

## Single 10/100/1000 BASE-TX Filtered Connector Module MODEL NO. : RJLBG-014TC1

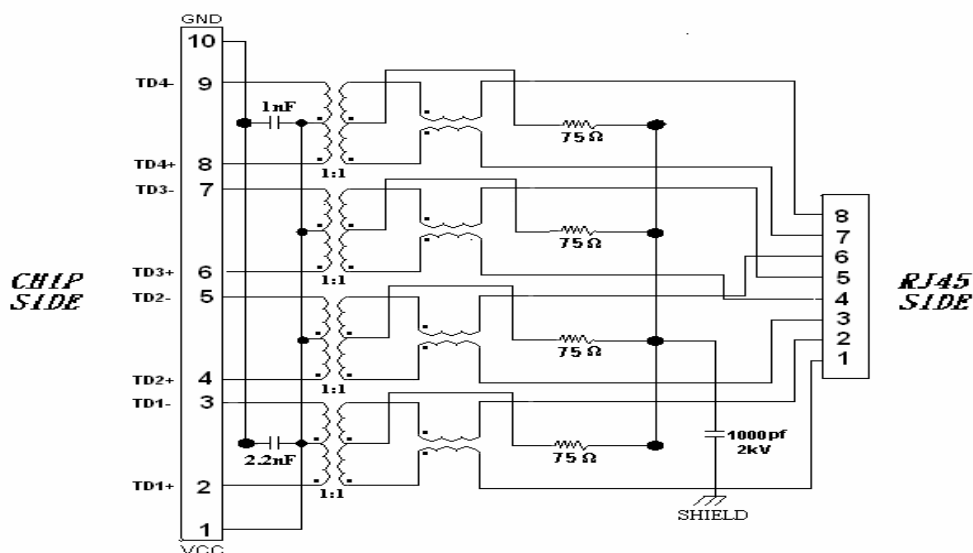
### Features:

- ⊙ 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 1000BASE-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: 350uH MIN AT100KHz/0.1Vrms with 8mA DC bias.
- ⊙ With the LED lamp.

### Typical Performance Characteristics @ 25°C

Insertion Loss (dB MAX)	Return Loss (dB Min @100Ω±15Ω)				Differential to Common Mode Rejection (dB MIN)	Cross talk (dB MIN)					CMRR (dB MIN)	Isolation Voltage (Vrms min)
	MHz					MHz	MHz					
1~100	1~30	40	60	80~100	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



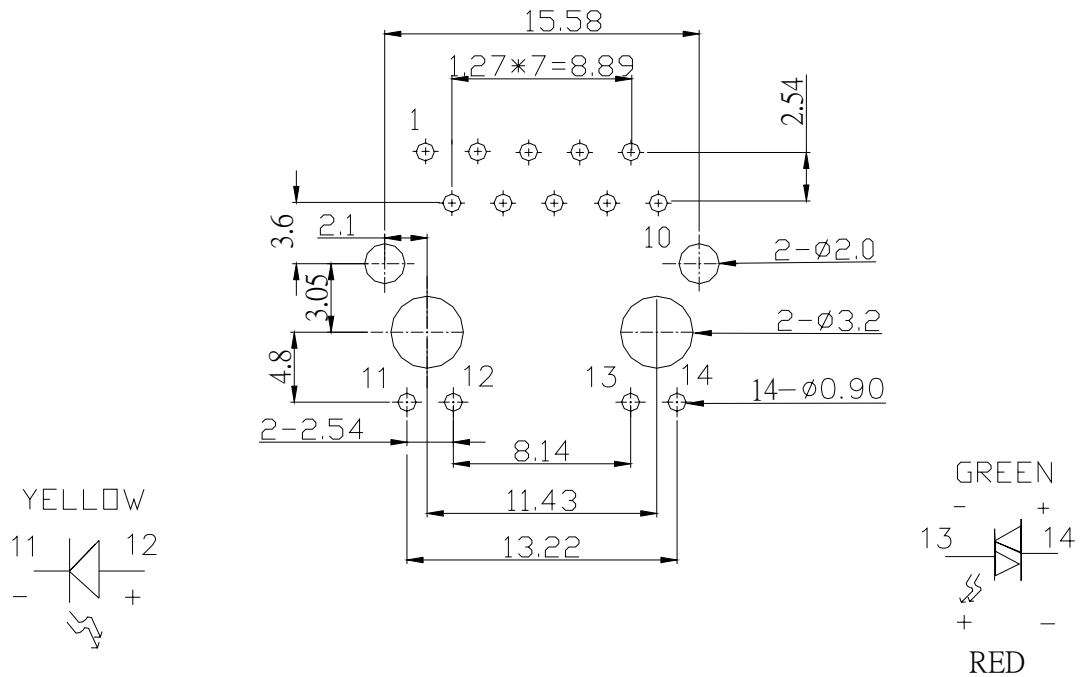
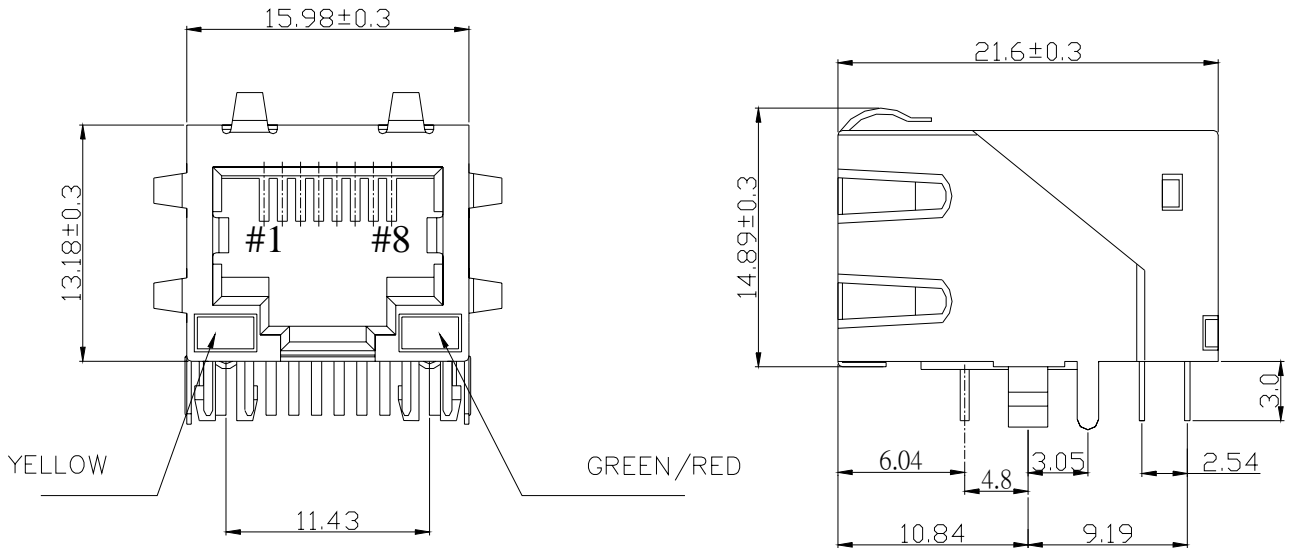


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**Dimension:** mm

**TOLERANCE:**±0.15 (Unless otherwise specified )



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



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### Ordering Information

R J L B		G - 0 1 4 T C 1	
R J 4 5			Series N O .
W i t h L E D		1 0 0 0 B a s e	

### 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

(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



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### **D. LED Lamp**

- (a) Lens Color : Transparent with color**
- (b) Emitted Color : Green & Red, Yellow**
- (c) View Angle : 65°**
- (d) Wave Length : Green 565nm ; Red 635nm ; 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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## Model NO.: MODEL NO. : RJLBG-014TC1

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:

