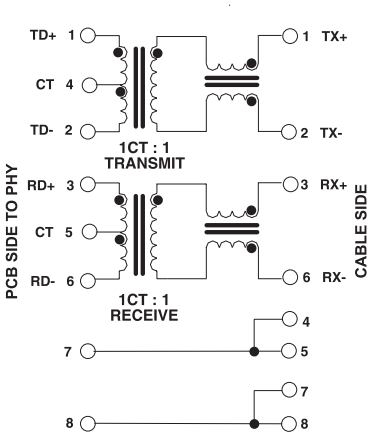
RECOMMENDED PANEL CUTOUT



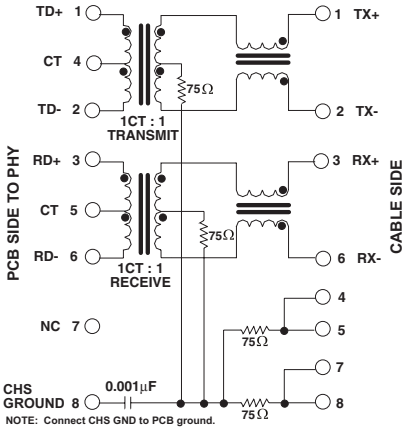
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
SCALE: 4/1

J0 Series Electrical Schematics

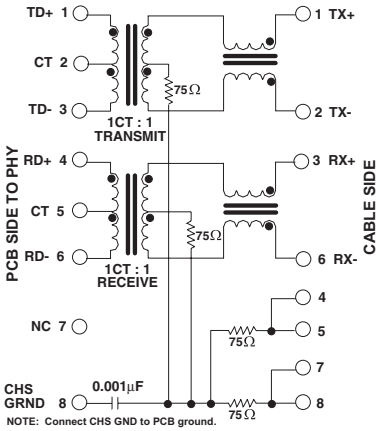
J0006



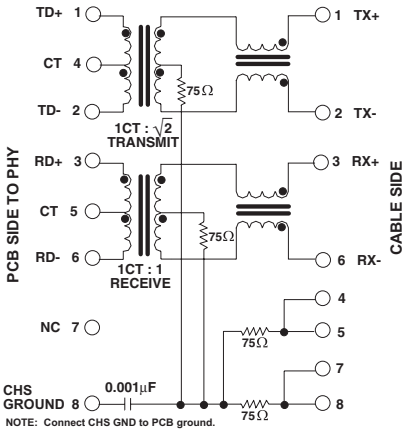
J0011/J00-0014NL/45NL/61NL/65NL



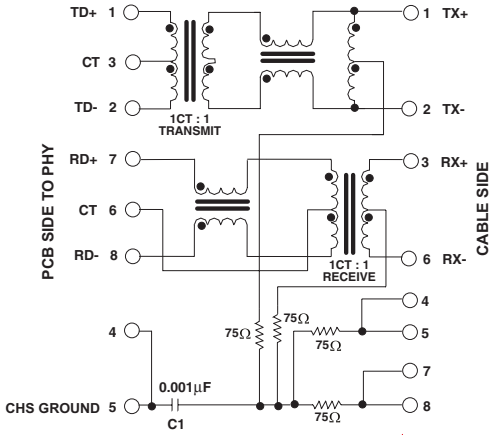
J0012



J0018



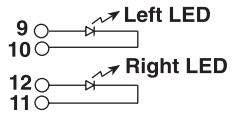
J0026



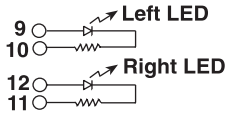
NOTE: Connect CHS GND to PCB ground.

LED Configuration

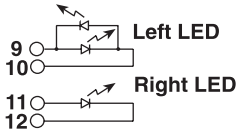
LEDs without internal resistors



LEDs with internal resistors



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

* 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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