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| LED1 POLARITY |        |       | LED2 POLARITY |        |        |        |
|---------------|--------|-------|---------------|--------|--------|--------|
| PIN 13        | PIN 14 | COLOR | PIN 15        | PIN 16 | PIN 17 | COLOR  |
| -             | +      | GREEN | -             | +      | -      | YELLOW |
| /             | /      | /     | /             | +      | -      | GREEN  |

RoHS



**ELECTRICAL CHARACTERISTICS @ 25°C**

**URNS RATIO**

|     |               |
|-----|---------------|
| TP1 | 1CT : 1CT ±2% |
| TP2 | 1CT : 1CT ±2% |
| TP3 | 1CT : 1CT ±2% |
| TP4 | 1CT : 1CT ±2% |

**DCL @ 100kHz/100mVRMS**

8mA DC BIAS (0°C - 70°C) 180µH MIN.

**INS. LOSS**

1MHz TO 150MHz -0.004(fMHz)-0.4 dB MAX

**RET. LOSS**

1MHz-40MHz -20 dB MIN  
 40.1MHz-150MHz -20+15LOG(f/40MHZ) dB MIN

**CROSSTALK**

1MHz - 40MHz -35 dB MIN  
 40.1MHz-150MHz -35+15LOG(f/40MHZ) dB MIN

**CM TO CM REJ**

1MHz - 150MHz -25 dB MIN

**HIPOT (Isolation Voltage):**

2250 VDC  
 100% OF PRODUCTION TESTED TO COMPLY WITH IEEE 802.3 ISOLATION REQUIREMENTS.

**OPERATING TEMPERATURE:**

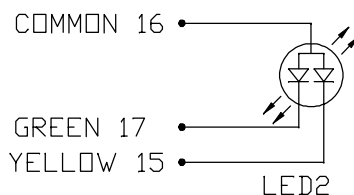
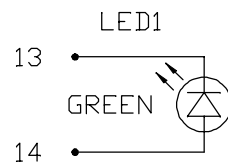
0°C TO +70°C

**LED 1**

VF (FORWARD VOLTAGE) IF=20mA GREEN 2.2V TYP.  
 λD (DOMINANT WAVELENGTH) IF=20mA GREEN 570nm TYP.

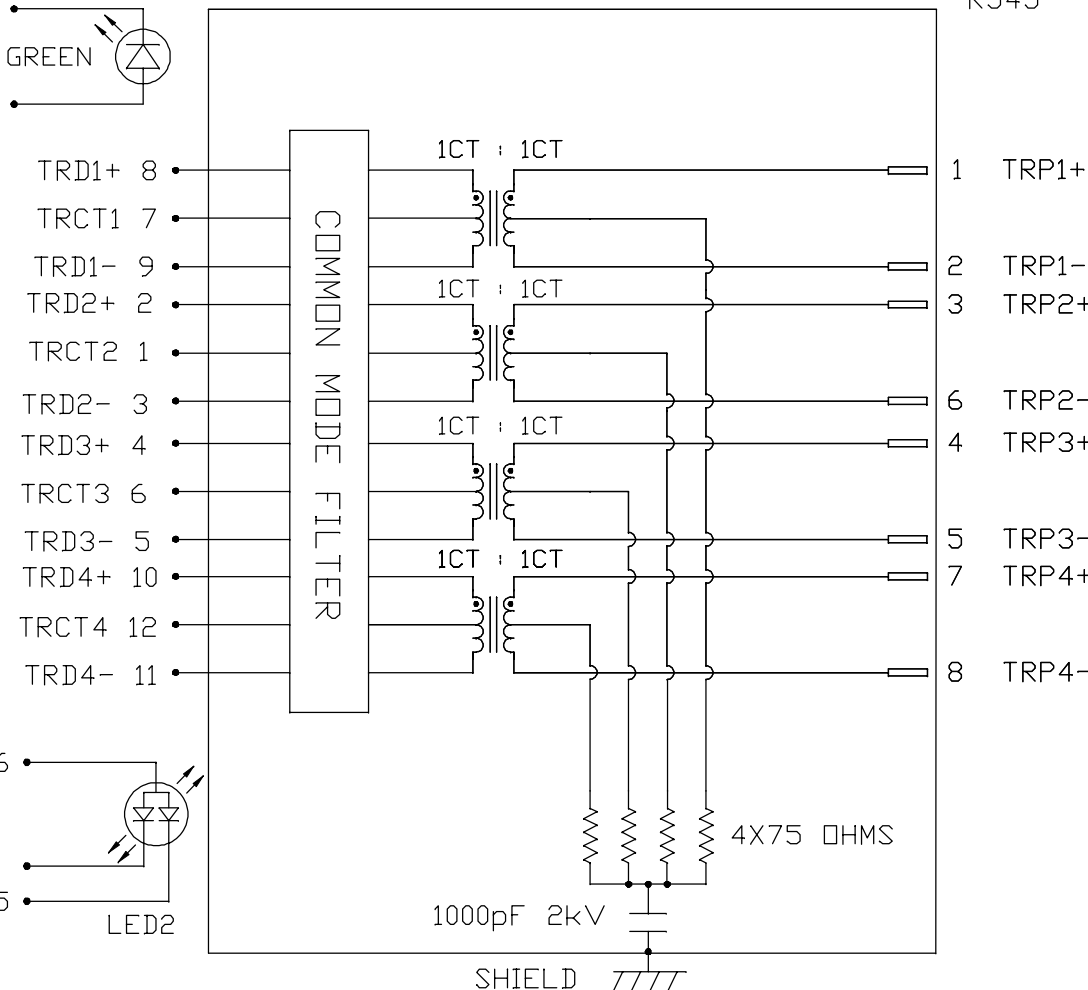
**LED 2**

VF (FORWARD VOLTAGE) IF=20mA GREEN 2.2V TYP.  
 YELLOW 2.1V TYP.  
 λD (DOMINANT WAVELENGTH) IF=20mA GREEN 570nm TYP.  
 YELLOW 590nm TYP.



**SCHEMATIC**

RJ45



REV. : B PAGE : 2

|                                       |   |
|---------------------------------------|---|
| <b>ORIGINATED BY</b><br>CHOW WANCHUNG | <b>TITLE</b><br>2.5 Gigabit MagJack®<br>(Ultra Low Profile)<br>PATENTED |
| <b>DATE</b> 2017-12-16                |   |
| <b>DRAWN BY</b><br>XIE YIMING         |   |
| <b>DATE</b> 2017-12-16                |   |

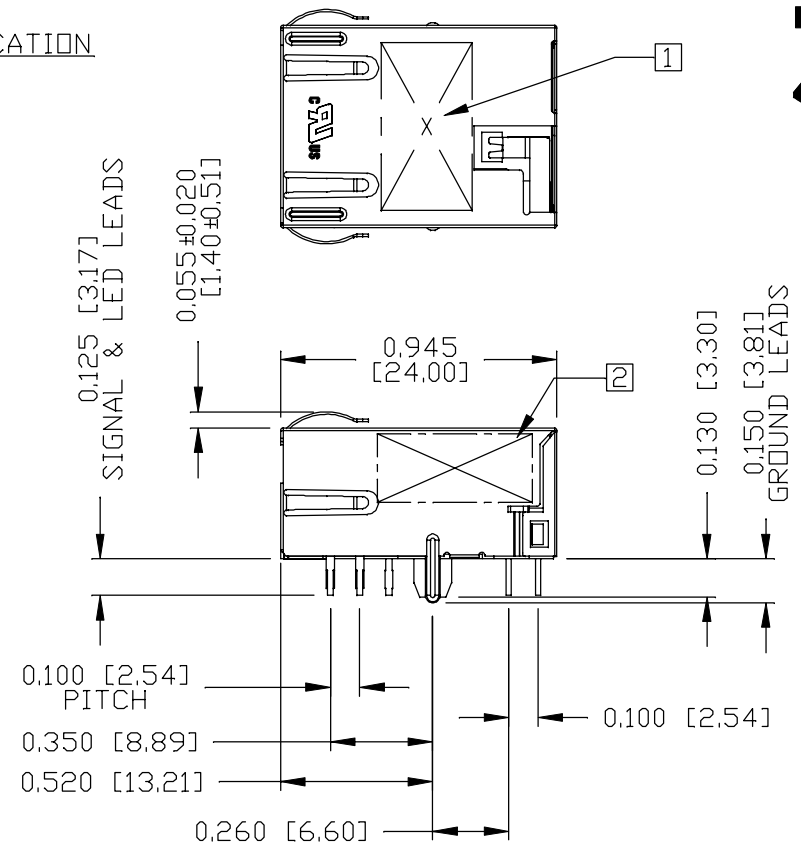
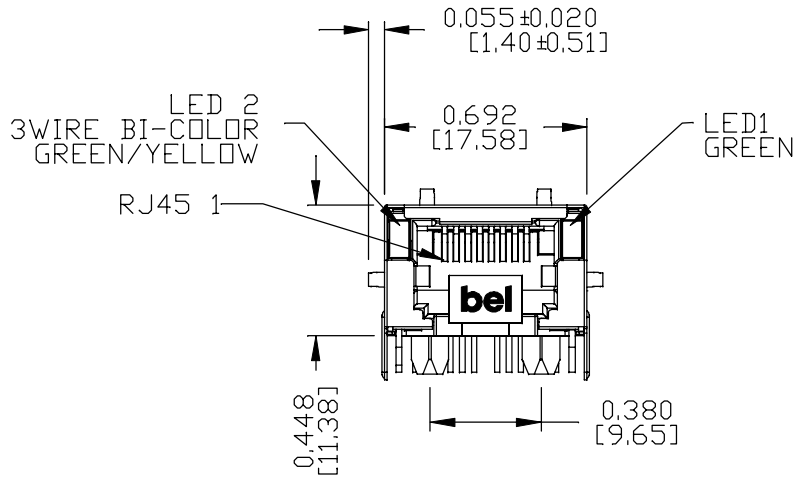
|   |
|---|
| <b>PART NO. / DRAWING NO.</b><br>L836-121T-KD |
| <b>FILE NAME</b><br>L836-121T-KD_B.DWG        |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>STANDARD DIM.</b><br>TOL. IN INCH | [ ] METRIC DIM.<br>AS REF. |
| .X                                   | UNIT : INCH [mm]           |
| .XX                                  | SCALE : N/A                |
| .XXX                                 | SIZE : A4                  |

|                          |  |
|--------------------------|--|
| <b>REV. : B PAGE : 2</b> |  |
|                          |  |

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MECHANICAL SPECIFICATION



NOTES:

- PLASTIC HOUSING: THERMOPLASTIC PA, BLACK  
FLAMMABILITY RATING UL 94V-0
- CONTACTS: 30 MICRO-INCH HARD GOLD PLATING OR EQUIVALENT
- OUTPUT PINS: TIN-COATED COPPER WIRE, DIA 0.018 INCH,  
100 MICRO-INCH MIN MATTE TIN, PINS ARE SOLDER DIPPED.
- METAL SHIELD: NICKEL PLATED ON COPPER ALLOY,  
(ALL GROUND LEADS ARE SOLDER DIPPED)

1. MARK PART WITH PART NUMBER, DATE CODE AND PATENED.
2. MARK PART WITH MFG. LOGO, MFG. NAME.
3. THE PRODUCT IS RoHS COMPLIANT.

UL RECOGNIZED - FILE #E196366 AND E169987.

4. JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS,  
PART 68 SUBPART F.

5. THE PRODUCT IS PATENTED. THE PATENT NUMBER ARE U.S. PAT. 6,840,817 AND U.S. PAT. 7,123,117.
6. THE PART IS RECOMMENDED FOR WAVE SOLDERING. THE SUGGESTED PEAK WAVE SOLDERING CONDITION IS 260°C MAX AND 10 SECONDS MAX.
7. THE AXIAL RETENTION FORCE OF RJ PORT IS 15LBS MIN.

|                             |
|-----------------------------|
| ORIGINATED BY<br>ANTON LIAO |
| DATE 2017-12-16             |
| DRAWN BY<br>JESSE LI        |
| DATE 2017-12-16             |

|  |
|--|
| TITLE<br>2.5 gigabit MagJack®<br>(Ultra Low Profile)<br>PATENTED |
|--|

|  |
|--|
| PART NO. / DRAWING NO.<br>L836-121T-KD |
| FILE NAME<br>L836-121T-KD_B.DWG        |

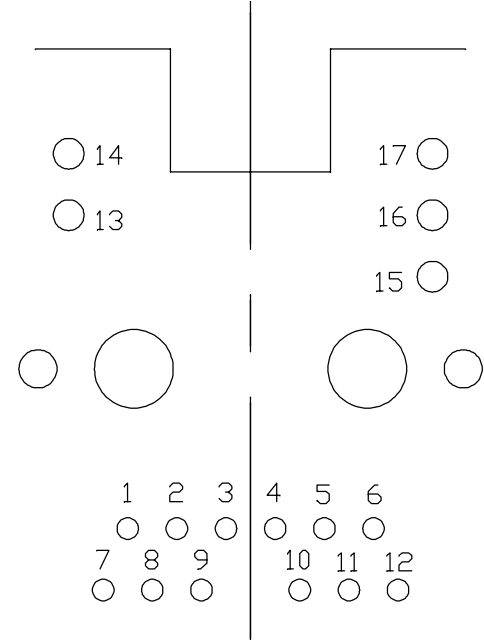
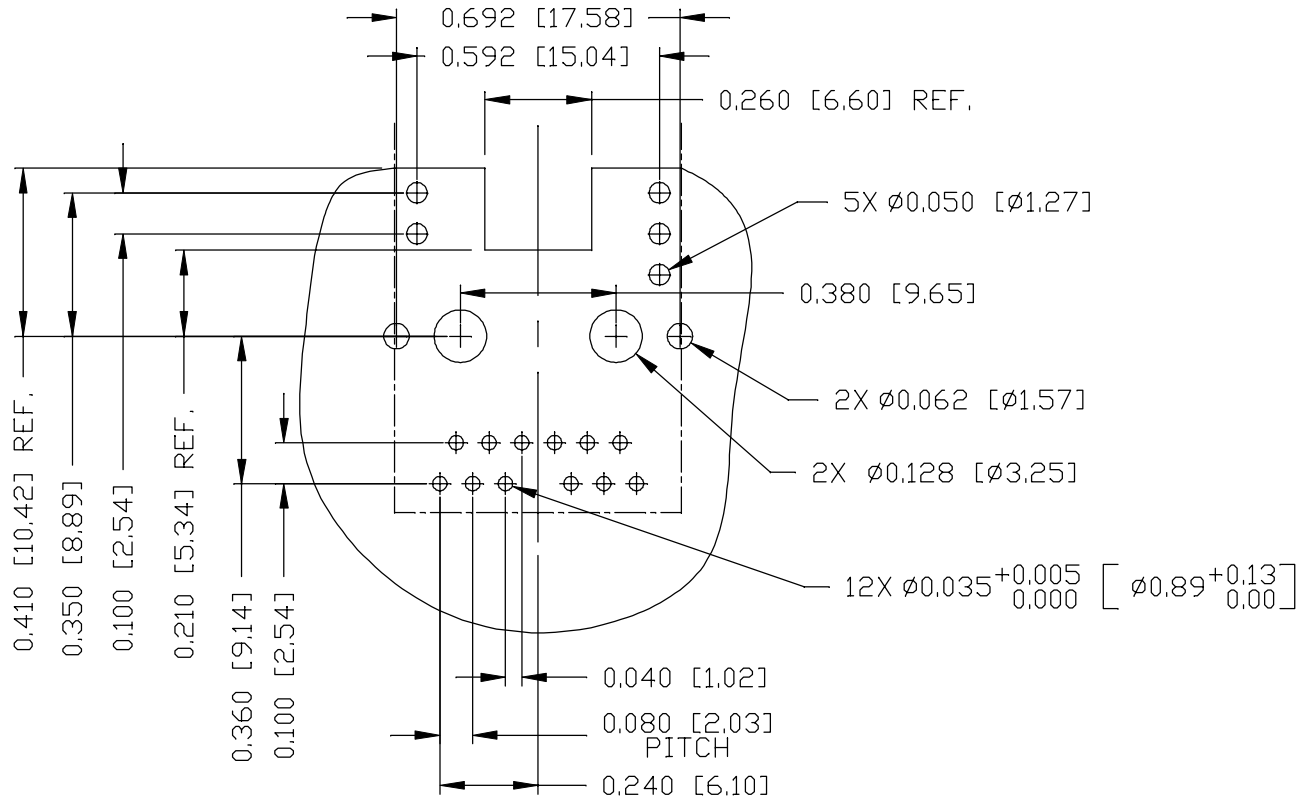
|                               |                            |
|-------------------------------|----------------------------|
| STANDARD DIM.<br>TOL. IN INCH | [ ] METRIC DIM.<br>AS REF. |
| .X                            | UNIT : INCH [mm]           |
| .XX                           | SCALE : N/A                |
| .XXX ±0.010                   | SIZE : A4                  |

|          |          |
|----------|----------|
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RECOMMENDED PCB FOOTPRINT  
COMPONENT SIDE VIEW



PIN-OUT INFORMATION  
(SCALE 1.5:1)

FOR ONE UNIT

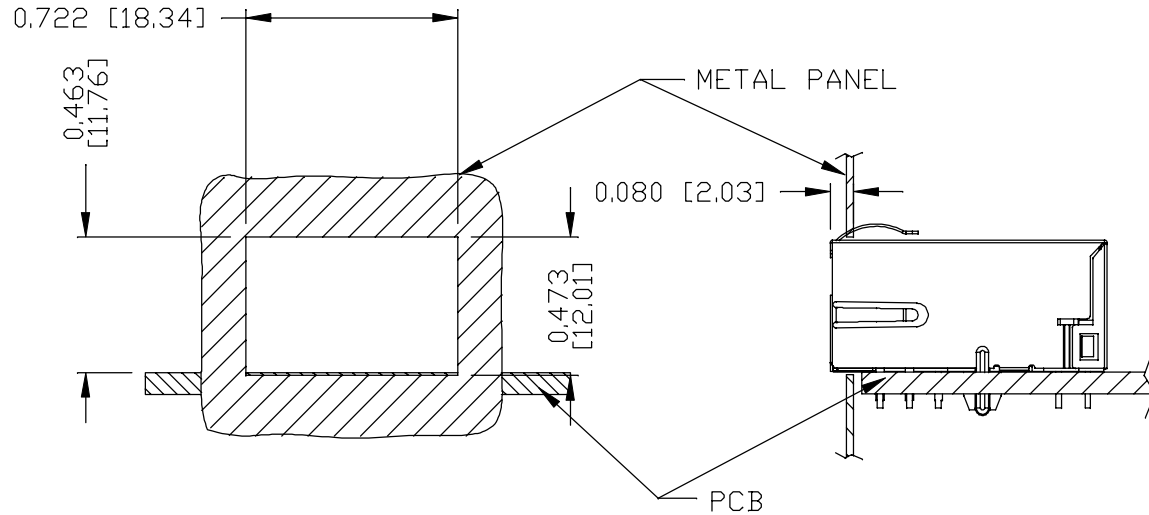
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|--|--|--|--|--|--|---|--|--|--|----------|----------|
| ORIGINATED BY<br>ANTON LIAO<br>DATE 2017-12-16 |  | TITLE<br>2.5 gigabit MagJack®<br>(Ultra Low Profile)<br>PATENTED |  | PART NO. / DRAWING NO.<br>L836-121T-KD |  | STANDARD DIM.<br>TOL. IN INCH<br>.X<br>.XX<br>.XXX ±0.004 |  | [ ] METRIC DIM.<br>AS REF.<br>UNIT : INCH [mm]<br>SCALE : N/A<br>SIZE : A4 |  | REV. : B | PAGE : 4 |
| DRAWN BY<br>JESSE LI<br>DATE 2017-12-16        |  |  |  | FILE NAME<br>L836-121T-KD_B.DWG        |  |   |  |  |  |          |          |

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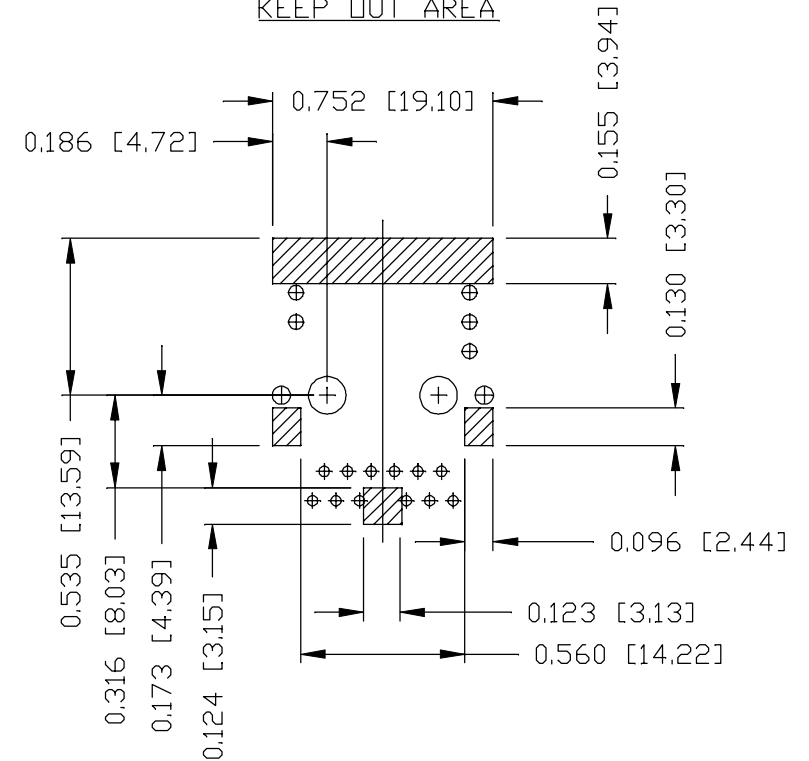
RoHS



SUGGESTED PANEL OPENING



KEEP OUT AREA



NOTE:

THE DISTANCE OF PANEL INSIDE SURFACE RELATIVE TO FRONT SURFACE OF PART IS ONLY A SUGGESTION. IN CASE THIS DISTANCE IS DIFFERENT, THE REQUIRED PANEL OPENING DIMENSIONS CHANGE ACCORDINGLY.

TRAY PACKING INFORMATION

PACKING TRAY : 0200-9999-E4 (TOP)

0200-9999-E5 (BOTTOM)

PACKING QUANTITY : 60 PCS FINISHED GOODS PER TRAY

11 TRAYS (660 PCS FINISHED GOODS) PER CARTON BOX

NOTE : CARDBOARDS ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE CARTON BOX (INCLUDE THE UPPERMOST AND LOWERMOST TRAY)

THE SHADED AREA ON THE CUSTOMER BOARD ARE RECOMMENDED TO BE CLEAR OFF ANY VIA HOLE OR COMPONENT PAD.

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|  |  |  |               |        |                  |
|--|--|--|---------------|--------|------------------|
| ORIGINATED BY<br>ANTON LIAO<br>DATE 2017-12-16 | TITLE<br>2.5 gigabit MagJack®<br>(Ultra Low Profile)<br>PATENTED | PART NO. / DRAWING NO.<br>L836-121T-KD | STANDARD DIM. |        | [ ] METRIC DIM.  |
|  |  |  | TOL. IN INCH  |        | AS REF.          |
| DRAWN BY<br>JESSE LI<br>DATE 2017-12-16        |  | FILE NAME<br>L836-121T-KD_B.DWG        | .X            |        | UNIT : INCH [mm] |
|  |  |  | .XX           |        | SCALE : N/A      |
|  |  |  | .XXX          | ±0.004 | SIZE : A4        |

