




### Description:

10/100 Base-TX RJ45 single port with LEDs and integrated magnetics – Designed for most leading PHY manufacturers with the addition of Power Feeding over the signal pairs according to IEEE 802.3af



### Features and Benefits:

-  RoHS- peak wave solder temperature rating 260°C
-  Single port Connector for PoE applications
-  Contains Surge Suppression to protect IC from power spikes

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

RoHS Compliant	Tab Option	LEDs L/R	Insertion Loss TX/RX (dB TYP)	Return Loss (dB TYP) 100Ω (±15Ω)			Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (Vrms MIN)
				1-100 MHz	1-10 MHz	30 MHz	60-90 MHz	1-10 MHz	30-60 MHz	60-100 MHz	1-50 MHz	
JK0-0020NL	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500
JK0-0025NL	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500
JK0-0026NL	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500
JK0-0044NL	UP	—	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500

#### NOTES:

- Both transmit and receive channels meet **IEEE 802.3i/u** (10/100 Base-T) and **IEEE 802.3af** (10/100 Base-T PoE) specifications.
- LEDs Left/Right: **Y-G** = Bicolor: yellow/green; **G** = green.

### RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JK0 Series	5lbs./2.268kgs.	5lbs./2.268kgs.	500 Insertions	20lbs./9.072kgs.

### RJ45 Material Specification

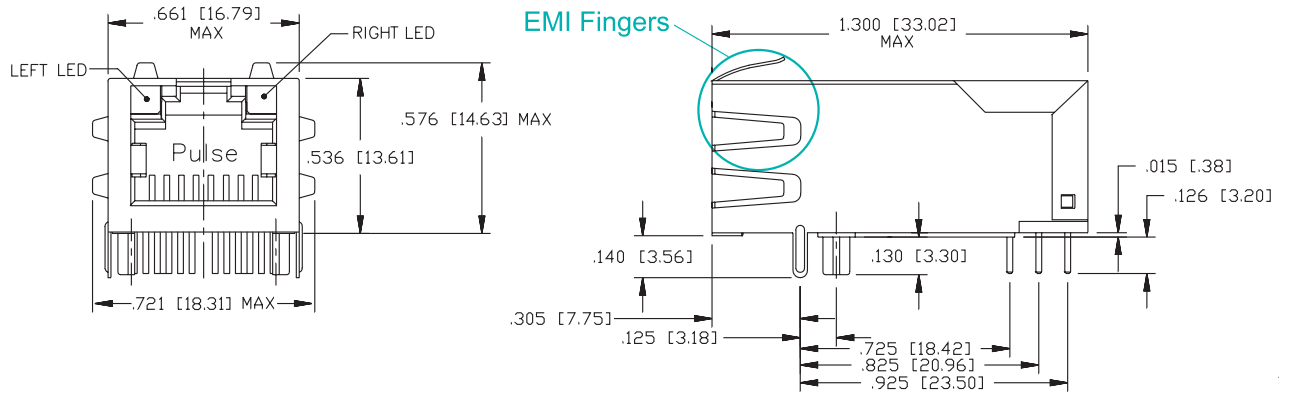
Part Number	Shield		Contact			Housing		MSL <sup>3</sup> Rating
	Material	Finish	Material	Plating Area	Solder Area <sup>2</sup>	Material	Specification	
JK0 Series	Brass	20-40μ inches thick nickel over brass	Phosphor Bronze	15μ inches gold over 30-80μ inches nickel	Tin matte finish	Thermoplastic	UL 94 V-0	1

#### NOTES:

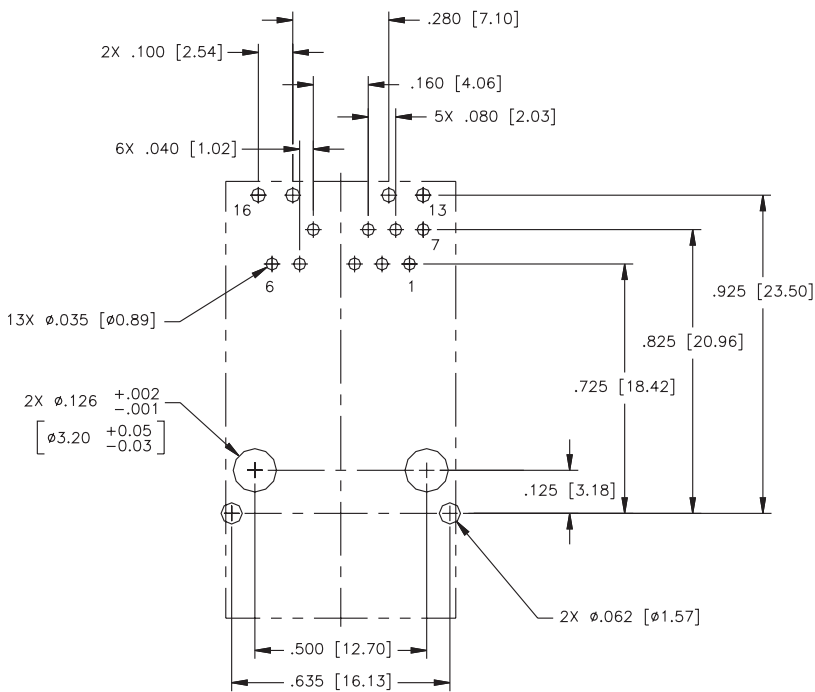
- Connector dimensions comply with FCC dimension requirements.
- NL parts are tin matte finish over nickel.
- MSL - Moisture Sensitivity Level class limits = 1 to 5 (Highest: 1; Lowest: 5).

### Mechanical

#### JK0-00XXNL



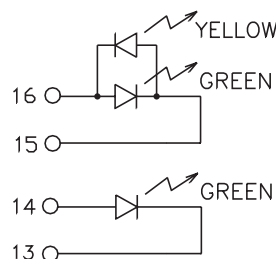
#### JK0-0020NL/0025NL/0026NL



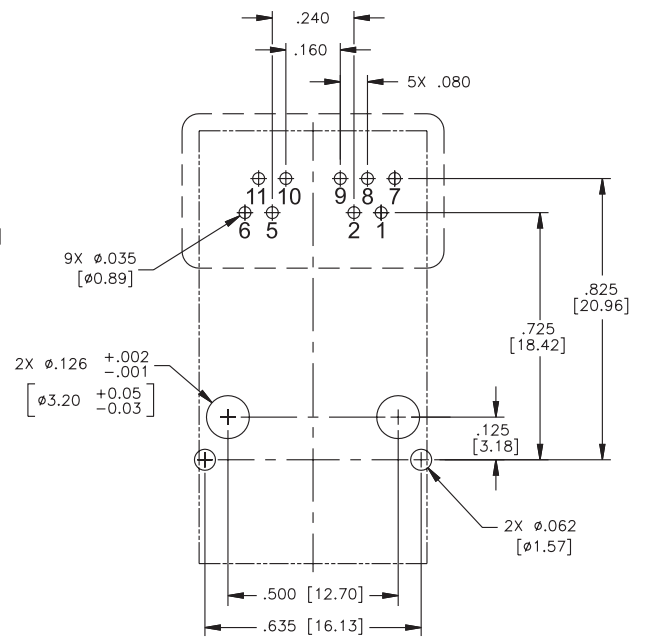
FRONT OF CONNECTOR

SUGGESTED PCB LAYOUT  
COMPONENT SIDE SHOWN  
DIMENSIONAL TOLERANCE:  
.XXX ±.003 [X.XX ±0.08]

#### LED Pins



#### JK0-0044NL

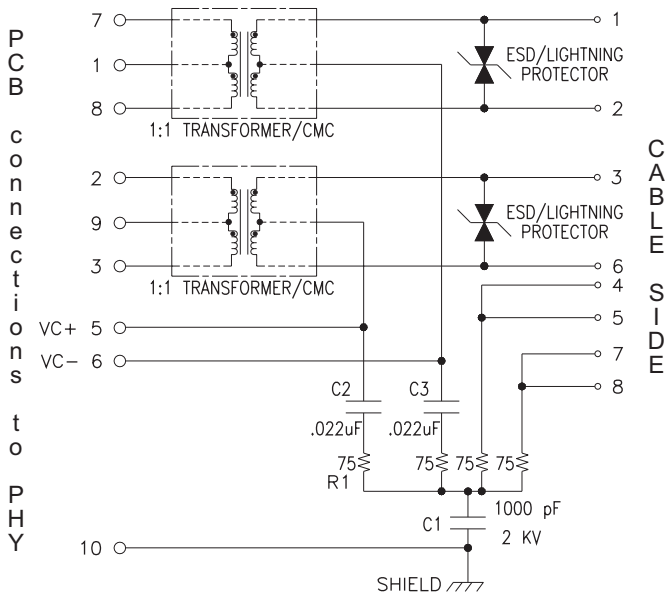


FRONT OF CONNECTOR

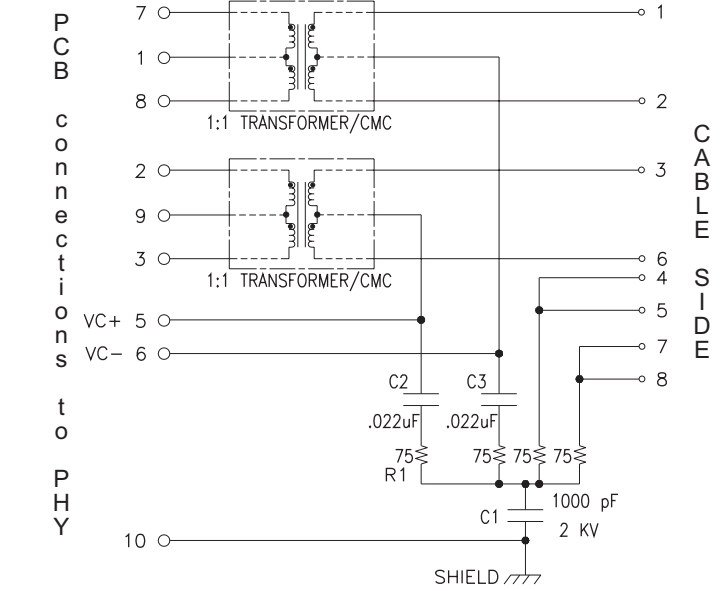
SUGGESTED PCB LAYOUT  
COMPONENT SIDE SHOWN  
DIMENSIONAL TOLERANCE:  
.XXX ±.003 [X.XX ±0.08]

### Schematics

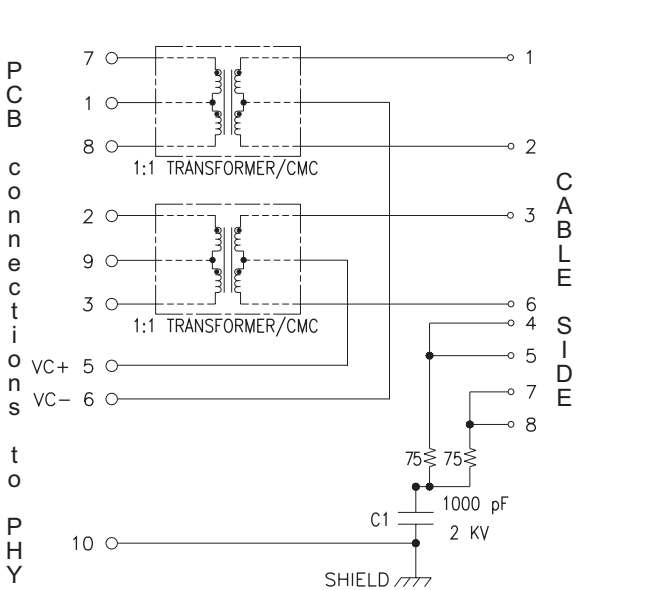
**JK0-0020NL**



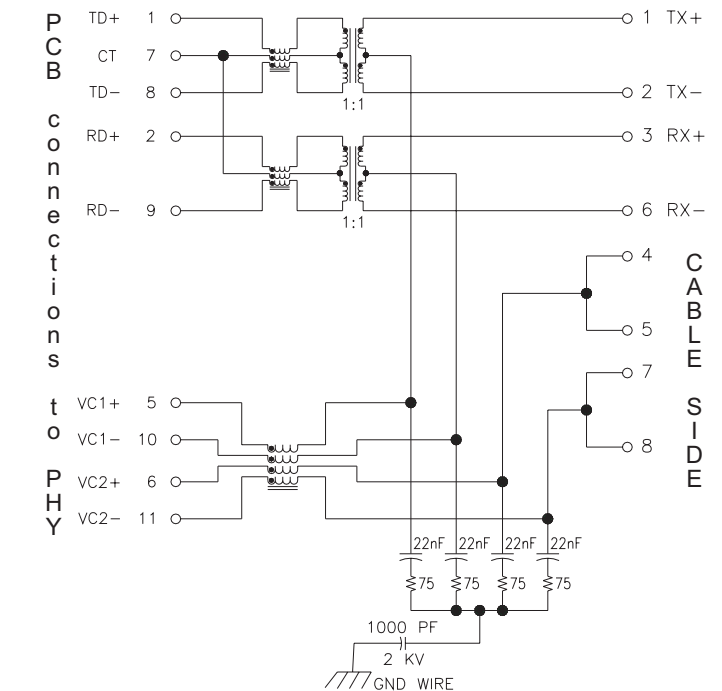
**JK0-0025NL**



**JK0-0026NL**



**JK0-0044NL**



### For More Information:

**Pulse Worldwide Headquarters**

Two Pearl Buck Court  
Bristol, PA 19007  
U.S.A.

[www.pulseeng.com](http://www.pulseeng.com)

Tel: 215 781 6400

Fax: 215 781 6403

**Pulse Europe**

Einsteinstrasse 1  
D-71083 Herrenberg  
Germany

Tel: 49 7032 7806 0

Fax: 49 7032 7806 135

**Pulse China Headquarters**

B402, Shenzhen Academy of  
Aerospace Technology Bldg.  
10th Kejian Rd.  
High-Tech Zone  
Nanshan District  
Shenzhen, PR China 518057

Tel: 86 755 33966678

Fax: 86 755 33966700

**Pulse North China**

Room 2704/2705  
Super Ocean Finance Ctr.  
2067 Yan An Rd. West  
Shanghai 200336  
China

Tel: 86 21 62787060

Fax: 86 2162786973

**Pulse South Asia**

135 Joo Seng Rd.  
#03-02  
PM Industrial Bldg.  
Singapore 368363

Tel: 65 6287 8998

Fax: 65 6280 0080

**Pulse North Asia**

No. 26, Kao Ching Rd.  
Yang Mei Chen  
Taoyuan Hsien  
Taiwan  
R. O. C.

Tel: 886 3 4643715

Fax: 886 3 4641911

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