

Description:

10/100/1000 Base-TX RJ45 single port with integrated magnetics — Designed for most leading PHY manufacturers with the addition of Power over Ethernet, according to IEEE 802.3af



Features and Benefits:

- RoHS peak wave solder temperature rating 260°C
- Single port Connector for PoE applications

Electrical Performance Summary:

- 350μH minimum OCL with 8mA bias current
- High performance for maximum EMI suppression
- 15W, 350mA, 48V PoE rating

Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C												
RoHS Compliant Part No.	Tab Option	LEDs ¹ L/R	Insertion Loss TX/RX (dB TYP) 1-100 MHz	Return Loss (dB TYP) $100\Omega~(\pm 15\Omega)$		Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (Vrms MIN)	
				30 MHz	60-80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	1-50 MHz	50-130 MHz	@60Hz 1 MIN
JK0-0133NL	UP	_	-1.0	-16	-12	-10	-44	-37	-33	-27	-20	1500
JK0-0145NL	UP	G/Y	- 1.0	-16	-12	-10	-44	-37	-33	-27	-20	1500
JK0-0161NL	UP	_	- 1.0	-16	-12	-10	-44	-37	-33	-27	-20	1500

NOTES:

^{1.} LEDs Left/Right: **G** = green; **Y** = yellow.

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		Shield		Contact	Housing		MSL ³		
Number	Material	Finish	Material	Plating Area	Solder Area ²	Material	Specification	Rating	
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	

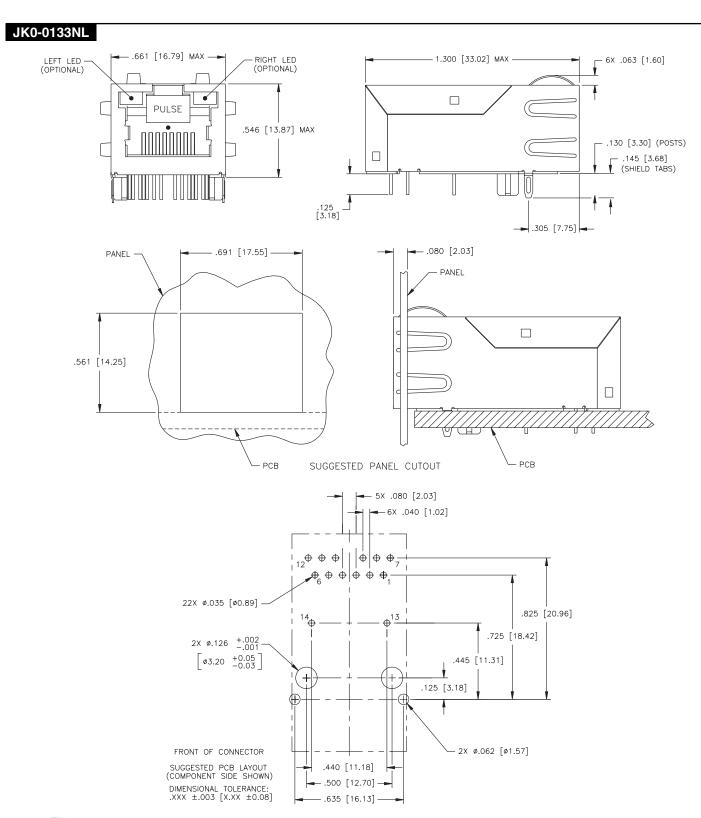
NOTES:

^{1.} Connector dimensions comply with FCC dimension requirements.

^{2.} NL parts are tin matte finish over nickel.

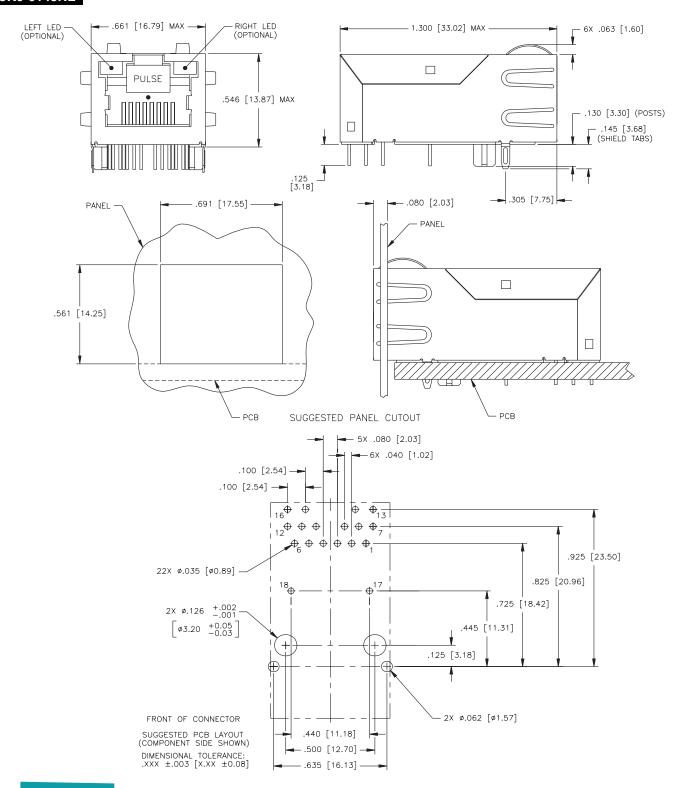
^{3.} MSL - Moisture Sensitivity Level class limits = 1 to 5 (Highest: 1; Lowest: 5).

Mechanical



Mechanical

JK0-0145NL



Mechanical

JK0-0161NL .661 [16.79] MAX -_ 6x .063 [1.60] LEFT LED (OPTIONAL) RIGHT LED (OPTIONAL) 1.300 [33.02] MAX -PULSE .546 [13.87] MAX - .130 [3.30] (POSTS) .145 [3.68] (SHIELD TABS) **-** .305 [7.75] **-**PANEL .691 [17.55] — PANEL .561 [14.25] SUGGESTED PANEL CUTOUT PCB PCB - 5x .080 [2.03] ⊢6X .040 [1.02] 12 ↔ ↔ ↔ .925 [23.50] 22X Ø.035 [Ø0.89] - .058 [1.47] .825 [20.96] .725 [18.42] 2X Ø.126 +.002 -.001 ø3.20 +0.05 -0.03 .125 [3.18] FRONT OF CONNECTOR - 2X ø.062 [ø1.57] SUGGESTED PCB LAYOUT (COMPONENT SIDE SHOWN) .440 [11.18] .500 [12.70] -

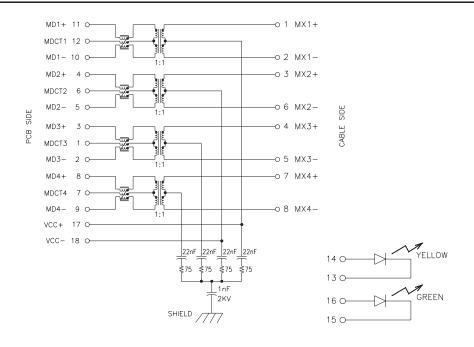
.635 [16.13]

DIMENSIONAL TOLERANCE: .XXX ±.003 [X.XX ±0.08]

Schematics

JK0-0133NL JK0-0161NL MD1+ -o 1 MX1+ MD1+ -o 1 MX1+ MDCT1 12 O MD1- 10 O -0 2 MX1-MD2+ MD2+ -0 3 MX2+ MDCT2 PCB -0 6 MX2-MD2--0.6 MX2-MD3+ o 4 MX3+ MD3+ 0 4 MX3+ MDCT3 MDCT3 MD3--o 5 MX3-MD3-MD4+ -0 7 MX4+ MD4 +8 0 MDCT4 -0 8 MX4− -0 8 MX4-15 0 22nF 22nF 22nF 22nF 1000 P 2 KV SHIELD SHIELD /

JK0-0145NL



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