

## 10/100/1000 BASE FILTER WITH DUAL USB 2.0 CONNECTOR FOR IEC COMPATIBILITY (EN61000-4) ESD APPLICATIONS

### Model NO.: EJLUG-003TA1

#### Feature:

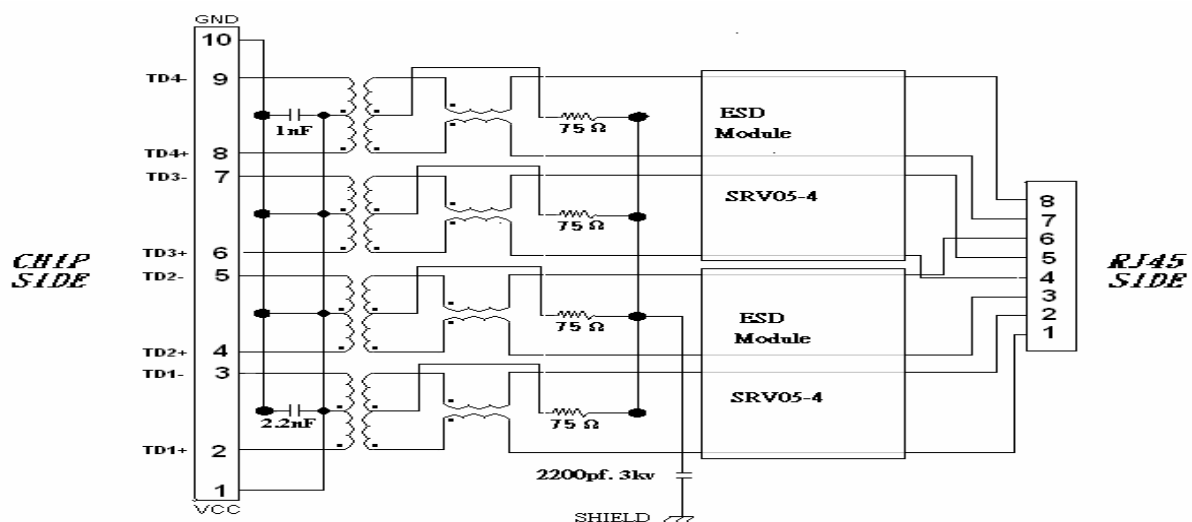
##### RoHS Compliant

- ⊙ 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 @ 25C

| Insertion Loss<br>(dB MAX) | Return Loss<br>(dB Min @100±15Ω) |     |     |       | Differential to<br>Common<br>Mode Rejection<br>(dB MIN) | Cross talk<br>(dB MIN) |     |     |     |     | CMRR<br>(dB MIN) | Isolation<br>Voltage<br>(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



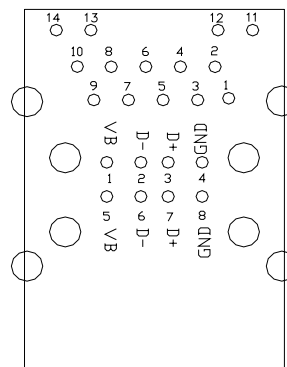
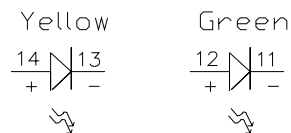
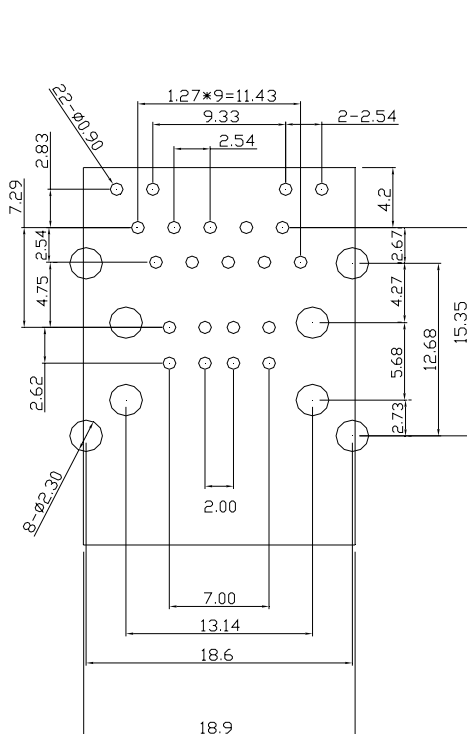
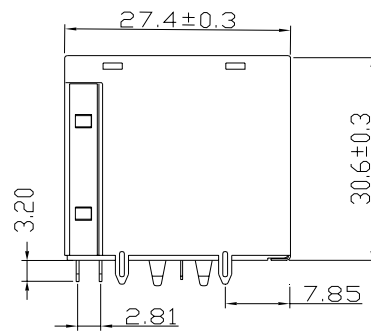
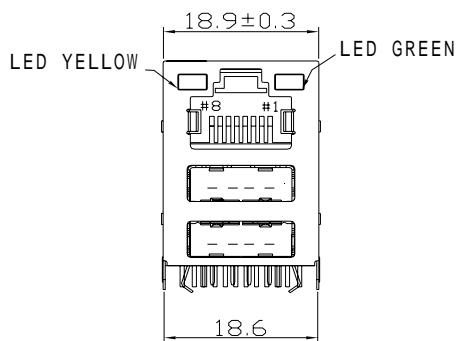
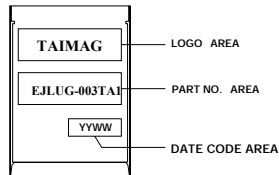


NUMBER:RD-SDEJLUG-003TA1  
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Dimension: mm

TOLERANCE:±0.15 (Unless otherwise specified)

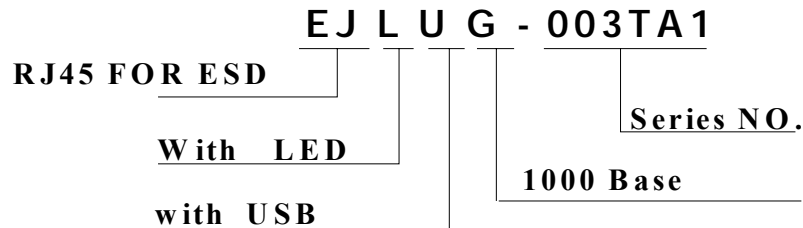


RECOMMENDED P.C.B LAYOUT  
COMPONENT SIDE OF BOARD



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## Model NO.: EJLUG-003TA1 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=0.40mm**

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

**USB Contact : Brass, Thickness=0.25mm**

**Finish : Contact Area : 30 $\mu$ "min. Gold over 50 $\mu$ "min. Nickel**

**LED Joint Contact : Brass, Thickness=0.40mm**

**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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## Model NO.: EJLUG-003TA1

(3) Spacer : Thermoplastic, PBT, Black

UL FILE NO. : E107536

Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.

Grade :E202G30BK

Flame Class : UL 94V-0

(4) USB Housing : Thermoplastic, PBT, Black

UL FILE NO. : E107536

Manufacturer : SHIKONG SYNTHETIC FIBERS CORP.

Grade : E202G30BK

Flame Class : UL 94V-0

C. Shield Material :

Cartridge  $t=0.25\text{mm}$

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 and USB. 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.