

## Single 10/100 BASE-TX Filtered Connector Module MODEL NO. : RJLB-045TC1

### 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°C to +85°C

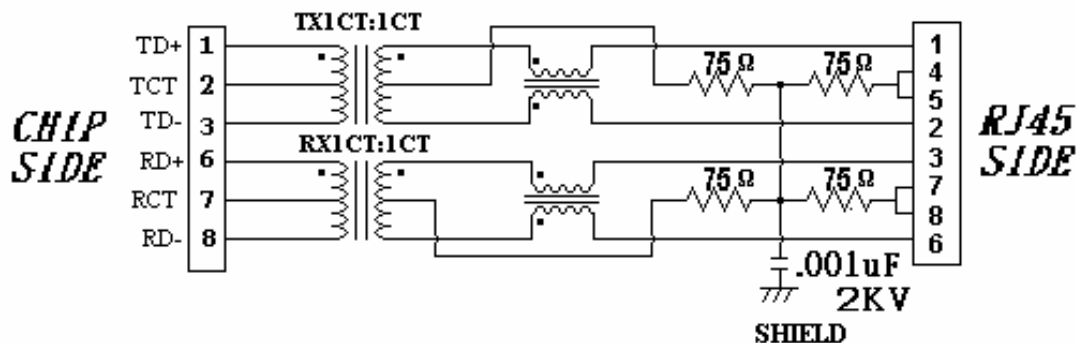
Storage TEMP. range: -55°C to + 125°C

- ⊙ Primary OCL inductance: 350μH MIN. at 100KHz/0.1Vrms with 8mA DC bias.
- ⊙ With the LED lamp.

### Typical Performance Characteristics @ 25°C

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					
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



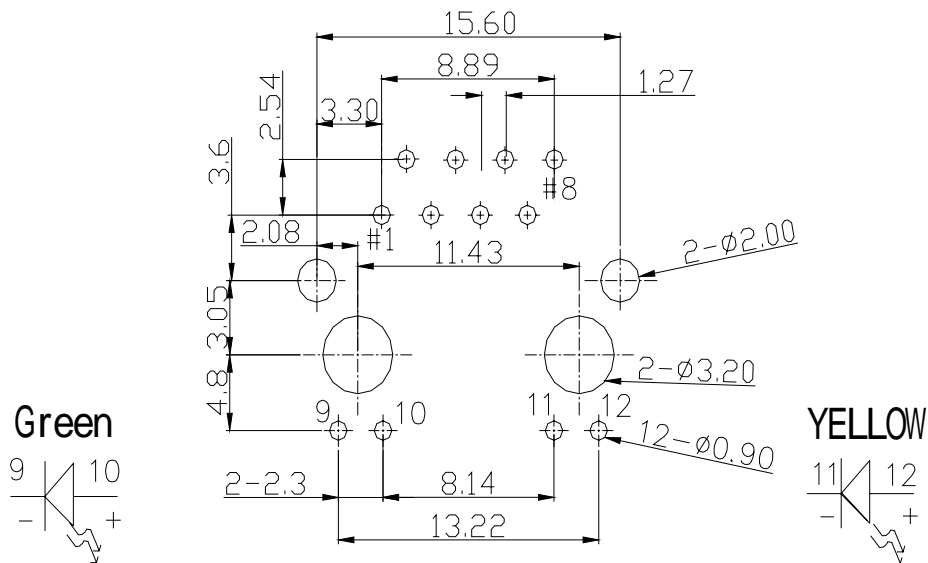
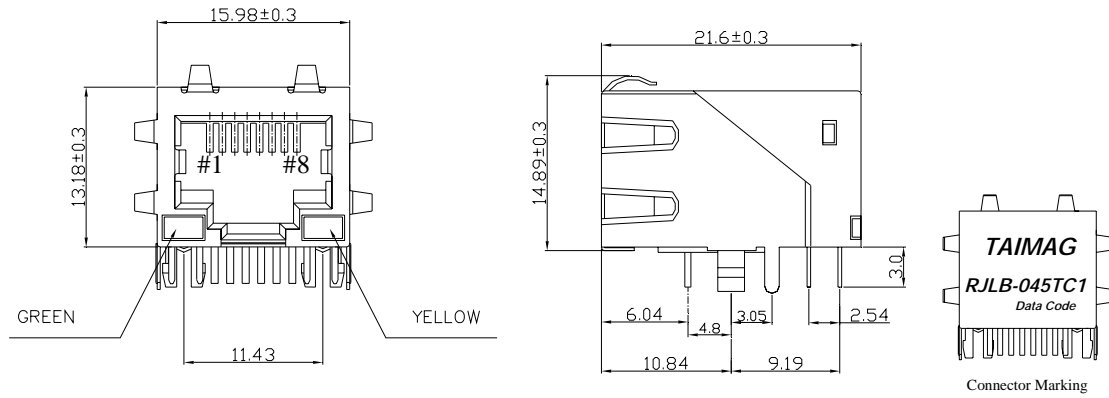


NUMBER : RD-SDRJLB-045TC1  
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Dimension: mm

TOLERANCE:±0.15 (unless otherwise specified)



RECOMMENDED P.C.B LAYOUT  
COMPONENT SIDE OF BOARD



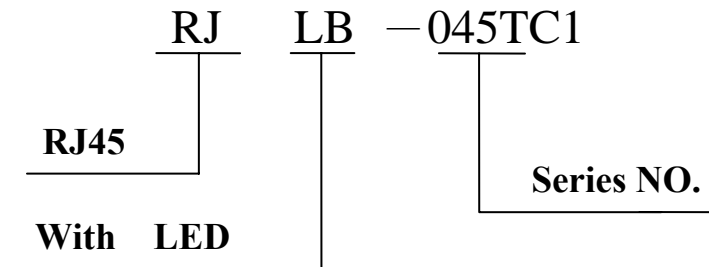
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### Ordering Information



### 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 : Brass, Thickness=0.30mm**

**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**



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

**UL FILE NO. : E107536**

**Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.**

**Grade : E202G30BK**

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

### **C. Shield Material :**

**Cartridge t=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.**



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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

### Package drawing:

