



**THE DATASHEET OF
JXK0-0190NL**



Description:

1000 Base-T single port, latch-up RJ45 with integrated magnetics - Designed for use with all leading PHY manufacturers with the addition of Power over Ethernet, according to IEEE 802.3at/bt



Features and Benefits:

- Ⓢ Premium Design with separate 12 signal and 4 PoE+ pins
- Ⓢ 30~80W Single port PoE over 2 or 4 pair per IEEE802.3at/bt
- Ⓢ High EMI performance for maximum noise suppression
- Ⓢ Commercial and Industrial operating Temperature
- Ⓢ RoHS peak wave solder temperature rating 260°C

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

RoHS Compliant Part No.	MAX PoE Power Rating @ PSE / PD Site Continuous @ 70°C	LEDs ¹ L/R	Insertion Loss TX/RX (dB TYP)	Return Loss (dB TYP) 100Ω (± 15 Ω)				Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Inductance (OCL) (MIN)	Hipot (VDC)
				1-100 MHz	30 MHz	60-80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	1-50 MHz	50-130 MHz		
JKO-0177NL ³	35W / 15-30W	Y-G/G	-1.0	-16	-12	-10	-44	-37	-33	-27	-20	350uH @ 20mA	2250	
JXKO-0190NL ²	80W / 60W	Y-G/G	-1.0	-16	-12	-10	-44	-37	-33	-27	-20	120uH @ 19mA	2250	
JXKO-0203NL ²	75W / 65W	G-O/Y	-1.0	-16	-12	-10	-44	-37	-33	-27	-20	120uH @ 19mA	2250	

- Notes:**
1. LEDs Left/Right: **G** = green; **Y** = yellow; **O** = orange
 2. JXKO: Operating temperature -40°C to +85°C.
 3. JKO-0177NL - was designed to meet IEEE802.3at for 30W PoE+ over 2 pair using Line side connections MX1 and MX2 or 15W using MX3 and MX4. However it can also support 30W over 4 pairs to the later version IEEE.802.3bt

RJ45 Durability Testing Rating

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

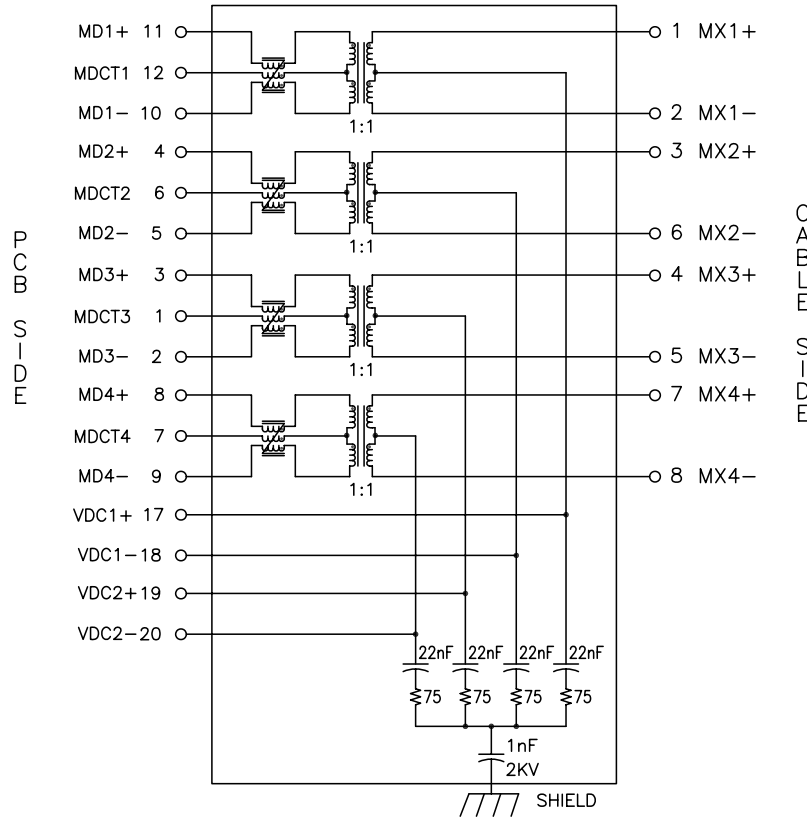
RJ45 Material Specification

Part Number	Shield		Contact			Housing		MSL ² Rating
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification	
JKO/JXKO Series	Brass	20-40μ inches thick Nickel over brass	Phosphor Bronze	30μ inches gold over 30-50μ inches nickel	Tin Matte finish over nickel	Thermoplastic	UL 94 V-0	1

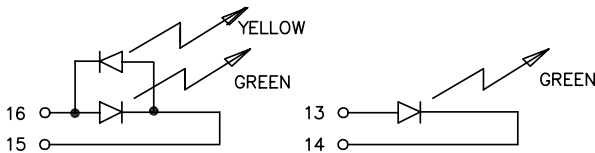
- Notes:**
1. Connector dimensions comply with FCC dimension requirements
 2. MSL = Moisture Sensitivity Level class limits = 1 to 5 (Highest: 1; Lowest: 5)
 3. Storage Temperature: -50°C to +125°C
 4. Solderability: Dip and Look test at 245°C per JEDEC J-STD-002
 5. Solder Processing: Wave Solder, 270°C Max per JEDEC-J-STD-075 W2
 6. RoHS 5/6 - has exemption 7c-1 relating to lead in glass or ceramic
 7. Packaged and shipped in Trays
 Quantity per Tray 45 per Tray
 Tray Size 320mm x 230mm
 Component Weight 10.1 grams

Schematic and LEDs

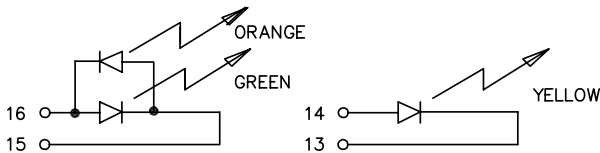
JKO-0177NL, JXKO-0190NL, JXKO-0203NL



JKO-0177NL, JXKO-0190NL



JXKO-0203NL



EMMITTED COLOR	GREEN	YELLOW	GREEN
WAVELENGTH (nm)	568 nM	585 nM	568 nM
POWER DISSIPATION (Pd)	100MW MAX	100MW MAX	68 MW MAX
PEAK FORWARD CURRENT	150 mA MAX	150 mA MAX	150 mA MAX
FORWARD VOLTAGE (Vf) (If = 20 mA)	2.1 TO 2.6 VOLTS	2.1 TO 2.6 VOLTS	2.2 TO 2.8 VOLTS

BI-COLOR

EMMITTED COLOR	GREEN	ORANGE	YELLOW
WAVELENGTH (nm)	568 nM	610 nM	585 nM
POWER DISSIPATION (Pd)	68 MW MAX	80 MW MAX	100 MW MAX
PEAK FORWARD CURRENT	150 mA MAX	150 mA MAX	150 mA MAX
FORWARD VOLTAGE (Vf) (If = 20 mA)	2.2 TO 2.6 VOLTS	2.2 TO 2.6 VOLTS	2.1 TO 2.7 VOLTS

BI-COLOR

REMINDER : - JKO-0177NL - was designed to meet IEEE802.3at for 30W PoE+ over 2 pair using Line side connections MX1 and MX2 and 15W using MX3 and MX4. However it can also support 30W over 4 pairs to the later version, IEEE.802.3bt
JXKO-0190NL and JXKO-0203NL are fully compatible with 4 pair PoE+ applications for PSE or PD sites.

For More Information:

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