

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 “NL” peak solder rating 260°C, non-RoHS peak solder rating 235°C
- Ⓜ For RoHS part, add suffix NL²
- Ⓜ 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

Part Number	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) @60Hz 1 MIN
	TX	RX				L/R	1-65MHz	1-10MHz	10-30MHz	30-60MHz	60-80MHz	1-30MHz	30-60MHz	60-100MHz	1-50MHz	
J1006F01P	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1006F21	1CT:1	1CT:1	YES	NONE	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1011F01P	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1011F21P	1CT:1	1CT:1	YES	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F01C	1CT:1	1CT:1	No	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21C	1CT:1	1CT:1	YES	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21K	1CT:1	1CT:1	YES	G/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21R	1CT:1	1CT:1	YES	RG/R	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F01	1CT:1	1CT:1	No	NONE	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F01P	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F21C	1CT:1	1CT:1	YES	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP006821U	1CT:1	1CT:1	YES	G_O/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP011821U	1CT:1	1CT:1	YES	G_O/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP026821U	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, 2. Add suffix “NL” for RoHS compliant parts (e.g. J1026F01 changes to J1026F01NL). R = LEDs with resistors.

RJ45 Durability Testing Rating

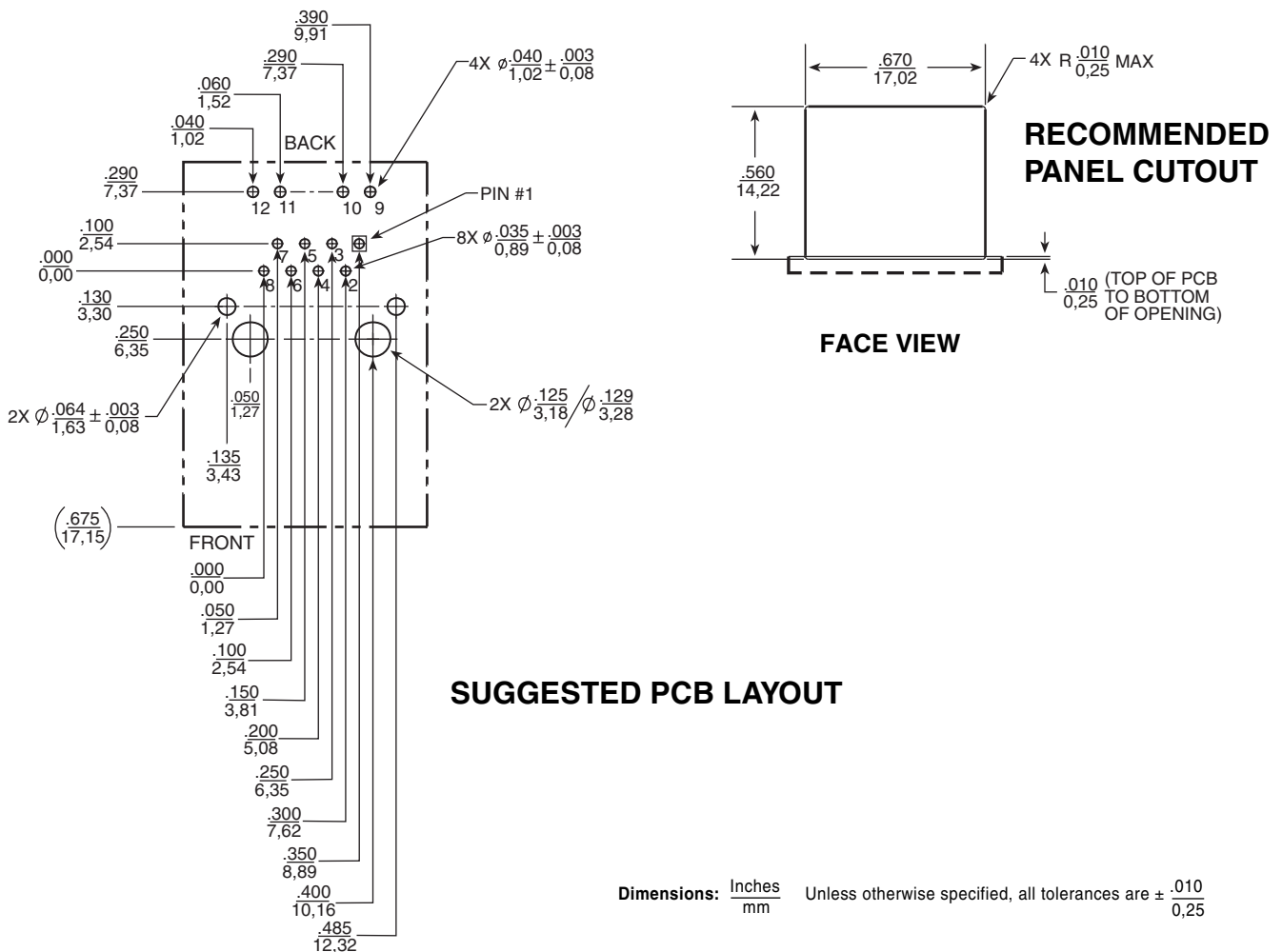
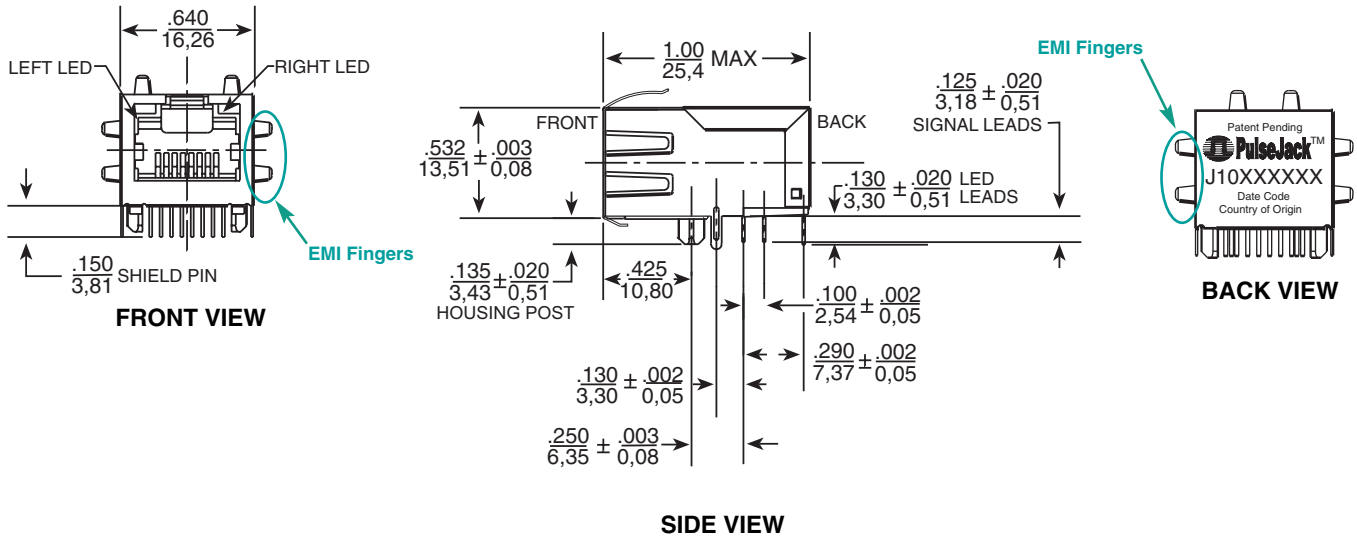
Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JP/J1 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

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.

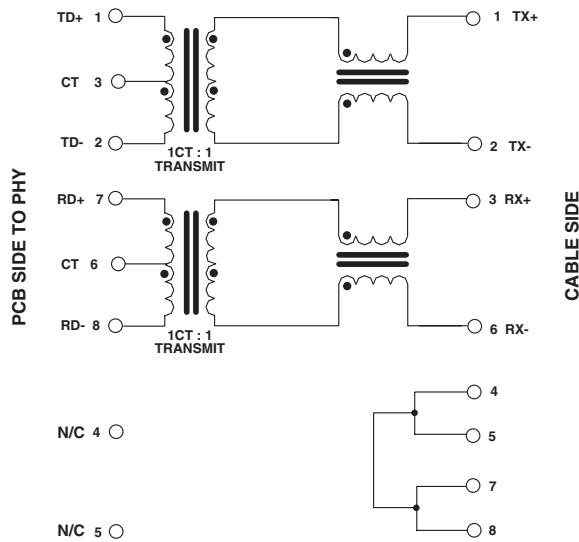
J1 Series Mechanicals



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

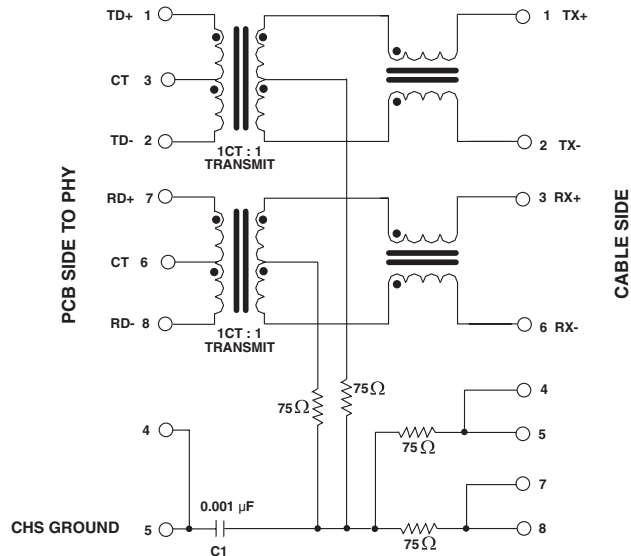
J1 Series Electrical Schematics

J1006



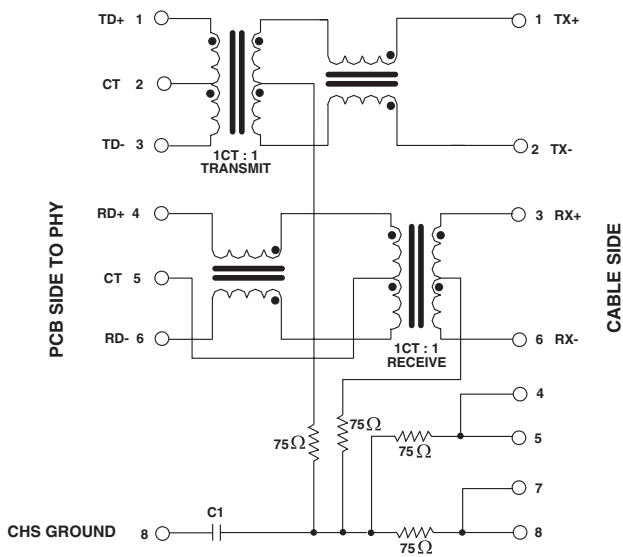
NOTE: Connect CHS GND to PCB ground.

J1011



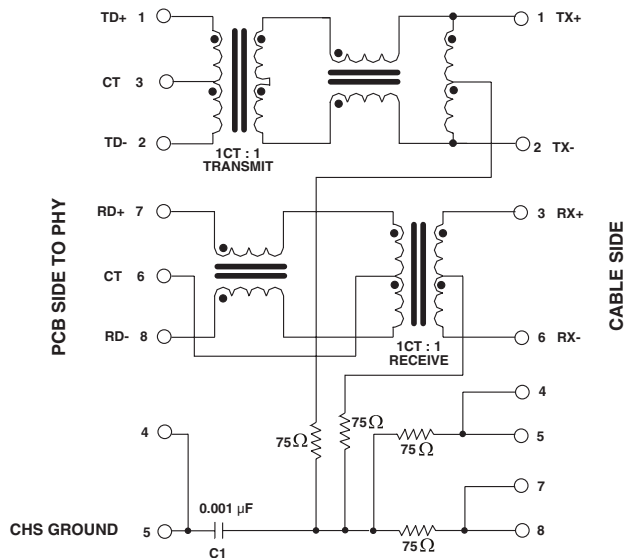
NOTE: Connect CHS GND to PCB ground.

J1012

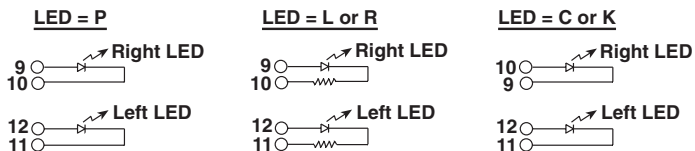


NOTE: Connect CHS GND to PCB ground.

J1026



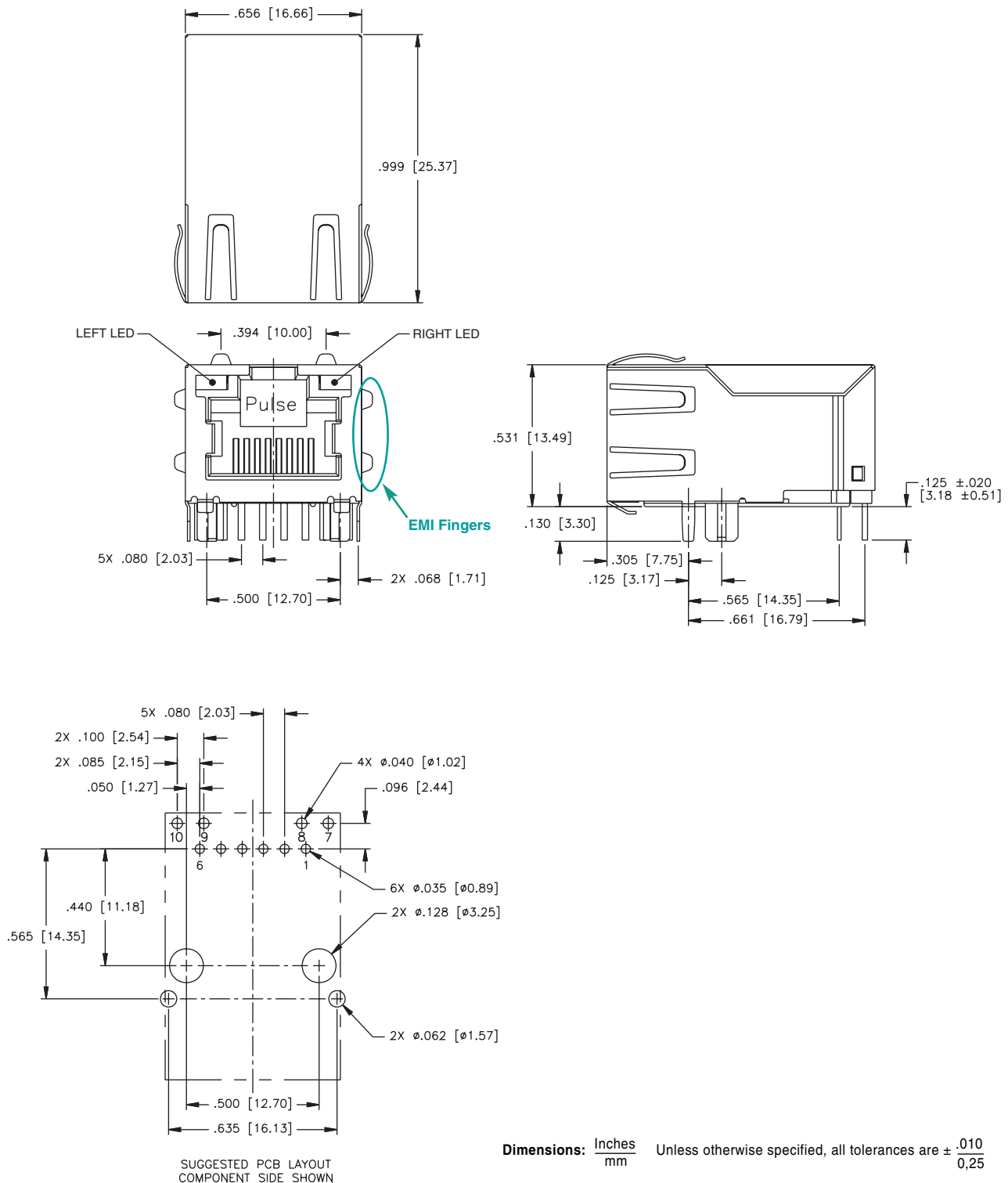
NOTE: Connect CHS GND to PCB ground.



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

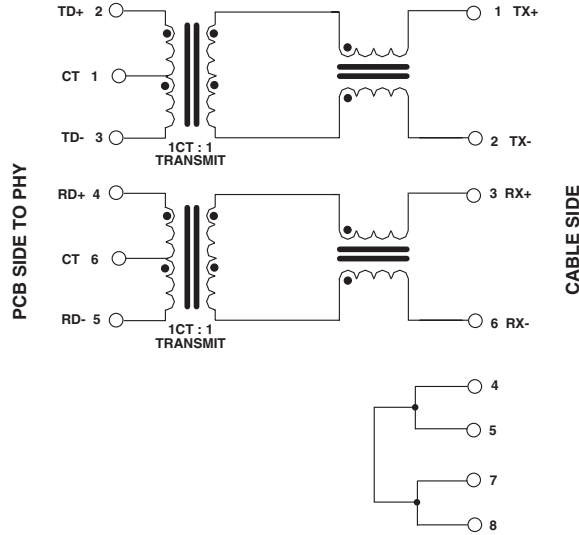
* With a forward current of 20 mA

JP Series Mechanicals



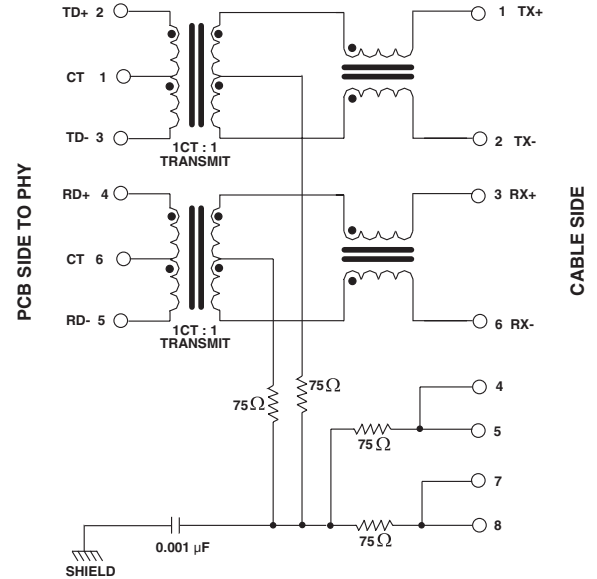
JP Series Electrical Schematics

JP006

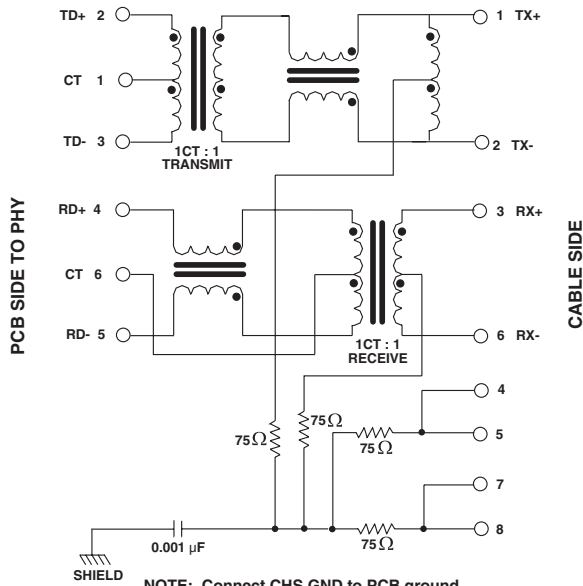


NOTE: Connect CHS GND to PCB ground.

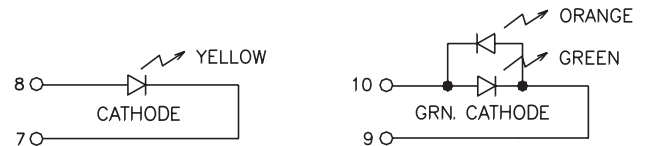
JP011



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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