

Description:

10/100 Base-TX RJ45 1x1 Tab-DOWN with LEDs 8-pin (J0 series) integrated magnetics connector (ICM), designed to support applications, such as SOHO (ADSL modems), LAN-on-Motherboard (LOM), Hub and Switches.



Features and Benefits:

- RoHS peak wave solder temperature rating 260°C
- Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP

Electrical Performance Summary:

- Meets or exceeds IEEE 802.3 standard for 100Base-T
- 350 μH minimum OCL with 8mA bias current
- Minimum 1500Vrms isolation per IEEE 802.3 requirement

Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C																
RoHS Compliant	Turns Ratios		Mech.	EMI	LEDs1	Insertion Loss (dB TYP)	Return Loss (dB TYP) 100W ±15W			Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (Vrms)	
Part Number	TX	RX	Drawing	Fingers	(L/R)	1-65 MHz	1-10 MHz	10-30 MHz	30-60 MHz	60-80 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-50 MHz	50-150 MHz	@60Hz 1 MIN
J0006D01BNL	1CT:1	1CT:1	Α	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0006D21NL	1CT:1	1CT:1	Е	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0006D21BNL	1CT:1	1CT:1	В	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D01NL	1CT:1	1CT:1	С	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D01BNL	1CT:1	1CT:1	Α	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D21NL	1CT:1	1CT:1	Е	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D21BNL	1CT:1	1CT:1	В	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0011D21ENL	1CT:1	1CT:1	В	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0012D21NL	1CT:1	1CT:1	Е	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0018D21NL	1CT:1.414	1CT:1	Е	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0018D21ENL	1CT:1.414	1CT:1	В	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0024D21NL	1CT:2	1CT:1	Е	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0024D21BNL	1CT:2	1CT:1	В	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01NL	1CT:1	1CT:1	D	No	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01BNL	1CT:1	1CT:1	Α	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01ENL	1CT:1	1CT:1	Α	No	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D01FNL ²	1CT:1	1CT:1	Α	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21NL	1CT:1	1CT:1	Е	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21BNL	1CT:1	1CT:1	В	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21ENL	1CT:1	1CT:1	В	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21FNL ²	1CT:1	1CT:1	В	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0026D21GNL ³	1CT:1	1CT:1	В	YES	YG/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0033D21NL	1.25CT:1	1CT:1	Е	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0035D21BNL	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
J0073D01BNL	1CT:2.5	1CT:1	Α	No	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500

Notes: 1. LEDs Left/Right: G=green, Y=yellow, N/A=none, YG=Bi-color LED Yellow Green. 2. LEDs with internal resistor. 3. Bi- color Left LED.

RJ45 Durability Testing Rating								
Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)				
J0 Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.				

	RJ45 Material Specification									
Part	Shield Contact				Housing			MSL ³		
Number	Material	Finish	Material	Plating Area	Solder Area ²	Material	Specification	Rating		
J0 Series	Brass	10-20m inches Nickel over 10-20m inches Brass	Phosphor Bronze	Nickel underplating and selective gold plating 15µ inches	120μ inches Sn90/Pb10 over 50μ inches nickel	Thermoplastic	UL 94 V-0	1		

 $\textbf{Notes:} \quad \textbf{1. Connector} \ \text{dimensions comply with FCC dimension requirements}.$

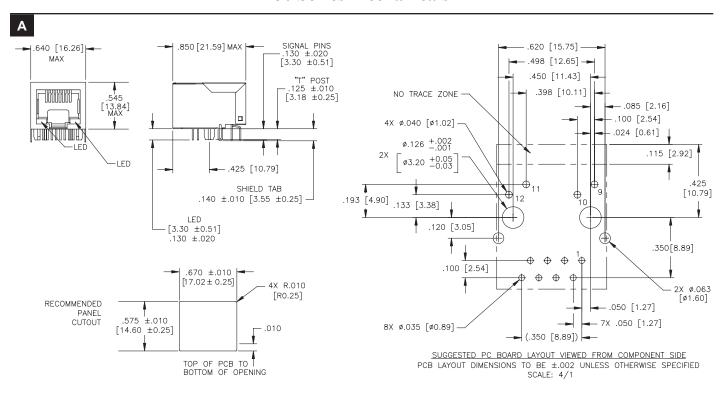
2. RoHS parts are tin matte finish over nickel.

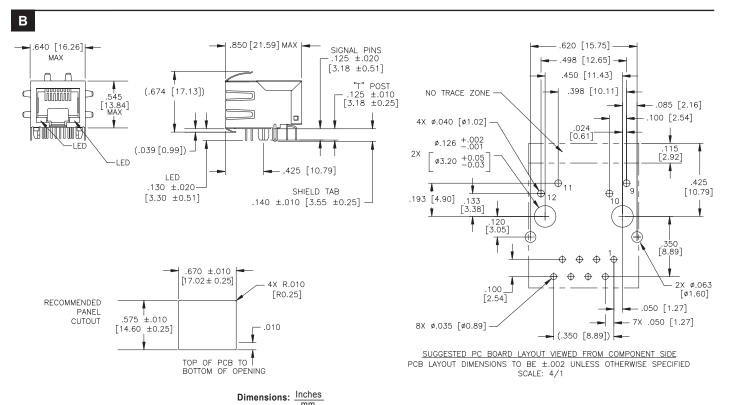
3. MSL = Moisture Sensitivity Level rating from 1 to 5 (highest = 1, lowest = 5)



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J0 Series Mechanicals



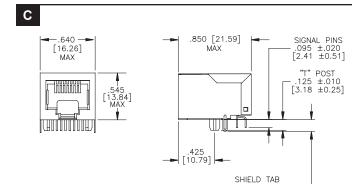


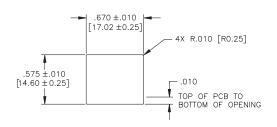
Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$



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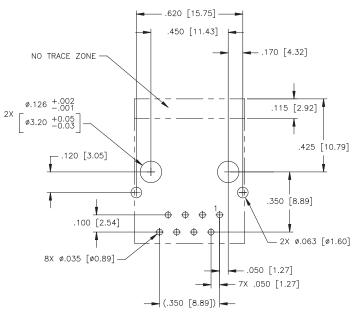
J0 Series Mechanicals





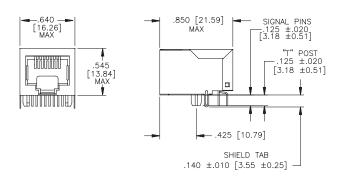
.140 ±.010 [3.55 ±0.25]

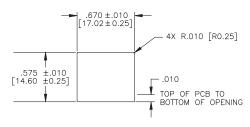
RECOMMENDED PANEL CUTOUT



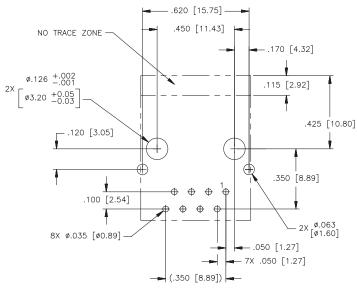
SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE PCB LAYOUT DIMENSIONS TO BE $\pm .002$ UNLESS OTHERWISE SPECIFIED SCALE: 4/1

D





RECOMMENDED PANEL CUTOUT



SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
SCALE: 4/1

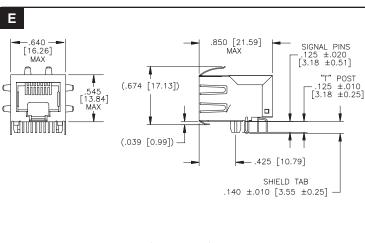
Dimensions: Inches mm

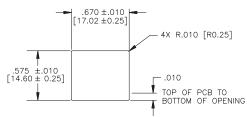
Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$



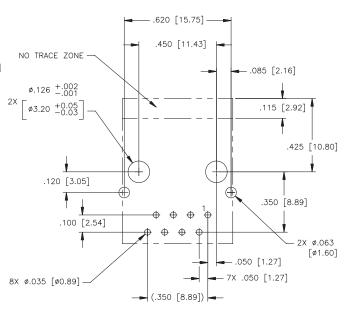
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J0 Series Mechanicals

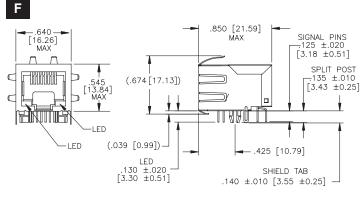


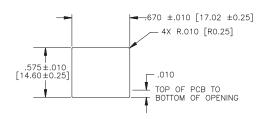


RECOMMENDED PANEL CUTOUT



SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED SCALE: 4/1





RECOMMENDED PANEL CUTOUT

.620 [15.75] .498 [12.65] .450 [11.43] .398 [10.11] NO TRACE ZONE - .085 [2.16] 4X ø.040 [ø1.02] .100 [2.54] .024 [0.61] ø.126 +.002 -.001 ø3.20 +0.05 -0.03 .115[2.92] .425 [10.80] ₻ .133 [3.38] [4.90] .120 [3.05] .350 [8.89] 1 | Ф 0 Ф .100 [2.54] \oplus \oplus 2X Ø.063 [ø1.60] .050 [1.27] ■ 7X .050 [1.27] 8X Ø.035 [Ø0.89] (.350 [8.89])

SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ±.002 UNLESS OTHERWISE SPECIFIED
SCALE: 4/1

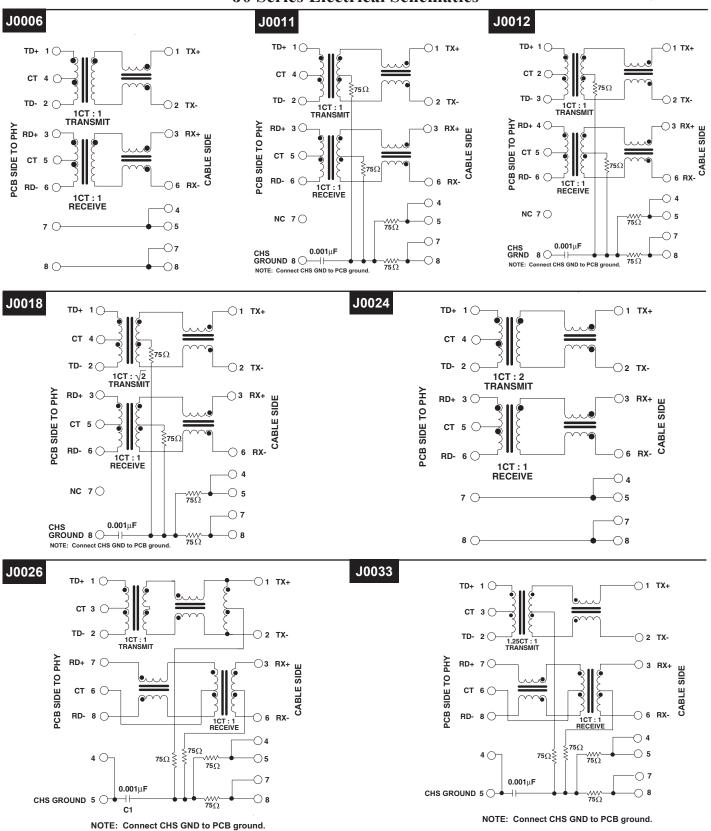
Dimensions: Inches mm

Unless otherwise specified, all tolerances are $\pm \frac{.010}{0,25}$



J0 Series Electrical Schematics

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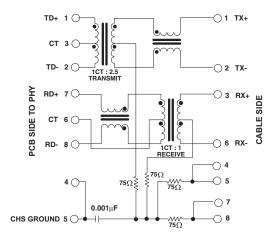
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J0 Series Electrical Schematics (continued)

J0035

TD+ 8 CABLE TD- 7 1:1 TRANSMIT RD+ 2 3 RX+ PCB CT 3 CABLE RD - 1 RECEIVE 4 75 75 75 75 75 75 75 8

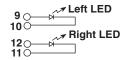
J0073



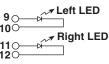
NOTE: Connect CHS GND to PCB ground.

LED Configuration

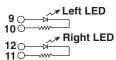




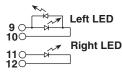
LED = "M" Specification (LEDs without internal resistors)



LED = "F" Specification (LEDs with internal resistors)



LED = "G" Specification (Bi-color LED option with internal resistors)



Standard LED	Wavelength	Forward* V(MAX)	(TYP)	
Yellow	585 nm	2.5 V	2.1 V	
Green	565 nm	2.5 V	2.2 V	

 $^{^\}star$ Using an internal resistor within the LED increases the voltage rating of the diode from 2.5 V to 5.0 V (assumes bias current = 20 mA).

For More Information:

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