



Features and Benefits:

- Ⓢ Side entry, small footprint to minimize board space
- Ⓢ Modular Construction, 6u" and 30u" Gold Contacts
- Ⓢ Meets IEEE 802.3 specification for 10/100Base-TX
- Ⓢ Industrial operating temperature -40 to +85oC
- Ⓢ Options to support Power over Ethernet
- Ⓢ High performance for EMI suppression

Electrical Specifications @ 25°C - Operating Temperature -40°C to 85°C

Part Number	LED Configuration (L/R)	Supported PoE Current	Choke Fitted (2Wire unless stated)	EMI Fingers	Isolation (Pri:Sec)	Connector Orientation
JD1-0003NL	None	No	Signal Line	None	2250VDC / 60sec	Latch-Up
JD1-0004NL	Green / Yellow	No	Signal Line	Top & Sides	2250VDC / 60sec	Latch-Up
JXD1-0005NL**	None	350mA - 4 Pair	Signal Line	Top & Sides	2250VDC / 60sec	Latch-Up
JXD1-0006NL**	None	350mA - 4 Pair	3W, Signal Line	Top & Sides	2250VDC / 60sec	Latch-Up
JXD1-0007NL**	Yellow / Green	350mA, 2Pair Rectified DC	3W, Signal Line	Top & Sides	2250VDC / 60sec	Latch-Up
JXD1-0008NL	Green / Yellow	No	Signal Line	Top & Sides	2250VDC / 60sec	Latch-Up
JXD1-0009NL**	Yellow / Green	350mA, 2Pair Rectified DC	3W, PHY Side	None	2250VDC / 60sec	Latch-Up
JXD1-0014NL	Yellow / Green	No	Signal Line	Top & Sides	2250VDC / 60sec	Latch-Up
JXD1-0018NL	Green / Yellow	No	Signal Line	None	2250VDC / 60sec	Latch-Up

** Isolation is across the Transformer only due to PoE feature

Electrical Specifications @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Inductance (min) Media Side	Insertion Loss (Max)	Return Loss* (dB MIN) 100Ω (±15Ω)			Cross Talk (dB TYP)		Common Mode Rejection (dB TYP)	
	100KHz, 0.1mA	1-100 MHz	1- 30MHz	30-60MHz*	60-80MHz*	1- 30MHz	60-100MHz	1-30 MHz	30-200 MHz
JD1-0003NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JD1-0004NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JXD1-0005NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JXD1-0006NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JXD1-0007NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JXD1-0008NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JXD1-0009NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JXD1-0014NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB
JXD1-0018NL	350mH	-1.20dB	-16dB	-12dB	-10dB	-35dB	-30dB	-35dB	-30dB

* Return Loss is calculated using $-20 + [15 \times \text{LOG}_{10} (f/40\text{MHz})]$

Notes:

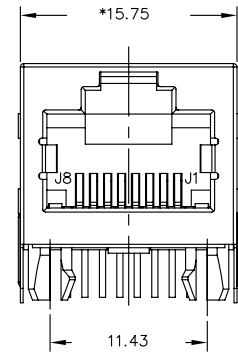
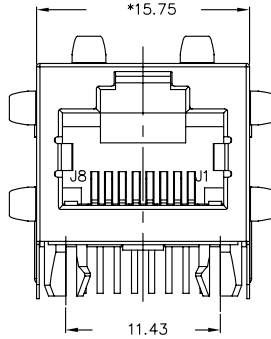
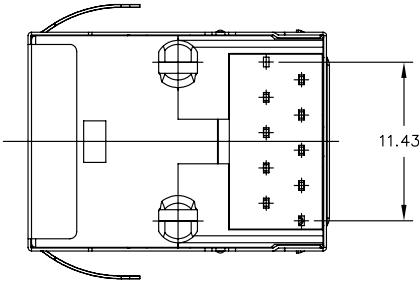
1. ROHS Compliant;
2. Plastic housing: thermoplastic material with flammability rating UL 94V-0 or better
3. Contacts plating: 30 micro-inch gold plating -except JD1-0003/4NL at 6 micro-inch
4. Contacts base material: Phosphor bronze
5. Under plating: 30 micro-inch min nickel
6. Solder Tail Plating: 100 micro-inch (min), inches 100% tin, matte finish
7. Metal shield nickel plating on Copper Alloy
8. Jack cavity conforms to FCC part 68 subpart
9. PCB plating: HASL
10. Storage temperature: -40°C to +85°C
11. Compliance to J-STD:
 - A. J-STD-002: solderability at 245°C DIP and LOOK test
 - B. J-STD-020: level 1, no moisture sensitive
 - C. J-STD-075: R7, 260°C maximum through Wave Solder
12. Parts come in full Trays of 50pcs

Mechanicals

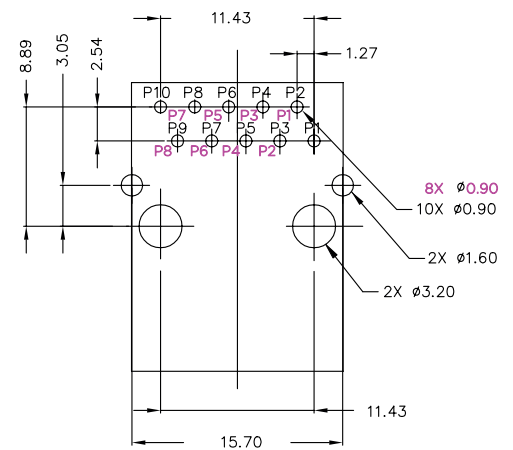
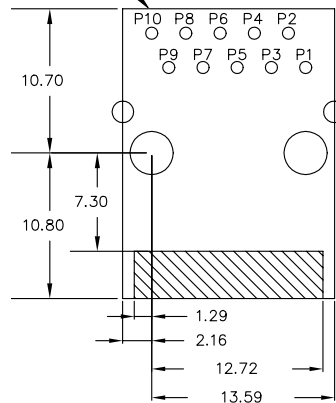
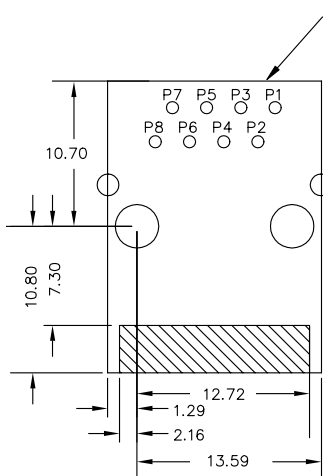
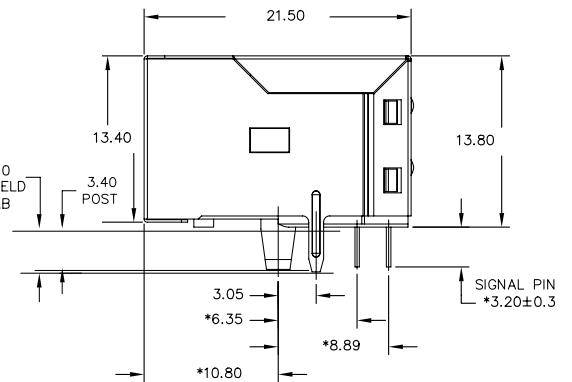
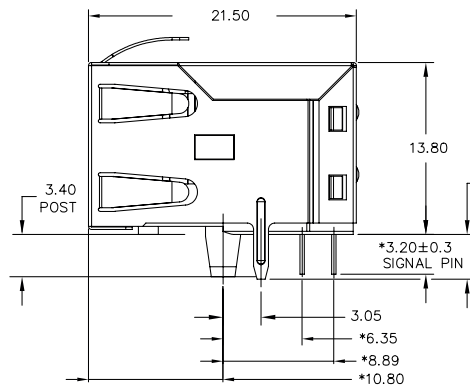
JD1/JXD1-00xxNL

Design with EMI Fingers and LEDs

Design without EMI fingers and LEDs



**DIMENSIONS ARE IN MILLIMETERS
TOLERANCES: X.XX= ±0.10**



JD1-0003NL

JXD1-0005/6NL

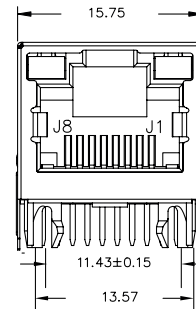
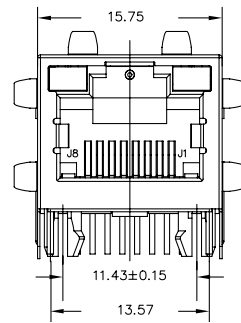
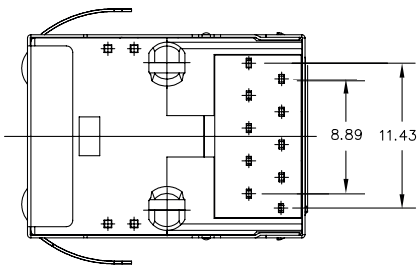
**RECOMMENDED PWB LAYOUT
(COMPONENT SIDE SHOWN)**

Mechanicals

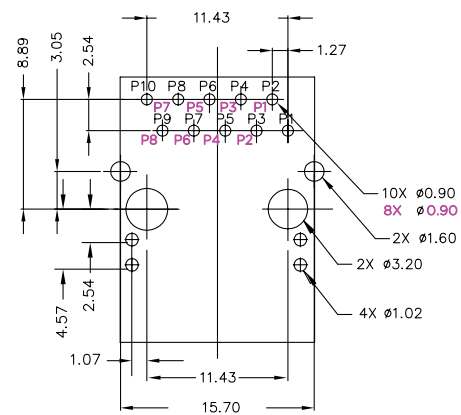
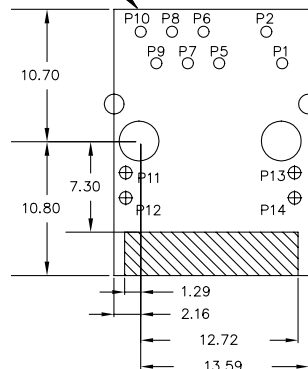
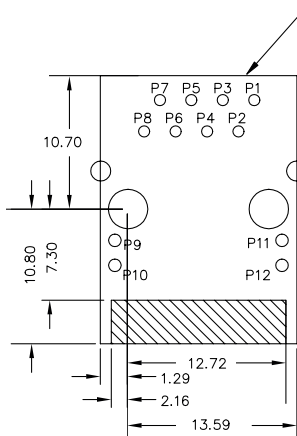
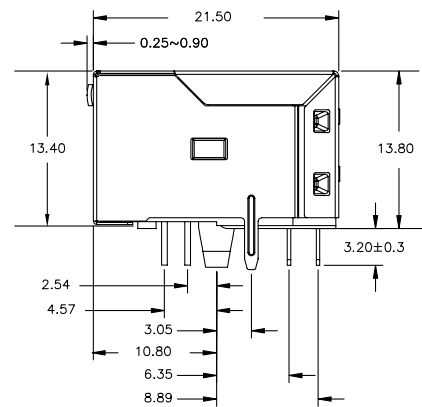
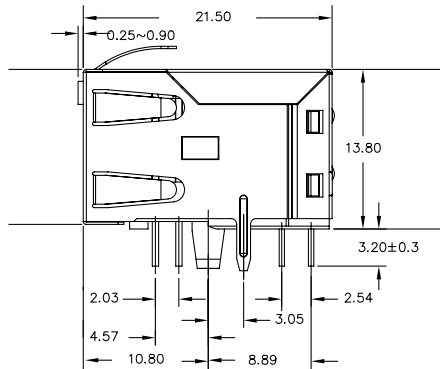
JD1/JXD1-00xxNL

Design with EMI Fingers and no LEDs

Design without EMI fingers and no LEDs



**DIMENSIONS ARE IN MILLIMETERS
TOLERANCES: X.XX= ±0.10**



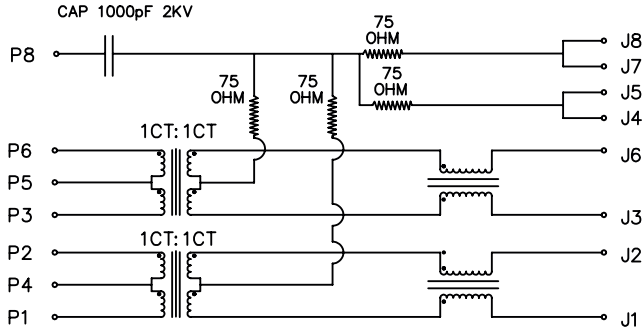
**RECOMMENDED PWB LAYOUT
(COMPONENT SIDE SHOWN)**

JD1-0004NL, JXD1-008/14NL

JXD1-0007/9NL

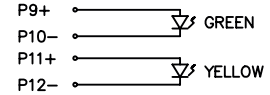
SCHEMATICS

JD1-0003NL*, JXD1-0008/14/18NL

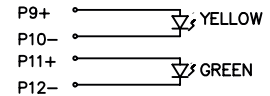


***NOTE: JD1-0003NL has no LEDs fitted**

***LEDs for JXD1-0008NL, JXD1-0018NL**



***LEDs for JXD1-0014NL**

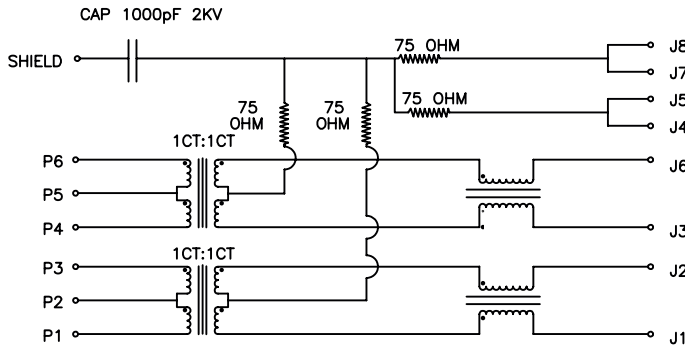


LED SPECIFICATION

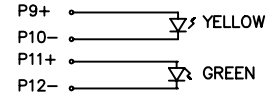
STANDARD LED	WAVELENGTH	FORWARD V(MAX)	TYP
GREEN	565nm	2.4V	2.2V
YELLOW	590nm	2.5V	2.1V

***WITH A FORWARD CURRENT OF 20mA**

JD1-0004NL



***LEDs for JXD1-0004NL**

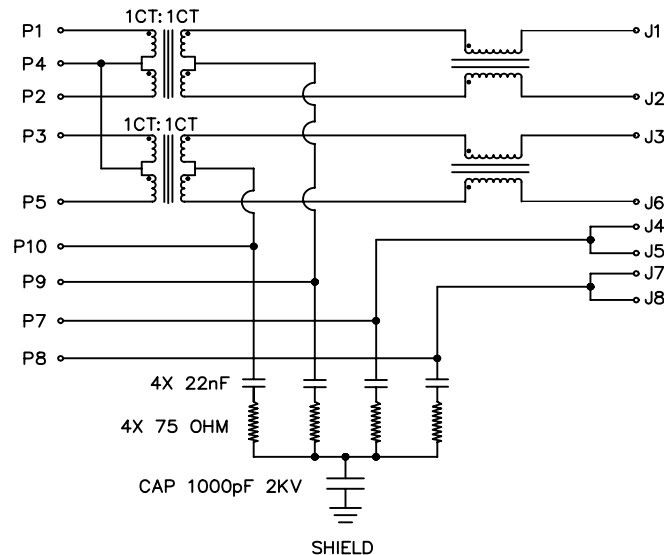


LED SPECIFICATION

STANDARD LED	WAVELENGTH	FORWARD V(MAX)	TYP
GREEN	565nm	2.4V	2.2V
YELLOW	590nm	2.5V	2.1V

***WITH A FORWARD CURRENT OF 20mA**

JXD1-0005NL

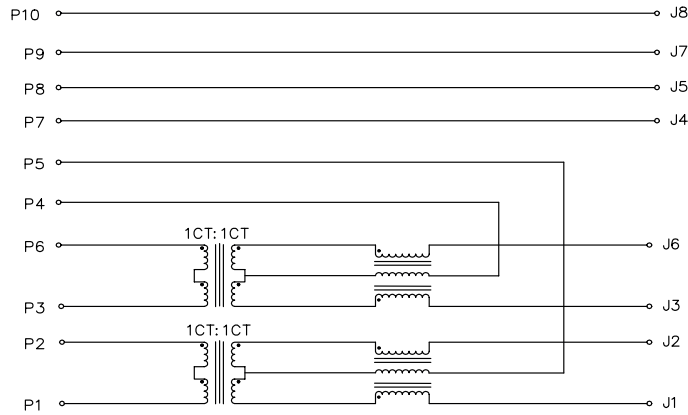


Industrial 10/100Base-TX PulseJack™ Integrated RJ45 Connector

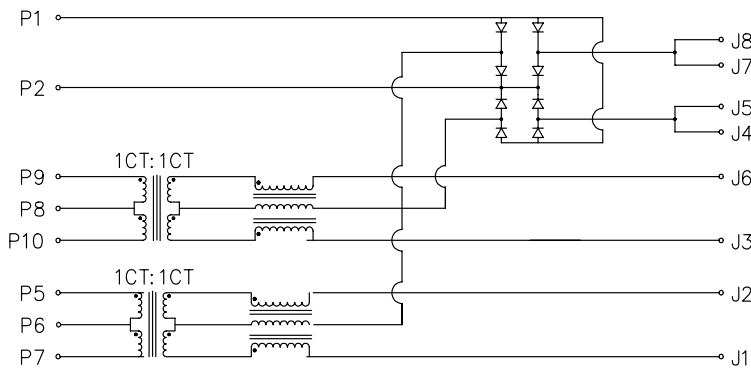
Rugged latch-Up Series designs for 30W PoE and Industrial use

SCHEMATICS

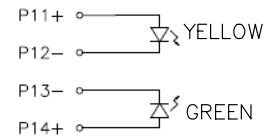
JXD1-0006NL



JXD1-0007NL



*LEDs for JXD1-0007NL

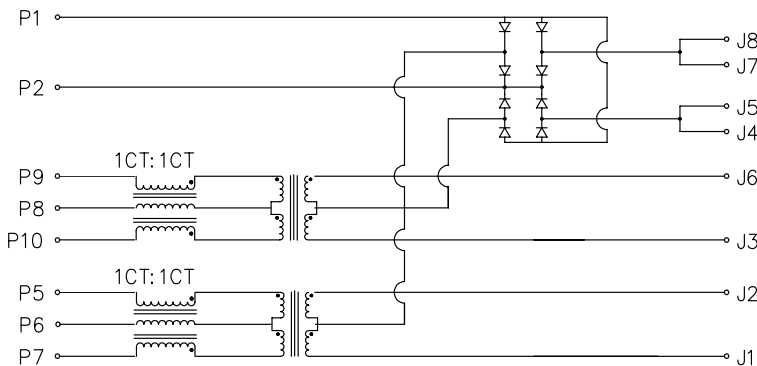


LED SPECIFICATION

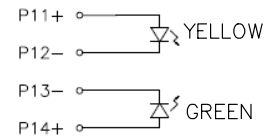
STANDARD LED	WAVELENGTH	FORWARD V(MAX)	TYP
GREEN	565nm	2.4V	2.2V
YELLOW	590nm	2.5V	2.1V

*WITH A FORWARD CURRENT OF 20mA

JXD1-0009NL



*LEDs for JXD1-0009NL



LED SPECIFICATION

STANDARD LED	WAVELENGTH	FORWARD V(MAX)	TYP
GREEN	565nm	2.4V	2.2V
YELLOW	590nm	2.5V	2.1V

*WITH A FORWARD CURRENT OF 20mA

For More Information:

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