

## Single 10/100 BASE-TX Filtered Connector Module MODEL NO. : RJ-259TC1

### 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 IEEE802.3 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

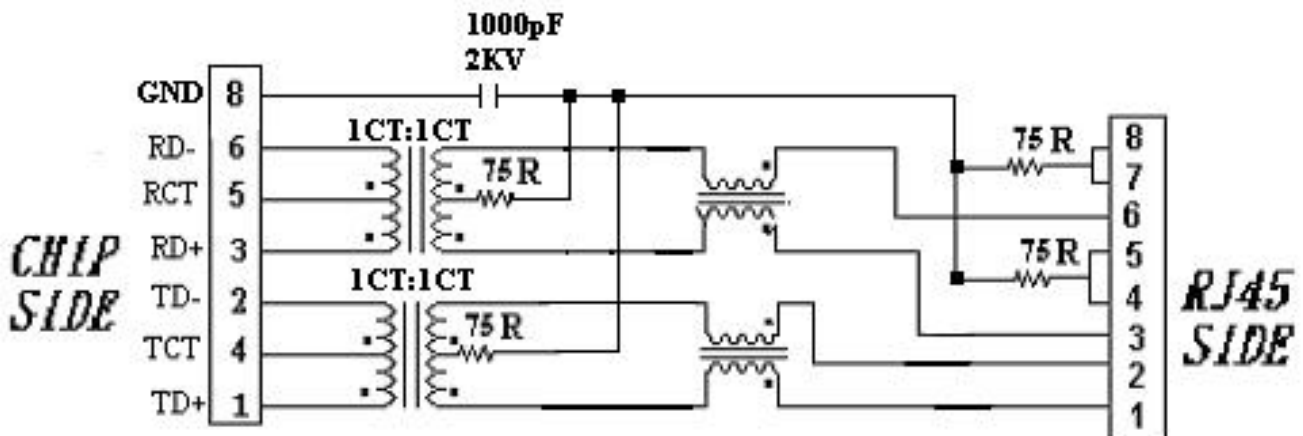
Storage TEMP. range:-55 to +125

Primary OCL inductance: 350 $\mu$ H MIN. at 100KHz/0.1Vrms 8mA DC bias

### Typical Performance Characteristics@ 25

Insertion Loss (dB MAX)	Return Loss (dB Min @100 $\pm$ 15 $\Omega$ )				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	-33	-47	-40	-37	-35	-33	-30	

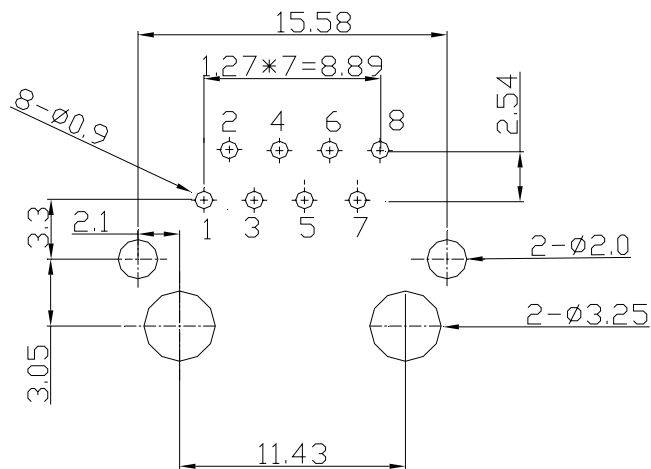
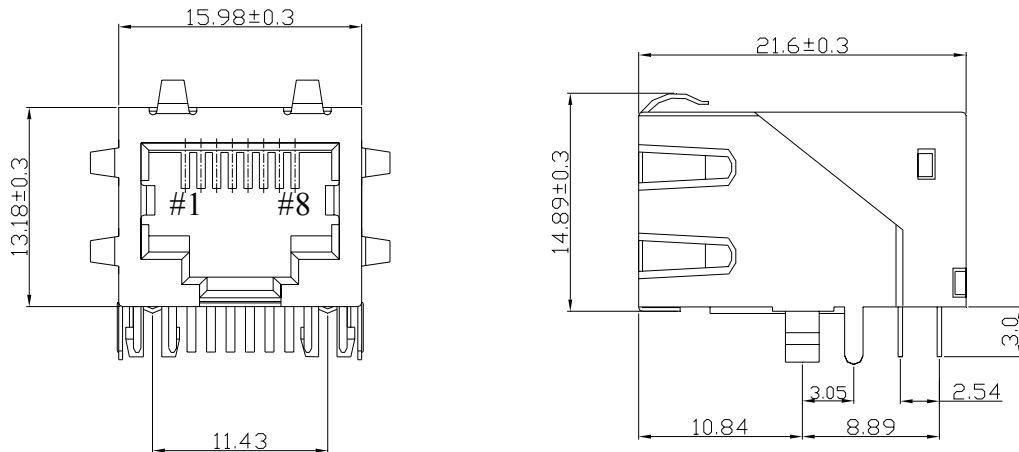
### Schematic Design on MDI Interface Circuitry



## MODEL NO. : RJ-259TC1

Dimension: mm

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



RECOMMENDED P.C.B LAYOUT  
COMPONENT SIDE OF BOARD

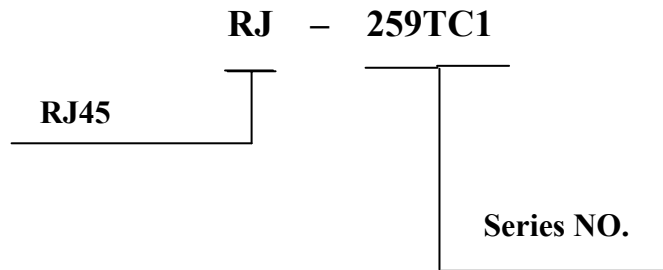
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NUMBER : RD-SD5933010(RS)  
DATE : 2006/03/01 S(REV:A1)

## MODEL NO. : RJ-259TC1

### 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**

**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=0.25mm**

**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)

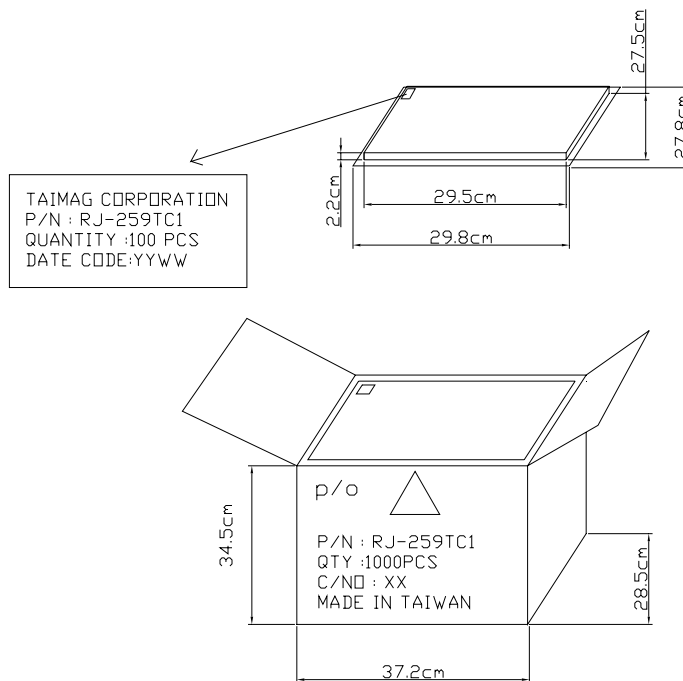
(3) The sample should be mounted in the tester and fully mated and unmated 500 times per hour at the rate of 25mm/min.EIA-364-09C.



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1. Unit weight :5.7 grams
2. package : 100 pcs / tray / 0.61 kgms
3. Carton : 1000 pcs / 10 layers of tray
4. Gross weight : 6.6455 kgms





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**MODEL NO. : RJ-259TC1**

<b>REV.</b>	<b>Revision Description</b>	<b>DATE</b>
A1	First Release	2006/03/01