

## Single 10/100 BASE-TX Filtered Connector Module Support Auto MDIX MODEL NO. : RJC-048TC1

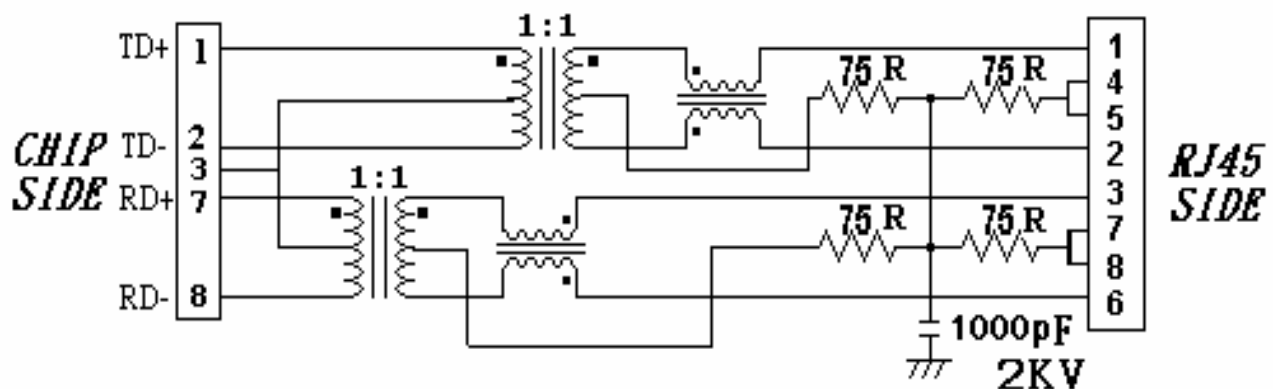
### Features

- 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 IEEE802.3 Baseline Wander Compensation specification
- Integrates high voltage capacitor to chassis ground
- Supports all major transceivers with matched turns ration and complete integration of specified termination
- DESIGN FOR 100BASE-TX TRANSMISSION OVER UTP-5 CABLE
- OPERATING TEMP RANGE:-40 TO +85
- STORAGE TEMP RANGE:-55 TO +125
- PRIMARY OCL INDUCTANCE:350uH min AT100KHz/0.1Vrms with 8mA DC BIAS.

### Typical Performance Characteristics@ 25

Insertion Loss (dB MAX)	Return Loss (dB Min @100±15Ω)				Differential to Common Mode Rejection (dB MIN)	Cross talk (dB MIN)					CMRR (dB MIN)	Isolation Voltage (Vrms min)
	MHz	MHz	MHz	MHz		MHz	MHz	MHz	MHz	MHz		
1~100	1~30	40	50	60~80	1~100	20	40	60	80	100	1~100	1500
-1.0	-16	-14	-12	-10	-35	-47	-40	-37	-35	-33	-30	

### Schematic Design on MDI Interface Circuitry



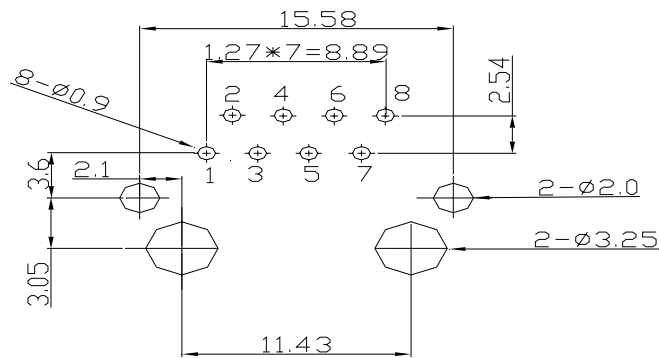
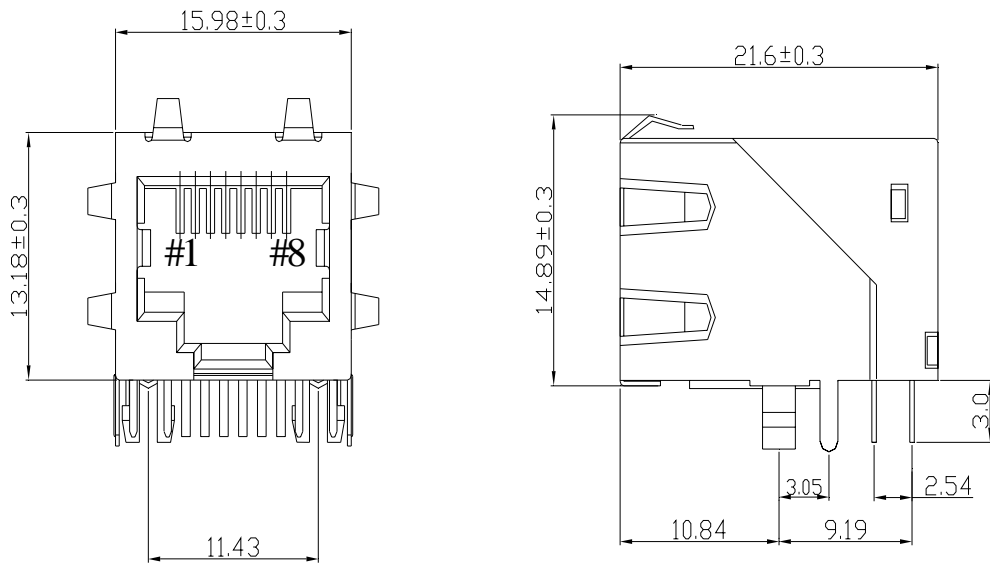


NUMBER : RD-SDRJC-048TC1  
DATE : 2005/09/07 (REV:A1)

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Dimension: mm

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



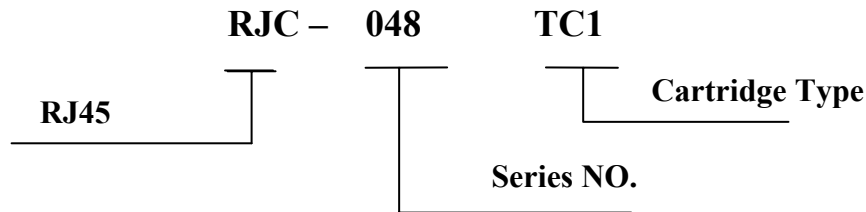
RECOMMENDED P.C.B LAYOUT  
COMPONENT SIDE OF BOARD



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### Ordering Information



## 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 : Contact Area :  $6\mu$ "min. Gold over  $50\mu$ "min. Nickel

RJ Joint Contact : Phosphor Bronze, Thickness=0.3mm

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

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**Grade : E202G30BK**

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

**C. Shield Material :**

**Cartridge t=0.25mm**

**10 μ"-20 μ" Thick Nickel over Brass.**

### **3. Ratings**

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

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

### **Durability :**

**(1) 1000 cycles with no function damage for RJ-45 . Abnormalities shall be present after the test.**

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

**(3) 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.**

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