

## Single 10/100 BASE-TX Filtered FOR POWER OVER ETHERNET (PoE) MAGNETICS Connector Module

MODEL NO. : RJP-001TC

### Features:

RoHS Compliant

Fully shielded magnetics protect data from internally generated digital noise

Reduces the overall length of the signal path for improved common mode performance

Implements full common mode termination scheme with used and unused twisted pairs

Meets IEEE802.3af specification, Power feeding over the signal pairs

Integrates high voltage capacitor to chassis ground

Supports all major transceivers with matched turns ration and complete integration of specified termination

Design for 100 base transmission over UTP-5 cable

Operating Temp Range: -40 to +85

Storage Temp Range:-55 to +125

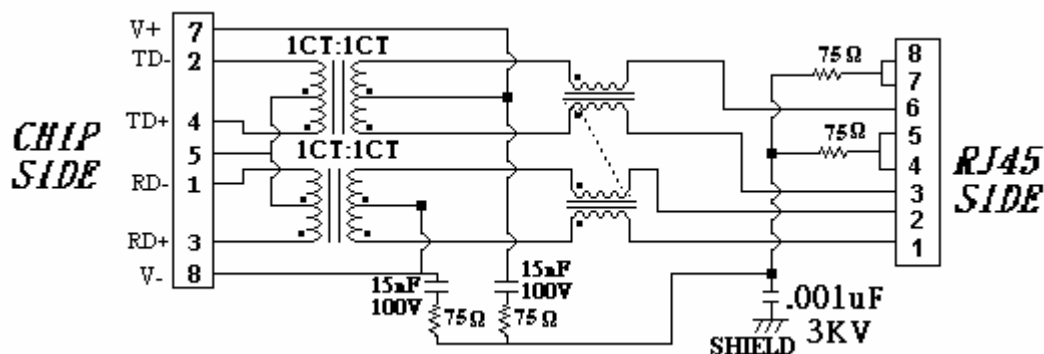
DC Current 350mA

OCL: 350mH @ 100KHz / 100mVRMS 8mA DC Bias

### Typical Performance Characteristics

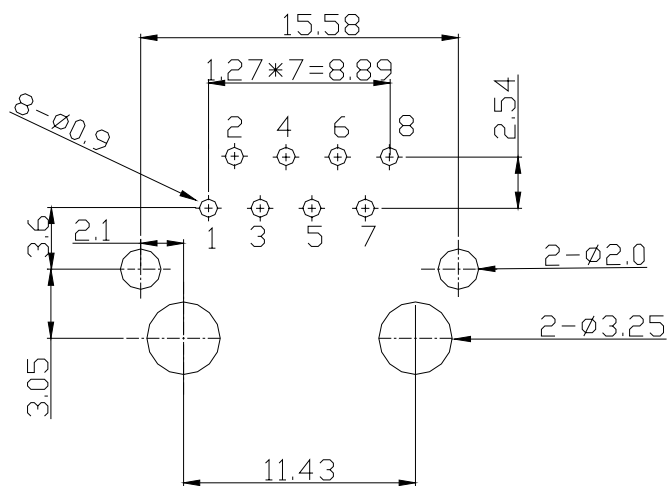
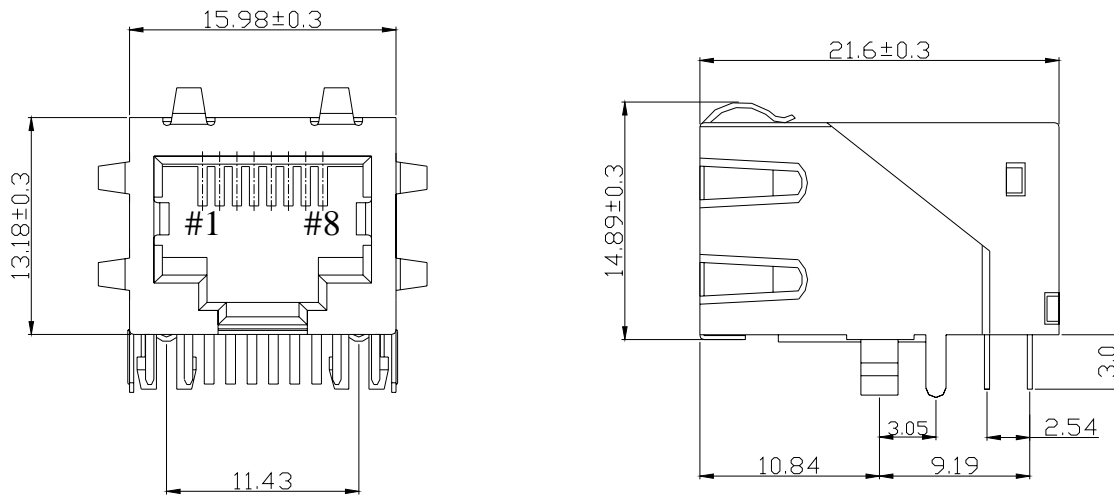
Insertion Loss (dB MAX)		Return Loss (dB Min @100Ω)				Differential to Common Mode Rejection (dB MIN)	Cross talk (dB MIN)					CMRR (dB MIN)	Isolation Voltage (Vrms min)
MHz		MHz				MHz	MHz					MHz	1500
0.3~100	100~125	1~30	60	80	100	0.3~100	20	40	60	80	100	0.3~100	
-0.8	-1.2	-16	-14	-12	-10	-35	-47	-40	-37	-35	-33	-30	

### Schematic: Design on MDI Interface Circuitry



**Dimension:** mm

**TOLERANCE:**  $\pm 0.15$  (unless otherwise specified)



**RECOMMENDED P.C.B LAYOUT  
COMPONENT SIDE OF BOARD**



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## Ordering Information

**R J P      -      0 0 1 T C**

<b>R J 4 5 W / P o E</b>	<b>S e r i e s N O .</b>
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## Requirements :

### 1. Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable product drawing.

### 2. Materials and Finish

#### A. Contact:

**RJ Contact : Phosphor Bronze, Thickness=0.30mm**

**Finish : (a) Contact Area : 30 $\mu$ "min. Gold over 50u"min.Nickel**

**RJ Joint Contact : Brass, Thickness=0.4mm**

**Finish : 80 $\mu$ "min. Sn over 50u"min.Nickel**

#### B. Plastic Part :

**(1) Set Housing : Thermoplastic, PBT, Black**

**UL FILE NO. : E107536**

**Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.**

**Grade : E202G30BK**

**Flame Class : UL 94V-0**

**(2) Insert : Thermoplastic, PBT, Black**

**UL FILE NO. : E107536**

**Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.**

**Grade : E202G30BK**

**Flame Class : UL 94V-0**

**(3) Spacer : Thermoplastic, PBT, Black**

**UL FILE NO. : E107536**

**Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.**

**Grade : E202G30BK**

**Flame Class : UL 94V-0**



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**C. Shield Material :**

**Cartridge  $t=0.25\text{mm}$**

**$10\mu\text{''}$ - $20\mu\text{''}$  Thick Nickel over Brass**

**3. Ratings**

**(1) Voltage rating : 125 VAC**

**(2) Current rating : 1.5A**

**Durability :**

**1000 cycles with no function damage for RJ-45 . Abnormalities shall be present after the test.**

**Low Level Contact Resistance :  $\Delta R=30\text{m}\Omega$  maximum (final)**

**The sample should be mounted in the tester and fully mated and unmated 500 times per hour at the rate of 25mm/min.**

**EIA-364-09C.**