

Description:

10/100 Base-TX RJ45 1x1 Tab-UP with LEDs 8-pin (J1 series) and 6-pin (JP series) integrated magnetics connector, designed to support applications, such as ADSL modems, LAN-on-Motherboard, and 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 IEEE 802.3 specification
- Ⓢ 350µH minimum OCL with 8mA bias current
- Ⓢ High performance for maximum EMI suppression

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

RoHS-5 ² Compliant Part No.	RoHS-6 ³ Compliant Part No.	Turns Ratios		EMI Fingers	LEDs ¹ L/R	Insertion Loss (dB TYP)	Return Loss (dB TYP) 100Ω ± 15Ω					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	
J1006F01P	J1006F01PNL	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1006F21	J1006F21NL	1CT:1	1CT:1	YES	NONE	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1011F01P	J1011F01PNL	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1011F21P	J1011F21PNL	1CT:1	1CT:1	YES	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F01C	J1012F01CNL	1CT:1	1CT:1	No	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21C	J1012F21CNL	1CT:1	1CT:1	YES	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21K	J1012F21KNL	1CT:1	1CT:1	YES	G/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21R	J1012F21RNL	1CT:1	1CT:1	YES	RG/R	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F01	J1026F01NL	1CT:1	1CT:1	No	NONE	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F01P	J1026F01PNL	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F21C	J1026F21CNL	1CT:1	1CT:1	YES	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP006821U	JP006821UNL	1CT:1	1CT:1	YES	G_O/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP011821U	JP011821UNL	1CT:1	1CT:1	YES	G_O/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP026821U	JP026821UNL	1CT:1	1CT:1	YES	G_O/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	

NOTES:

1. LEDs Left/Right: G = green, Y = yellow, G_O = green/orange bi-color LED, R = LEDs with resistors.
2. **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.
3. **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

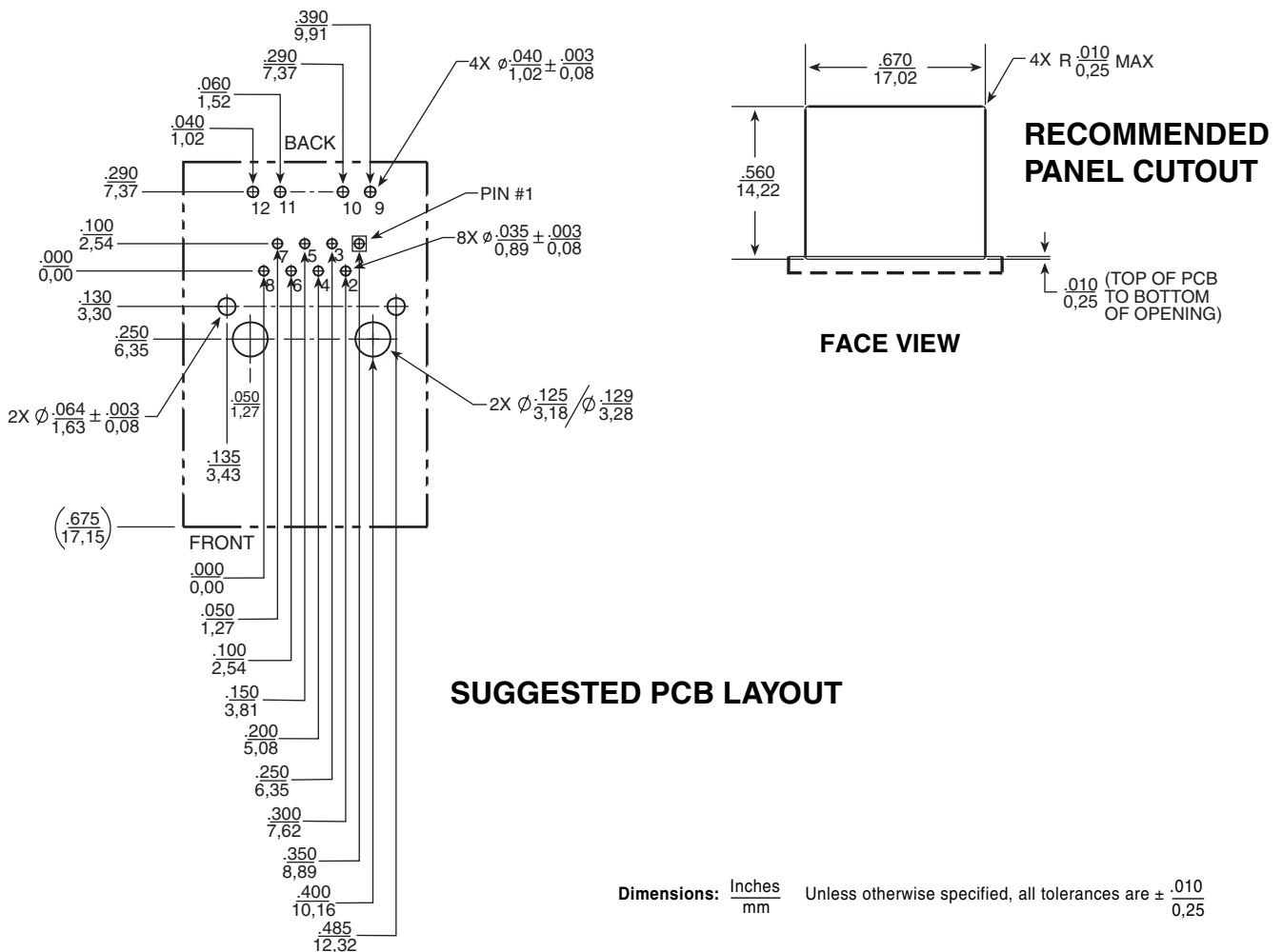
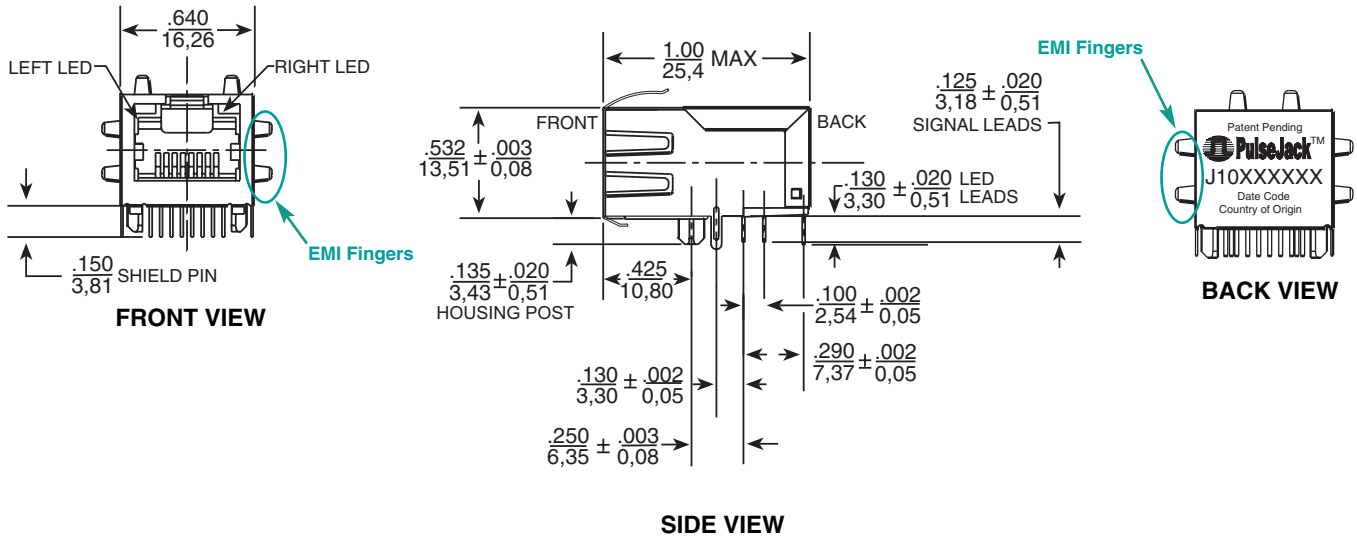
Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JP/J1 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

RJ45 Material Specification

Part Number	Shield		Contact			Housing		MSL ² Rating
	Material	Finish	Material	Plating Area	Solder Area ³	Material	Specification	
JP/J1 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. MSL = Moisture Sensitivity Level rating from 1 to 5 (highest rating = 1, lowest rating = 5). 3. NL parts are tin matte finish over nickel.

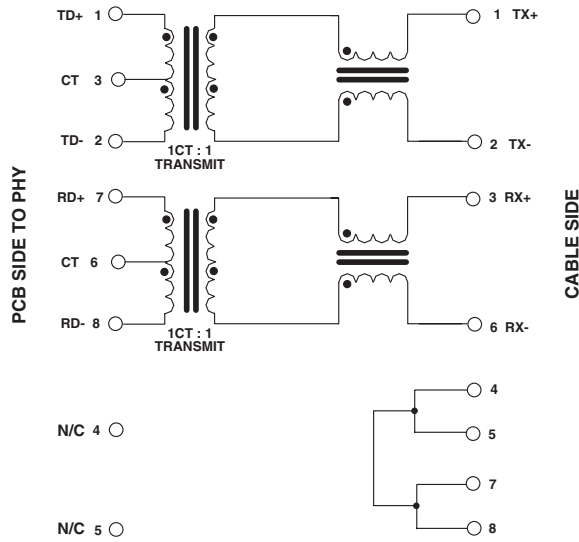
J1 Series Mechanicals



Dimensions: $\frac{\text{Inches}}{\text{mm}}$ Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$

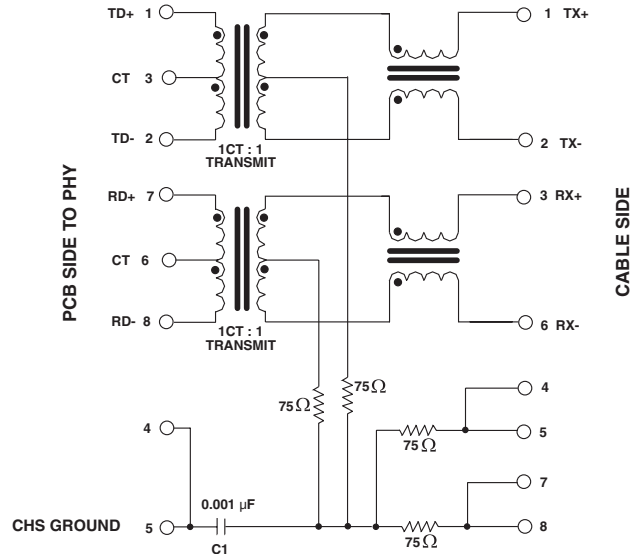
J1 Series Electrical Schematics

J1006



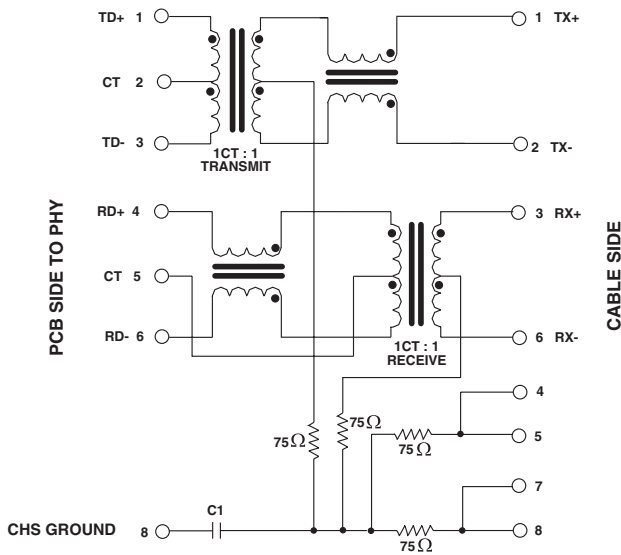
NOTE: Connect CHS GND to PCB ground.

J1011



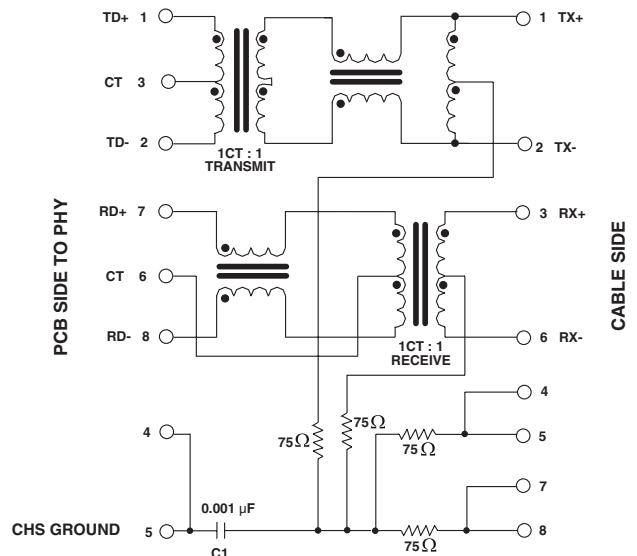
NOTE: Connect CHS GND to PCB ground.

J1012



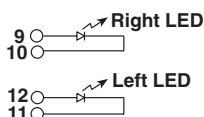
NOTE: Connect CHS GND to PCB ground.

J1026

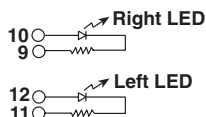


NOTE: Connect CHS GND to PCB ground.

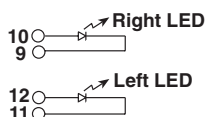
LED = P



LED = L or R



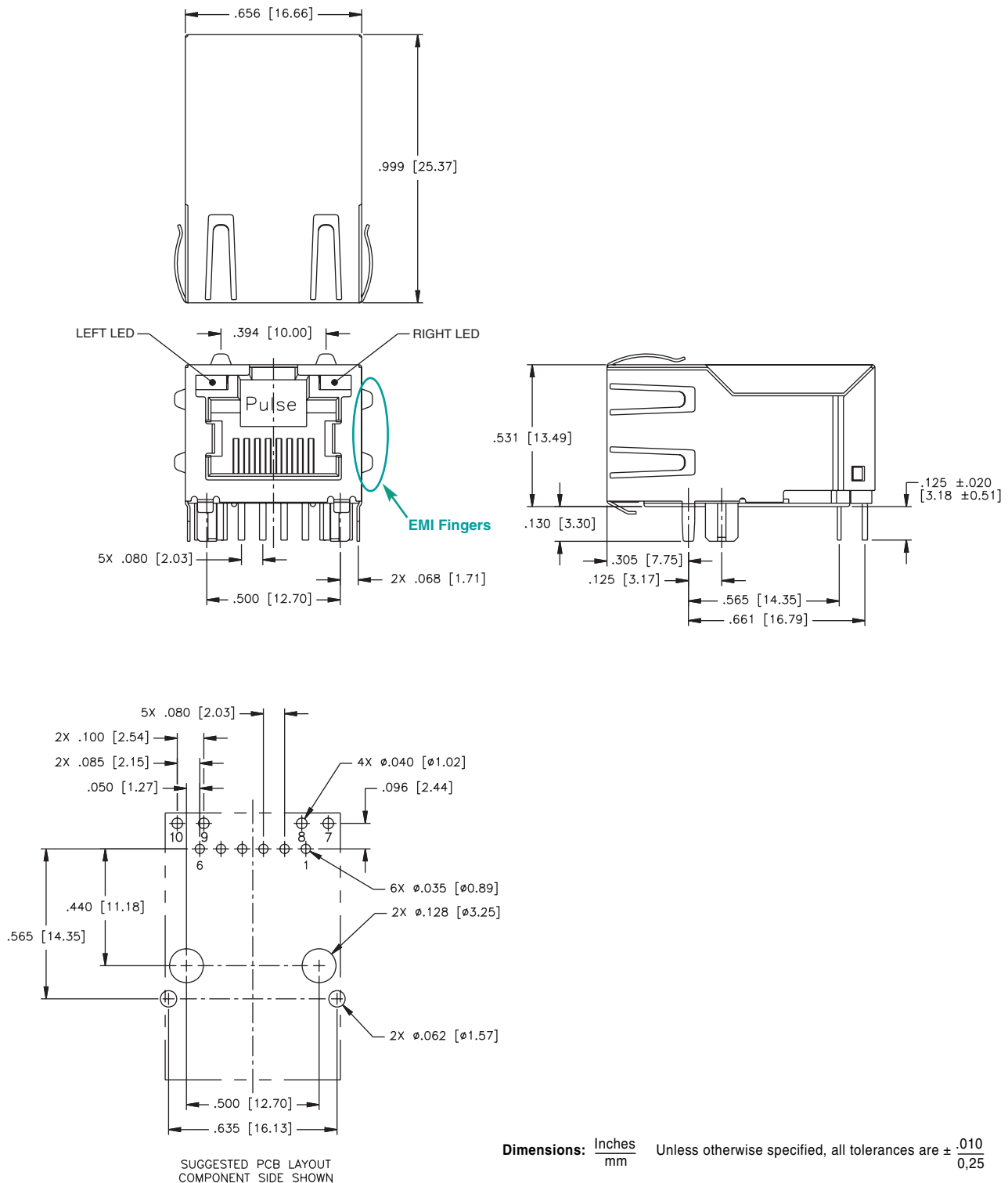
LED = C or K



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

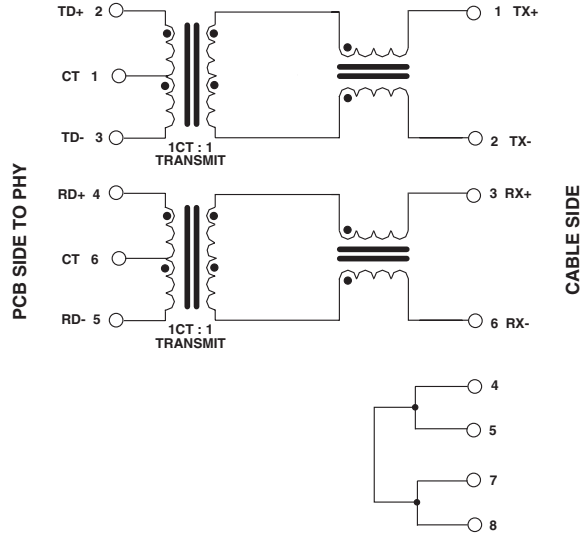
* With a forward current of 20 mA

JP Series Mechanicals



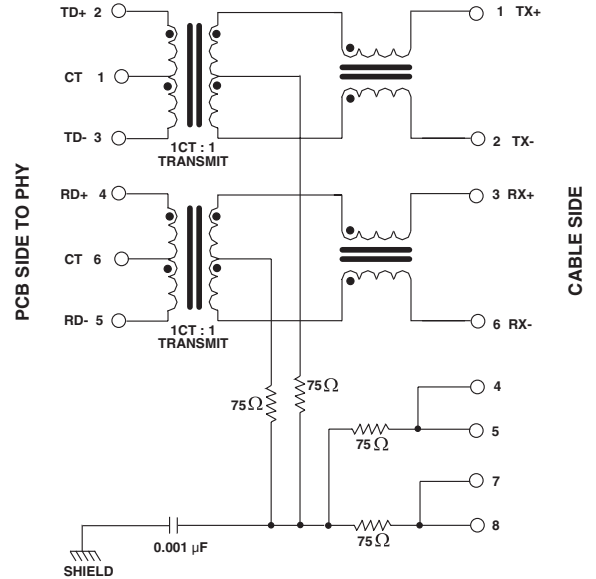
JP Series Electrical Schematics

JP006

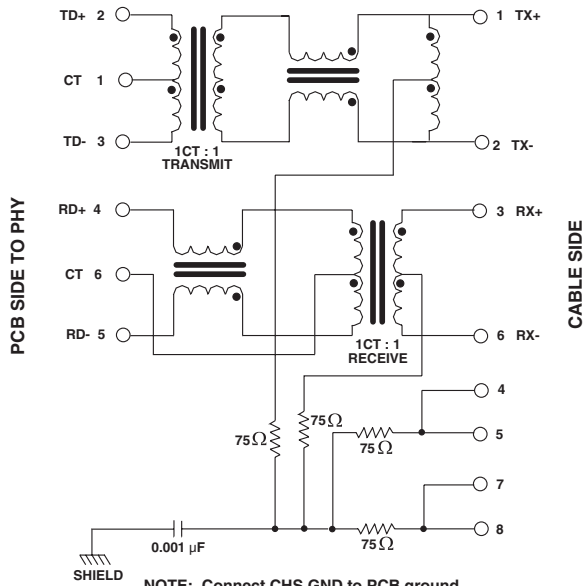


NOTE: Connect CHS GND to PCB ground.

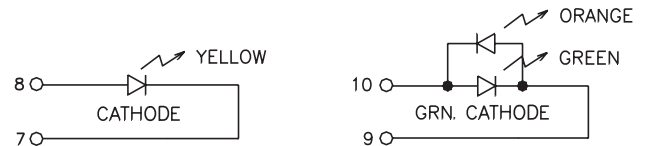
JP011



JP026



NOTE: Connect CHS GND to PCB ground.



Standard LED	Wavelength	Forward* V (MAX)	(TYP)
Yellow	585 nm	2.5 V	2.1 - 2.2 V
Green	565 nm	2.5 V	2.1 - 2.2 V
Orange	610 nm	2.5 V	2.1 - 2.2 V

* With a forward current of 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.