

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 ¹ (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	1-50 MHz	50-150 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 ²	J0026D01FNL ²	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 ²	J0026D21FNL ²	1CT:1	1CT:1	B	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D21G ³	J0026D21GNL ³	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.

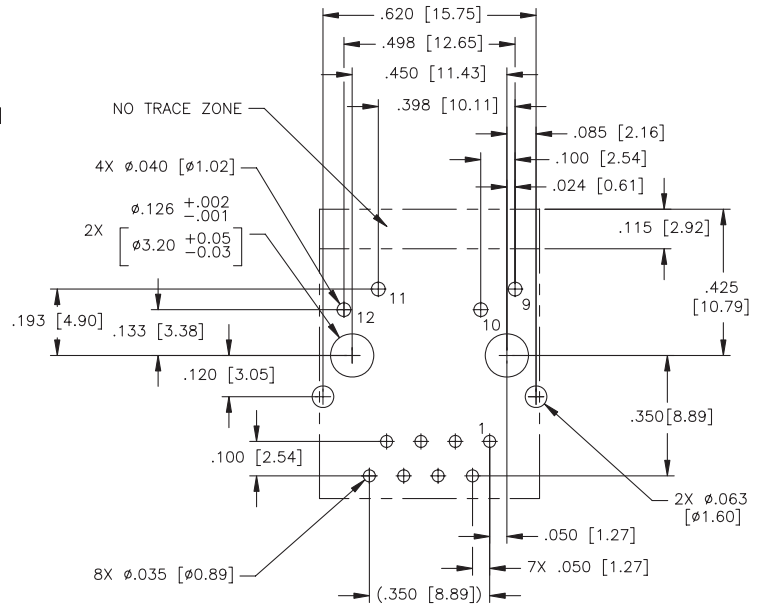
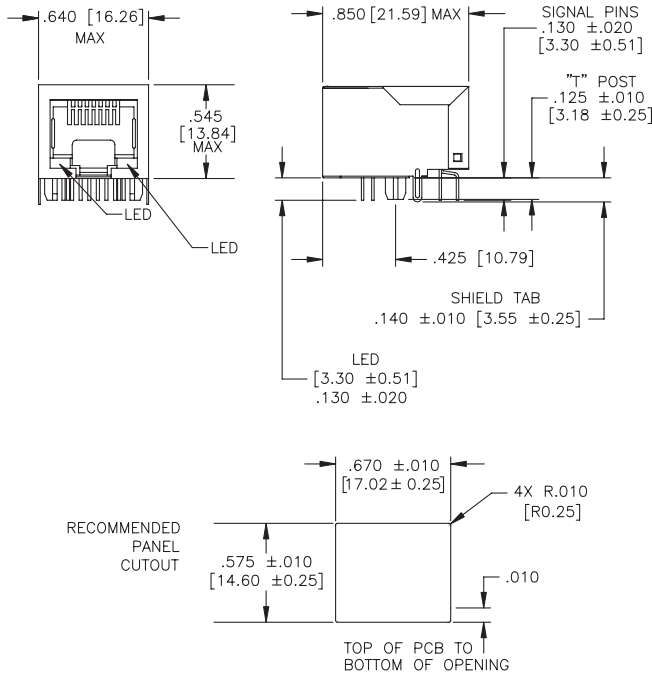
RJ45 Material Specification

Part Number	Shield		Contact		Housing		MSL 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. 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)

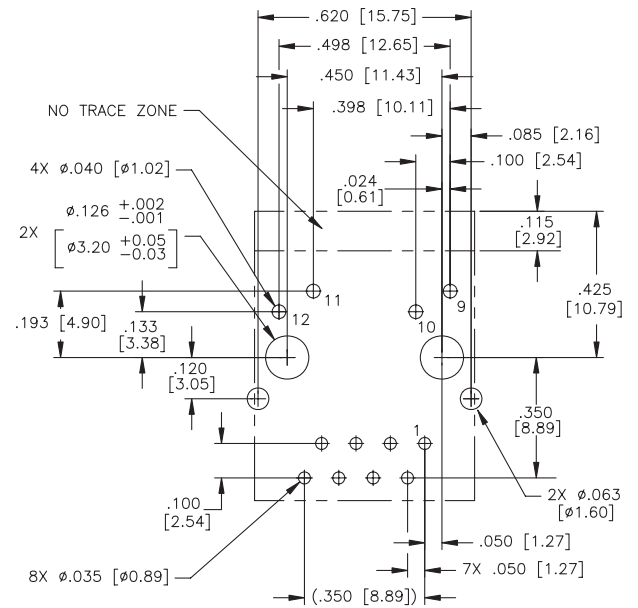
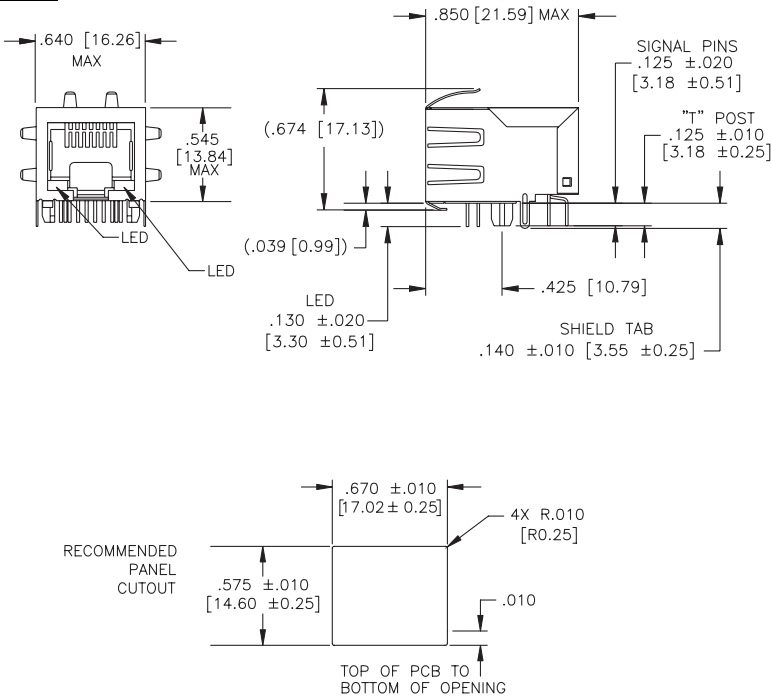
J0 Series Mechanicals

A



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

B



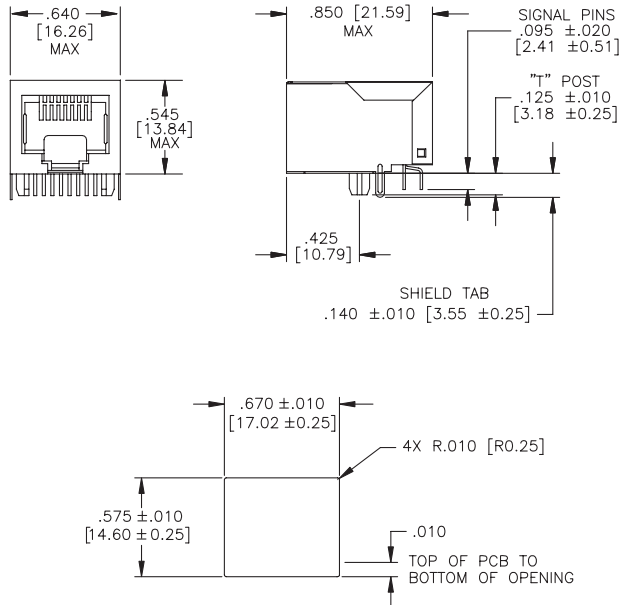
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
 PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
 SCALE: 4/1

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

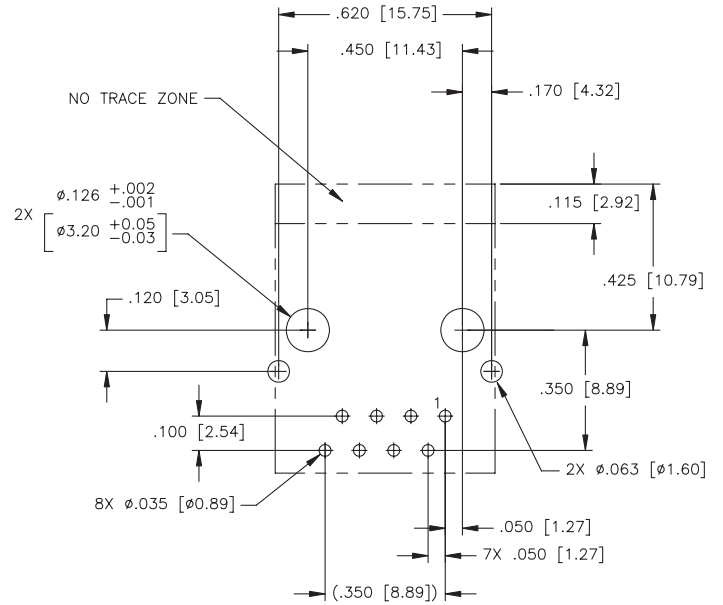


J0 Series Mechanicals

C

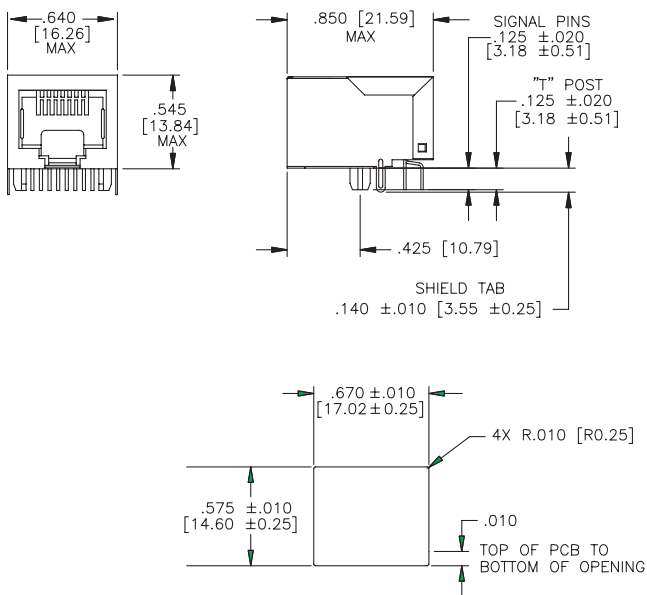


RECOMMENDED PANEL CUTOUT

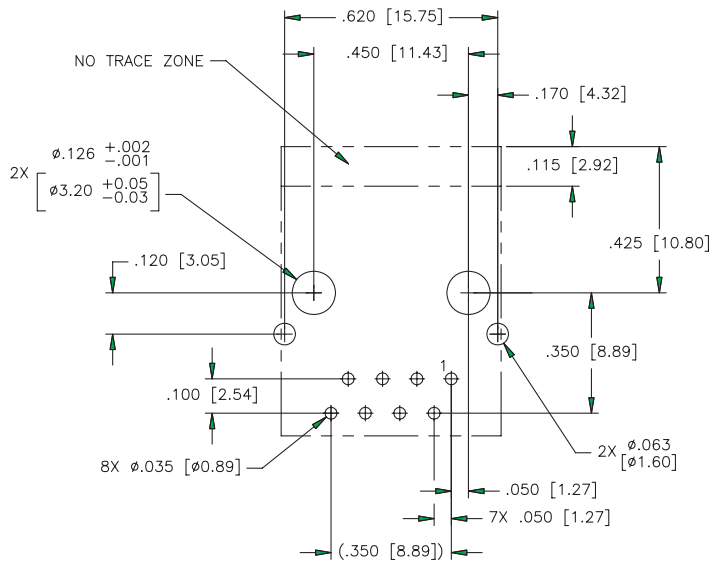


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
 PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
 SCALE: 4/1

D



RECOMMENDED PANEL CUTOUT

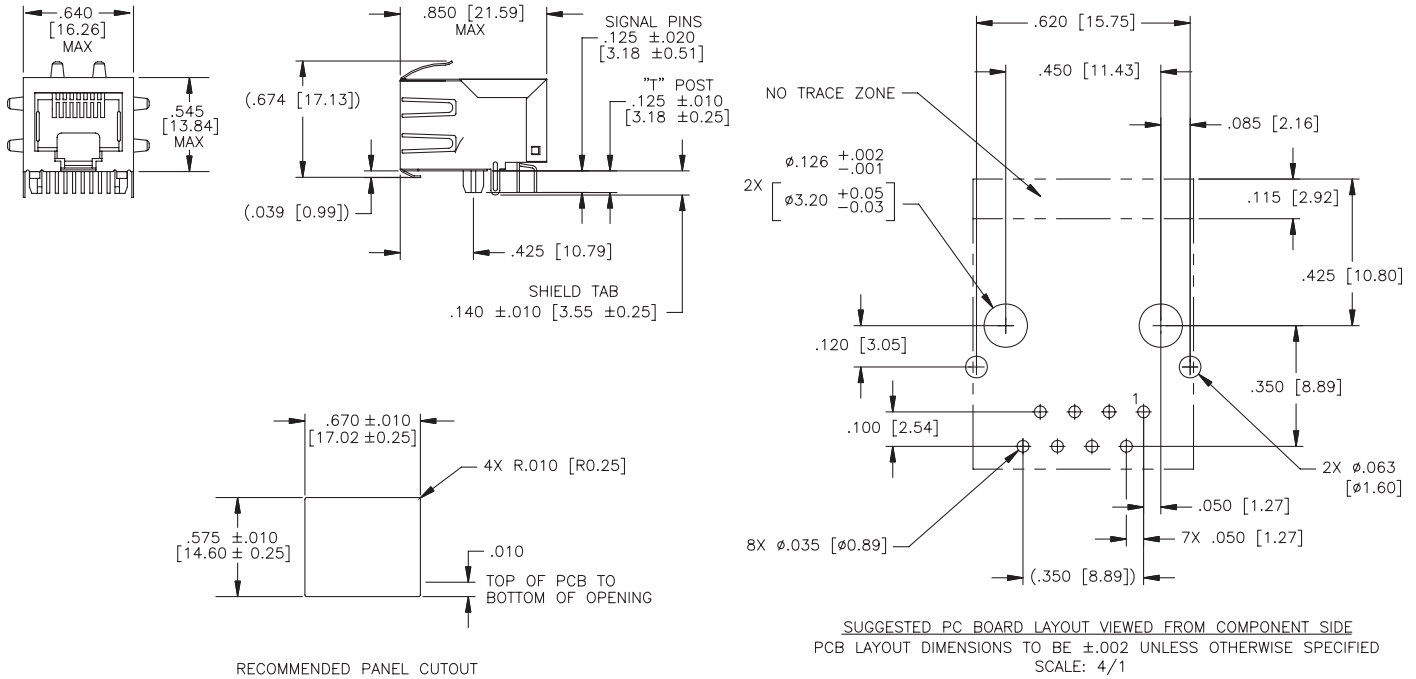


SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
 PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
 SCALE: 4/1

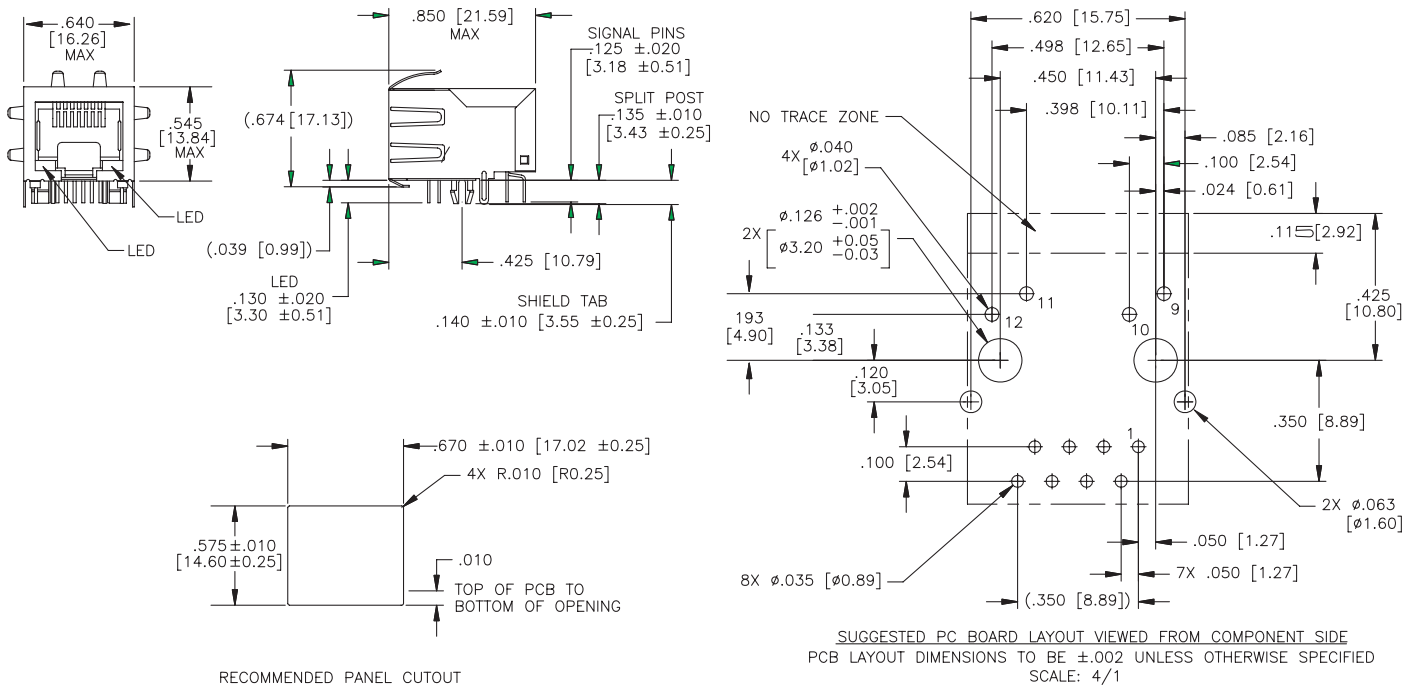
Dimensions: ^{Inches}/_{mm}
 Unless otherwise specified,
 all tolerances are ± ^{.010}/_{0.25}

J0 Series Mechanicals

E



F

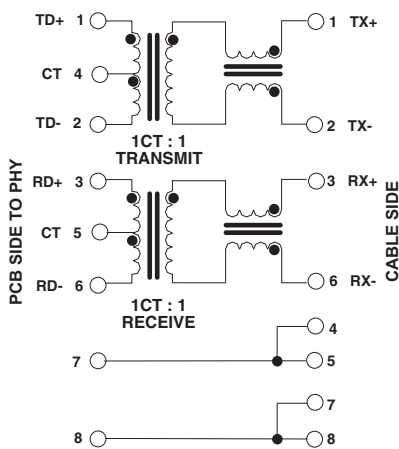


Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are ± .010
0.25

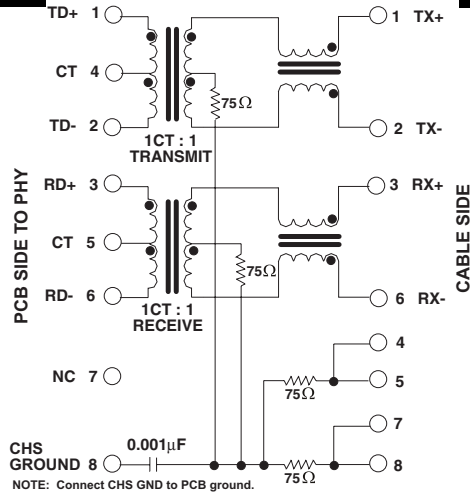


J0 Series Electrical Schematics

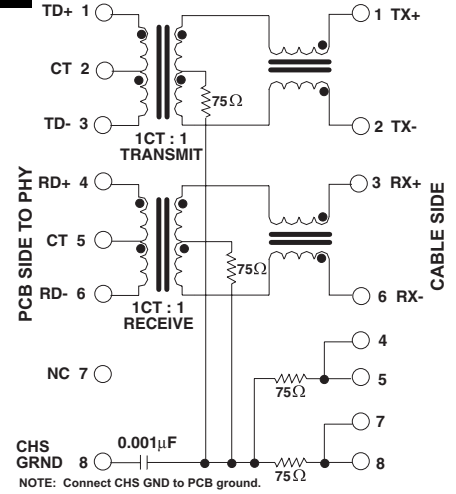
J0006



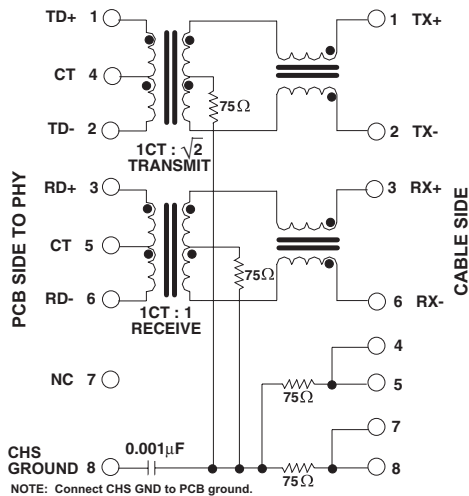
J0011



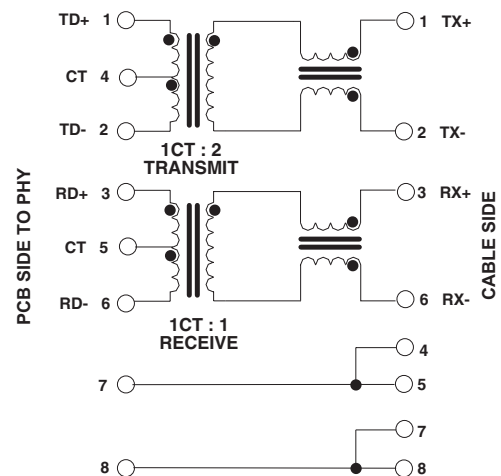
J0012



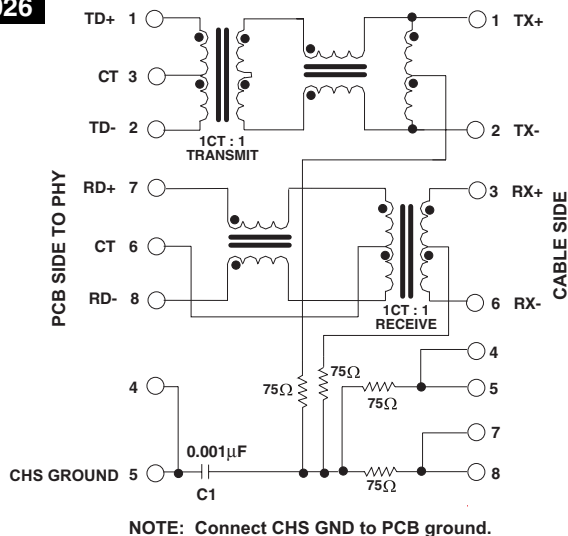
J0018



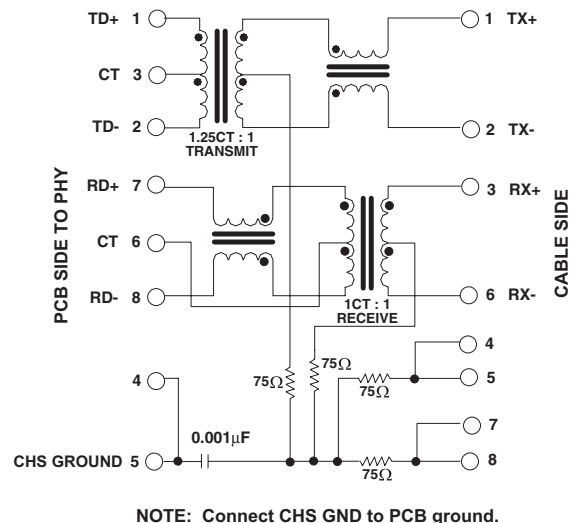
J0024



J0026

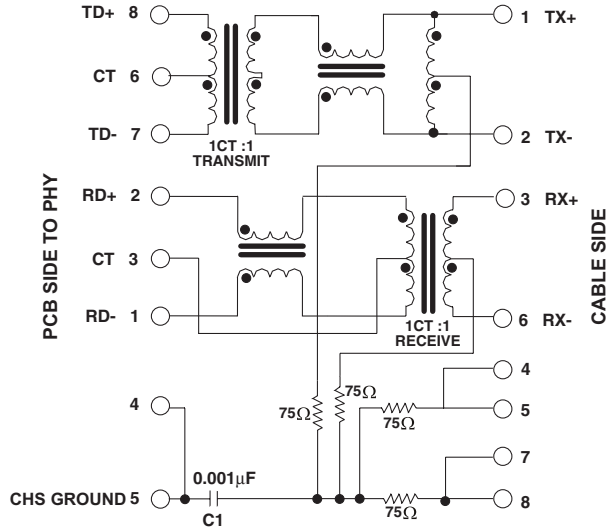


J0033



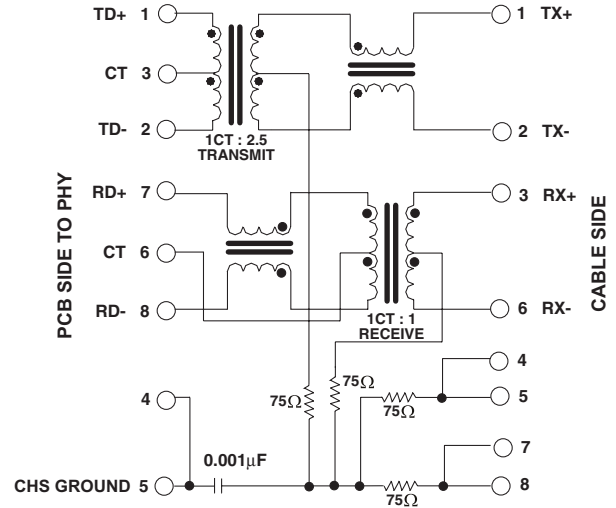
J0 Series Electrical Schematics (continued)

J0035



NOTE: Connect CHS GND to PCB ground.

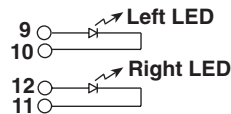
J0073



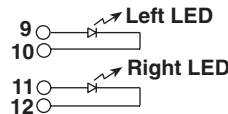
NOTE: Connect CHS GND to PCB ground.

LED Configuration

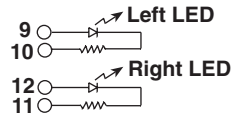
**LED = "B & E" Specification
(LEDs without internal resistors)**



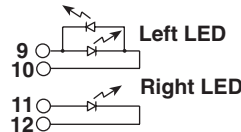
**LED = "M" Specification
(LEDs without internal resistors)**



**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
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

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, 2006. Pulse Engineering, Inc. All rights reserved.