

## Single Port 10/100 BASE-T RJ-45 CONNECTOR MODEL NO. : RJLB-059TC1

### 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**

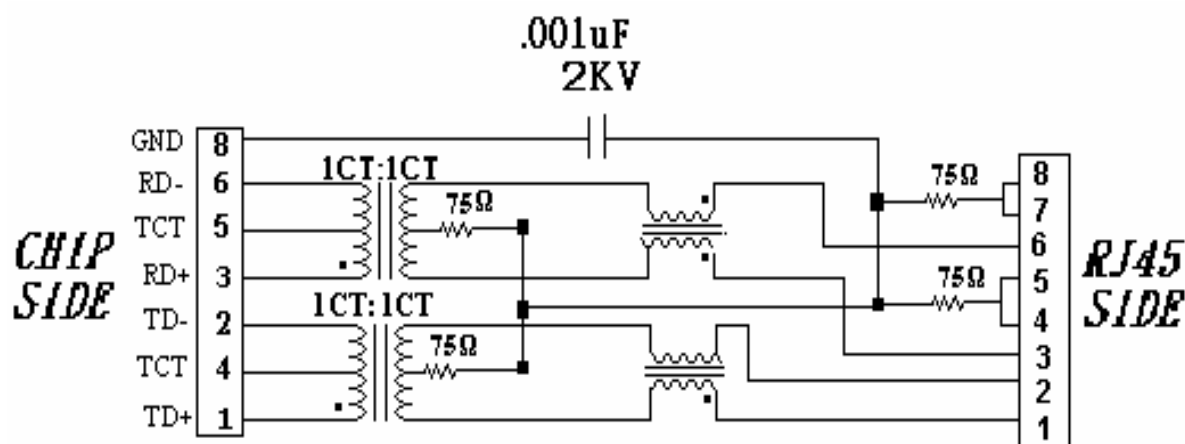
◎ **Storage TEMP. range: -55 to + 125**

- Primary OCL inductance: 350 $\mu$ H MIN. at 100KHz/0.1Vrms with 8mA DC bias
- With the LED lamp.

### Typical Performance Characteristics@ 25

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

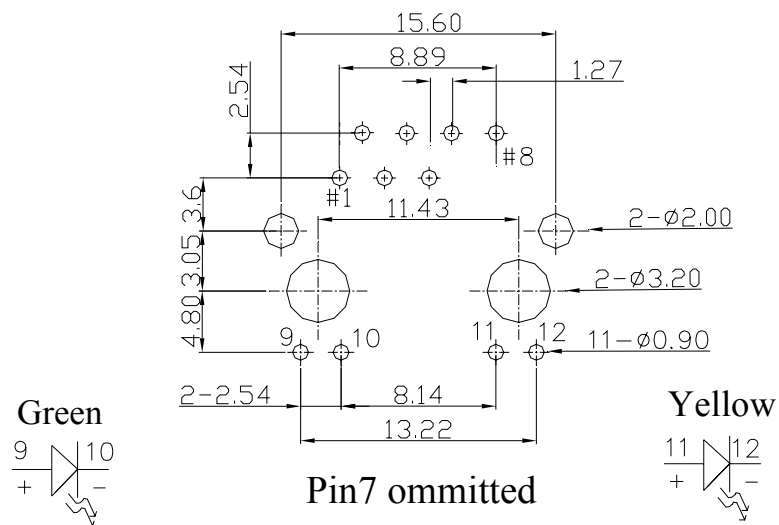
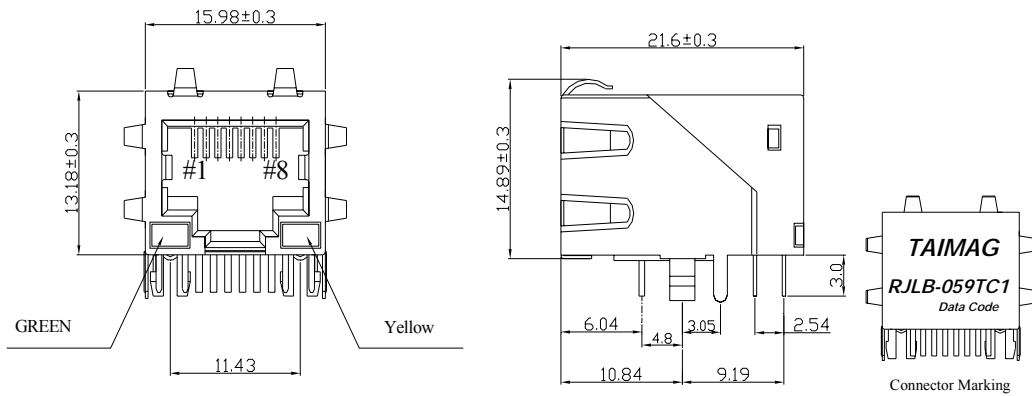
### Schematic Design on MDI Interface Circuitry



## MODEL NO. : RJLB-059TC1

Dimension: mm

TOLERANCE:±0.15 (unless otherwise specified)



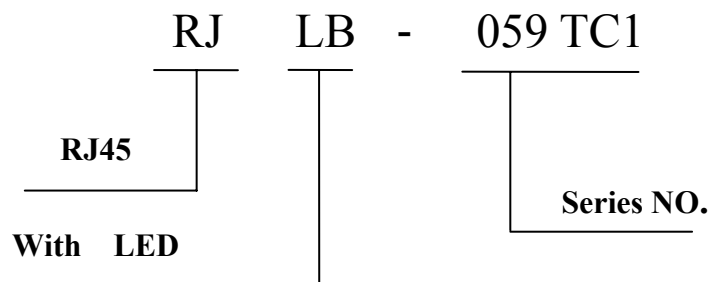
RECOMMENDED P.C.B LAYOUT  
COMPONENT SIDE OF BOARD



NUMBER:RD-SDRJLB-059TC1  
DATE : 2005/09/09 I(REV:A1)

## MODEL NO. : RJLB-059TC1

### 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 : Brass, Thickness=0.3mm

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

LED Joint Contact : Brass, Thickness=0.50mm

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 Thickness=0.25mm  
10 $\mu$ "-20 $\mu$ " Thick Nickel over Brass**

### **D. LED Lamp**

- (a) Lens Color : Transparent with color**
- (b) Emitted Color : Green & Yellow**
- (c) View Angle : 65°**
- (d) Wave Length : Green 565nm ,Yellow 585nm**
- (e)Recommended operation current (IF) : 20 mA**

### **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.**

## Model NO.: RJLB-059TC1

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

### Package drawing:

