

### 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 <sup>2</sup> Compliant Part No.	RoHS-6 <sup>3</sup> Compliant Part No.	Turns Ratios		EMI Fingers	LEDs <sup>1</sup> 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

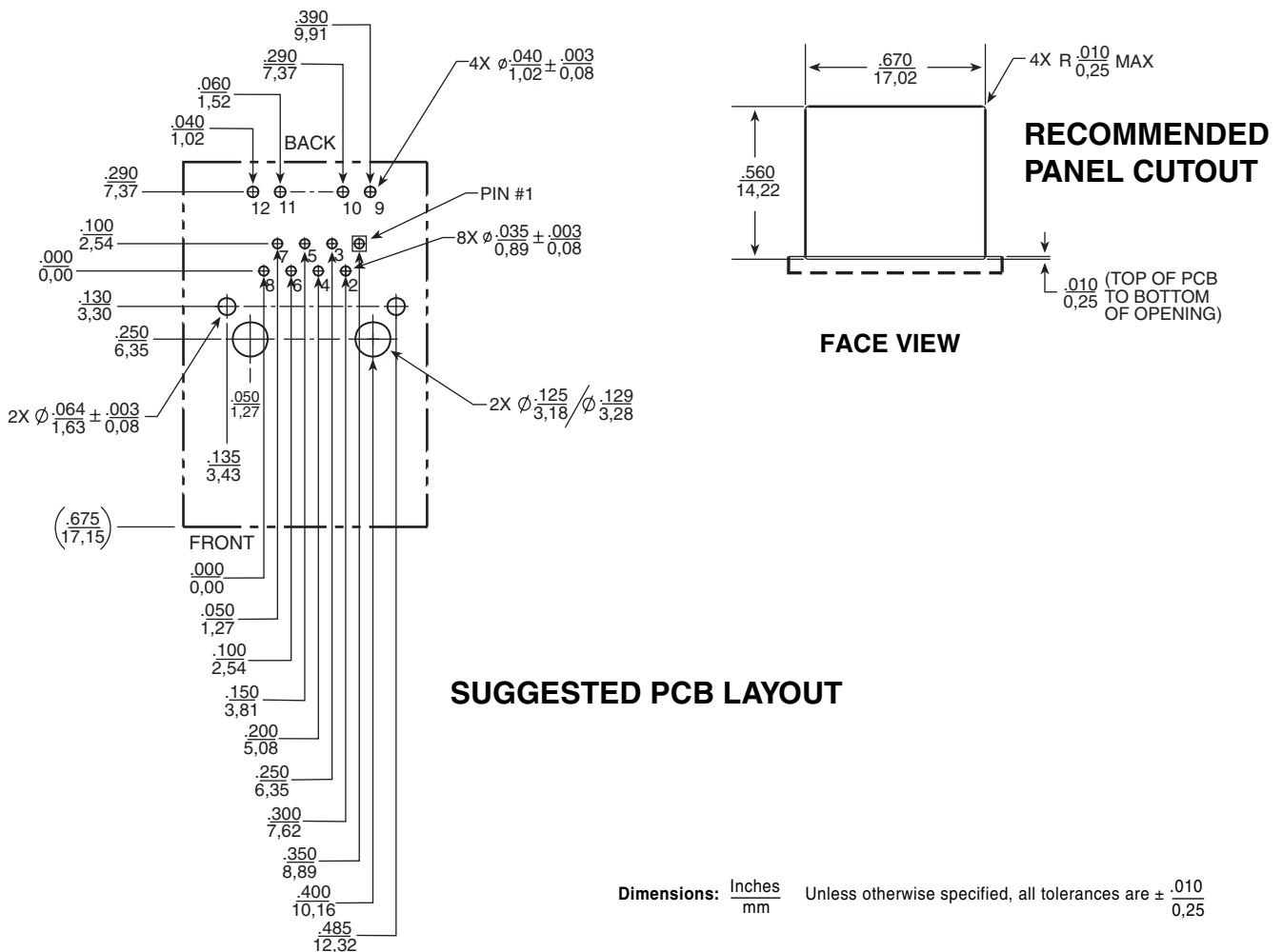
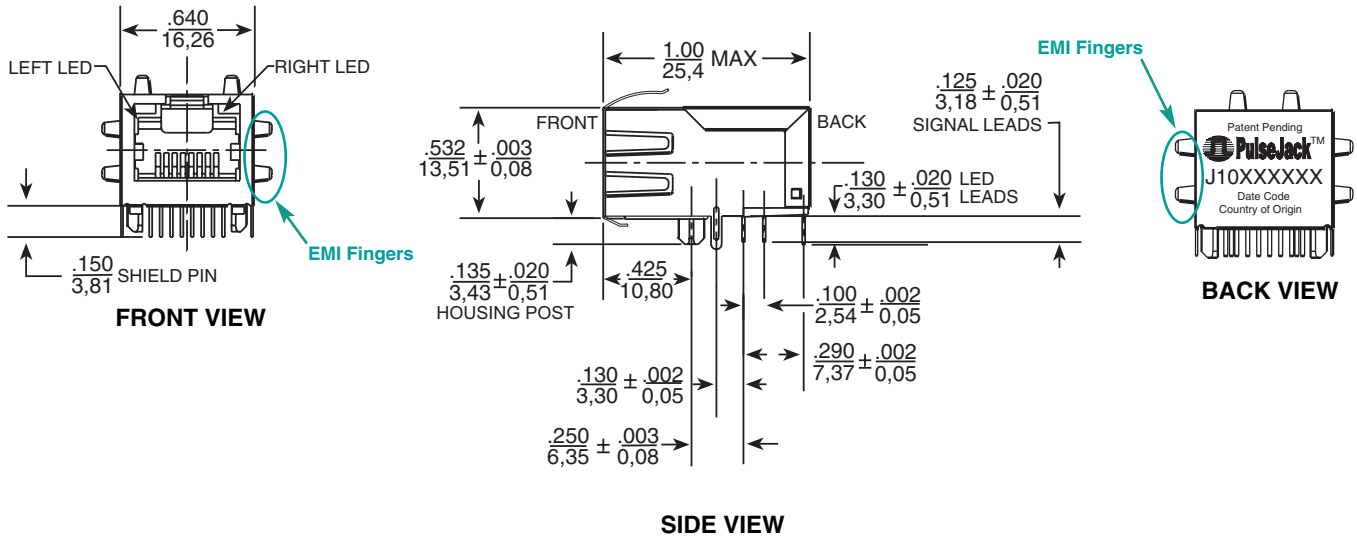
Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JP/J1 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

### RJ45 Material Specification

Part Number	Shield		Contact			Housing		MSL <sup>2</sup> Rating
	Material	Finish	Material	Plating Area	Solder Area <sup>3</sup>	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.

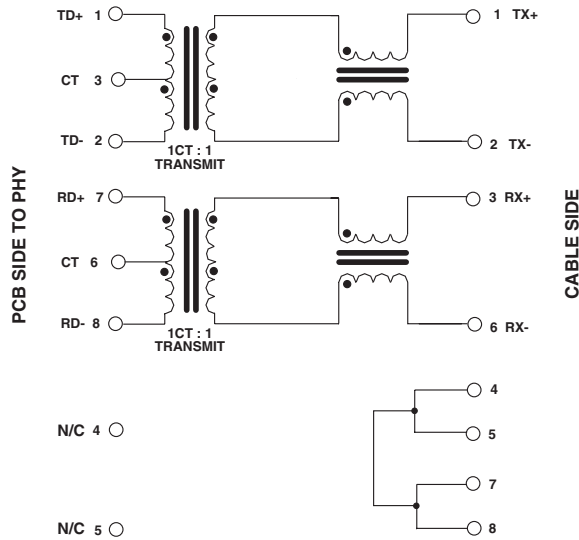
### J1 Series Mechanicals



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

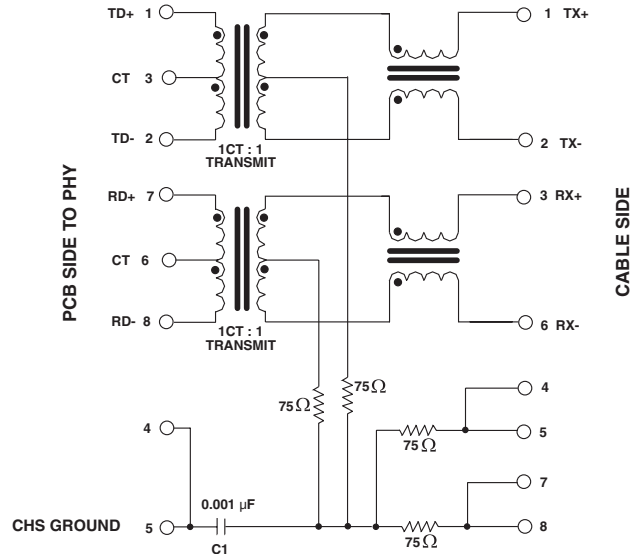
### J1 Series Electrical Schematics

#### J1006



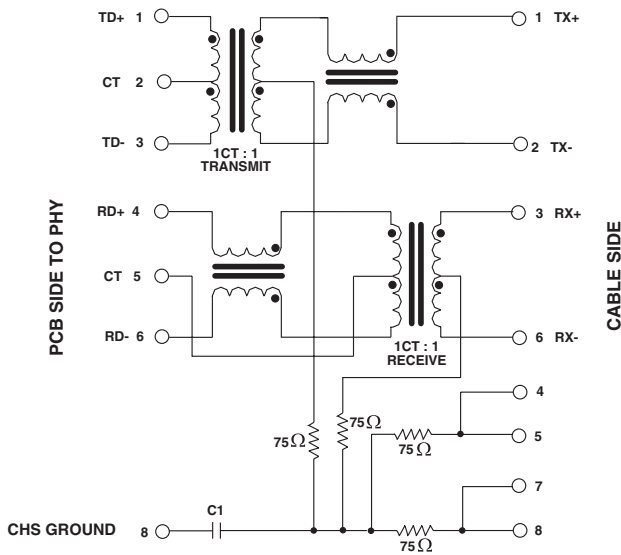
NOTE: Connect CHS GND to PCB ground.

#### J1011



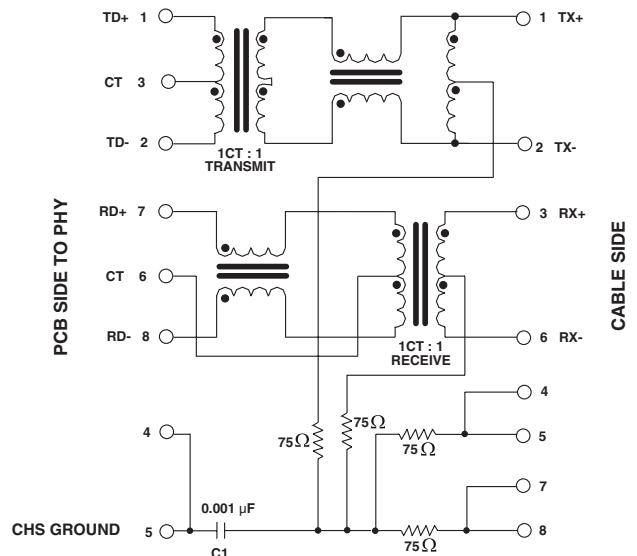
NOTE: Connect CHS GND to PCB ground.

#### J1012



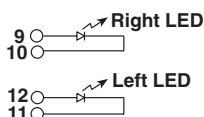
NOTE: Connect CHS GND to PCB ground.

#### J1026

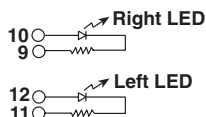


NOTE: Connect CHS GND to PCB ground.

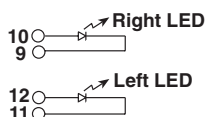
#### LED = P



#### LED = L or R



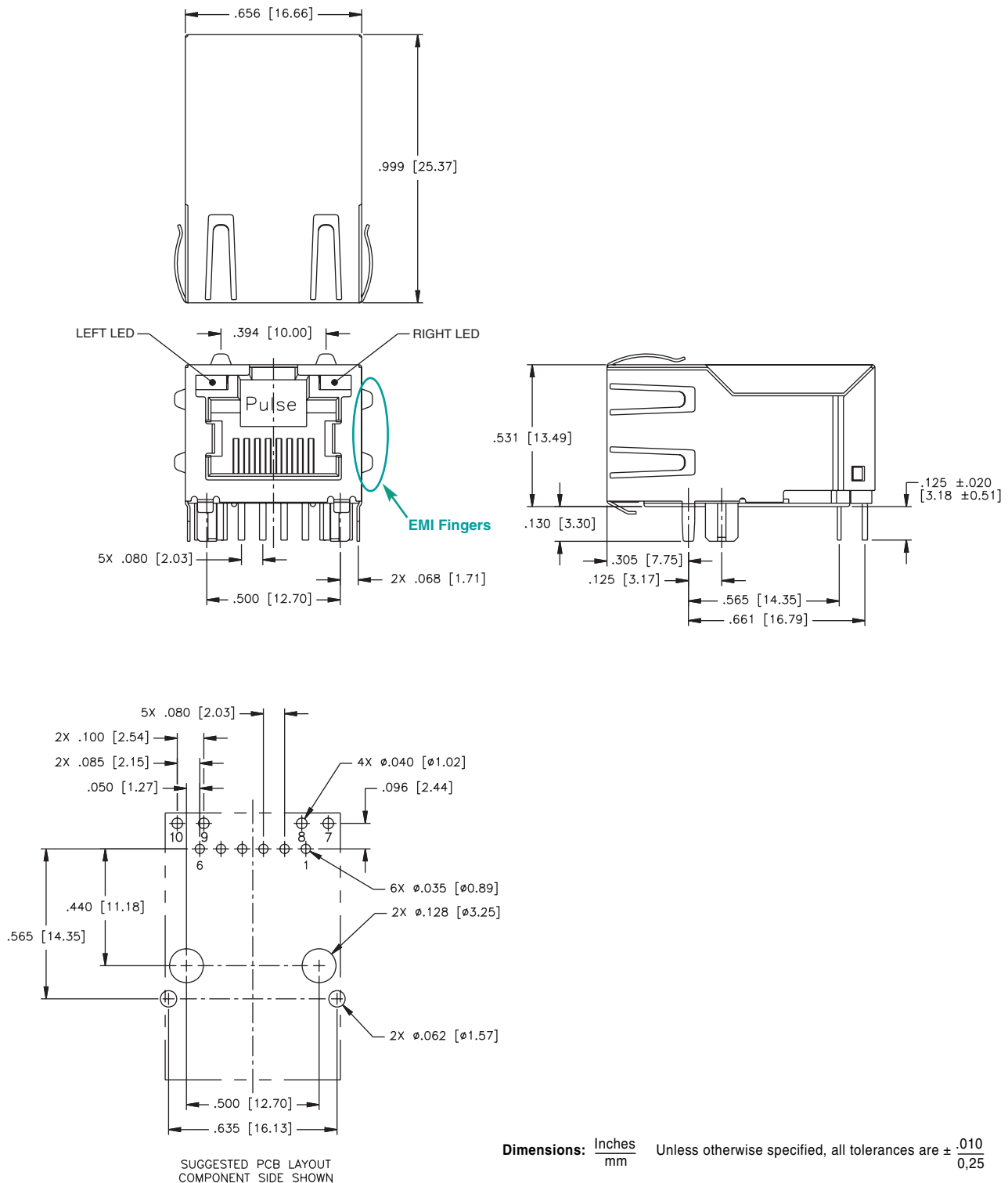
#### LED = C or K



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

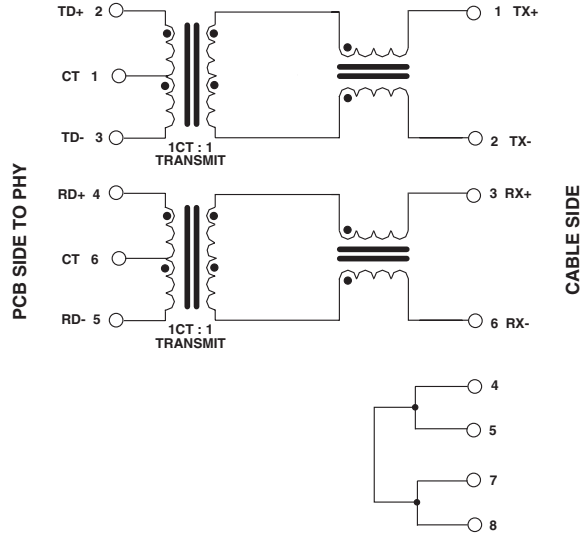
\* With a forward current of 20 mA

### JP Series Mechanicals



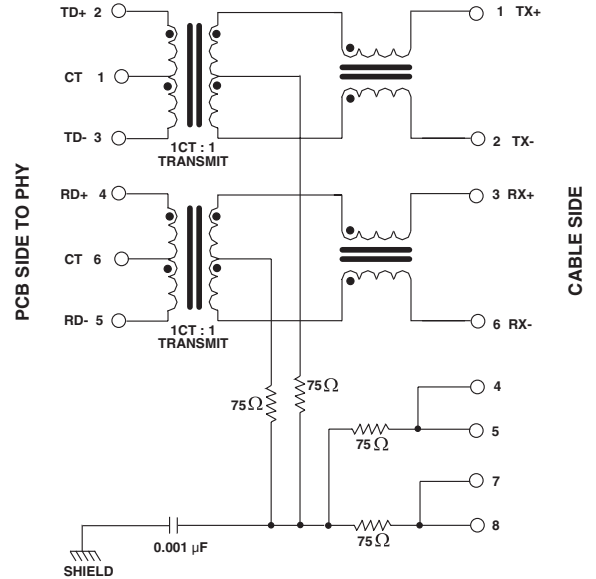
### JP Series Electrical Schematics

#### JP006

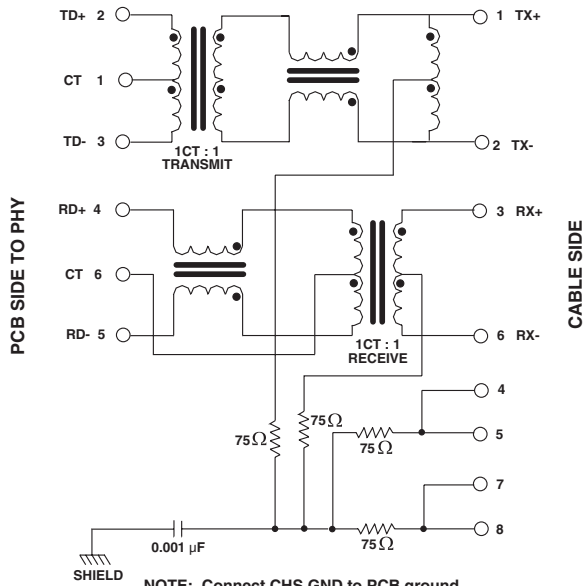


NOTE: Connect CHS GND to PCB ground.

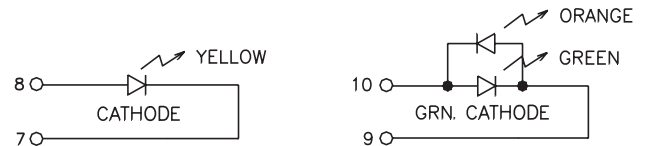
#### JP011



#### 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

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