



**THE DATASHEET OF  
J1012F21KNL**







# PulseJack™ 1x1 Tab-UP RJ45

## Description:

100 Base-TX (Fast Ethernet) 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 peak wave solder temperature rating 260°C Suitable for CAT 5 & 6 UTP cable or better
-  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 Compliant Part Number (Number of Ports)	Turns Ratios		EMI Fingers	LEDs 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				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	
J1006F01PNL	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1006F21NL	1CT:1	1CT:1	YES	NONE	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1011F01PNL	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1011F21PNL	1CT:1	1CT:1	YES	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F01CNL	1CT:1	1CT:1	No	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21CNL	1CT:1	1CT:1	YES	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21KNL	1CT:1	1CT:1	YES	G/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1012F21RNL	1CT:1	1CT:1	YES	RG/R Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F01NL	1CT:1	1CT:1	No	NONE	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F01PNL	1CT:1	1CT:1	No	G/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J1026F21CNL	1CT:1	1CT:1	YES	Y/G	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP006821UNL	1CT:1	1CT:1	YES	G_0/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP011821UNL	1CT:1	1CT:1	YES	G_0/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
JP026821UNL	1CT:1	1CT:1	YES	G_0/Y	-1.0	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	

## Notes:

- LEDs Left/Right: G = green, Y = yellow, G\_0 = green/orange bi-color LED, R = LEDs with resistors.

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### RJ45 Durability Test 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.

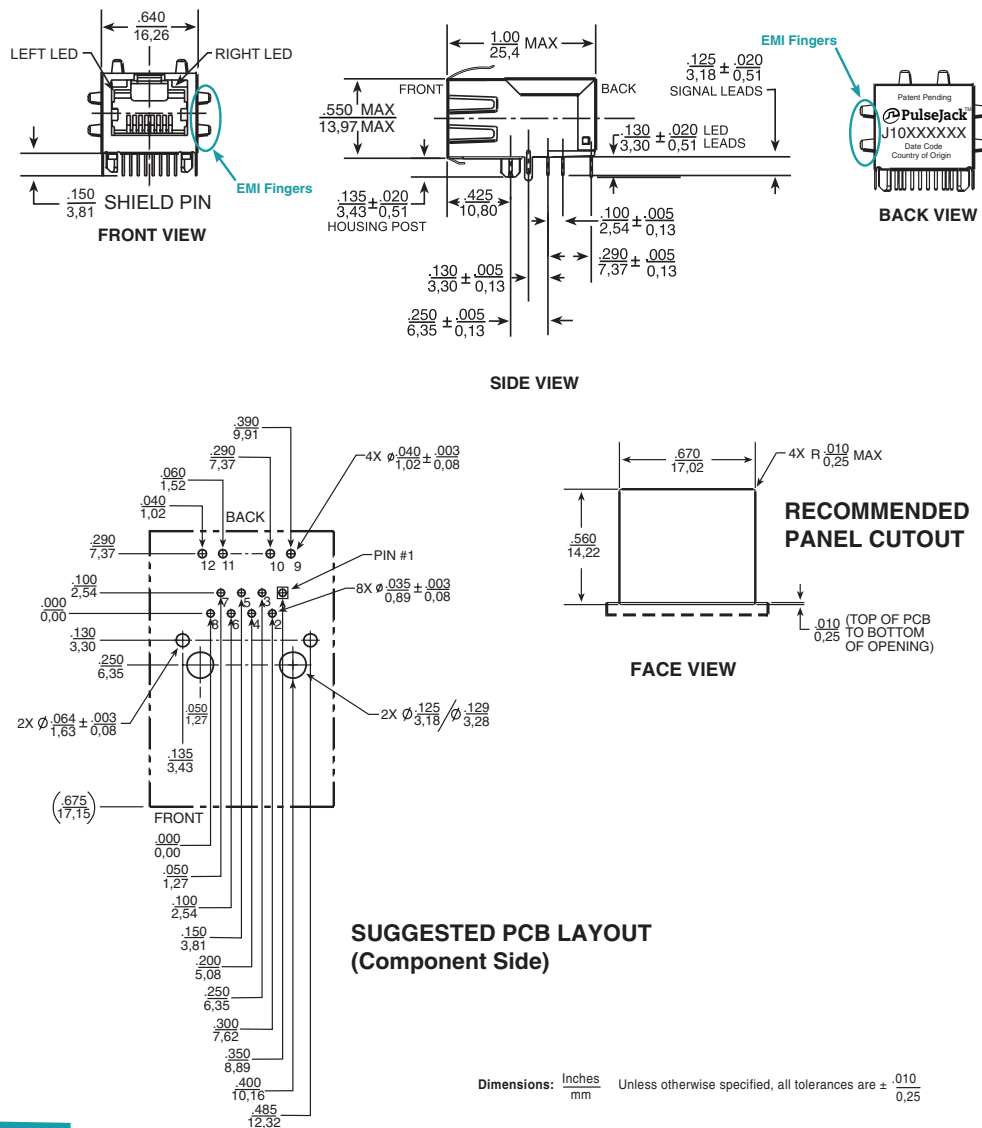
### RJ45 Material Specification

Part Number	Shield		Contact			Housing		MSL <sup>2</sup> Rating
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification	
JP/J1 Series	Brass	10-20μ inches thick nickel over 10-20μ inches Brass	Phosphor Bronze	Nickel underplating and selective gold plating 15μ inches	Tin matte finish	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)

### J1 Series Mechanicals



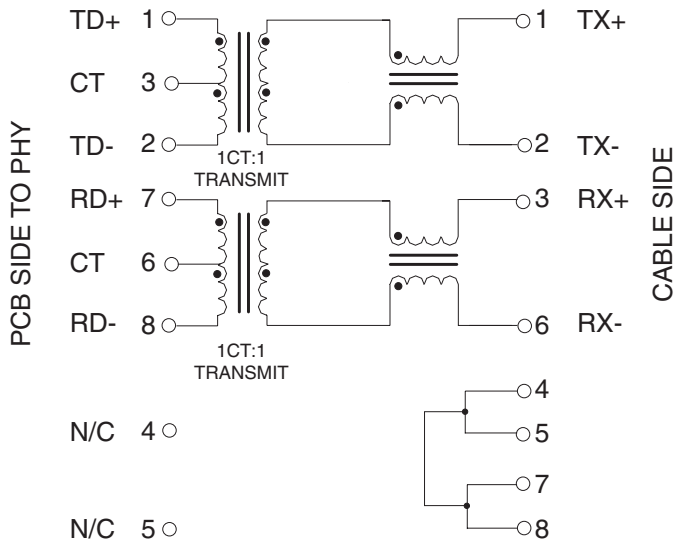
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$  Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0.25}$

# PulseJack™

## 1x1 Tab-UP RJ45

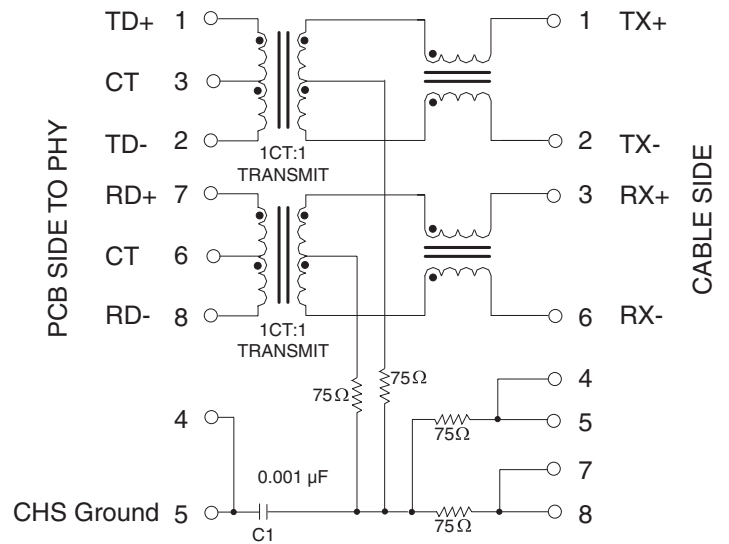
### J1 Series Electrical Schematics

J1006



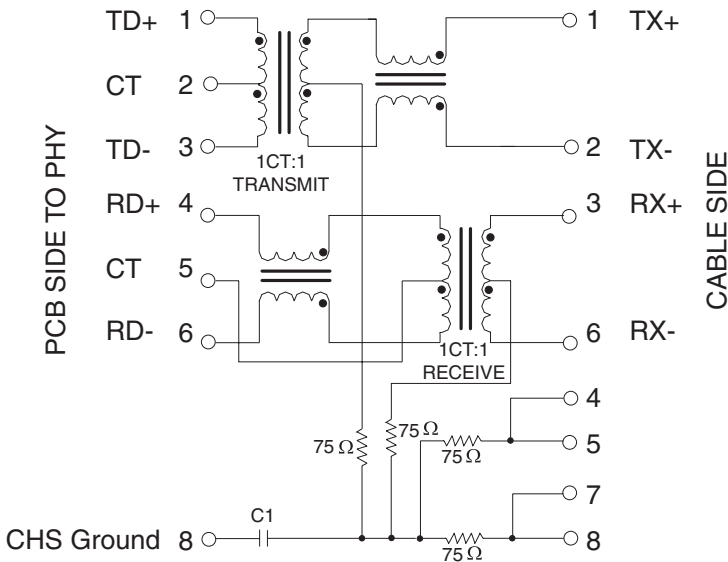
Note: Connect CHS GND to PCB ground.

J1011



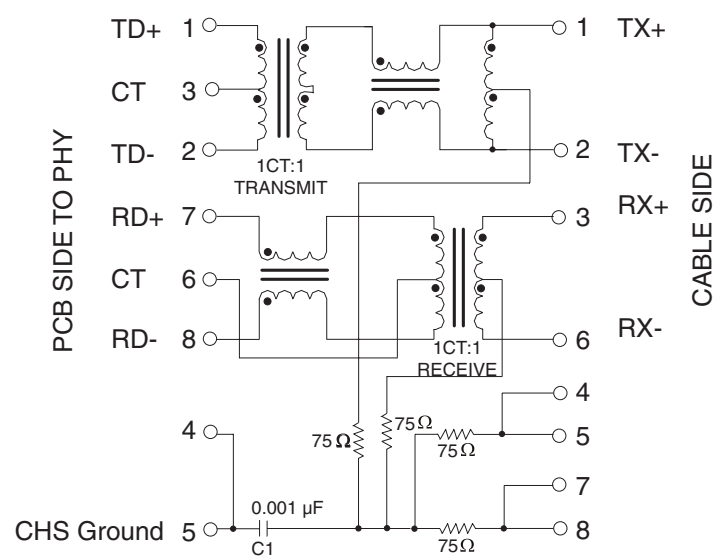
Note: Connect CHS GND to PCB ground.

J1012

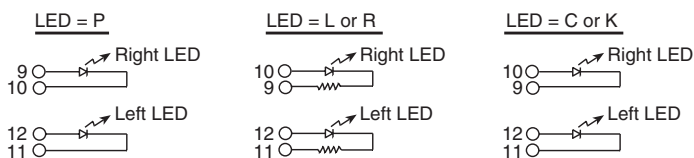


Note: Connect CHS GND to PCB ground.

J1026



Note: Connect CHS GND to PCB ground.

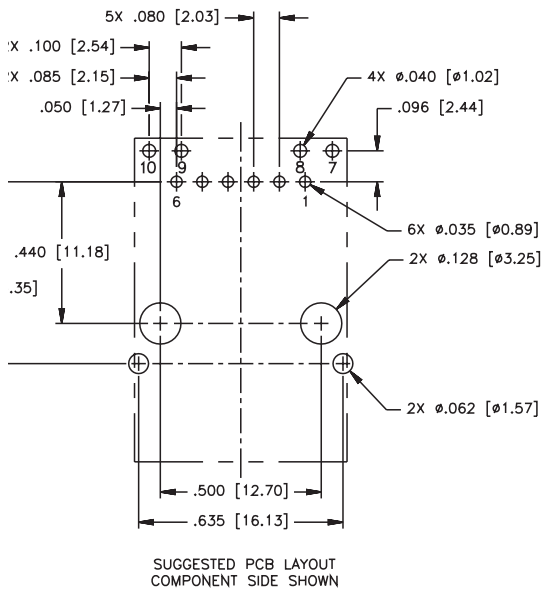
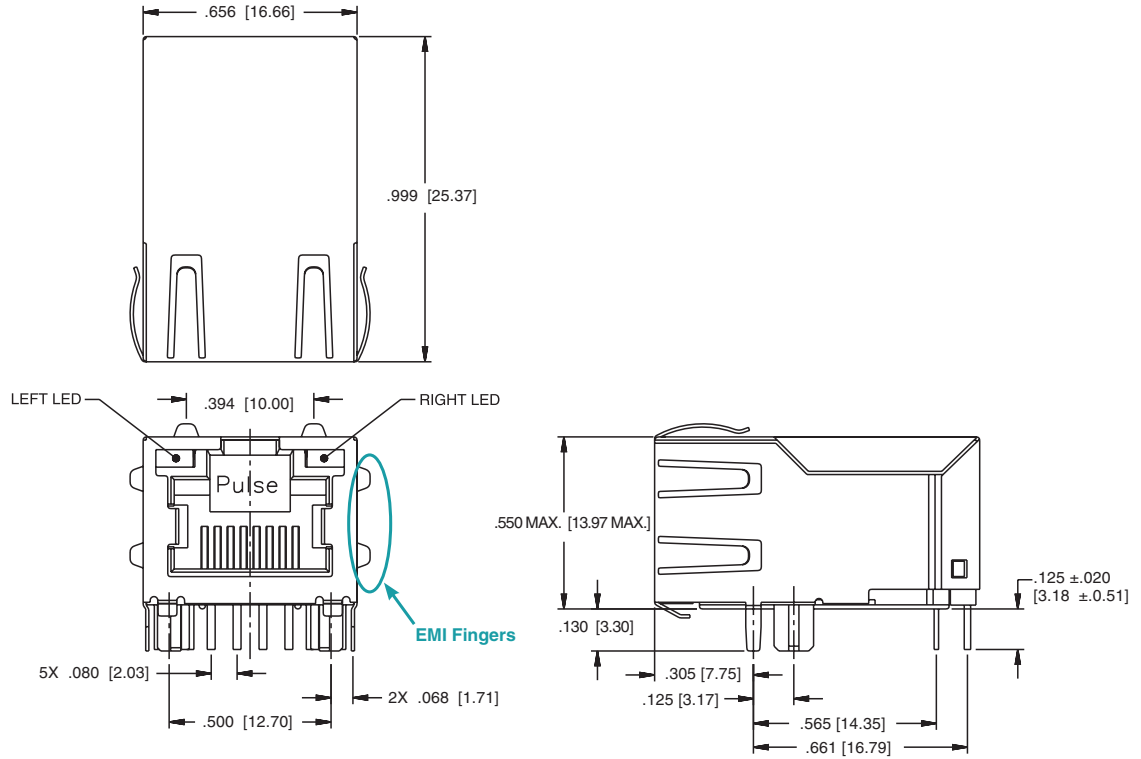


Standard LED	Wavelength	Forward* V(MAX)	(TYP)
Yellow	585 nm	2.5 V	2.1 V
Green	565 nm	2.5 V	2.2 V

\* With a forward current of 20 mA

# PulseJack™ 1x1 Tab-UP RJ45

## JP Series Mechanicals



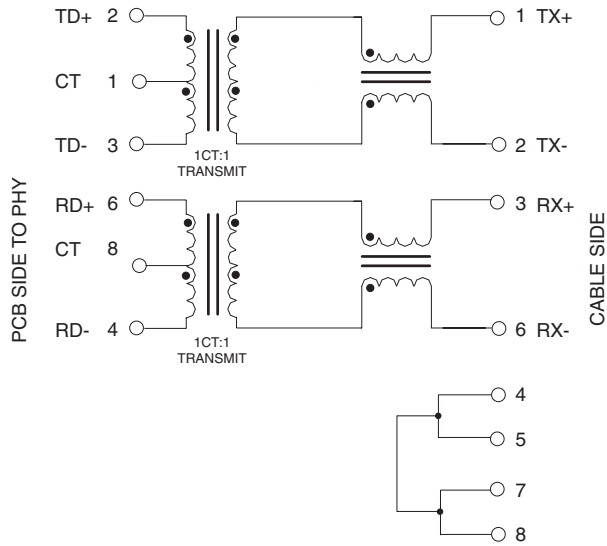
Dimensions:  $\frac{\text{Inches}}{\text{mm}}$  Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$

# PulseJack™

## 1x1 Tab-UP RJ45

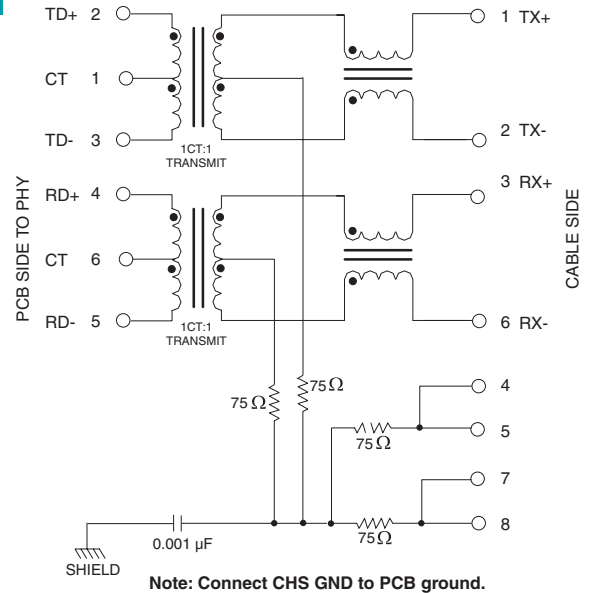
### JP Series Electrical Schematics

#### JP006



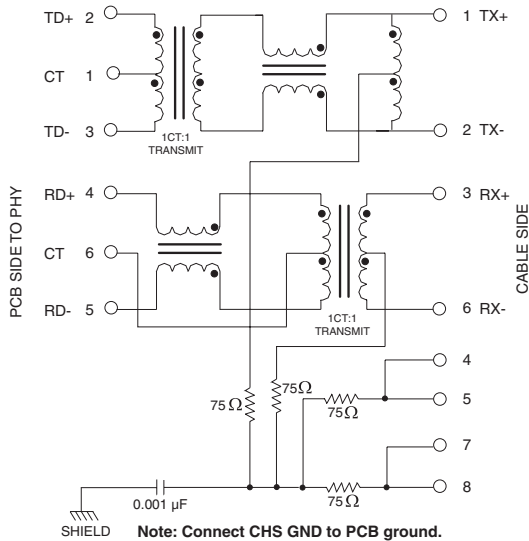
Note: Connect CHS GND to PCB ground.

#### JP011

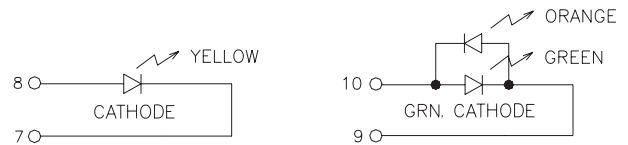


Note: Connect CHS GND to PCB ground.

#### 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:

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