

# 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 “NL” peak solder rating 260°C, non-RoHS peak solder rating 235°C
- For RoHS part, add suffix NL<sup>4</sup>
- Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP

### Electrical Performance Summary:

- Meets or exceeds IEEE 802.3 standard for 100Base-T
- 350 μH minimum OCL with 8 mA bias current
- Minimum 1500 Vrms isolation per IEEE 802.3 requirement

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

Part Number	Turns Ratios		EMI Fingers	LEDs <sup>1</sup> (L/R)	Insertion Loss (dB TYP)	Return Loss (dB TYP) 100 Ω ±15 Ω					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	1CT:1	1CT:1	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0006D21	1CT:1	1CT:1	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0006D21B	1CT:1	1CT:1	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0011D01	1CT:1	1CT:1	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0011D01B	1CT:1	1CT:1	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0011D21	1CT:1	1CT:1	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0011D21B	1CT:1	1CT:1	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0011D21E	1CT:1	1CT:1	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0012D21	1CT:1	1CT:1	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0018D21	1CT:1.414	1CT:1	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0018D21E	1CT:1.414	1CT:1	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0024D21	1CT:2	1CT:1	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0024D21B	1CT:2	1CT:1	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D01	1CT:1	1CT:1	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D01B	1CT:1	1CT:1	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D01E	1CT:1	1CT:1	No	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D01F <sup>2</sup>	1CT:1	1CT:1	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D21	1CT:1	1CT:1	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D21B	1CT:1	1CT:1	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D21E	1CT:1	1CT:1	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D21F <sup>2</sup>	1CT:1	1CT:1	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0026D21G <sup>3</sup>	1CT:1	1CT:1	YES	YG/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0033D21	1.25CT:1	1CT:1	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0035D21B	1CT:1	1CT:1	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500	
J0073D01B	1CT:2.5	1CT:1	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. 3. Bi- color Left LED.  
2. LEDs with internal resistor. 4. Add suffix “NL” for RoHS compliant parts (e.g. J0006D21 changes to J0006D21NL).

### RJ45 Durability Testing Rating

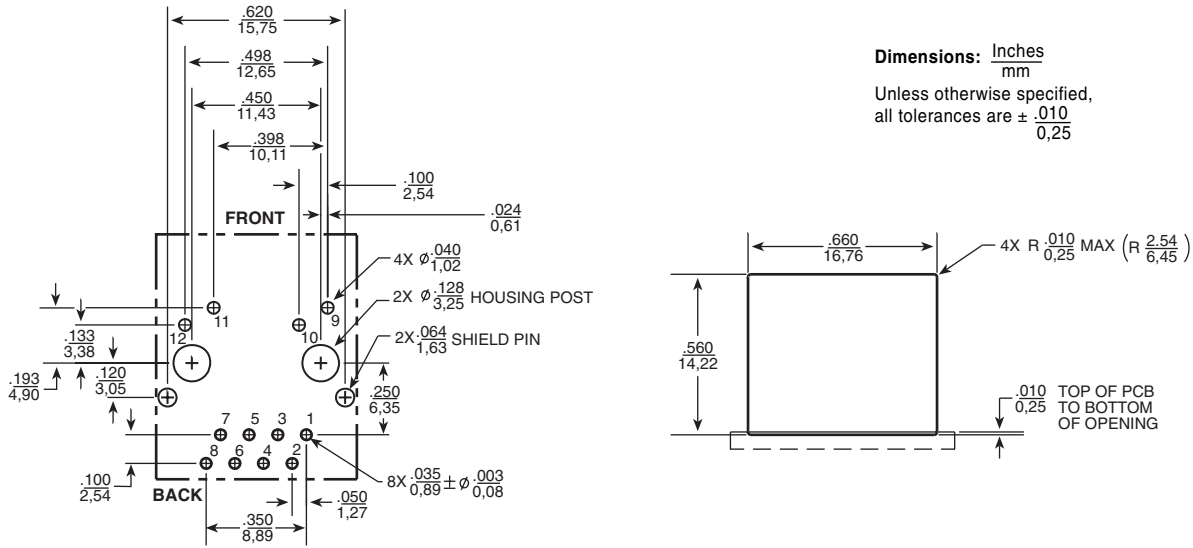
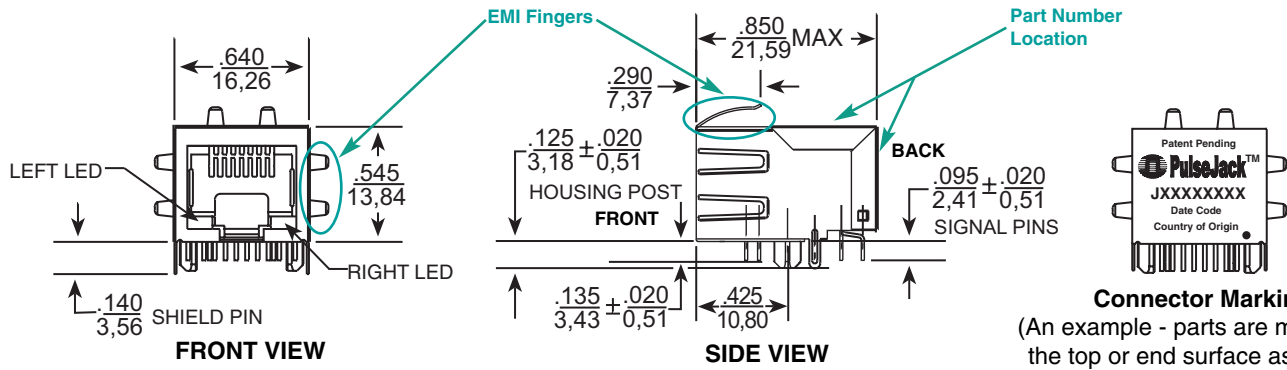
Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
J0 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

### RJ45 Material Specification

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

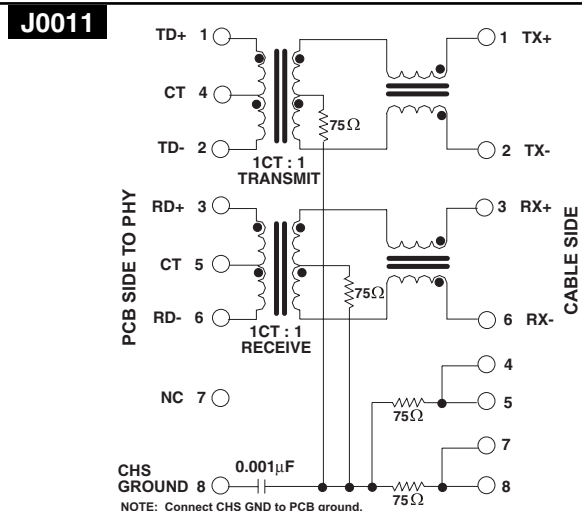
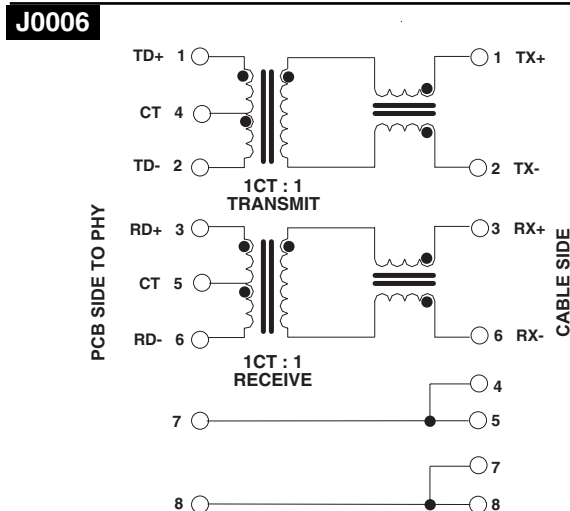
Notes: 1. Connector dimensions comply with FCC dimension requirements. 2. NL parts are tin matte finish over nickel.  
3. MSL = Moisture Sensitivity Level rating from 1 to 5 (highest rating = 1, lowest rating = 5)

### J0 Series Mechanicals



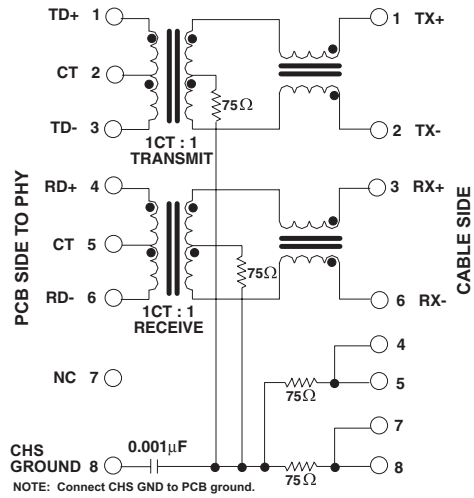
Viewed from PCB Component side

### J0 Series Electrical Schematics

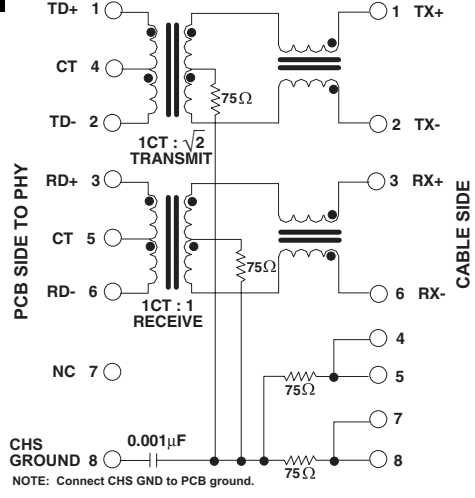


### J0 Series Electrical Schematics (continued)

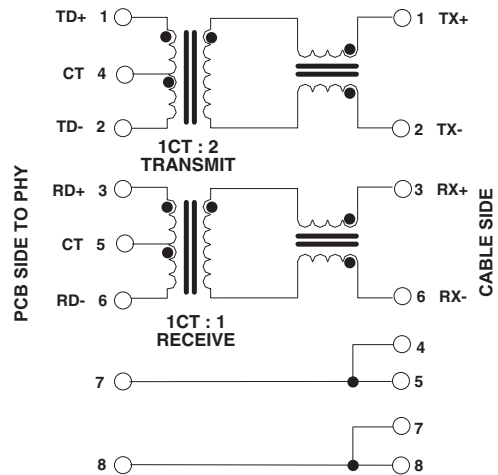
**J0012**



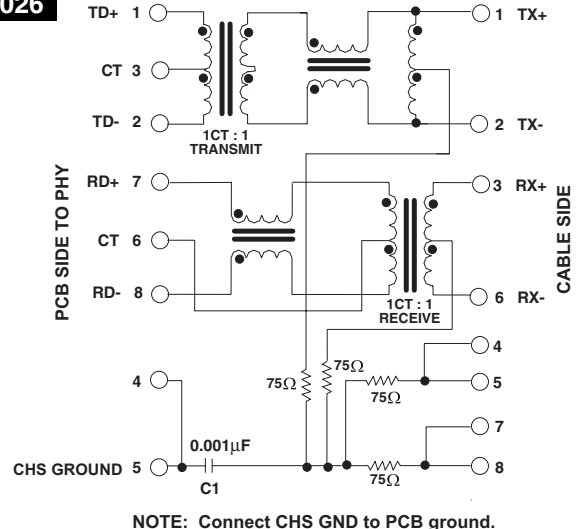
**J0018**



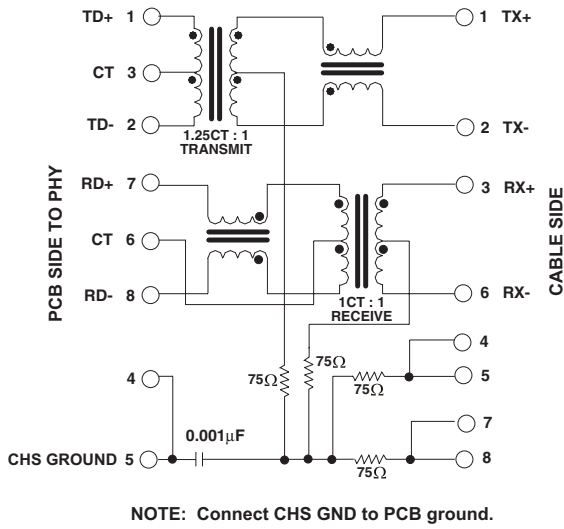
**J0024**



**J0026**

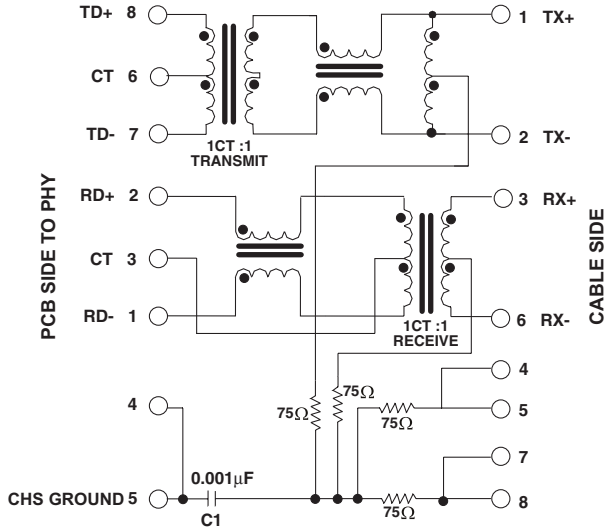


**J0033**



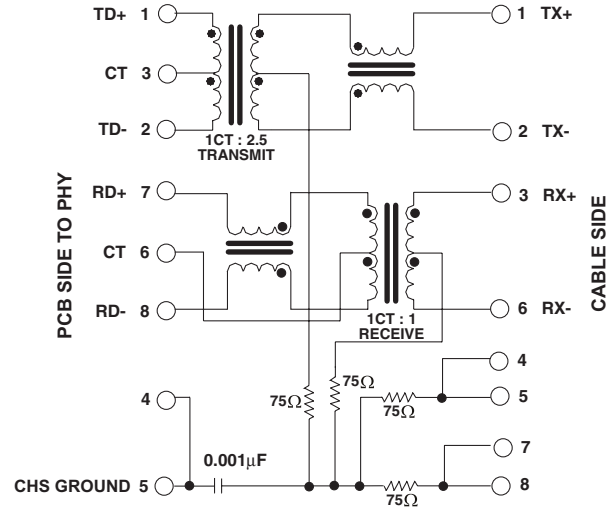
### J0 Series Electrical Schematics (continued)

**J0035**



NOTE: Connect CHS GND to PCB ground.

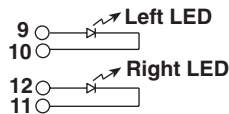
**J0073**



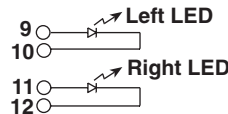
NOTE: Connect CHS GND to PCB ground.

### LED Configuration

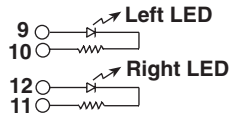
**LED = "B & E" Specification  
(LEDs without internal resistors)**



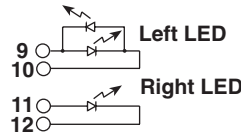
**LED = "M" Specification  
(LEDs without internal resistors)**



**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).

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