





### 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-5 peak wave solder temperature rating 235°C
-  RoHS-6 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-5 <sup>3</sup> Compliant Part No.	RoHS-6 <sup>4</sup> Compliant Part No.	Tab Option	LEDs <sup>2</sup> 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)  @60Hz 1 MIN
					1-100 MHz	1-10 MHz	30 MHz	60-80 MHz	1-10 MHz	30-60 MHz	60-100 MHz	1-50 MHz	50-130 MHz	
JK0-0020	JK0-0020NL	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500	
JK0-0025	JK0-0025NL	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500	
JK0-0026	JK0-0026NL	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500	
JK0-0044	JK0-0044NL	UP	—	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500	

#### NOTES:

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

3. **RoHS-5** - Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Product contains lead in applications considered as solders.
4. **RoHS-6** - Product does not contain 5 out of the 6 banned substances specified in the RoHS directive. Some internal connections may contain lead in high temperature solder (solder alloys containing more than 85% lead).

### 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	75-300μ inches tin-lead over 75-300μ inches nickel	Thermoplastic	UL 94 V-0	1

#### NOTES:

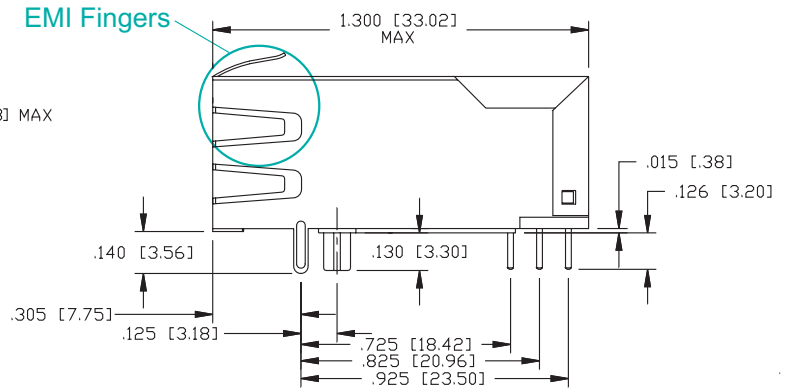
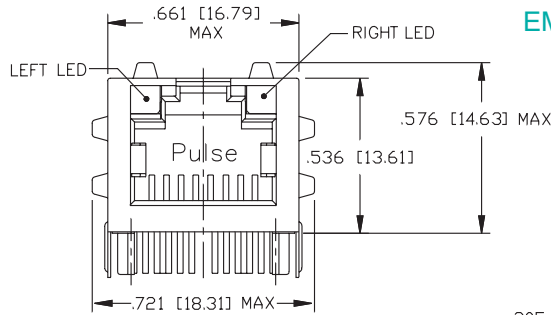
1. Connector dimensions comply with FCC dimension requirements.

2. NL parts are tin matte finish over nickel.

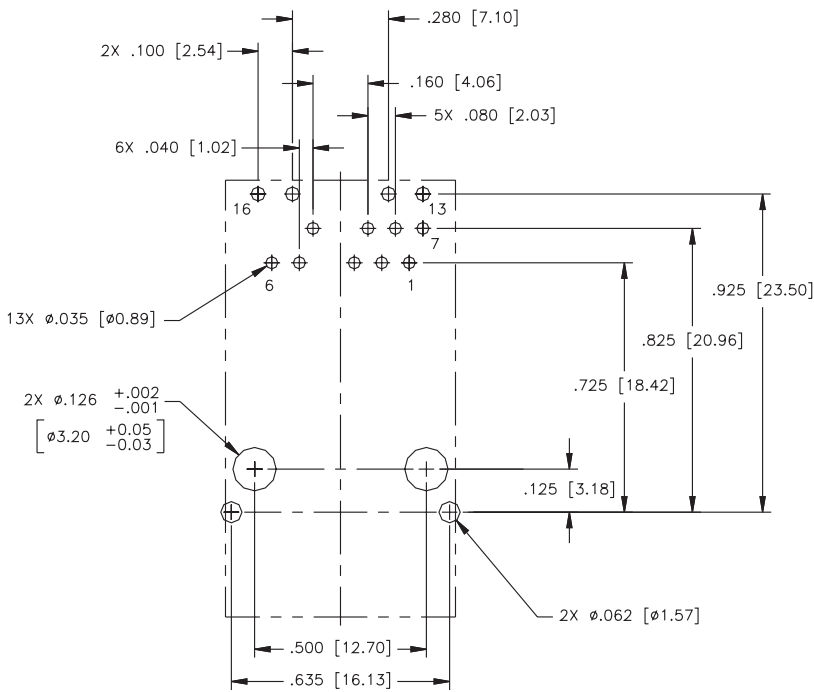
3. MSL - Moisture Sensitivity Level class limits = 1 to 5 (Highest: 1; Lowest: 5).

### Mechanical

#### JK0-00XX



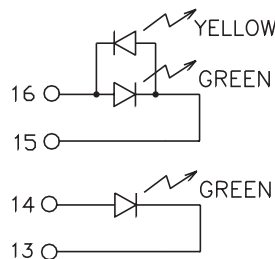
#### JK0-0020/0025/0026



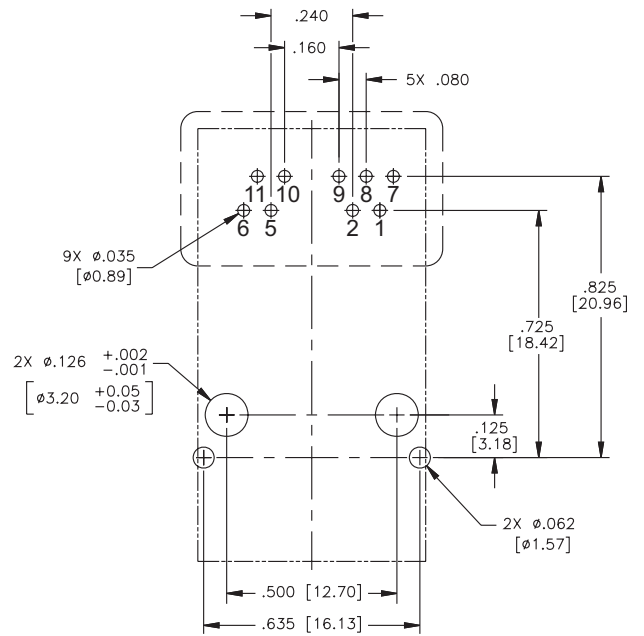
FRONT OF CONNECTOR

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

#### LED Pins



#### JK0-0044

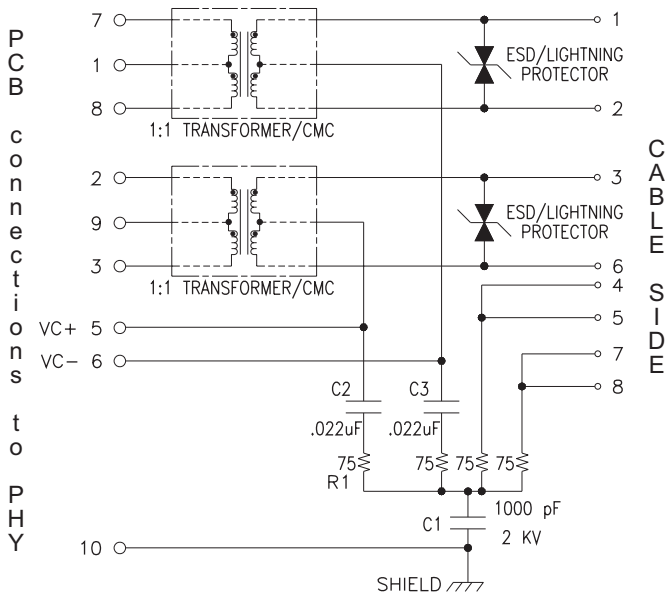


FRONT OF CONNECTOR

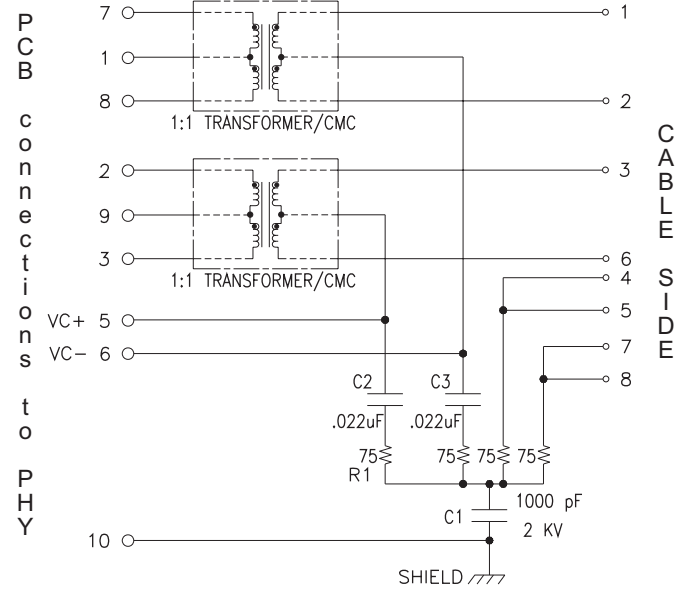
SUGGESTED PCB LAYOUT  
COMPONENT SIDE SHOWN  
DIMENSIONAL TOLERANCE:  
.XXX  $\pm$ .003 [X.XX  $\pm$ 0.08]

### Schematics

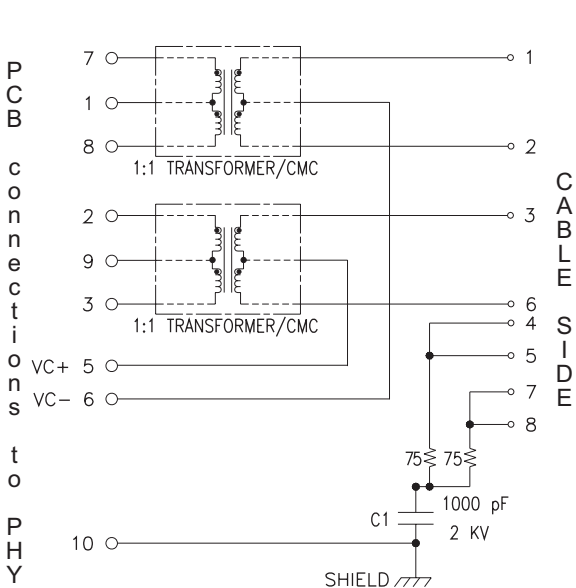
**JK0-0020**



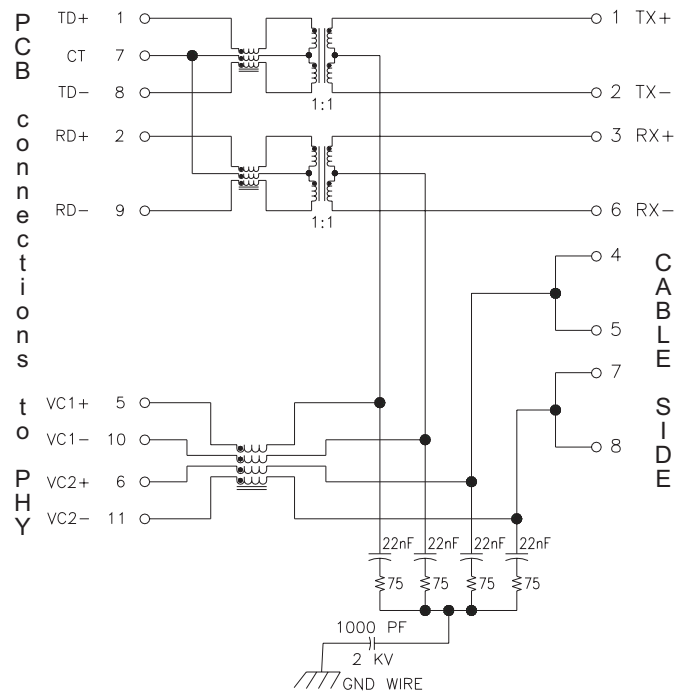
**JK0-0025**



**JK0-0026**



**JK0-0044**



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