

## Single 10/100 BASE-TX Filtered Connector Module MODEL NO. : RJLB-239TC1

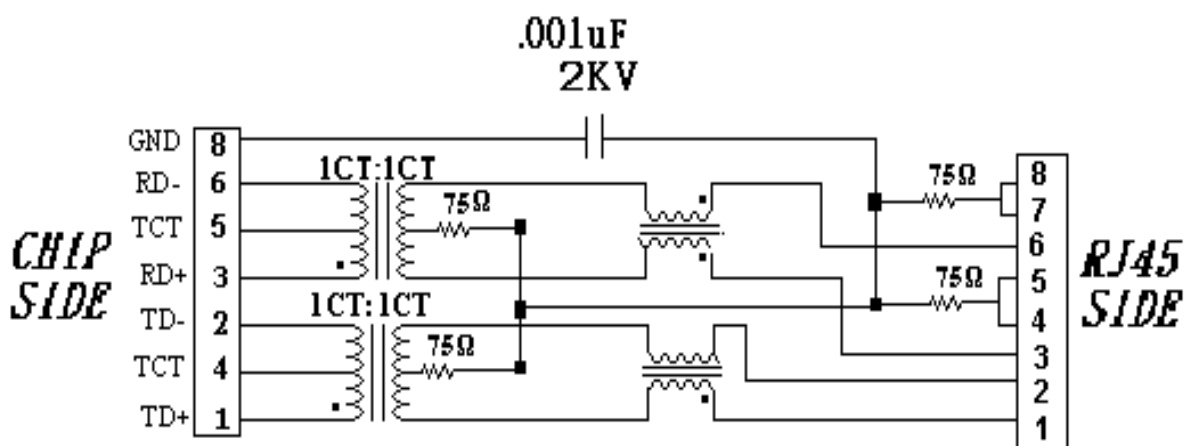
### Features :

- ⊙ 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					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



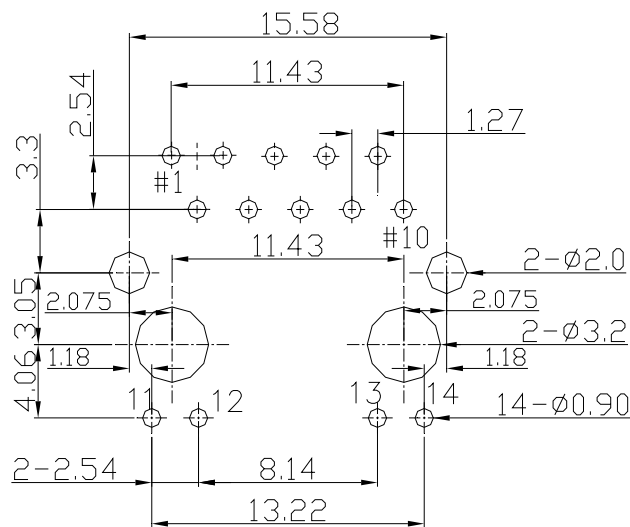
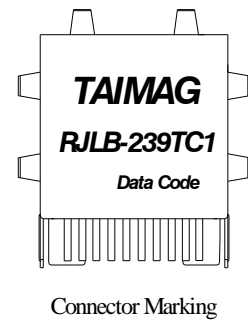
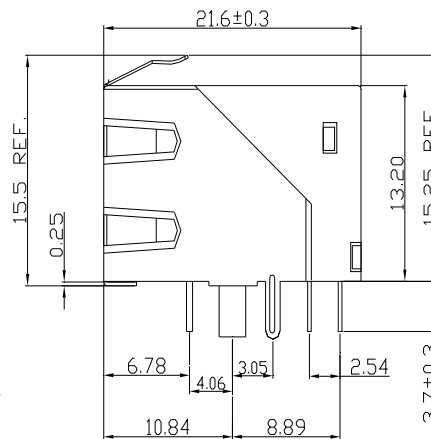
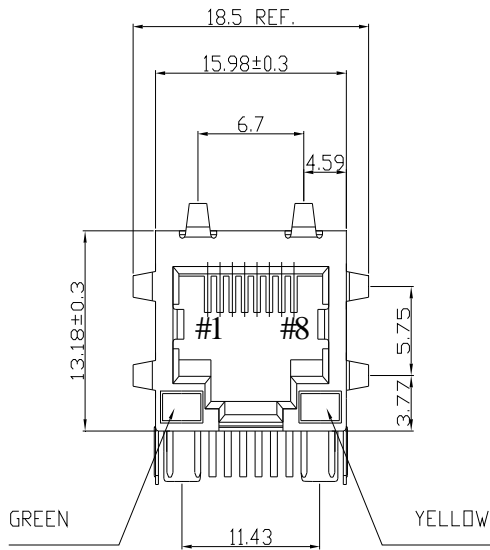


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 DATE : 2010/08/05 R(REV:A1)

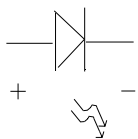
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Dimension: mm

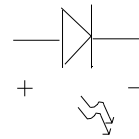
TOLERANCE:±0.15 (unless otherwise specified)



GREEN  
 11 12



YELLOW  
 13 14



RECOMMENDED P.C.B LAYOUT  
 COMPONENT SIDE OF BOARD



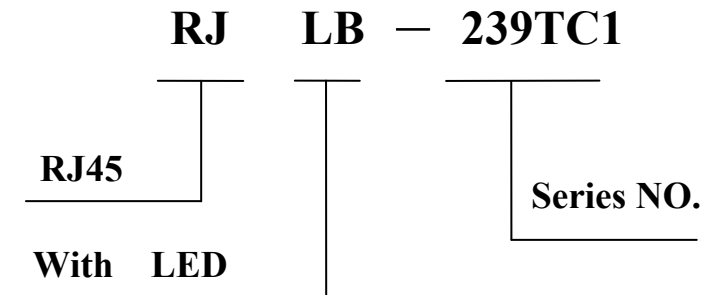
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### Ordering Information



## 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 : 5 $\mu$ "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, LCP, Black**

**UL FILE NO. : E106764**

**Manufacturer : POLYPLASTICS CO LTD.**

**Grade : E130i(d)(e)**

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

**(2) Insert : Thermoplastic, LCP, Black**

**UL FILE NO. : E106764**

**Manufacturer : POLYPLASTICS CO LTD.**

**Grade : E130i(d)(e)**

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

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

**UL FILE NO. : E106764**

**Manufacturer : POLYPLASTICS CO LTD.**

**Grade : E130i(d)(e)**

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



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

**Cartridge  $t=0.25\pm0.05\text{mm}$**

**$10\ \mu\text{''}$ - $20\ \mu\text{''}$  Thick Nickel over Brass**

### **D. LED Lamp**

**(a) Lens Color : Transparent with color**

**(b) Emitted Color : Green & Yellow**

**(c) View Angle :  $60^\circ$**

**(d) Wave Length : Green 565nm ; Yellow 585nm**

**(e) Recommended operation current (IF) : 20 mA**

### **Durability :**

- (1) 1000 cycles with no function damage for RJ-45 . Abnormalities shall be present after the test.**
- (2) Low Level Contact Resistance :  $\Delta R=30\text{m}\Omega$  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:

