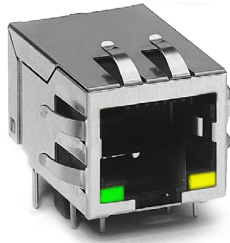


Description:

100 Base-TX (Fast Ethernet) 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-Mother-board (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 μ H 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.

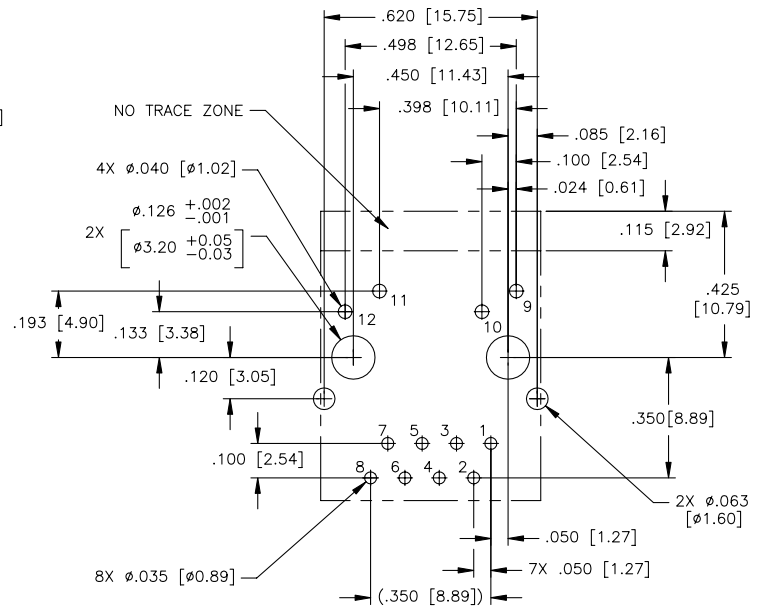
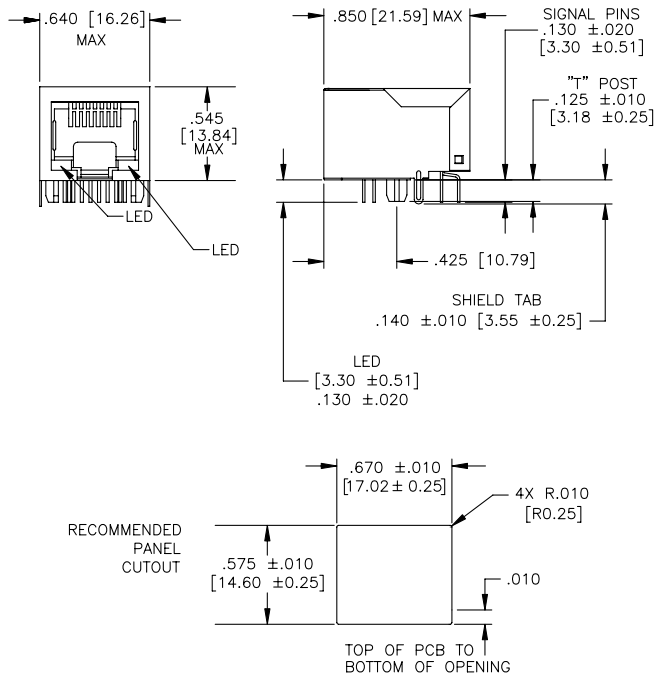
RJ45 Material Specification

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

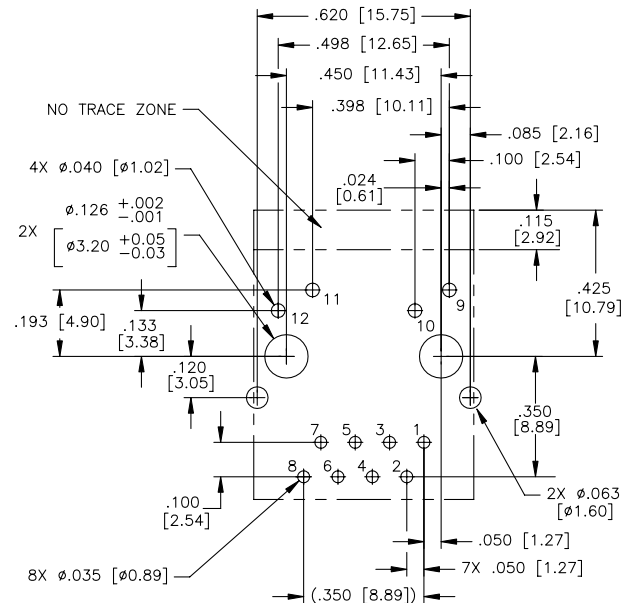
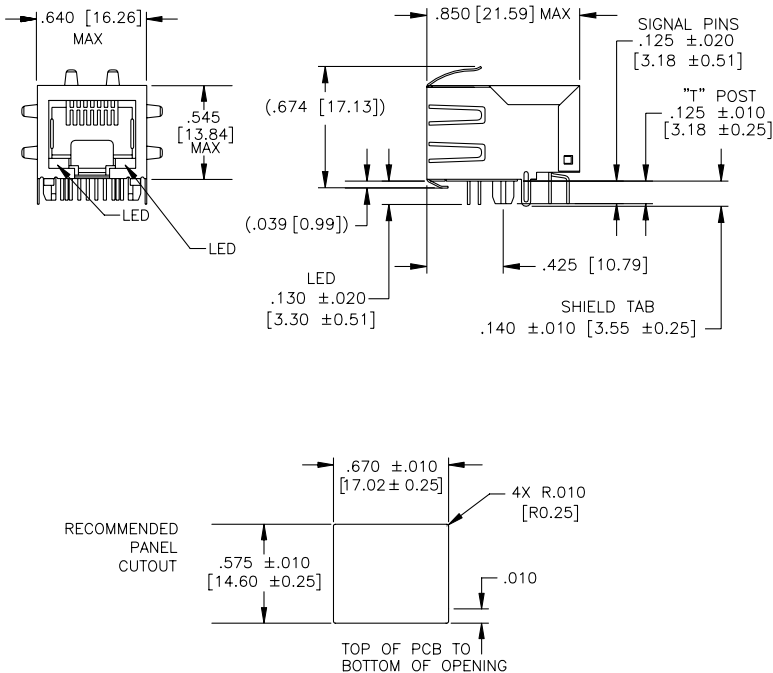
Notes: 1. Connector dimensions comply with FCC dimension requirements. 2. RoHS parts are tin matte finish over nickel. 3. MSL = Moisture Sensitivity Level rating from 1 to 5 (highest = 1, lowest = 5)

J0 Series Mechanicals

A



B

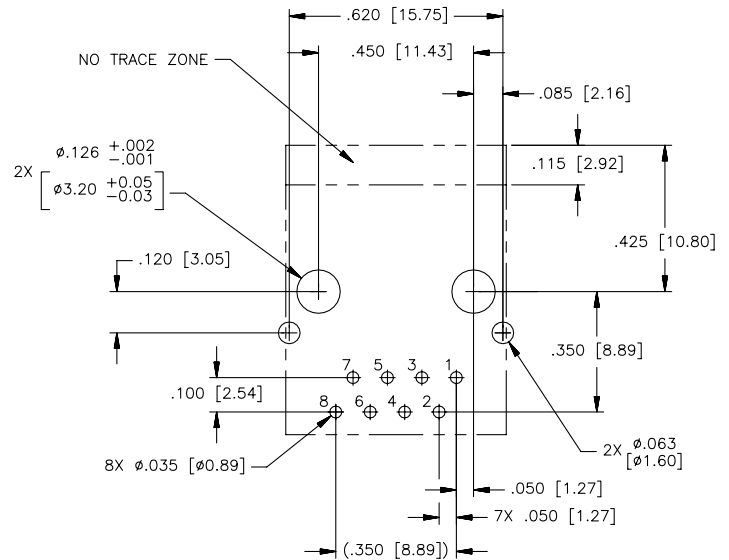
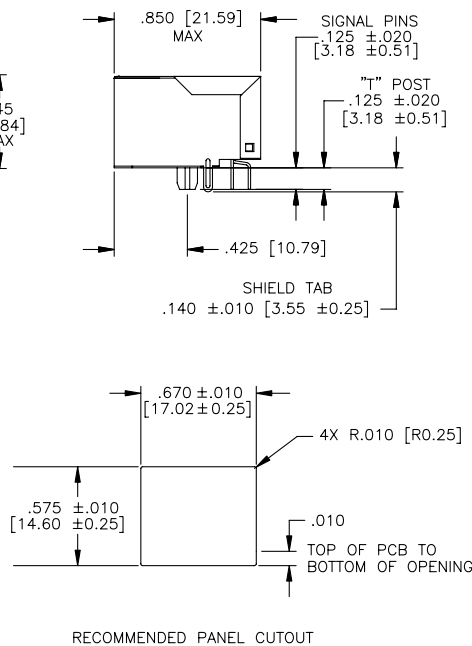


Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are ±.010
0.25

J0 Series Mechanicals *(continued)*

C

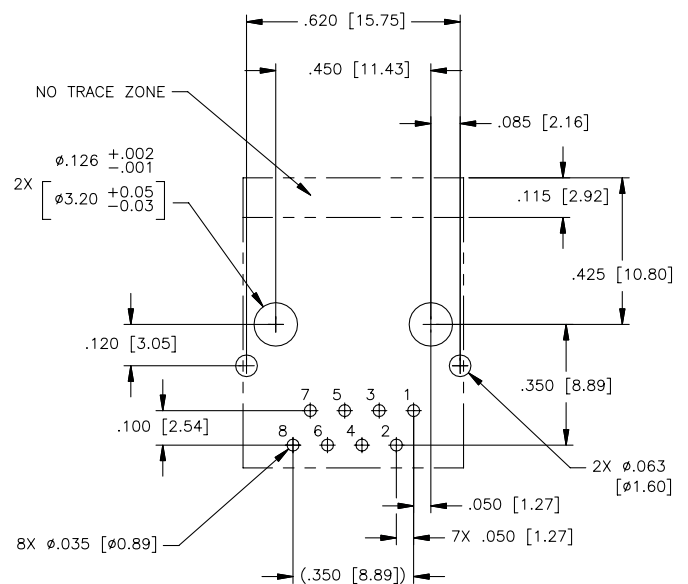
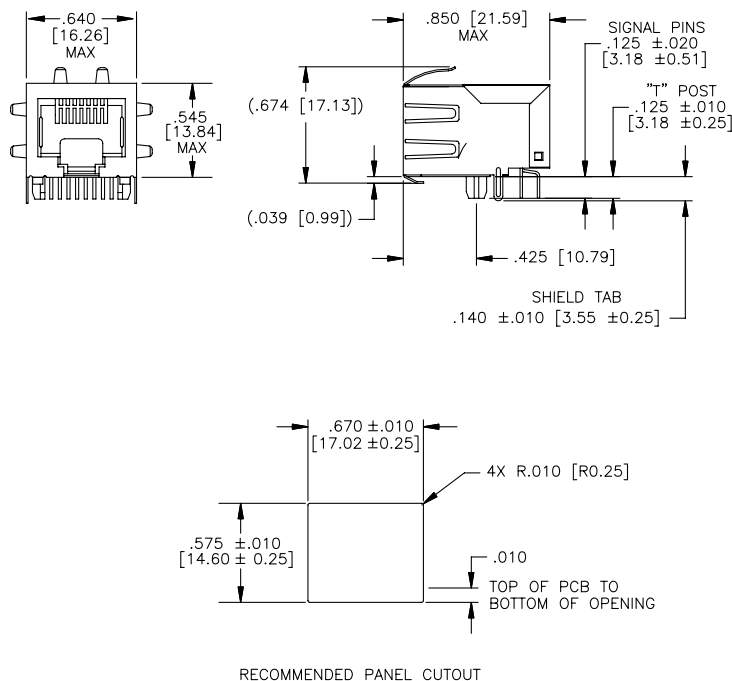


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ± 0.002 UNLESS OTHERWISE SPECIFIED

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

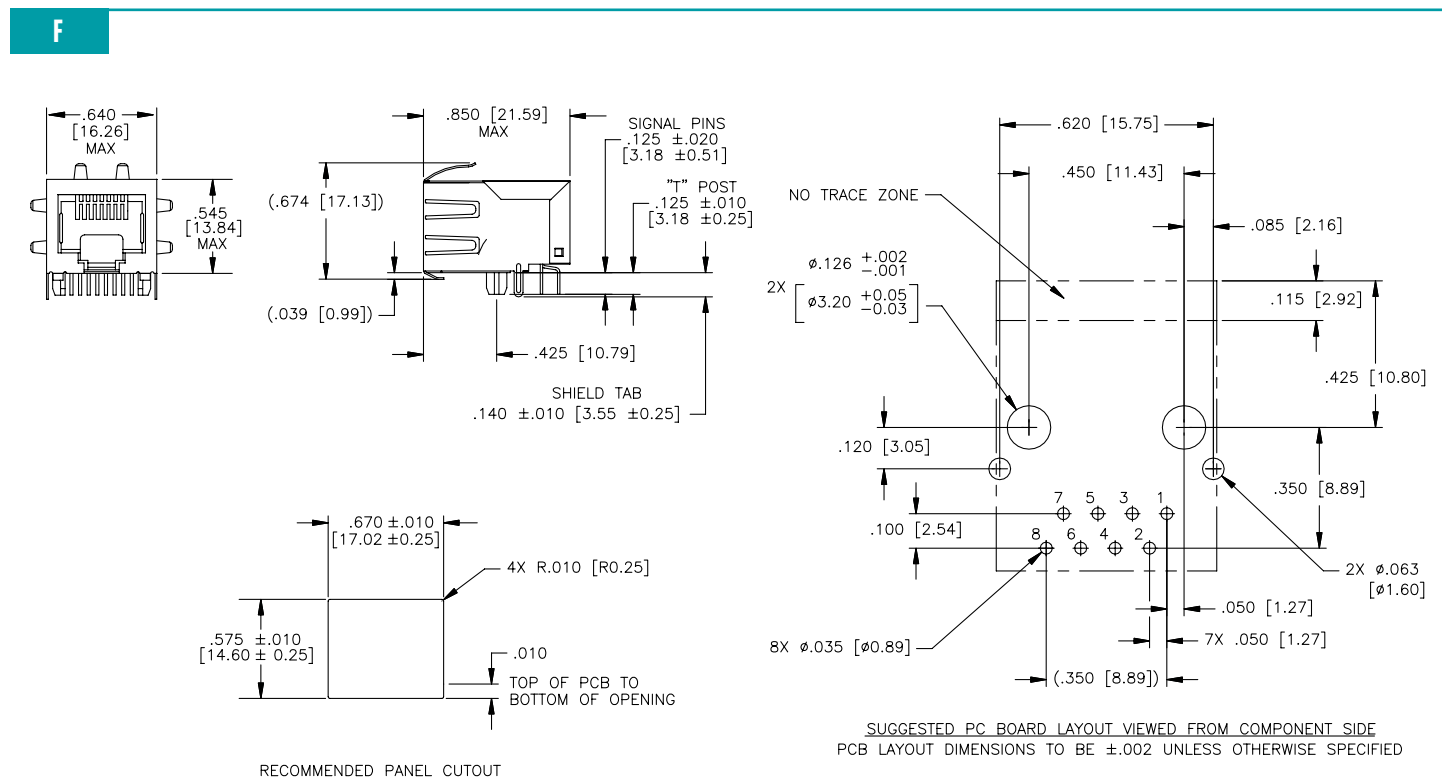
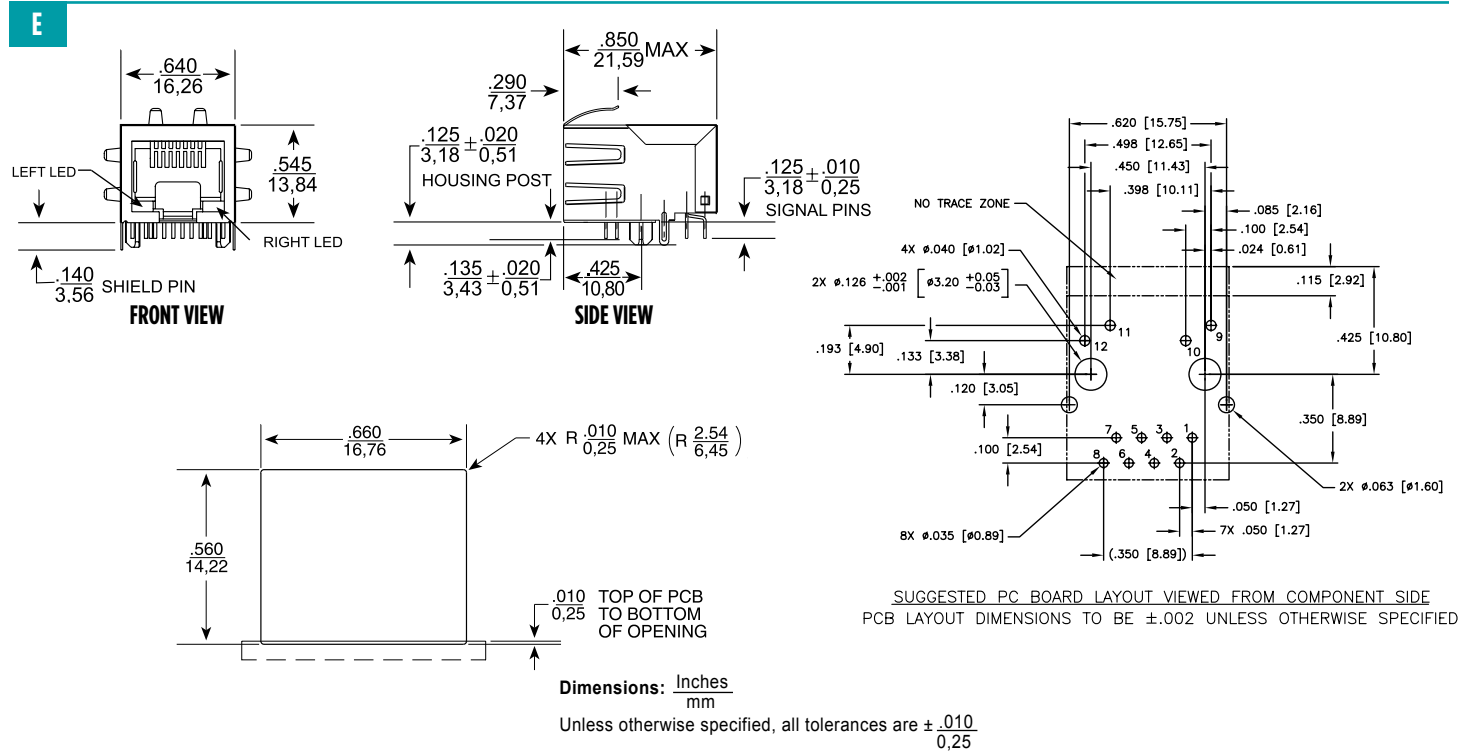
Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

D



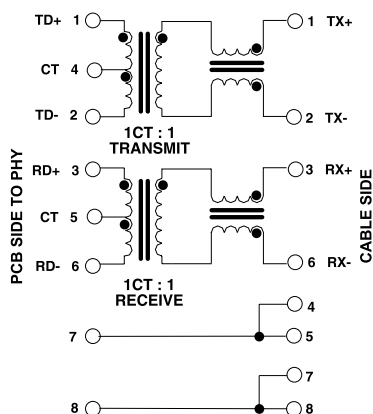
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE $\pm .002$ UNLESS OTHERWISE SPECIFIED

J0 Series Mechanicals (continued)

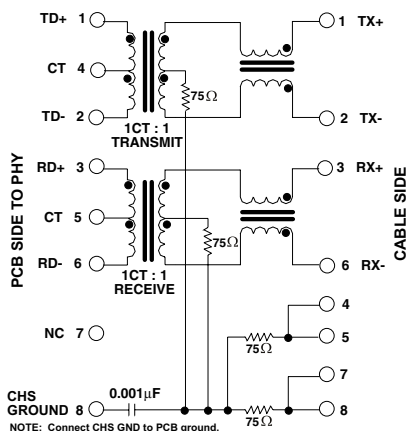


J0 Series Electrical Schematics

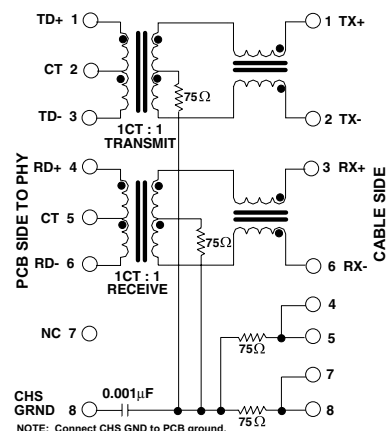
J0006



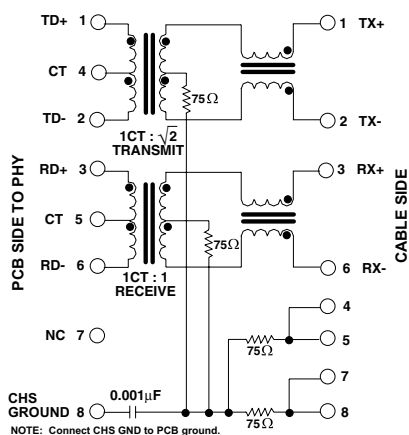
J0011/J00-0014NL/45NL/61NL/65NL



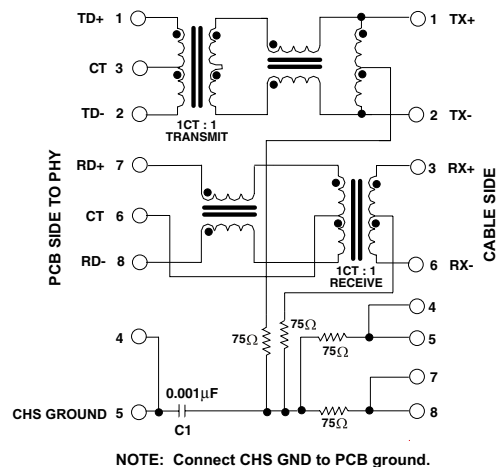
J0012



J0018

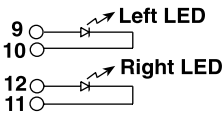


J0026

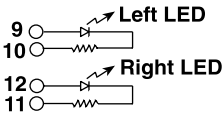


LED Configuration

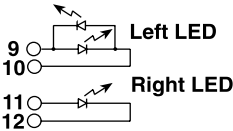
LEDs without internal resistors



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).

For More Information:

Americas - prodinfo_network_americas@yageo.com | Europe - prodinfo_network_emea@yageo.com | Asia - prodinfo_network_asia@yageo.com

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2023. Pulse Electronics, Inc. All rights reserved.

YAGEO Corporation and its affiliates do not recommend the use of commercial or automotive grade products for high reliability applications or manned space flight.