

PULSEJACK™

PowerJack T12







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:

-  Single port Connector for PoE applications
-  Contains Surge Suppression to protect IC from power spikes
-  1500 Vrms minimum breakdown between Primary and Secondary windings
-  Unique design ensures a separation of >2.0mm between Power, Signal and Ground pins.

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

Part Number	Tab Option	LEDs ³ L/R	Insertion Loss TX/RX (dB TYP)				Return Loss (dB TYP) 100 Ω (±15 Ω)			Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (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	@60 Hz 1 MIN			
JK0-0020	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500 Vrms			
JK0-0025	UP	Y-G/G	- 1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500 Vrms			
JK0-0026	UP	Y-G/G	- 1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500 Vrms			
JK0-0044	UP	—	- 1.0	-20	-16	-12	-40	-35	-30	-26	-20	1500 Vrms			

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.

RJ45 Durability Testing Rating

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

RJ45 Material Specification

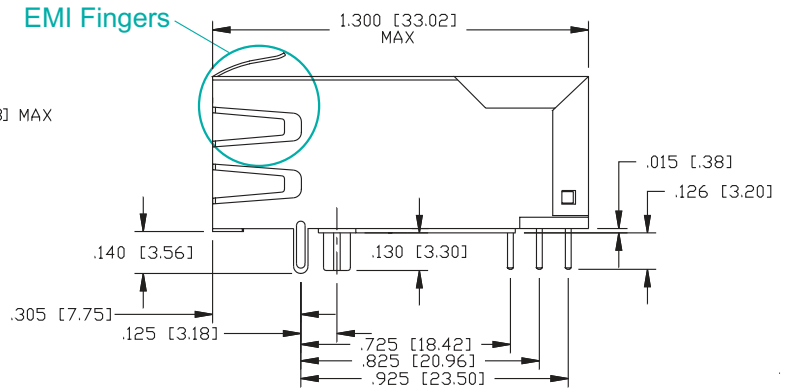
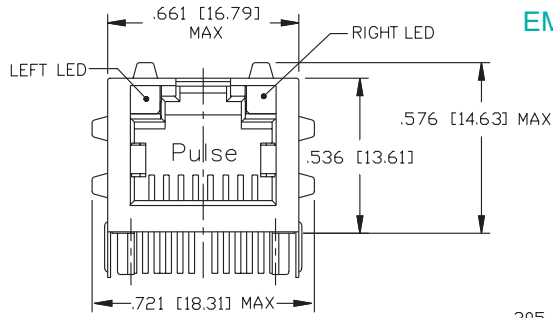
Part Number	Shield		Contact			Housing	
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification
JK0 Series	Brass	20-40μ inches thick nickel over Brass	Phosphor Bronze	15μ inches gold over 30-80μ inches nickel	75-300μ inches tin-lead over 75-300μ inches nickel	Thermoplastic	UL 94 V-0

Notes:

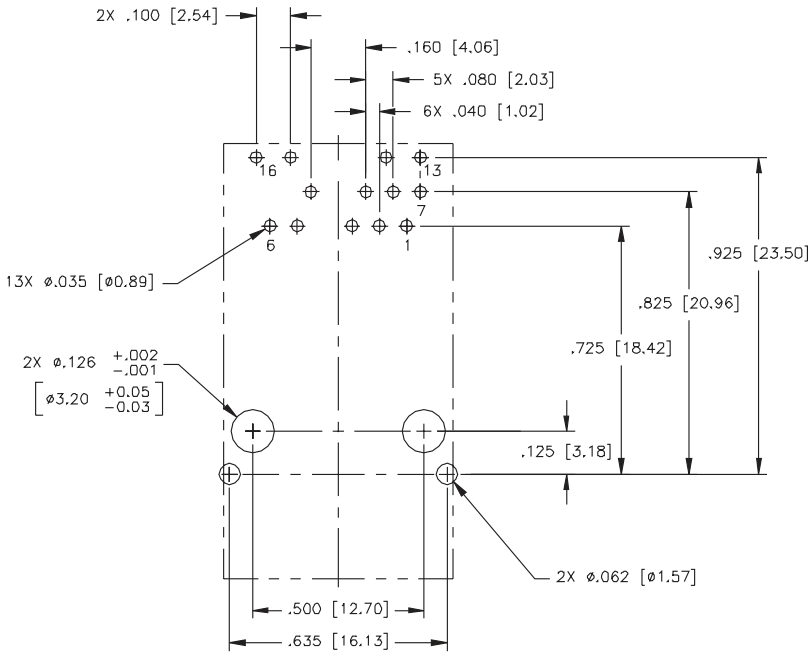
1. All connector part numbers listed above comply to the above limits.
2. Connector dimensions comply with FCC dimension requirements.

Mechanical

JK0-00XX



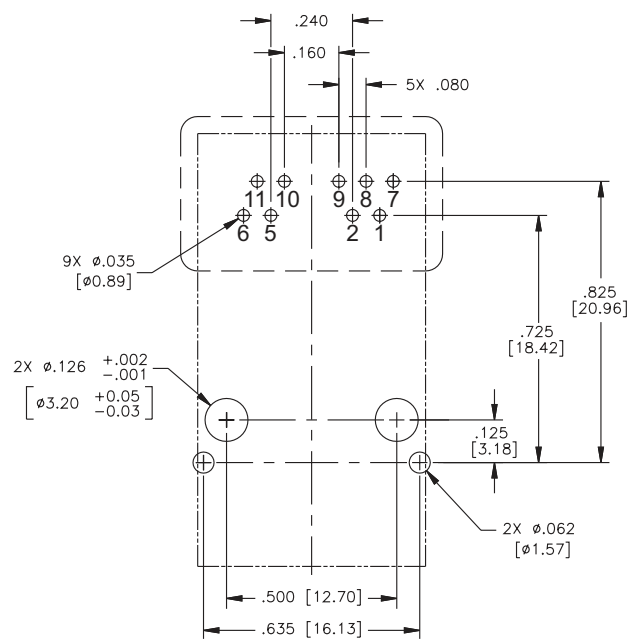
JK0-0020/0025/0026



FRONT OF CONNECTOR

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

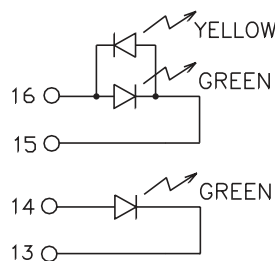
JK0-0044



FRONT OF CONNECTOR

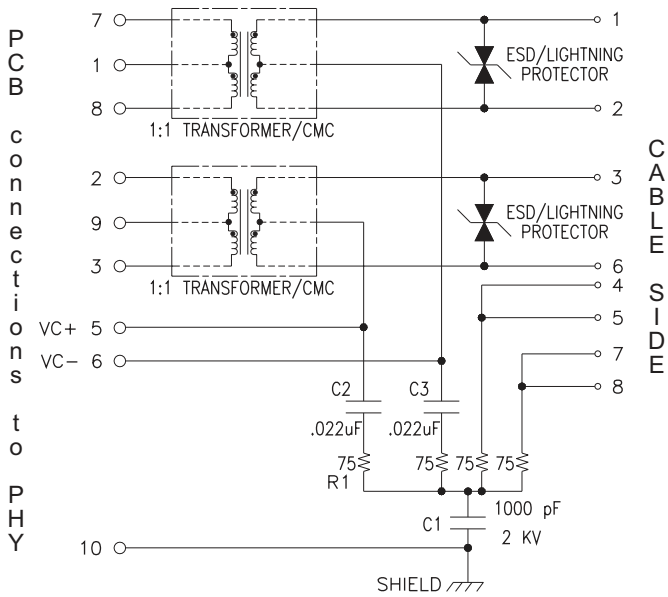
SUGGESTED PCB LAYOUT
COMPONENT SIDE SHOWN
DIMENSIONAL TOLERANCE:

LED Pins

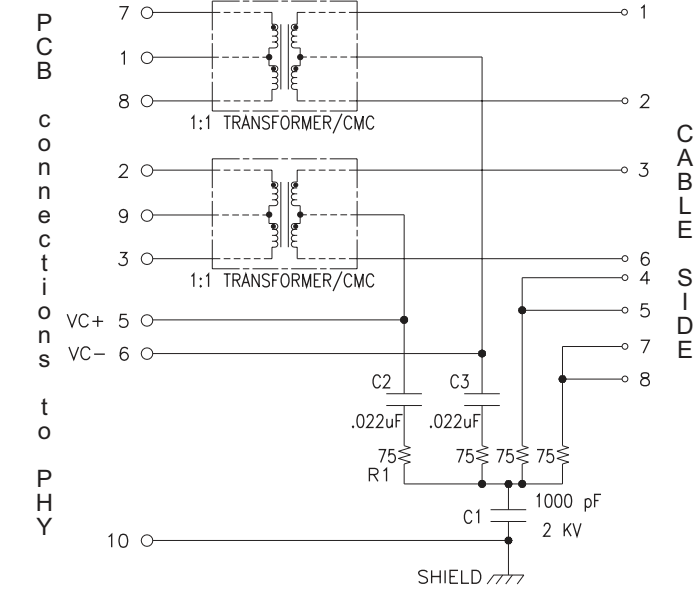


Schematics

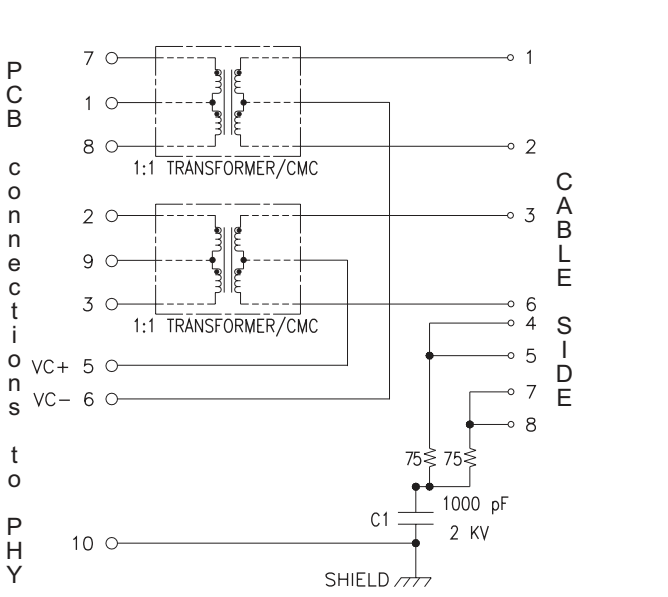
JK0-0020



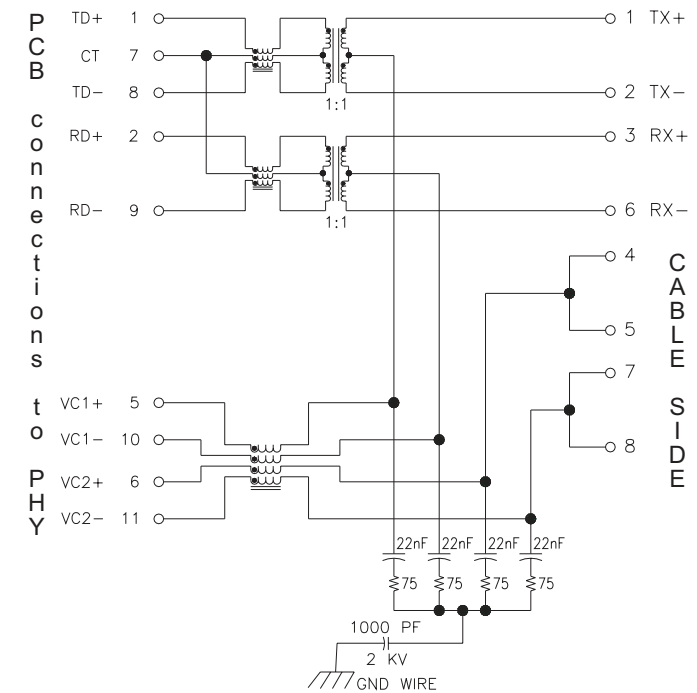
JK0-0025



JK0-0026



JK0-0044



For More Information:

UNITED STATES (Worldwide)	UNITED KINGDOM (Northern Europe)	FRANCE (Southern Europe)	SINGAPORE (Southern Asia)	TAIWAN, R.O.C. (Northern Asia)	HONG KONG (China/Hong Kong)	DISTRIBUTOR
12220 World Trade Drive San Diego, CA 92128 U.S.A. http://www.pulseeng.com TEL: 858 674 8100 FAX: 858 674 8262	3 Huxley Road Surrey Research Park Guildford, Surrey GU2 5RE United Kingdom TEL: 44 1483 401700 FAX: 44 1483 401701	Zone Industrielle F-39270 Orgelet France TEL: 33 3 84 35 04 04 FAX: 33 3 84 25 46 41	150 Kampong Ampat #07-01/02 KA Centre Singapore 368324 TEL: 65 6287 8998 FAX: 65 6280 0080	3F-4, No. 81, Sec. 1 HsinTai Wu Road Hsi-Chih, Taipei Hsien Taiwan, R.O.C. Tel: 886 2 2698 0228 FAX: 886 2 2698 0948	Unit 11, 11/F Wah Lai Industrial Centre 10-14 Kwei Tei Street, Fotan, Shatin, Hong Kong TEL: 852 2788 6588 FAX: 852 2776 1055	

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners.