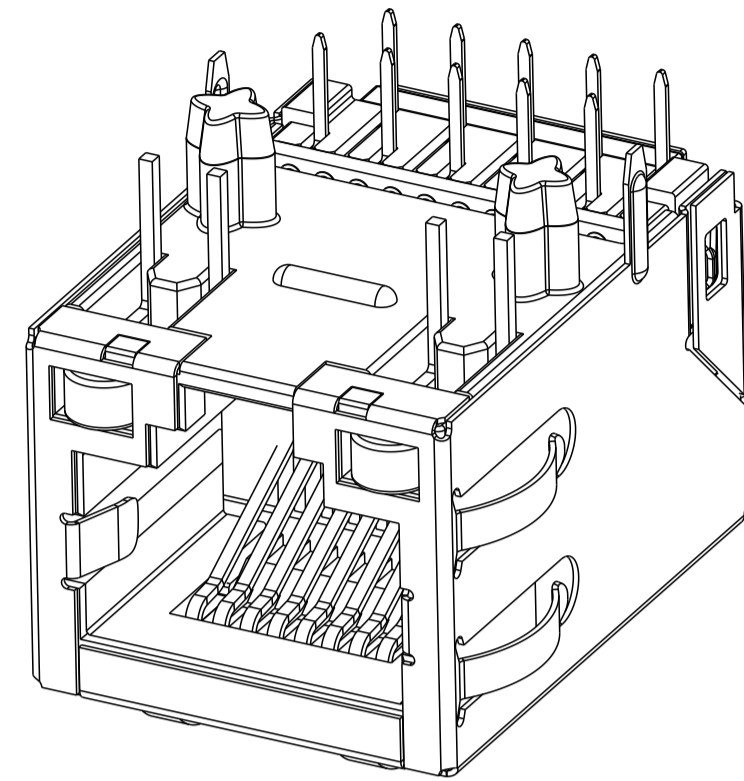
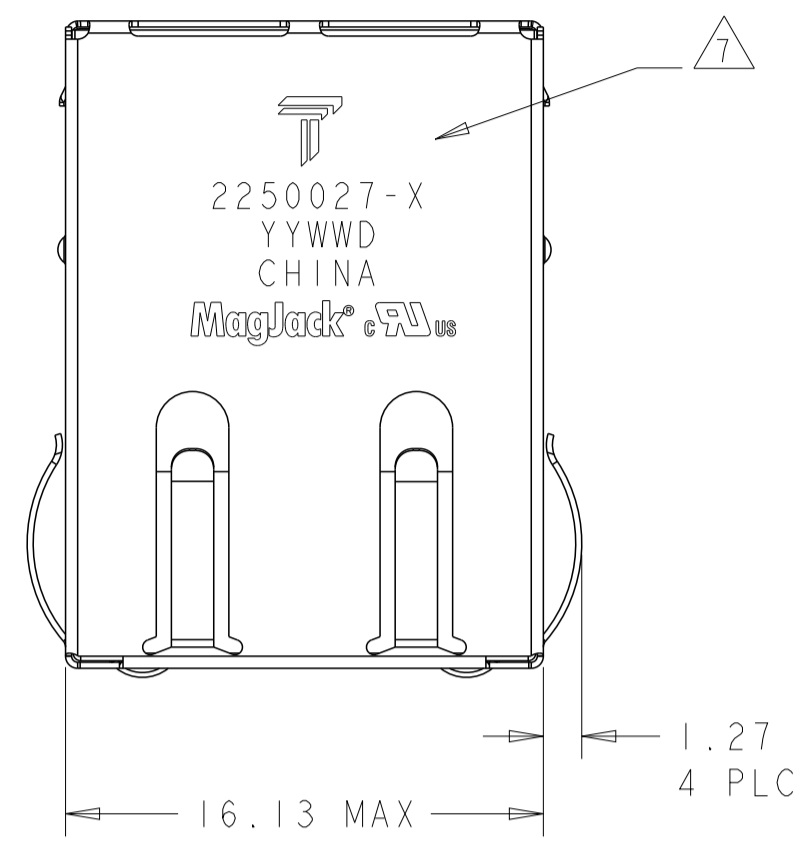


THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS:  
 5736910 5939955 6425781 6428361 6554638 6840817 7123117  
 7429195 7717749 7808751 6217391 6149050 7924130

| REVISIONS |     |                |           |       |
|-----------|-----|----------------|-----------|-------|
| P         | LTN | DESCRIPTION    | DATE      | APPV  |
| 2         |     | SEE LAST SHEET | 14JAN2015 | RL TY |



1. MATERIALS
- HOUSING: THERMOPLASTIC, FLAMMABILITY RATING UL 94V-0.
  - SHIELD: BRASS 0.20mm THICK, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL. SOLDER TABS POST DIPPED WITH 2.54um MIN SAC SOLDER.
  - CONTACTS: PHOSPHOR BRONZE 0.46mm X 0.30mm, PHOSPHOR BRONZE, 1.27um MIN NICKEL UNDERPLATE, WITH 1.27um MIN GOLD PLATING AT MATING INTERFACE AND 2.54um MIN MATTE TIN ON SOLDER TAILS.
  - SOLDER TAILS: 0.25mm THICK, PHOSPHOR BRONZE, 1.27um MIN OVERALL NICKEL UNDERPLATE, 3um TIN PLATE
  - LIGHT EMITTING DIODE (LED): DIFFUSED EPOXY LENS, 0.5mm X 0.5mm CARBON STEEL WIREFRAME LEADS PREPLATED WITH 2.03um MIN. SILVER PLATE OVER 1.02um MIN. NICKEL OVER 1.02um MIN. COPPER UNDERPLATE; LEADS POST-PLATED WITH 3.05um MIN. MATTE TIN AND/OR SAC SOLDER DIP OR PURE TIN SOLDER DIP

2 RJ45 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68 SUB PART F.

- 3 MAGNETICS
- APPLICATION: 10/100/1000 BASE-T
  - IMPEDANCE: 100 OHMS
  - TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS
  - OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN. @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS
  - ALL FOUR PAIRS BI-DIRECTIONAL
  - PERFORMANCE @ 25°C:
    - INSERTION LOSS (IL): 1.1dB MAX. FROM 0.5MHz TO 100MHz
    - RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 40MHz
    - 12-20LOG(f/80)dB MIN. FROM 40.1MHz TO 100MHz
    - CROSSTALK ATTENUATION: 35dB MIN. FROM 0.5MHz TO 40MHz
    - 33-20LOG(f/50)dB MIN. FROM 40.1MHz TO 100MHz
    - COMMON MODE REJECTION RATIO (CMRR): 30dB MIN. FROM 0.5MHz TO 100MHz
    - ISOLATION VOLTAGE: 2250VDC FOR 60 SECONDS WITH A RISE TIME OF 500 V/SEC

4. OPERATING TEMPERATURE: FROM 0°C TO +70°C.

5 INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL TO SUPPORT AUTO-MDI/MDIX.

6 THE 250 OHM LED RESISTORS ARE OPTIONAL, PLEASE SEE CHART FOR PRESENCE OR ABSENCE OF RESISTORS. IF LEDS WITHOUT 250 OHM RESISTORS. LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA

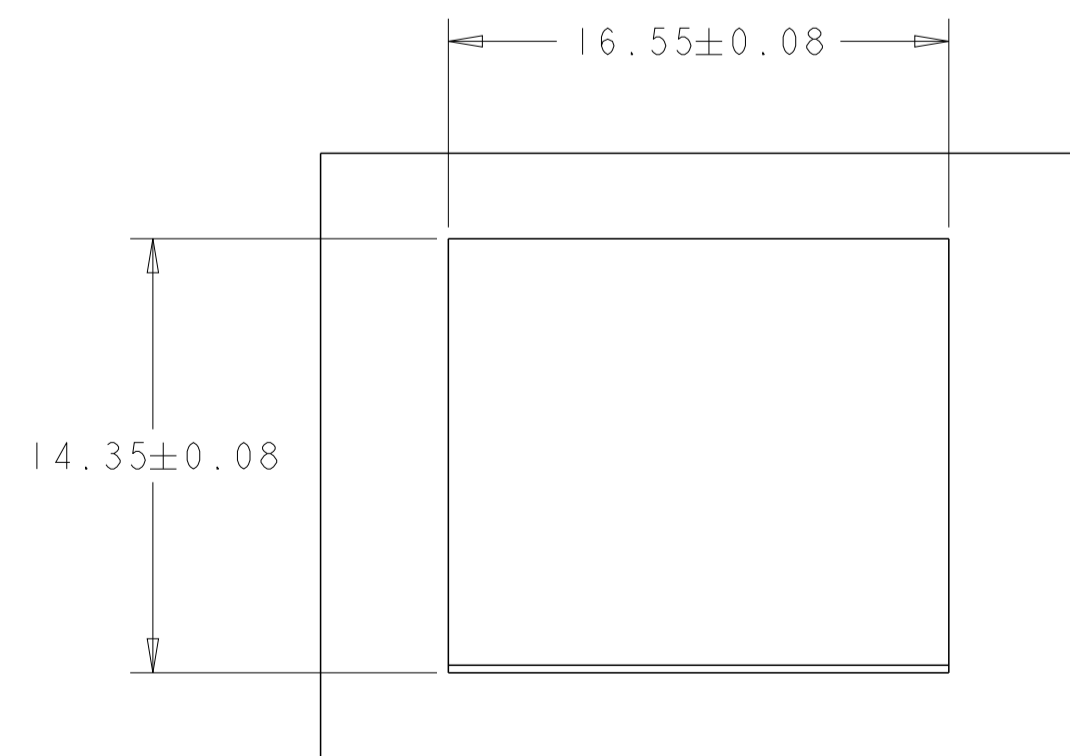
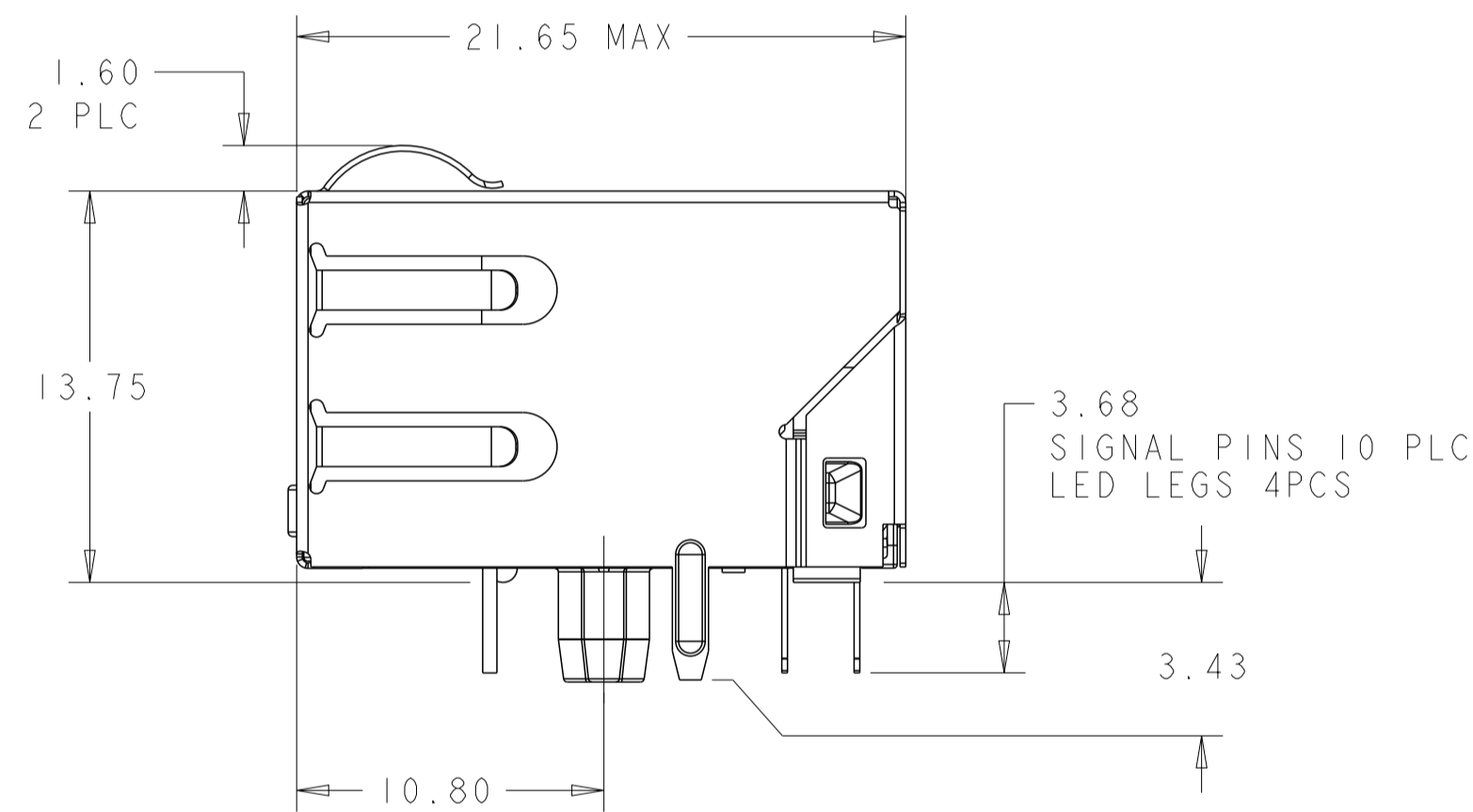
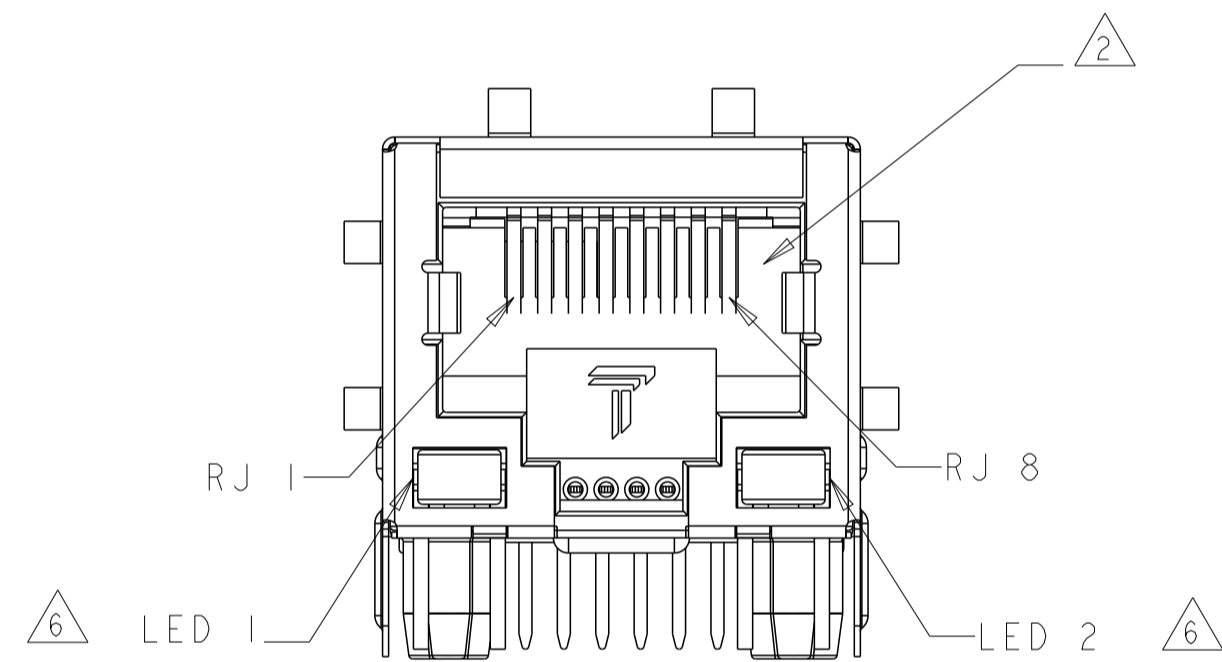
LED COLOR: DOMINATE WAVELENGTH (λD): GREEN 568 nm TYP. AT IF = 20mA  
 FORWARD VOLTAGE (VF): GREEN 2.2V TYP. at IF = 20mA  
 DOMINATE WAVELENGTH (λD): YELLOW 588 nm TYP. AT IF = 20mA  
 FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. at IF = 20mA

IF LEDS WITH BUIL-IN 250 OHM RESISTORS. LEDS ARE DRIVEN WITH 5V VOLTAGE AND THE MAX OPERATING CURRENT IS 20mA

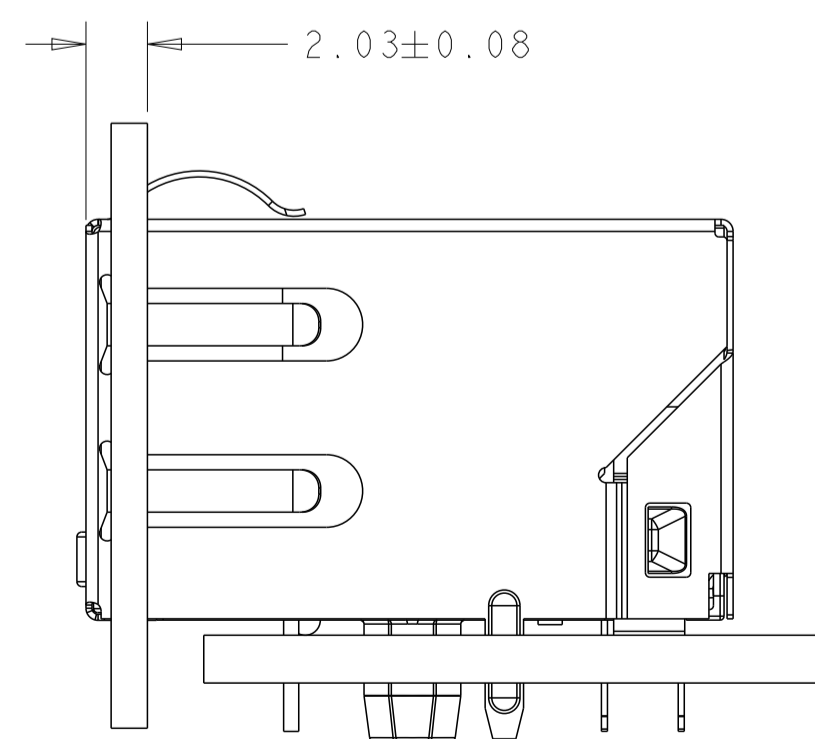
LED COLOR: DOMINATE WAVELENGTH (λD): GREEN 568 nm TYP @ VF=5V  
 FORWARD CURRENT (IF): GREEN 12mA TYP @ VF = 5V  
 DOMINATE WAVELENGTH (λD): YELLOW 588 nm TYP @ VF=5V  
 FORWARD CURRENT (IF): YELLOW 13mA TYP @ VF = 5V

7 TRP CONNECTOR LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

8. THESE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS, PEAK WAVE SOLDERING TEMPERATURE IS 260°C MAX, 10 SECONDS MAX.

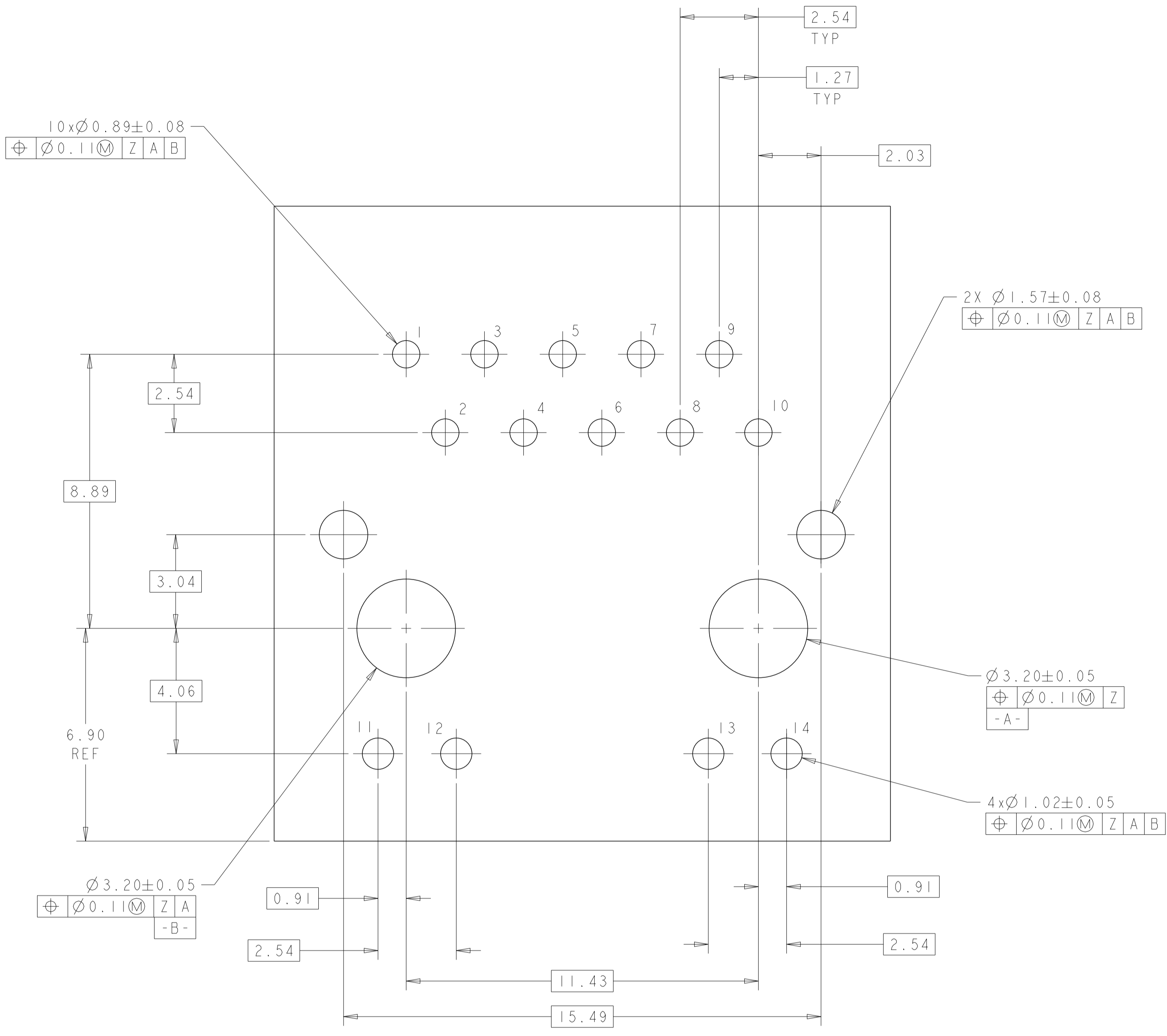


SUGGESTED PANEL CUTOUT  
 SCALE 4:1



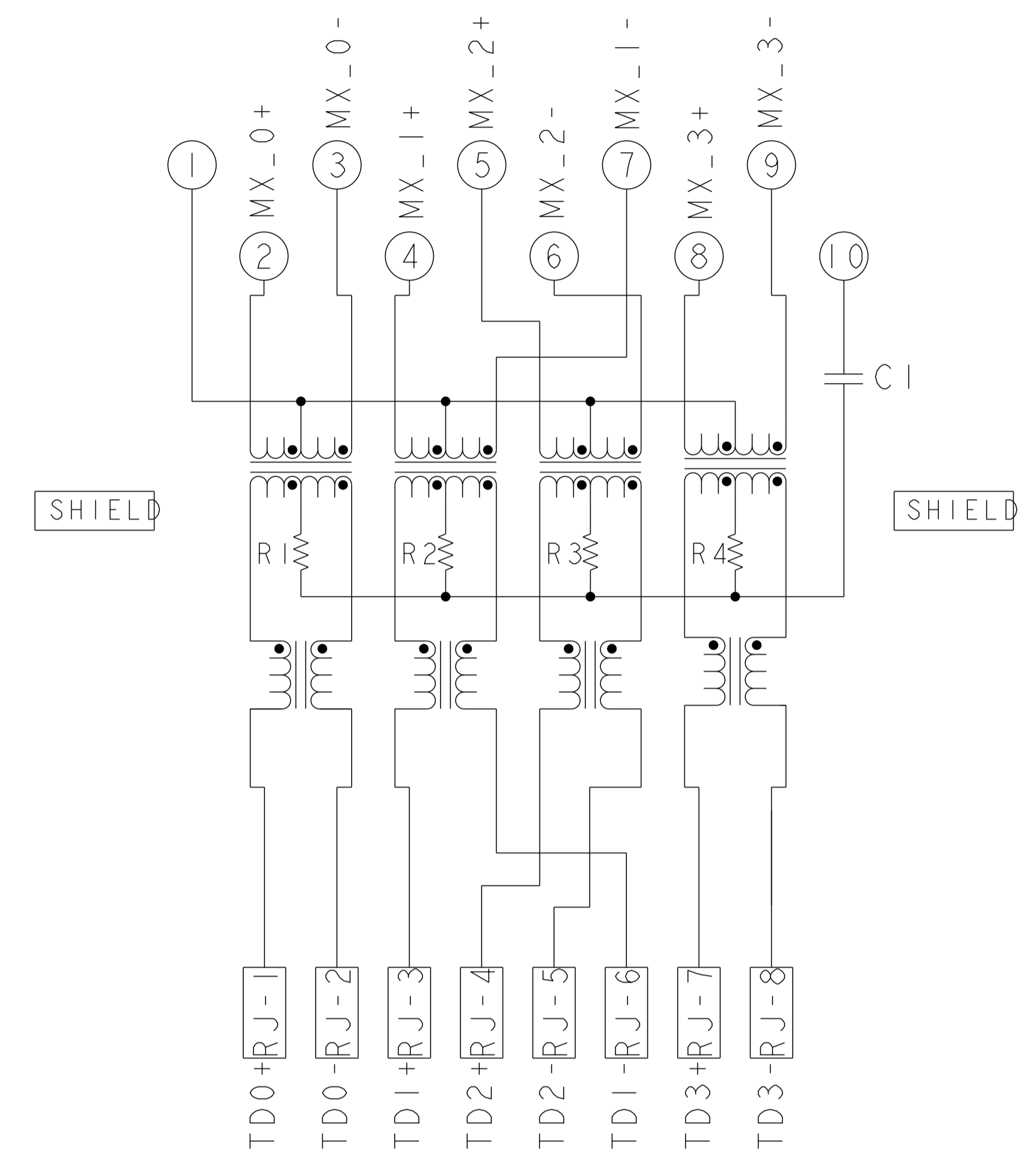
|       |                   |    |        |                   |     |             |
|-------|-------------------|----|--------|-------------------|-----|-------------|
| GREEN | -                 | NO | YELLOW | -                 | NO  | 2250027-3   |
| GREEN | YELLOW            | NO | GREEN  | YELLOW            | NO  | 2250027-2   |
| GREEN | YELLOW            | NO | GREEN  | -                 | YES | 2250027-1   |
| 11    | 12                | 12 | 11     | 13                | 14  | 14          |
| LED 1 | 250 OHMS RESISTOR |    | LED 2  | 250 OHMS RESISTOR |     | PART NUMBER |

|  |                  |                           |           |   |
|--|------------------|---------------------------|-----------|---|
| THIS DRAWING IS A CONTROLLED DOCUMENT. |                  | OWN<br>ROY LIU            | 31MAY2013 | <br><b>trp CONNECTOR</b><br>a bel group<br>DONGGUAN CHINA |
| DIMENSIONS:                            |                  | CHK<br>TOWER YU/FRANK LIU | 31MAY2013 |   |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: |                  | APPV<br>TONY YUAN         | 31MAY2013 |   |
| mm                                     | 0 PLC ±0.25      | MODEL NAME                |           | DESC  |
|  | 1 PLC ±0.25      | MAGJACK                   |           | 1X1 4G145 GIGABIT   |
|  | 2 PLC ±0.25      | SINGLE Non-PoE            |           | TAB DOWN W/ LED   |
|  | 3 PLC ±0.25      | SIZE                      |           | CAGE CODE   |
|  | 4 PLC ±0.25      | DRAWING NO                |           | RESTRICTED TO   |
|  | ANGLES           | A1                        |           | C=2250027   |
| PRODUCT SPEC                           | APPLICATION SPEC | CUSTOMER DRAWING          |           | SCALE 4:1   |
| 108-104004                             | -                | SHEET 1 OF 3              |           | REV 2   |



SUGGESTED PCB LAYOUT  
 COMPONENT SIDE


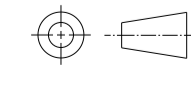
4G145 GIGABIT MAGNETIC CIRCUIT  $\triangle 3 \triangle 5$



C1=1000pF, 2kV, CAPACITOR  
 R1-R4 = 75 OHMS, RESISTORS

|  |  |   |   |
|--|--|---|---|
| THIS DRAWING IS A CONTROLLED DOCUMENT.   |  | OWN ROY LIU 31MAY2013                                       | <br>DONGGUAN CHINA  |
| DIMENSIONS: mm   |  | CHK TOWER YU/FRANK LIU 31MAY2013                            |   |
| TOLERANCES UNLESS OTHERWISE SPECIFIED:   |  | APP'D TONY YUAN 31MAY2013                                   |   |
| 0 PLC $\pm 0.25$<br>1 PLC $\pm 0.25$<br>2 PLC $\pm 0.25$<br>3 PLC $\pm$<br>4 PLC $\pm$<br>ANGLES $\pm$<br>APPLICATION SPEC $\pm$ |  | MODEL NAME<br>MAGJACK<br>SINGLE Non-PoE<br>CUSTOMER DRAWING |   |
| PRODUCT SPEC 108-104004  |  | DESC IXL 4G145 GIGABIT TAB DOWN W/ LED                      | SIZE CAGE CODE DRAWING NO<br>A1 C=2250027<br>SCALE 4:1 SHEET 2 OF 3 REV 2 |

| C_2250027        |     |                                |                    |           | STOCK DISPOSITION                                   |                                 |                               |                                |
|------------------|-----|--------------------------------|--------------------|-----------|---|---------------------------------|-------------------------------|--------------------------------|
| REVISION HISTORY |     |                                |                    |           | A: CONTINUE AS IS<br>B: REWORK<br>C: SCRAP          |                                 |                               |                                |
|                  |     |                                |                    |           | D: USE OLD FIRST<br>E: PARTS TO CONFORM<br>F: OTHER |                                 |                               |                                |
| DATE             | REV | CHANGES                        | REASON             | APPROVAL  | INVENTORY<br>(A,B,C,D,E,F)                          | WORK<br>IN PROCESS<br>(A,B,C,F) | SUPPLIER<br>ORDERS<br>(A,E,F) | OPEN CUST<br>ORDERS<br>(A,E,F) |
| 31MAY2013        | 1   | -                              | INITIAL RELEASE    | TONY YUAN | -   | -                               | -                             | -                              |
| 14JAN2015        | 2   | EC-1411035 COMPANY LOGO CHANGE | MARKET REQUIREMENT | TONY YUAN | -   | -                               | -                             | -                              |

|  |  |  |  |   |               |
|--|--|--|--|---|---------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT.   |  | OWN<br>ROY LIU<br>31MAY2013            |  <b>trp</b> CONNECTOR<br><small>a bel group</small> | DONGGUAN<br>CHINA   |               |
| DIMENSIONS:<br>mm  |  | CHK<br>TOWER YU/FRANK LIU<br>31MAY2013 |  | MODEL NAME<br>MAGJACK<br>DESC<br>1X1 4G145 GIGABIT<br>TAB DOWN W/ LED | RESTRICTED TO |
|  TOLERANCES UNLESS<br>OTHERWISE SPECIFIED:<br>0 PLC ±0.25<br>1 PLC ±0.25<br>2 PLC ±0.25<br>3 PLC ±<br>4 PLC ±<br>ANGLES ±<br>APPLICATION SPEC ± |  | APP'D<br>TONY YUAN<br>31MAY2013        |  |   |               |
| PRODUCT SPEC<br>108-104004   |  | APPLICATION SPEC                       |  | SCALE 4:1 SHEET 3 OF 3 REV 2  |               |