

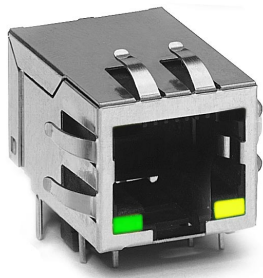


**THE DATASHEET OF
J00-0042NL**





Description:




10/100 Base-TX RJ45 1x1 Tab-DOWN 8-pin Integrated Magnetics Connector, designed to support high volume cost-conscious consumer applications such as: ADSL modems, Cable modems, STB and Video on Demand.



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 IEEE 802.3 specification
-  350µH minimum OCL with 8mA bias current
-  High performance for Max EMI suppression for cost-conscious applications

10 Base-T Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

RoHS Compliant Part No.	Data Rate	Turns Ratios		EMI ¹ Fingers	LEDs ² (L/R)	BST	Insertion Loss (dB MAX)		Return Loss (dB MIN)		Crosstalk (dB MIN)	Common Mode Rejection (dB MIN)	Hipot (Vrms)
		TX	RX				1-10MHz	100Ω ±15Ω	1-10MHz	5MHz			
J00-0025 NL	10BT	1CT:2.5	1CT:1	Yes	None	No	-1	-15	-30	-25	1500		
J00-0051NL	10BT	1CT:2.5	1CT:1	Yes	G/Y	No	-1	-15	-30	-25	1500		
J00-0062 NL	10BT	1CT:2.5	1CT:1	No	None	No	-1	-15	-30	-25	1500		
J00-0063NL	10BT	1CT:2.5	1CT:1	No	G/Y	No	-1	-15	-30	-25	1500		

10/100 Base-T Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

RoHS Compliant Part No.	Data Rate	Turns Ratios		EMI ¹ Fingers	LEDs ² (L/R)	BST	Insertion Loss (dB MAX)					Return Loss (dB MIN)			Crosstalk (dB MIN)	Common Mode Rejection (dB MIN)	Hipot (Vrms)
		TX	RX				100Ω ±15Ω		100Ω ±15Ω								
		1-65MHz	1-10MHz				10-30MHz	30-60MHz	60-80MHz	1-30MHz	30-60MHz	60-100MHz	1-50MHz	50-150MHz			
J00-0014NL	100BT	1CT:1	1CT:1	No	None	Yes	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500
J00-0042NL	100BT	1CT:1	1CT:1	No	None	No	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500
J00-0045NL	100BT	1CT:1	1CT:1	No	G/Y	Yes	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500
J00-0046NL	100BT	1CT:1	1CT:1	No	G/Y	No	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500
J00-0061NL	100BT	1CT:1	1CT:1	Yes	None	Yes	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500
J00-0064NL	100BT	1CT:1	1CT:1	Yes	None	No	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500
J00-0065NL	100BT	1CT:1	1CT:1	Yes	G/Y	Yes	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500
J00-0066NL	100BT	1CT:1	1CT:1	Yes	G/Y	No	-1	-18	-14	-12	-10	-35	-35	-30	-20	-15	1500

NOTES:

- For an explanation of EMI fingers, refer to the mechanical drawing page.
- LEDs Left/Right: G=green, Y=yellow.
- IEEE802.3i (10Base-T) standard does not require these parts to achieve 350µH minimum OCL with 8mA bias current for 10Base-T parts.

RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
J00 Series	5lbs./2.268kgs.	5lbs./2.268kgs.	750 Insertions	20lbs./9.072kgs.

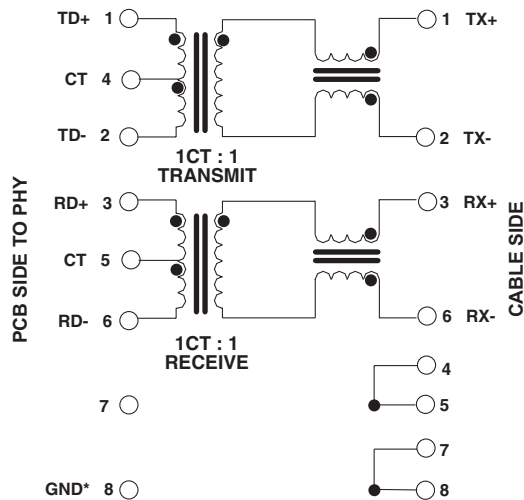
RJ45 Material Specification

Part Number	Shield		Contact			Housing		MSL ² Rating
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification	
J00 Series	Brass	20-40m inches Nickel over 10-20m inches Brass	Phosphor Bronze	Nickel underplating and selective gold plating 15µ inches	Tin matte finish	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).

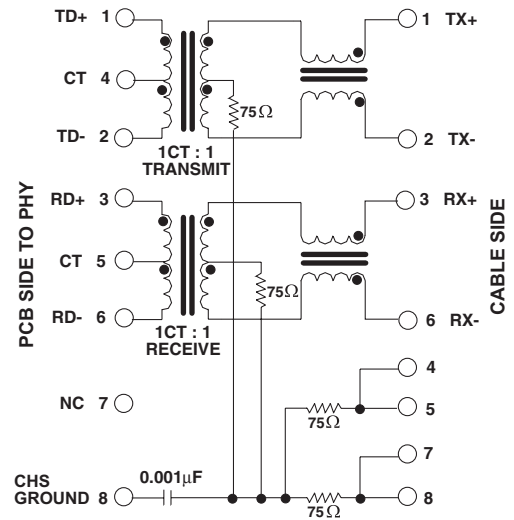
J00-00XX Series Electrical Schematics

J00-0042NL/46NL/64NL/66NL



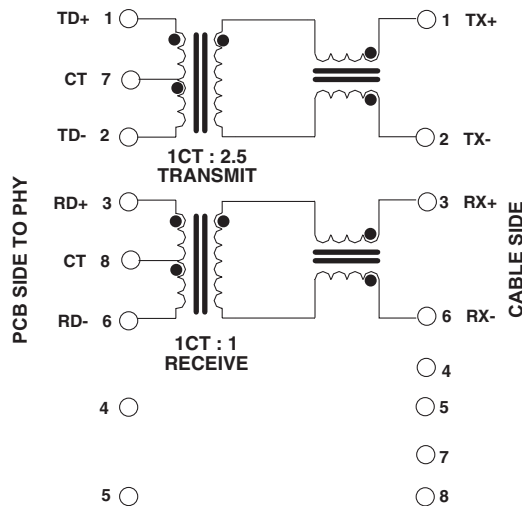
*Connecting pin 8 to Ground makes J00-0042/46/64/66 footprint compatible to J00-0014/45/61/65.

J00-0014NL/45NL/61NL/65NL



NOTE: Connect CHS GND to PCB ground.

J00-0025NL/51NL/62NL/63NL



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