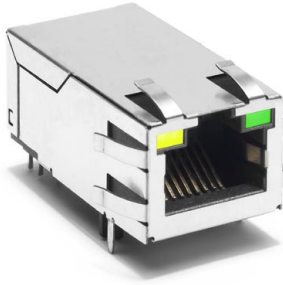





### Description:

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

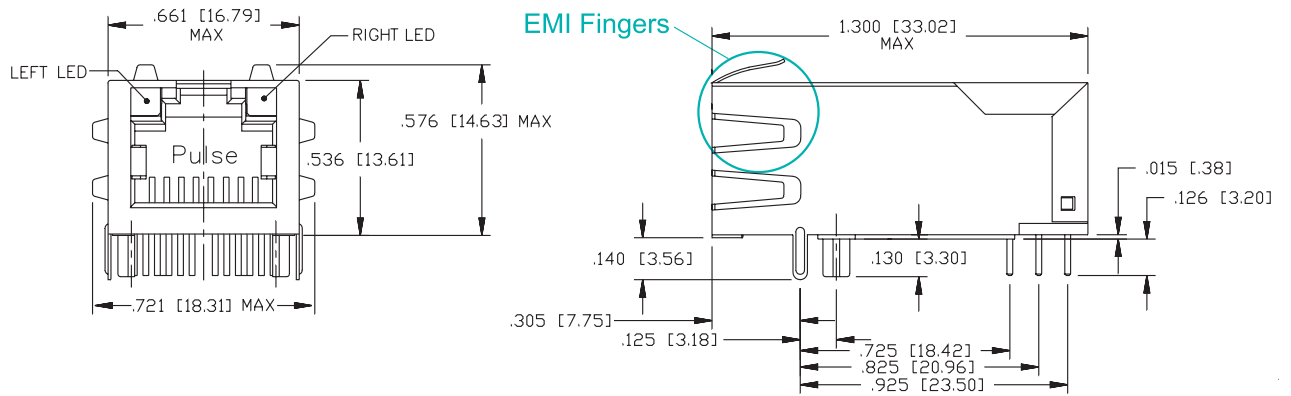
Part Number	Shield		Contact			Housing		MSL <sup>3</sup> Rating
	Material	Finish	Material	Plating Area	Solder Area <sup>2</sup>	Material	Specification	
JK0 Series	Brass	20-40μ inches thick nickel over brass	Phosphor Bronze	15μ inches gold over 30-80μ inches nickel	Tin matte finish	Thermoplastic	UL 94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

#### NOTES:

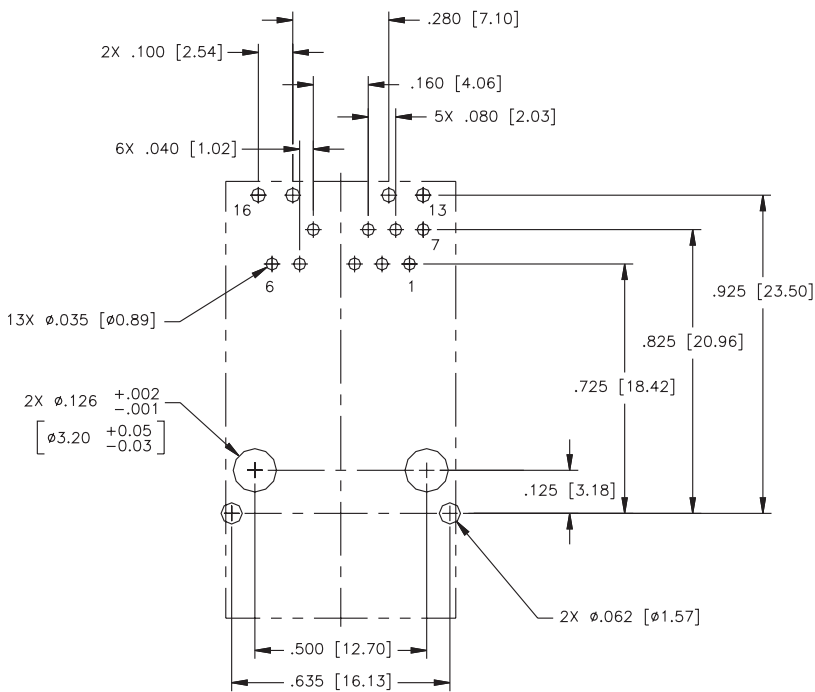
- Connector dimensions comply with FCC dimension requirements.
- NL parts are tin matte finish over nickel.
- MSL - Moisture Sensitivity Level class limits = 1 to 5 (Highest: 1; Lowest: 5).

### Mechanical

#### JK0-00XXNL



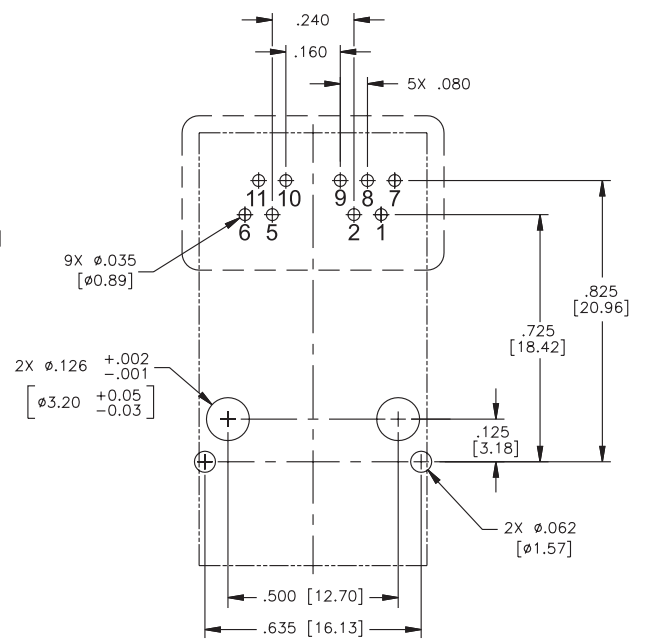
#### JK0-0020NL/0025NL/0026NL



FRONT OF CONNECTOR

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

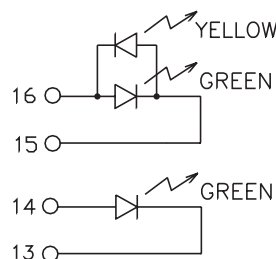
#### JK0-0044NL



FRONT OF CONNECTOR

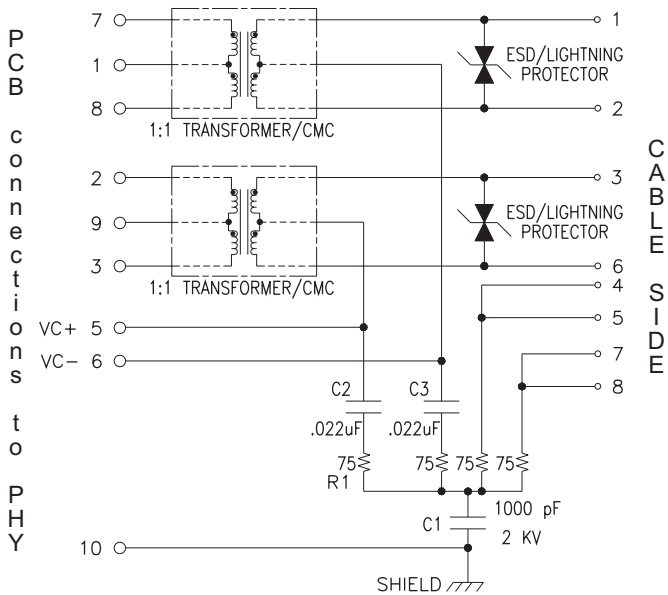
SUGGESTED PCB LAYOUT  
COMPONENT SIDE SHOWN  
DIMENSIONAL TOLERANCE:  
.XXX ±.003 [X.XX ±0.08]

#### LED Pins

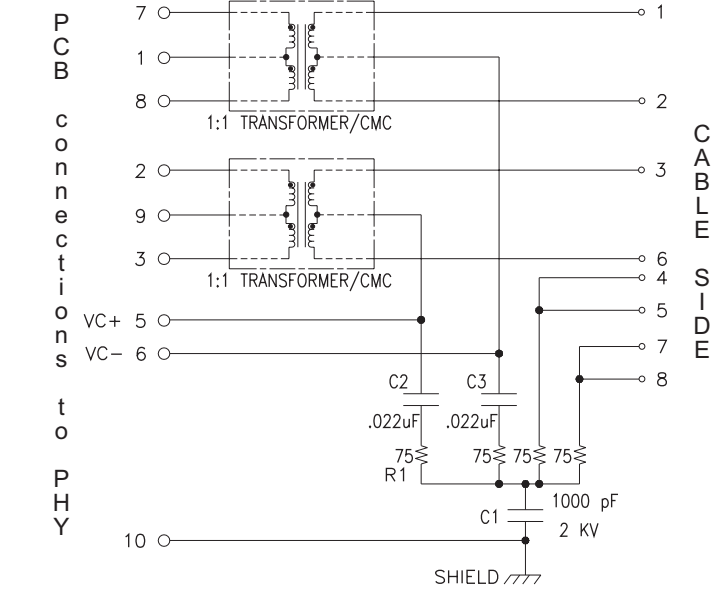


### Schematics

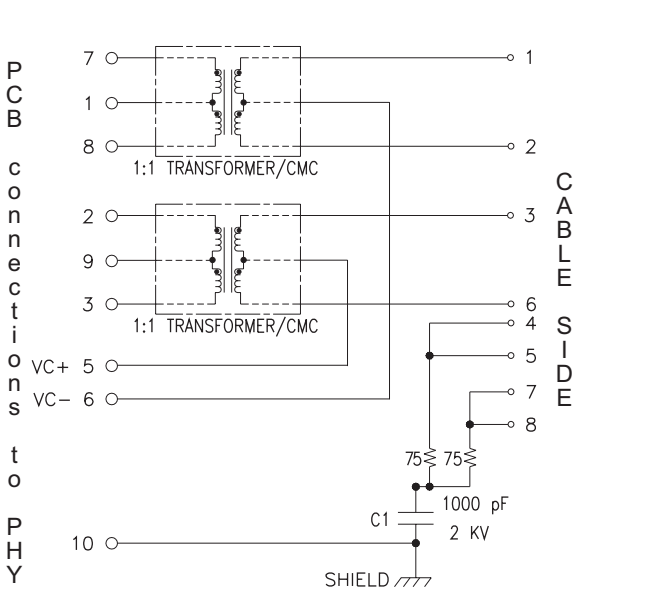
**JK0-0020NL**



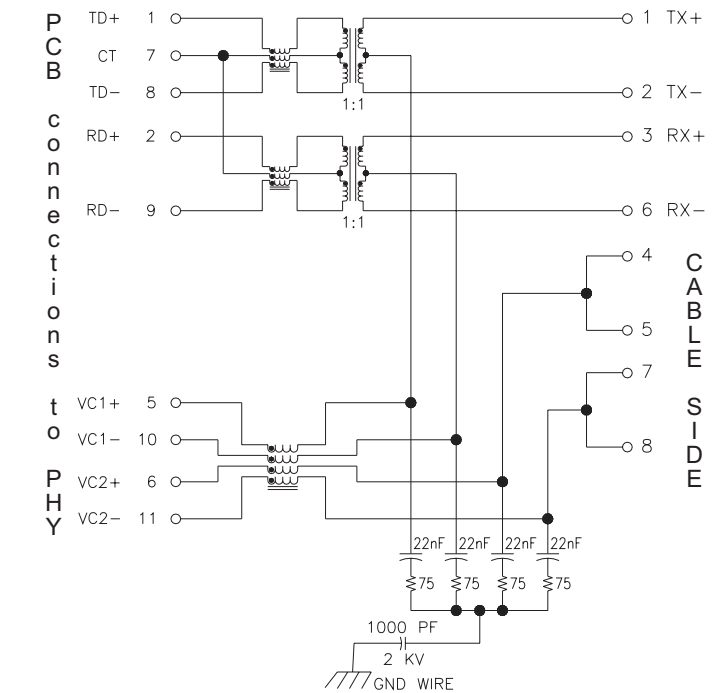
**JK0-0025NL**



**JK0-0026NL**



**JK0-0044NL**



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J415.E (10/09)