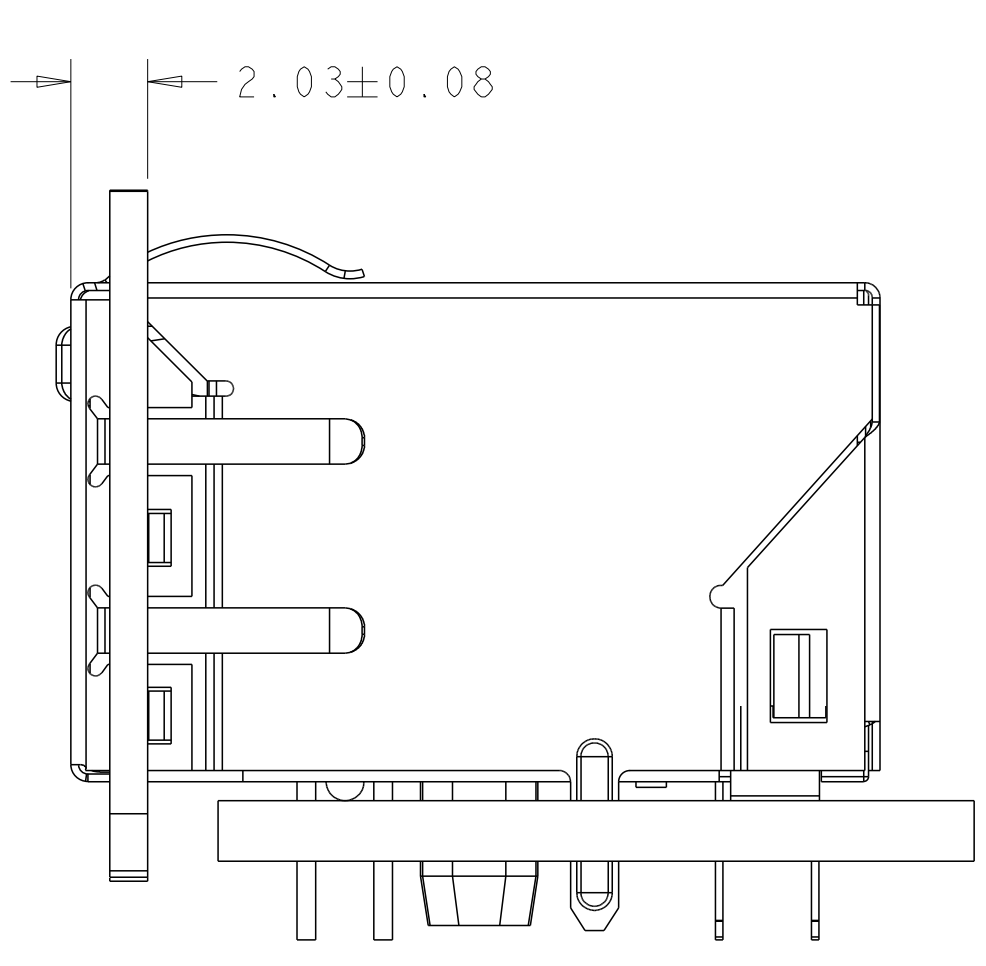
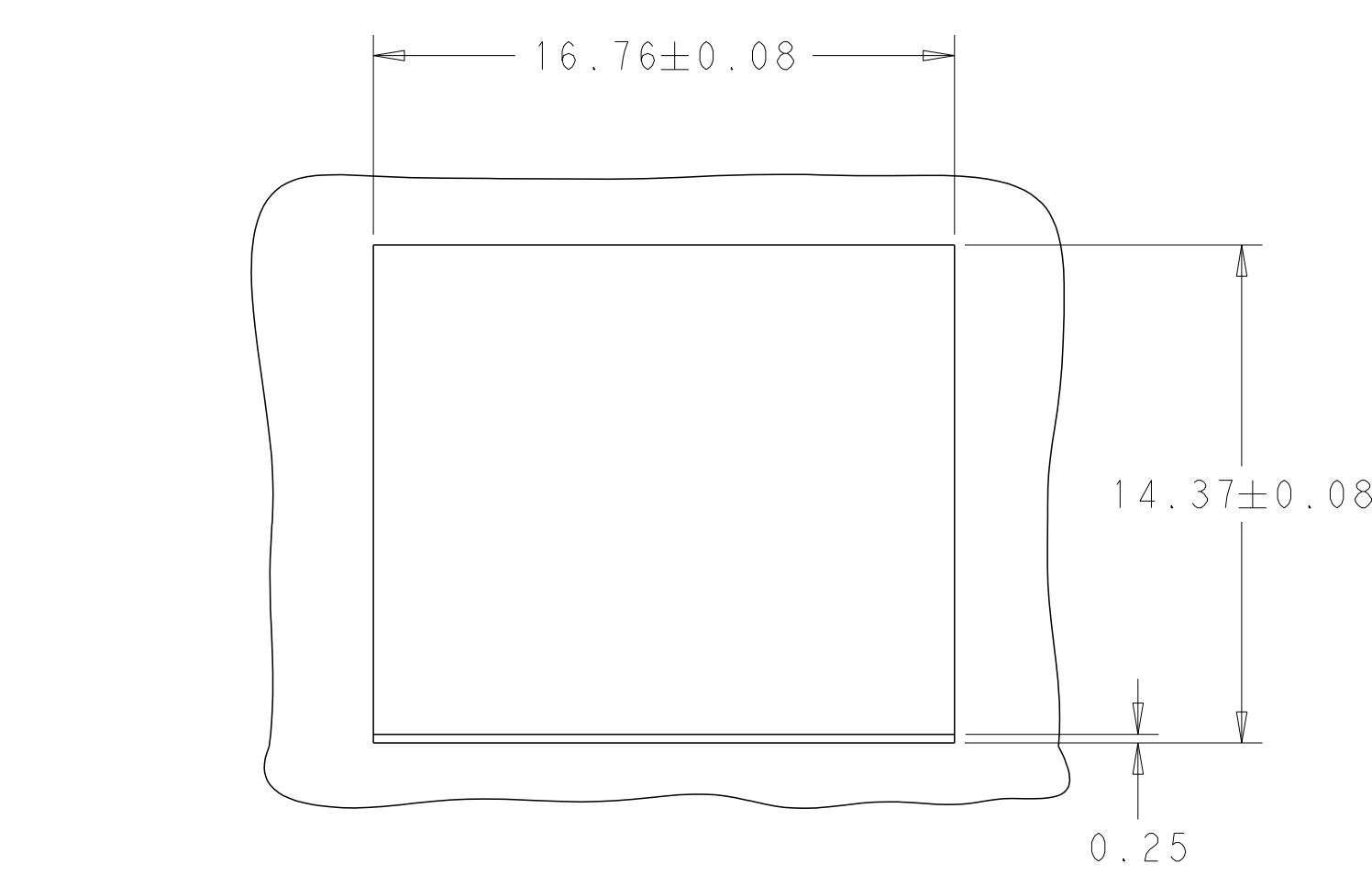
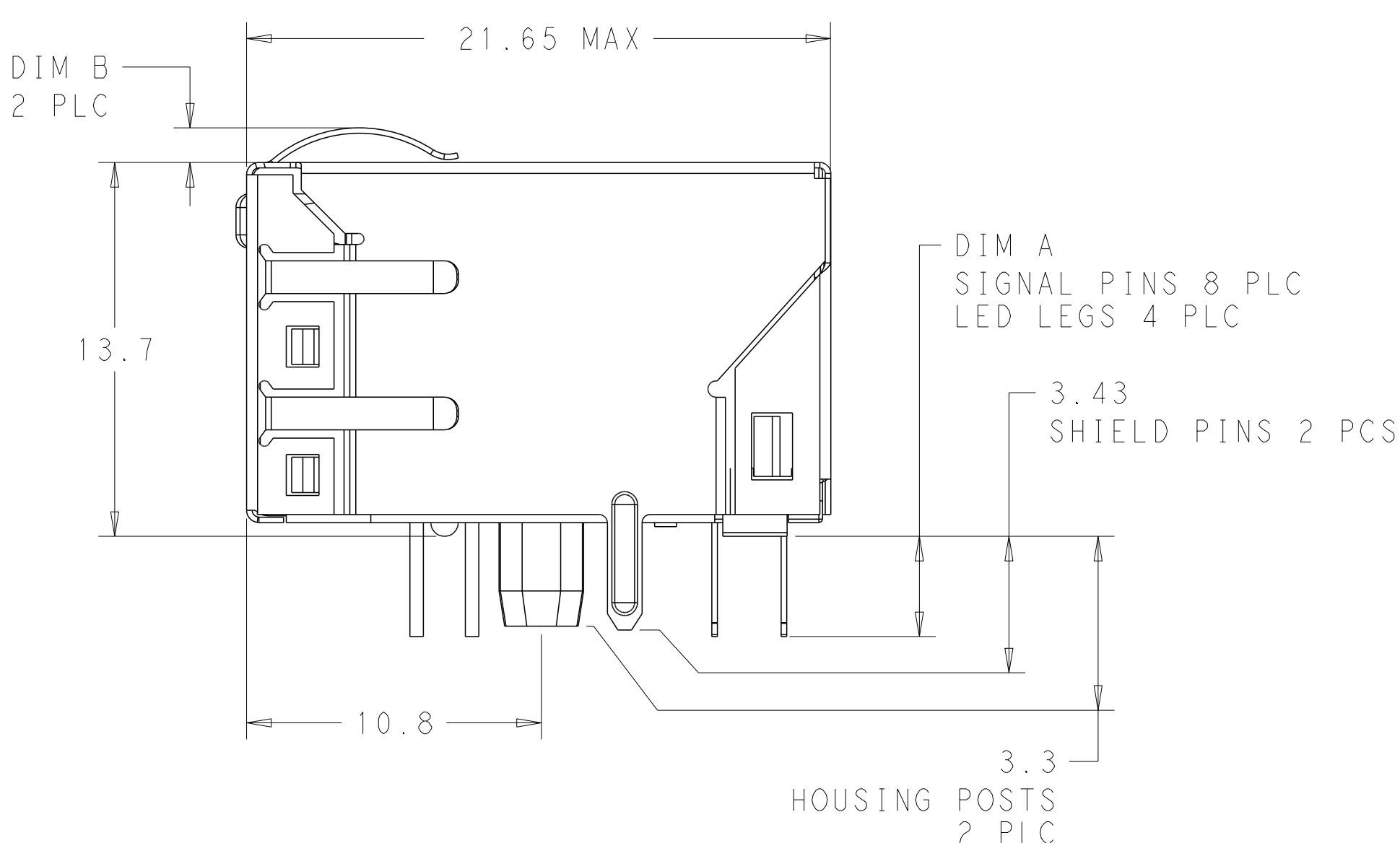
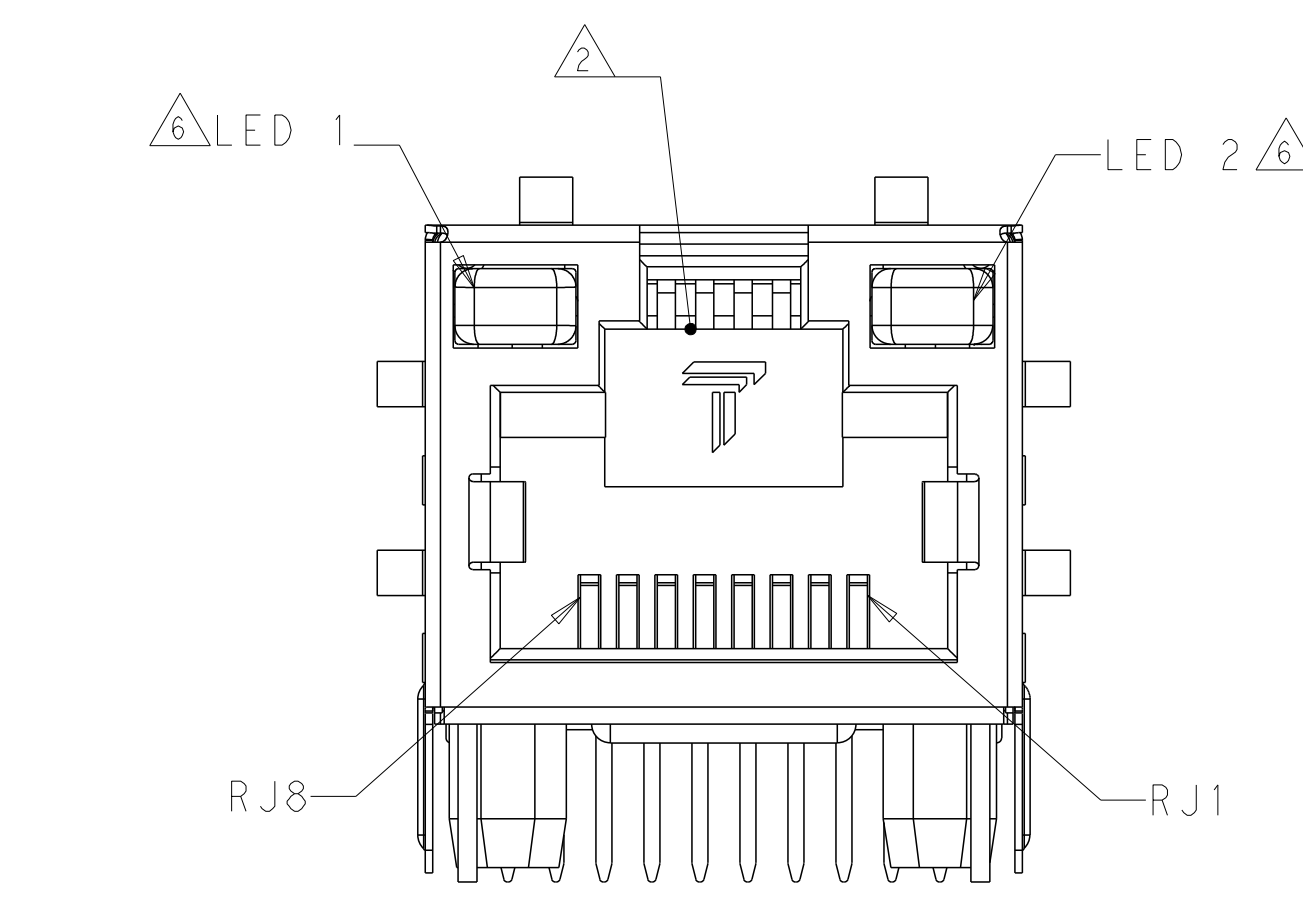
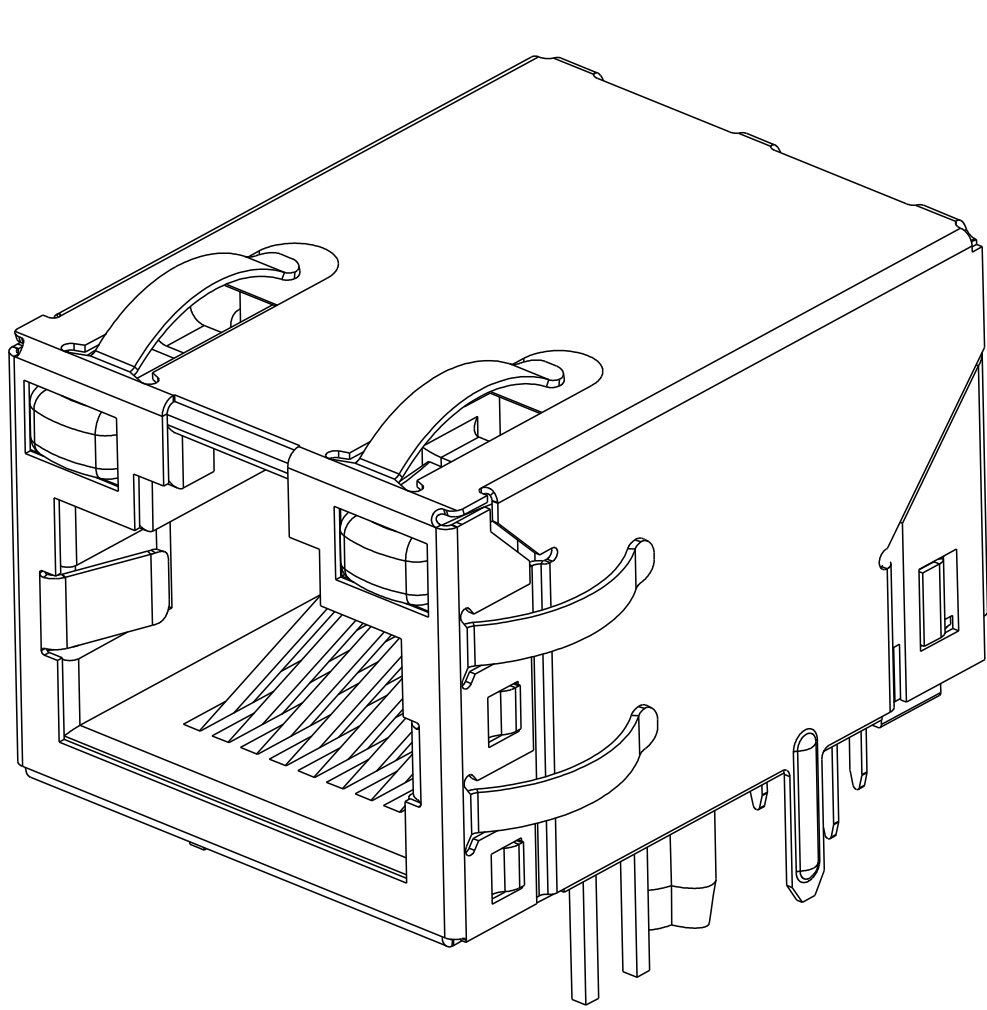
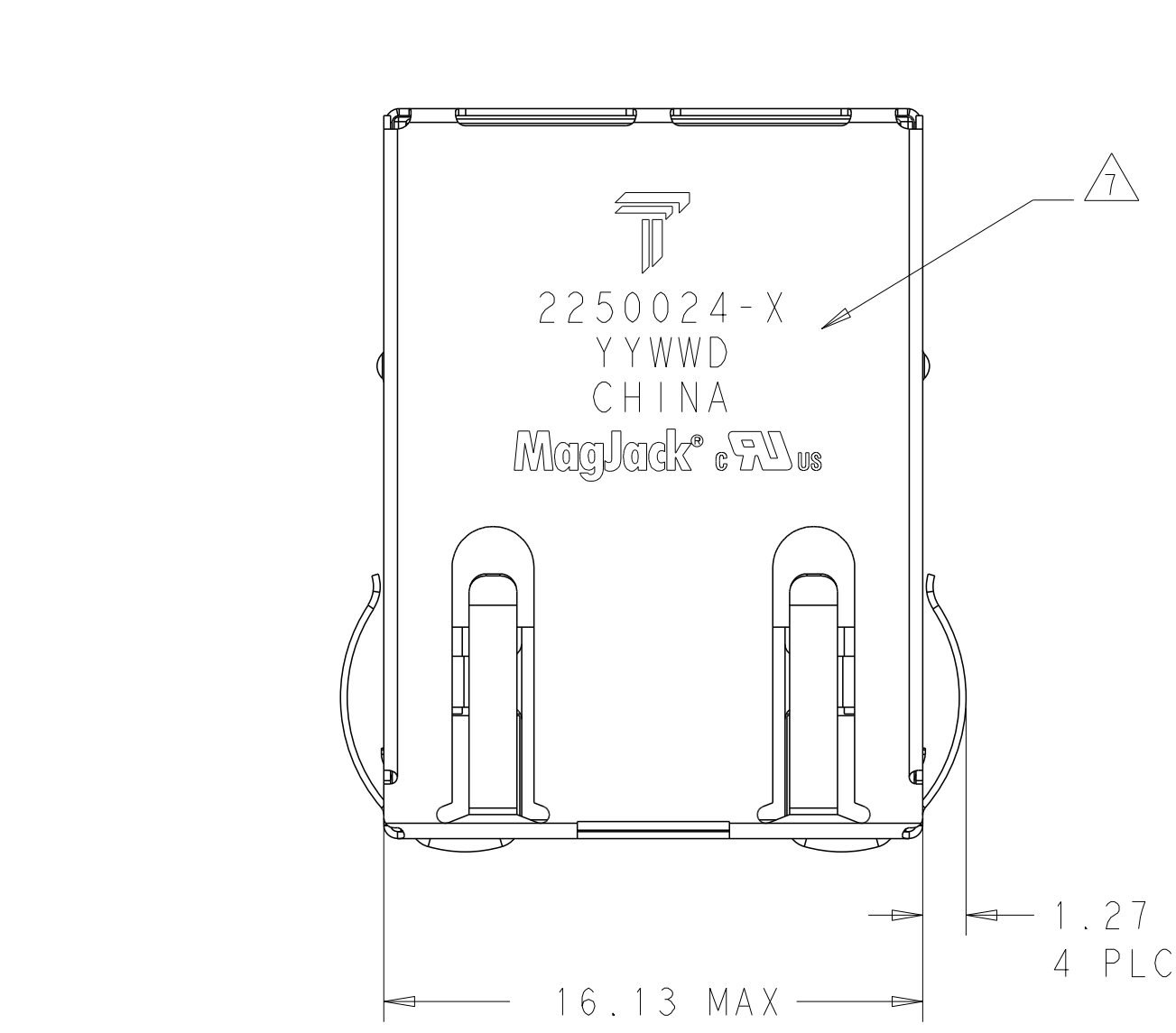


THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

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

| REVISONS |     |             |           |     |
|----------|-----|-------------|-----------|-----|
| P        | LTR | DESCRIPTION | DATE      | DWN |
| E        |     | EC-1703035  | 22MAR2017 | TRY |



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: 0.25mmTHICK, 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, TIP TIN DIPPING

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

3. MAGNETICS
- APPLICATION: 10/100 BASE-T, PoE
  - IMPEDANCE: 100 OHMS
  - TURNS RATIO (CHIP:CABLE): TX = 1:1, RX = 1:1
  - OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, TX AND RX
  - POE CURRENT: 350mADC MAX
  - PERFORMANCE @ 25°C:
    - INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz
    - RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 30MHz
      - 18-20LOG(f/30)dB MIN FROM 30.1MHz TO 60MHz
      - 12dB MIN FROM 60.1MHz TO 80MHz
    - 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 ABSENSE 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 @ IF=20mA  
FORWARD VOLTAGE(VF): GREEN 2.2V TYP @ IF = 20mA  
DOMINATE WAVELENGTH (λD): YELLOW 588 nm TYP @ IF=20mA  
FORWARD VOLTAGE(VF): YELLOW 2.1V TYP @ IF = 20mA
- IF LEDS WITH BUILT-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. DATE CODE: YYWWD WHERE YY IS YEAR, WW IS WORK WEEK, D IS DAY OF WEEK, WITH SUNDAY=1.

8. PART SHOULD BE 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.

|                  |       |       |            |                                                                                              |                   |                                                                                              |                   |             |
|------------------|-------|-------|------------|----------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------|-------------------|-------------|
| PBT              | 1.65  | 3.68  | YES        | GREEN                                                                                        | WITH              | YELLOW                                                                                       | WITH              | 1-2250024-1 |
| HTN              | 1.27  | 2.30  | YES        | GREEN                                                                                        | WITH              | YELLOW                                                                                       | WITH              | 2250024-7   |
| PBT              | 1.27  | 2.30  | YES        | GREEN                                                                                        | WITH              | YELLOW                                                                                       | WITH              | 2250024-6   |
| PBT              | 1.27  | 3.68  | YES        | GREEN                                                                                        | WTIHOUT           | YELLOW                                                                                       | WTIHOUT           | 2250024-5   |
| PBT              | 1.27  | 3.68  | NO         | GREEN                                                                                        | WITH              | YELLOW                                                                                       | WITH              | 2250024-4   |
| PBT              | 1.27  | 3.68  | NO         | GREEN                                                                                        | WITH              | GREEN                                                                                        | WITH              | 2250024-3   |
| PBT              | 1.27  | 3.68  | YES        | GREEN                                                                                        | WITH              | GREEN                                                                                        | WITH              | 2250024-2   |
| PBT              | 1.27  | 3.68  | YES        | GREEN                                                                                        | WITH              | YELLOW                                                                                       | WITH              | 2250024-1   |
| HOUSING MATERIAL | DIM B | DIM A | EMI FINGER | 11-  12 | 250 OHMS RESISTOR | 13-  14 | 250 OHMS RESISTOR | PART NUMBER |
|                  |       |       |            | LED1                                                                                         |                   | LED2                                                                                         |                   |             |

THIS DRAWING IS A CONTROLLED DOCUMENT.  
AND COMPLIANT TO ASME Y14.5M

DIMENSIONS:  
mm

PRODUCT SPEC

TOLERANCES UNLESS OTHERWISE SPECIFIED:

0 PLC ±0.25  
1 PLC ±0.25  
2 PLC ±0.25  
3 PLC ±0.25  
4 PLC ±  
ANGLES ±  
APPLICATION SPEC

DWN ROY LIU 28MAY2013  
CHK TOWER YU/ FRANK LIU 28MAY2013  
APVD TONY YUAN 28MAY2013

MODEL NAME  
MAGJACK  
SINGLE PoE

CUSTOMER DRAWING

**trp** CONNECTOR  
a bel group

DONGGUAN CHINA

DESC  
1X1 7D144 10/100 POE TAB UP W/ LED

SIZE CAGE CODE DRAWING NO  
A1 C=2250024

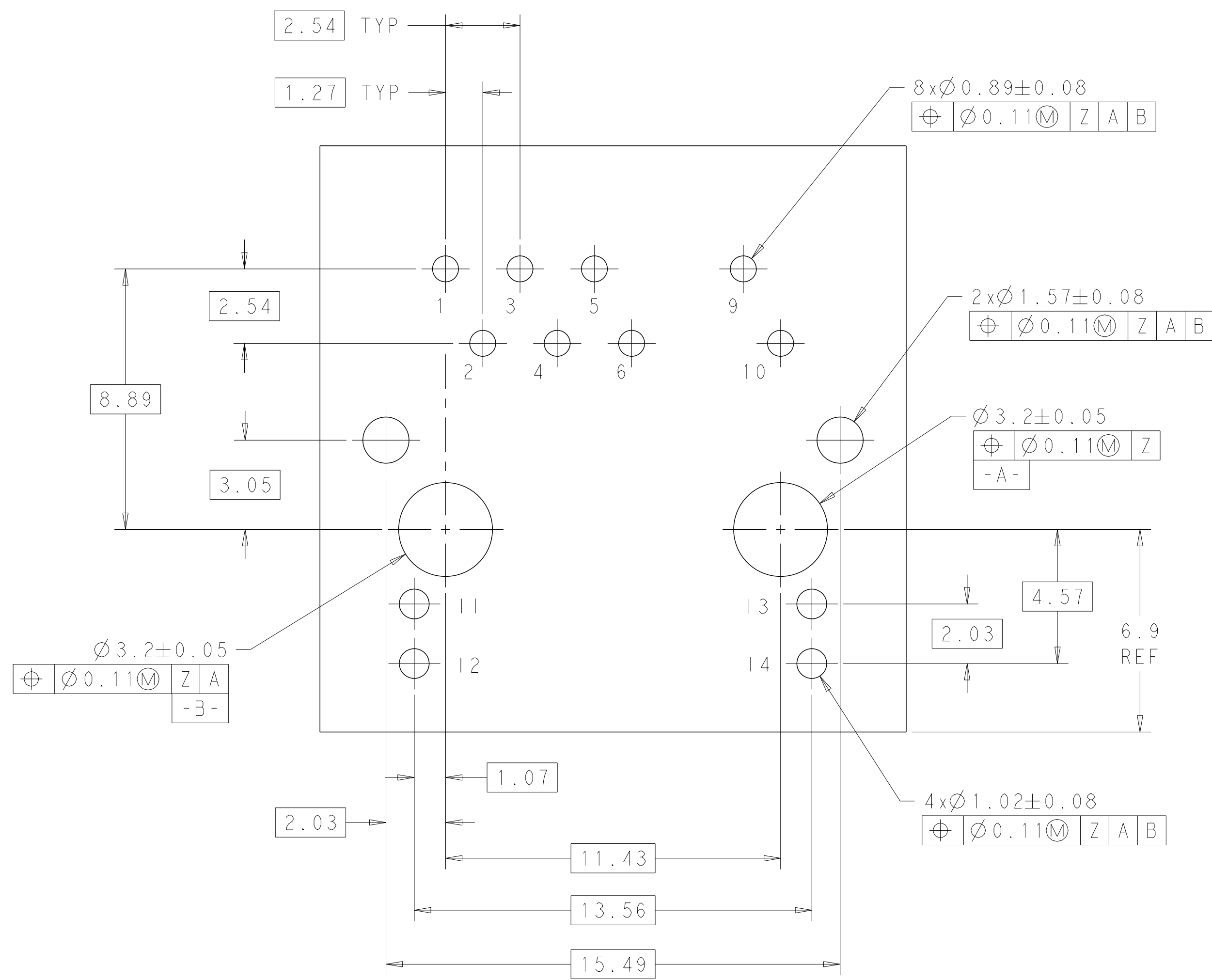
RESTRICTED TO  
-

SCALE 4:1

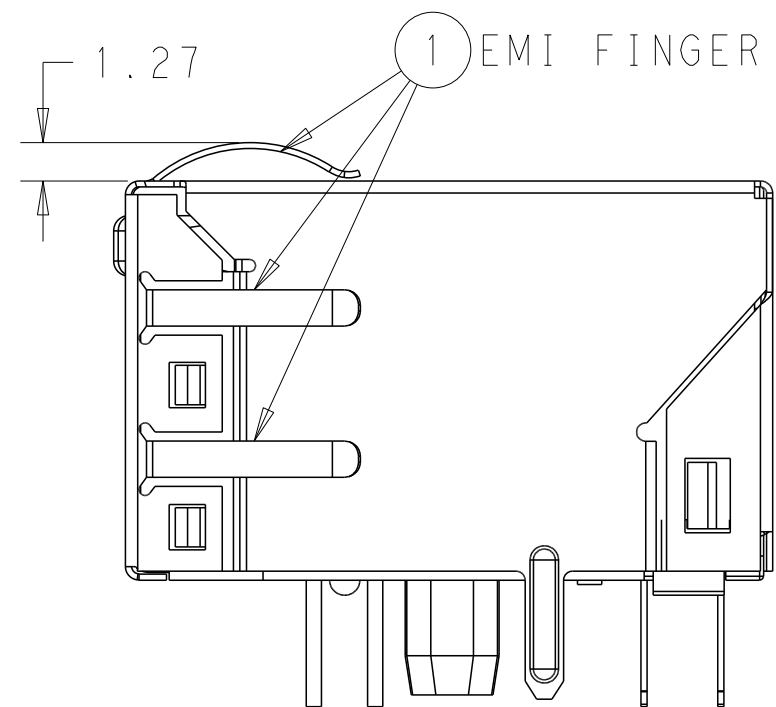
SHEET 1 OF 2

REV E

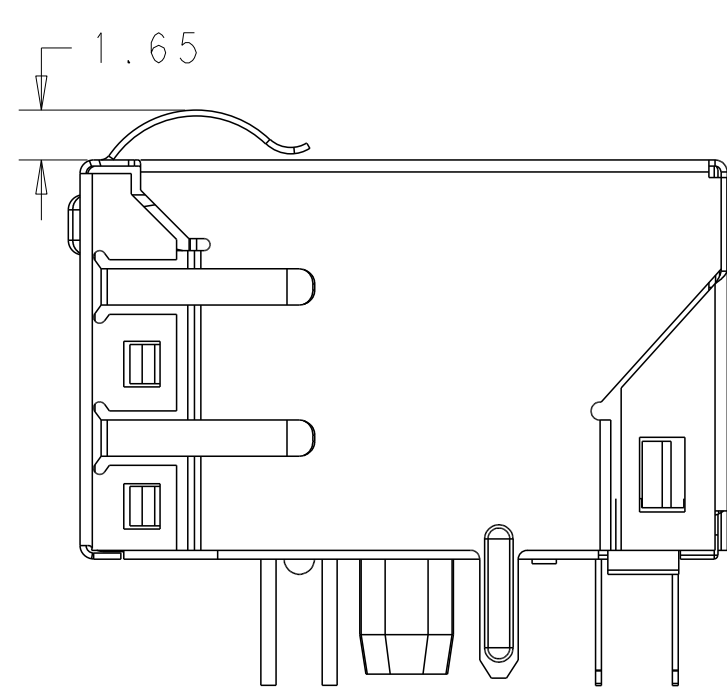




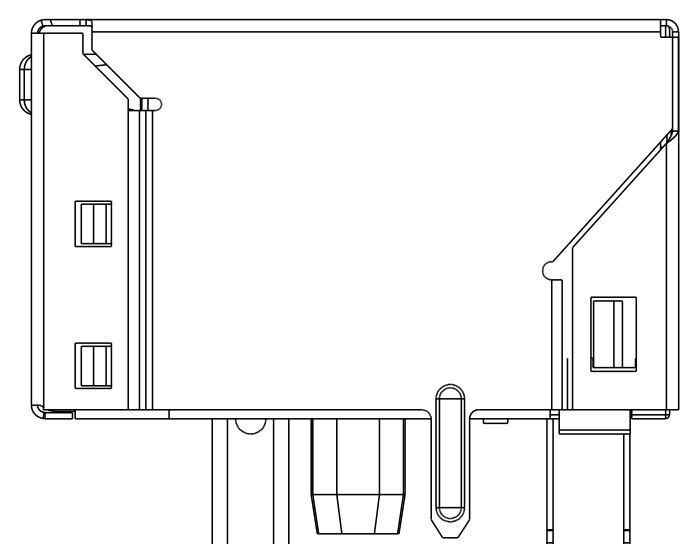
SUGGESTED PCB LAYOUT



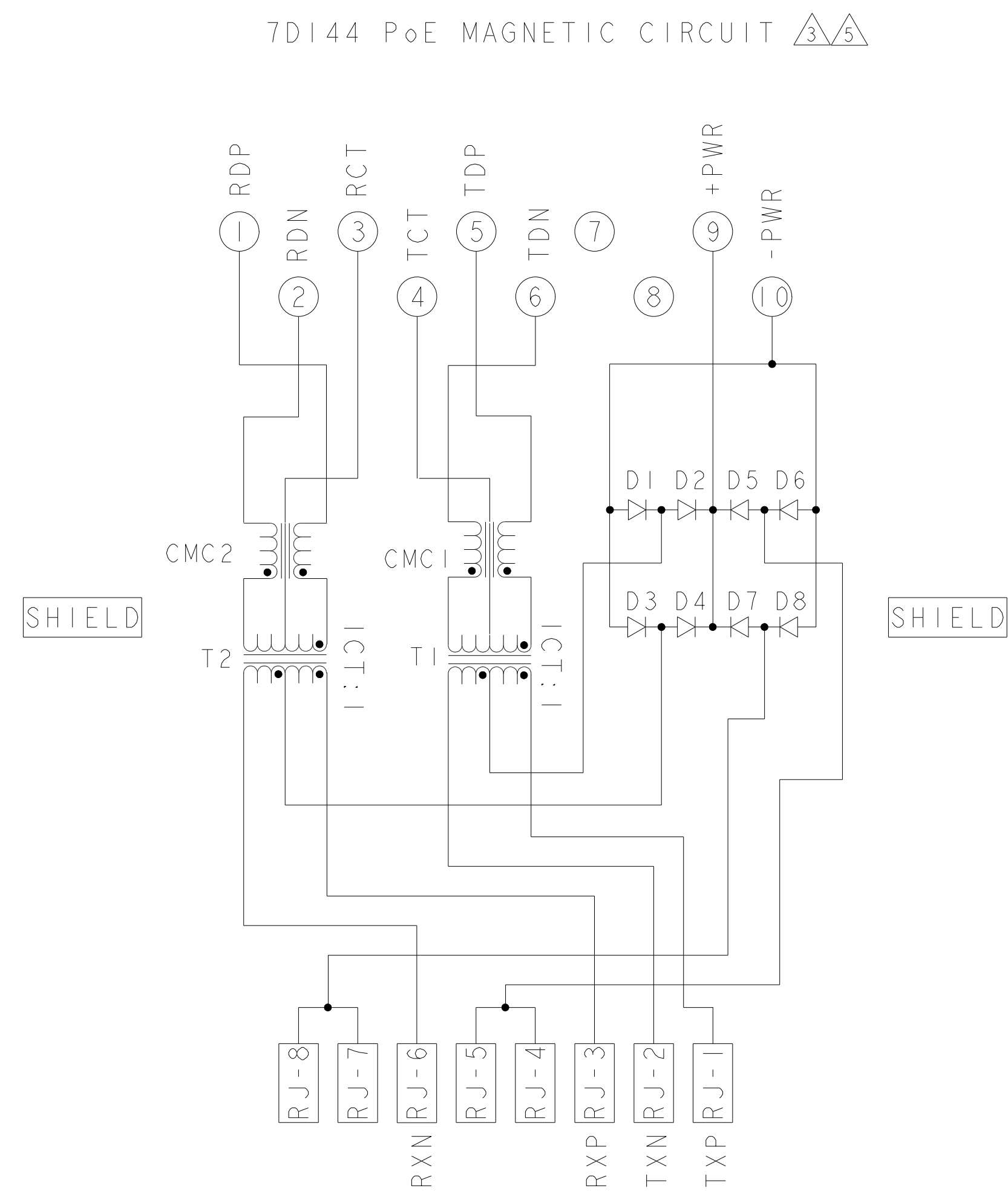
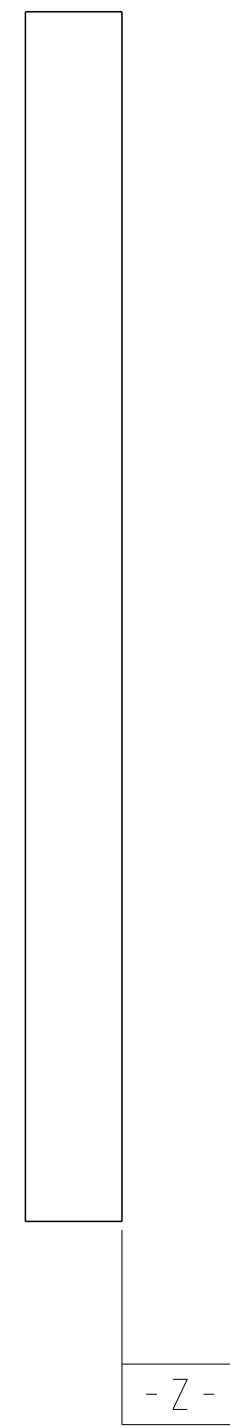
FOR 2250024-1  
2250024-2  
2250024-5  
2250024-6&7  
(SHORT PIN)



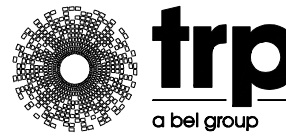
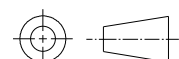
FOR 1-2250024-1



FOR 2250024-3  
2250024-4



DI-D8 = RECTIFIER DIODE  
-FORWARD VOLTAGE, Vf = 1.2V MAX @ If = 0.5A  
-FORWARD CURRENT, If = 0.5A MAX  
-REVERSE VOLTAGE, Vr = 80V MAX

|                                                                                       |  |                                                                                  |  |                                                                                                                                          |  |
|---------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT.<br>AND COMPLIANT TO ASME Y14.5M                |  | OWN<br>ROY LIU 28MAY2013                                                         |  |  <b>trp</b> CONNECTOR<br>a bel group DONGGUAN CHINA |  |
| DIMENSIONS:                                                                           |  | CHK<br>TOWER YU/ FRANK LIU 28MAY2013                                             |  |                                                                                                                                          |  |
| TOLERANCES UNLESS OTHERWISE SPECIFIED:                                                |  | APVD<br>TONY YUAN 28MAY2013                                                      |  |                                                                                                                                          |  |
| mm                                                                                    |  | MODEL NAME<br>MAGJACK<br>SINGLE PoE                                              |  | DESC<br>1X1 7D144 10/100 POE TAB UP W/ LED                                                                                               |  |
|  |  | 0 PLC ±0.25<br>1 PLC ±0.25<br>2 PLC ±0.25<br>3 PLC ±0.25<br>4 PLC ±<br>ANGLES ±° |  | SIZE<br>A1                                                                                                                               |  |
| PRODUCT SPEC                                                                          |  | APPLICATION SPEC                                                                 |  | DRAWING NO<br>C=2250024                                                                                                                  |  |
| -                                                                                     |  | -                                                                                |  | RESTRICTED TO<br>-                                                                                                                       |  |
| CUSTOMER DRAWING                                                                      |  | SCALE<br>4:1                                                                     |  | SHEET 2 OF 2                                                                                                                             |  |
|                                                                                       |  |                                                                                  |  | REV E                                                                                                                                    |  |