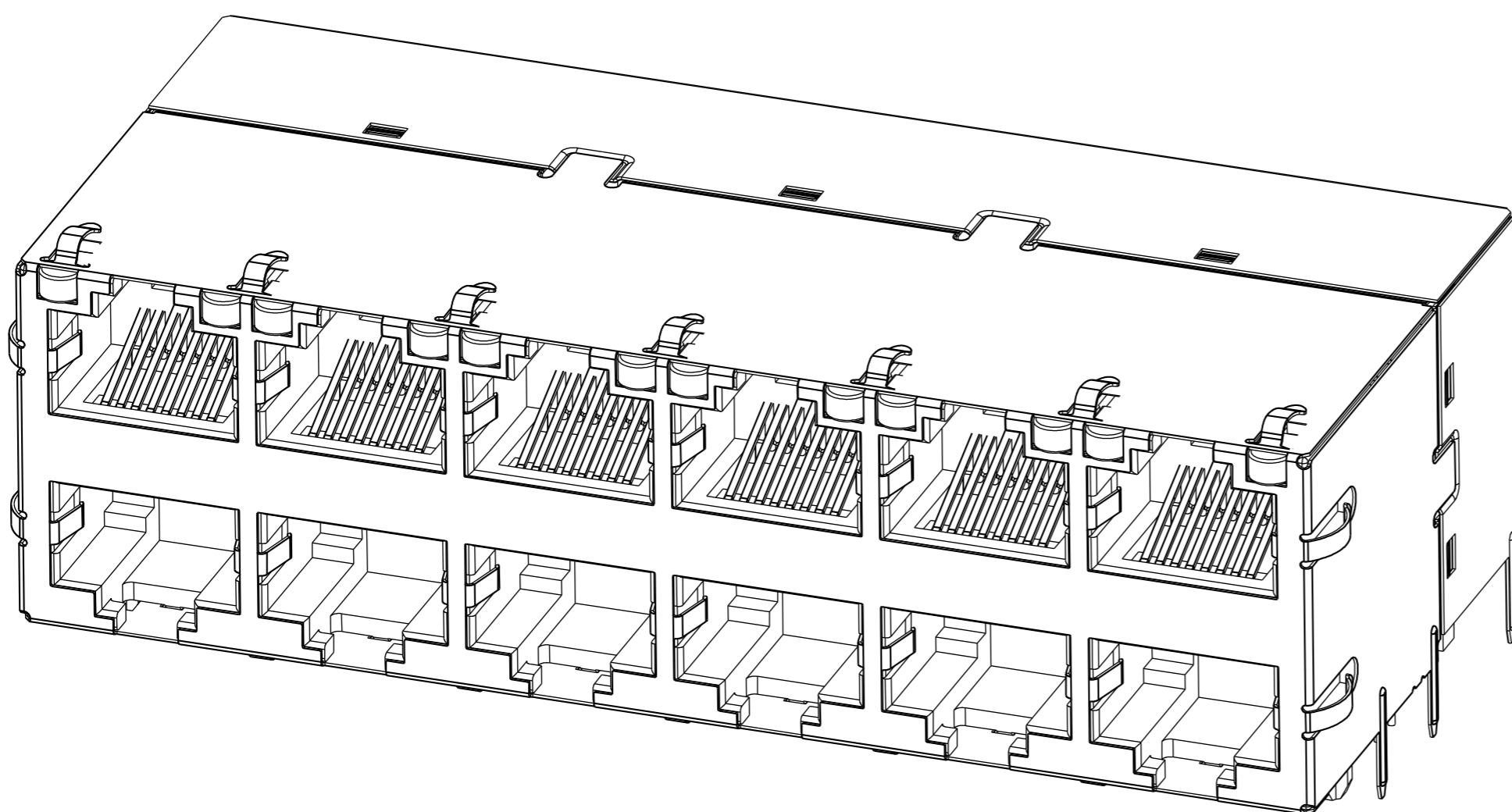


THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

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 |           |                     |    |      |
|-----------|-----------|---------------------|----|------|
| REV       | DATE      | DESCRIPTION         | BY | APPV |
| 4         | 25DEC2014 | COMPANY LOGO CHANGE | TR | TY   |



1. MATERIALS:  
 PLASTIC HOUSING: BLACK, THERMOPLASTIC FLAMMABILITY RATING UL 94V-0  
 SHIELD: BRASS, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL,  
 POST DIPPED WITH 2.54um MIN SAC SOLDER OR PURE TIN SOLDER ON SOLDER TAILS  
 CONTACTS: PHOSPHOR BRONZE, 1.27um MIN OVERALL NICKEL  
 UNDERPLATE WITH SELECT 1.27um MIN GOLD AT MATING INTERFACE AND  
 2.54um MIN MATTE TIN ON SOLDER TAILS.  
 LED: DIFFUSED EPOXY LENS, CARBON STEEL LEAD FRAME TAILS OF LED  
 ARE PREPLATED WITH 2.03um MIN SILVER OVER 1.02um MIN NICKEL  
 UNDERPLATE OVER 1.02um MIN COPPER UNDERPLATE. POST-PLATED WITH  
 2.54um MIN MATTE TIN AND/OR SAC SOLDER DIP OR PURE TIN SOLDER DIP

- △ MAGNETICS  
 APPLICATION: 10/100/1000 BASE-T, ULTRA PoE PLUS  
 IMPEDANCE: 100 OHMS  
 TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS  
 OPEN CIRCUIT INDUCTANCE (OCL): ALL CHANNELS  
 350uH MIN @ 100KHz, 0.1 VRMS WITH 8mA DC BIAS FROM 0°C TO 70°C,  
 120uH MIN @ 100KHz, 0.1 VRMS WITH 19mA DC BIAS FROM 0°C TO 70°C  
 ALL FOUR PAIRS BI-DIRECTIONAL  
 POE CURRENT: 600mA DC MAX  
 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(MAX) FOR 60 SECONDS WITH A RISE TIME OF  
 500V/SEC AND WITH ALL PORTS CONNECTED.

- △ PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN ARE LOCATED  
 IN APPROXIMATE AREA SHOWN. DATE CODE: "YY" IS YEAR, "WW" IS  
 WORK WEEK, "D" IS DAY OF WEEK, WITH SUNDAY=1

- △ TRP CONNECTOR LOGO AND AGENCY APPROVAL LOGO ARE  
 LOCATED IN APPROXIMATE AREA SHOWN.

5. OPERATING TEMP: FROM 0°C TO +70°C.

6. RJ45 CAVITY CONFORMS TO FCC RULES AND REGULATION PART 68 SUBPART F.

- △ INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND  
 SUPPORT AUTO-MDI/MDIX.

- △ DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.

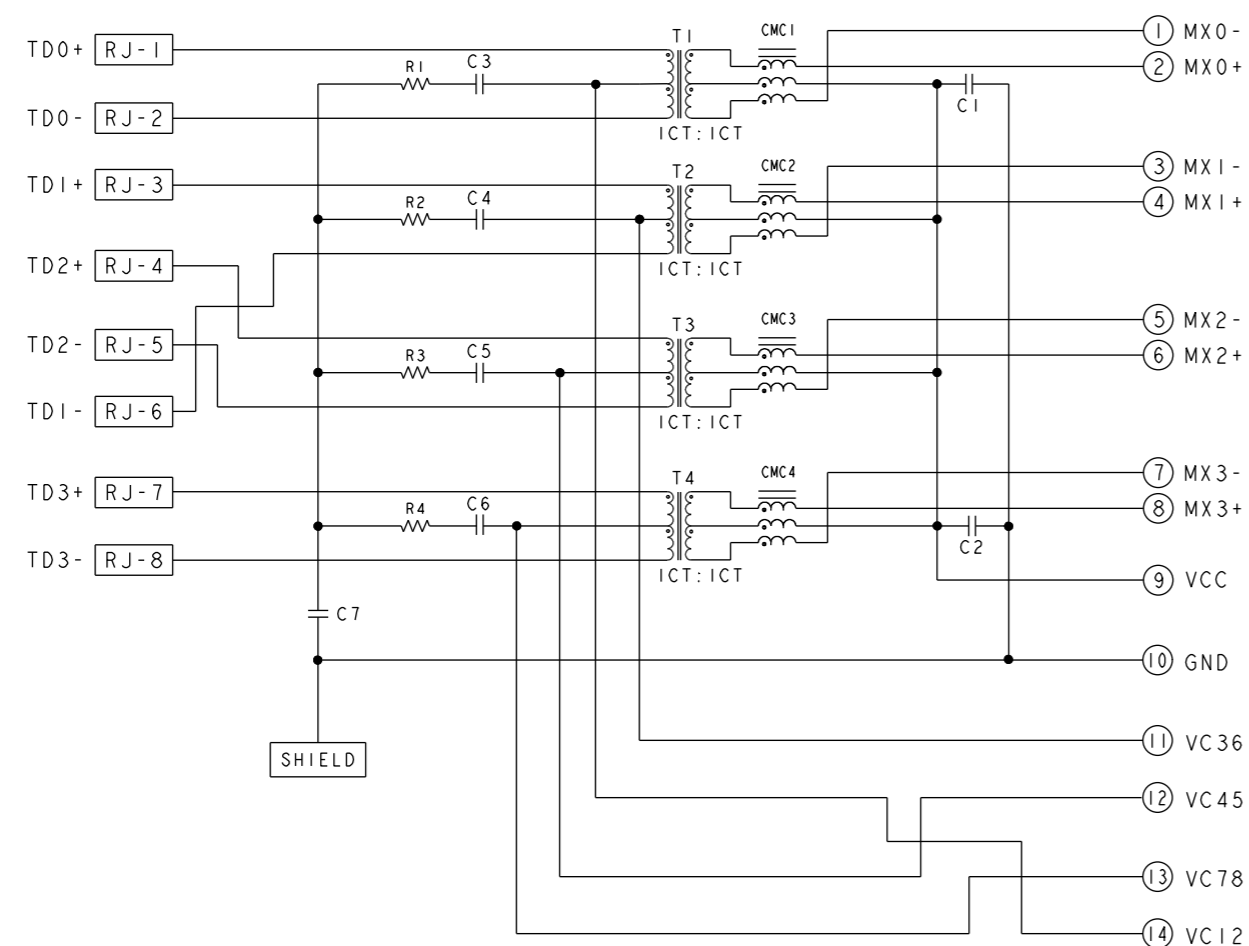
- △ BASIC DIMENSION ESTABLISHED BY CUSTOMER, BUT MAY NOT BE  
 GREATER THAN 5.08mm.

- △ LEDs ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA  
 LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP. @ IF=20mA  
 FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA  
 DOMINANT WAVELENGTH (λD): ORANGE 605 nm TYP. @ IF=20mA  
 FORWARD VOLTAGE (VF): ORANGE 2.1V TYP. @ IF=20mA

11. THE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS,  
 PEAK TEMPERATURE 260°C MAX, 10 SECONDS MAX.

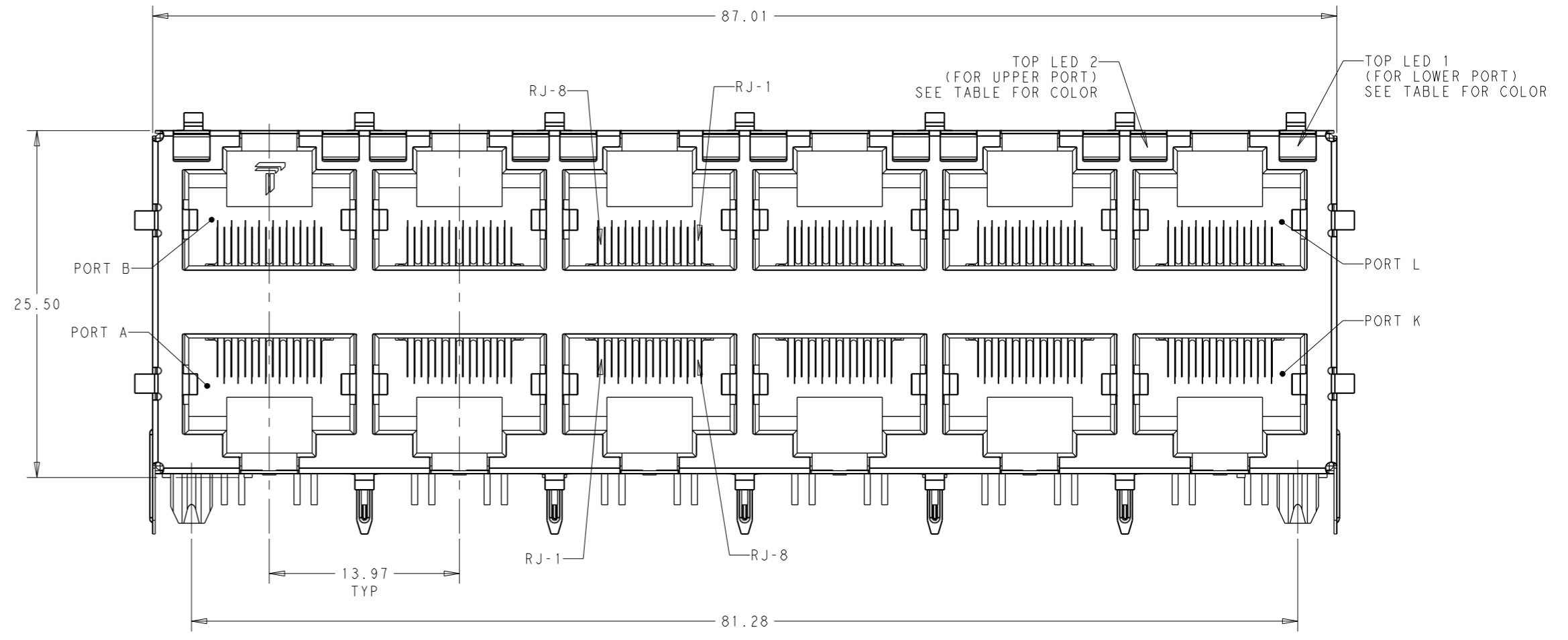
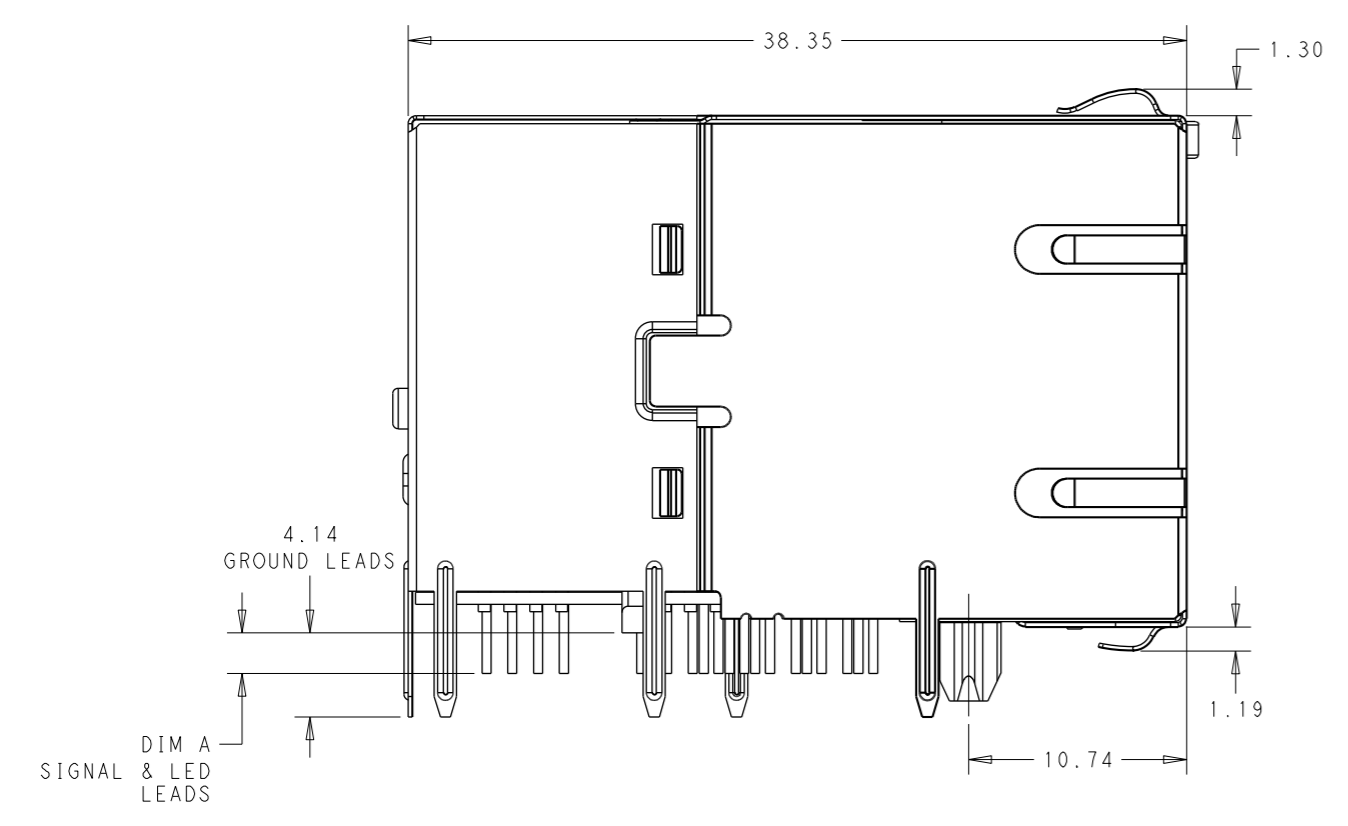
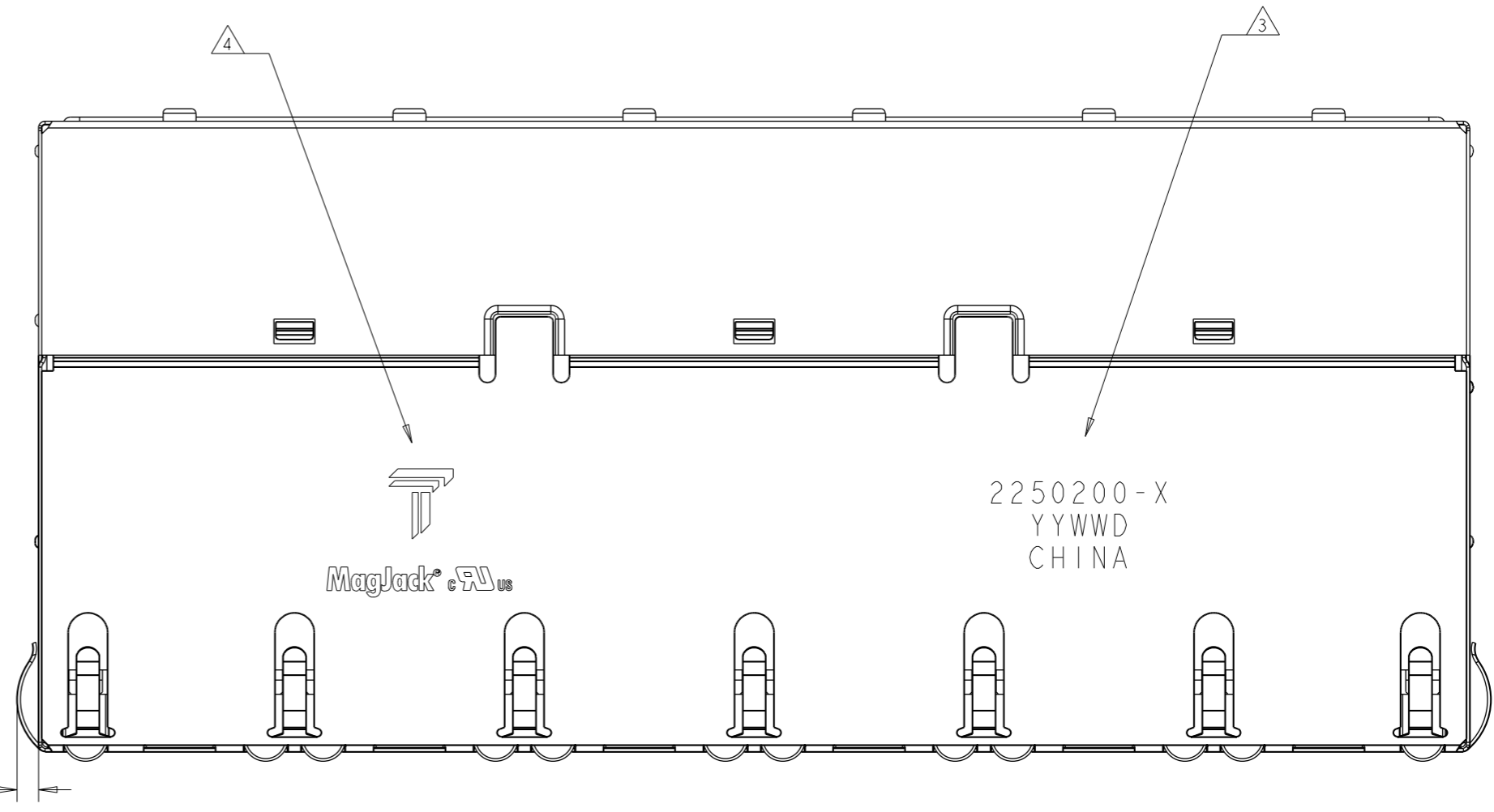
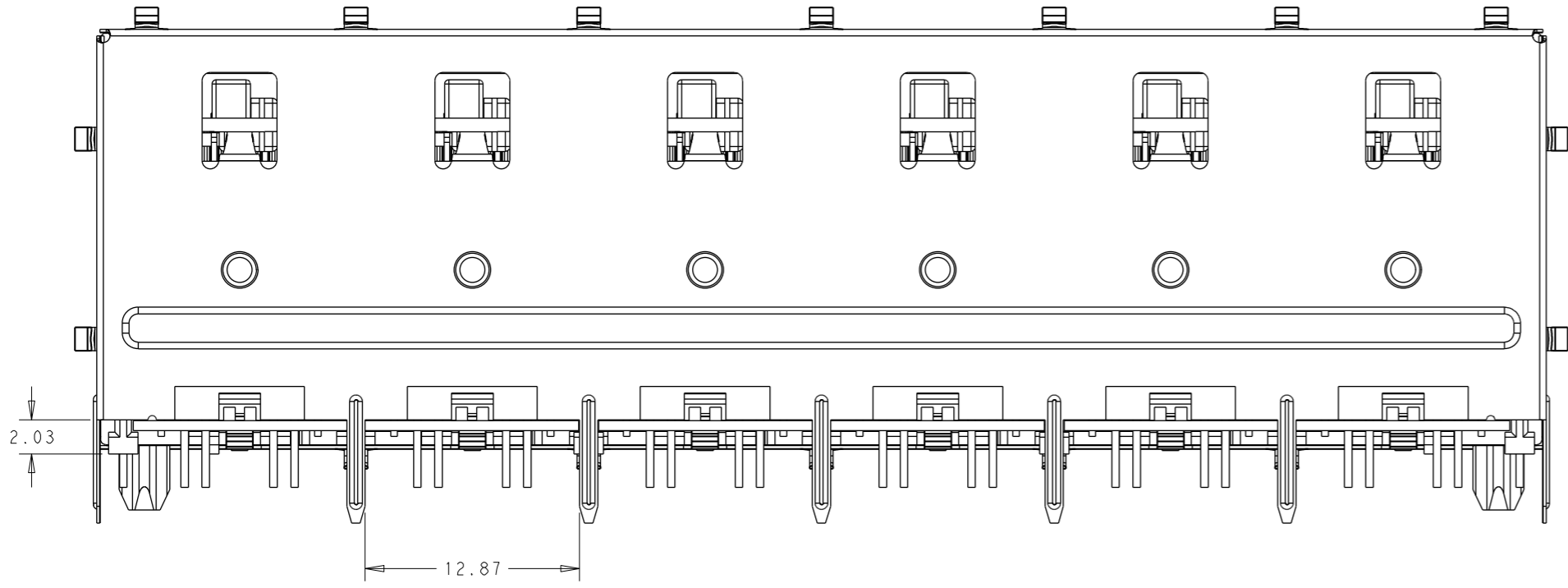
S9HG154PI GIGABIT UPoE PLUS CIRCUIT △△


TOP AND BOTTOM PORTS



C1-C2 = 10nF, 50V, X7R, CAPACITORS  
 C3-C6 = 22nF, 100V, CAPACITORS  
 C7 = 1000pF, 2kV, CAPACITOR  
 R1-R4 = 75 Ohms, 1/16W, RESISTORS

|                                                                                                                                                                                               |                               |                                                                                                                     |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------|
| 3.56                                                                                                                                                                                          | GRN/ORA                       | GRN/ORA                                                                                                             | 2250200-7          |
| DIM A                                                                                                                                                                                         | TOP LED 2<br>(FOR UPPER PORT) | TOP LED 1<br>(FOR LOWER PORT)                                                                                       | PART<br>NUMBER     |
| THIS DRAWING IS A CONTROLLED DOCUMENT.<br>DIMENSIONS: mm<br>TOLERANCES UNLESS OTHERWISE SPECIFIED:<br>0 PLC ±<br>1 PLC ±<br>2 PLC ±0.25<br>3 PLC ±<br>4 PLC ±<br>ANGLES ±<br>APPLICATION SPEC |                               |                                                                                                                     |                    |
| DWN: TOMMY REN/LEERY LIN 19MAY2014<br>CHK: TOMMY REN 19MAY2014<br>APPV: TONY YUAN 19MAY2014<br>MODEL NAME: MAGJACK STACK 4PPoE                                                                |                               | DESC: 2X6 S9HG154PI GIGABIT 4PPoE W/ LED<br>SIZE: A1<br>CAGE CODE: 2250200<br>DRAWING NO: 2250200<br>RESTRICTED TO: |                    |
| CUSTOMER DRAWING                                                                                                                                                                              |                               | SCALE: 1:1                                                                                                          | SHEET 1 OF 5 REV 4 |



|                                        |  |                                    |  |                                                                                                                           |                |
|----------------------------------------|--|------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|----------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT. |  | DWN: TOMMY REN/19MAY2014           |  |  <b>trp</b> CONNECTOR<br>a bel group | DONGGUAN CHINA |
| DIMENSIONS: mm                         |  | CHK: TOMMY REN/19MAY2014           |  |                                                                                                                           |                |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: |  | APPV: TONY YUAN/19MAY2014          |  | DESC: 2X6 S9HG154PI GIGABIT 4PPoE W/ LED                                                                                  |                |
| 0 PLC ±                                |  | MODEL NAME: MAGJACK                |  | SIZE: A1                                                                                                                  |                |
| 1 PLC ±                                |  | PRODUCT SPEC: STACK 4PPoE          |  | CAGE CODE: C=2250200                                                                                                      |                |
| 2 PLC ±0.25                            |  | APPLICATION SPEC: CUSTOMER DRAWING |  | RESTRICTED TO: -                                                                                                          |                |
| 3 PLC ±                                |  | SCALE: 1:1                         |  | SHEET 2 OF 5                                                                                                              |                |
| 4 PLC ±                                |  | REV: 4                             |  |                                                                                                                           |                |

D

C

B

A

D

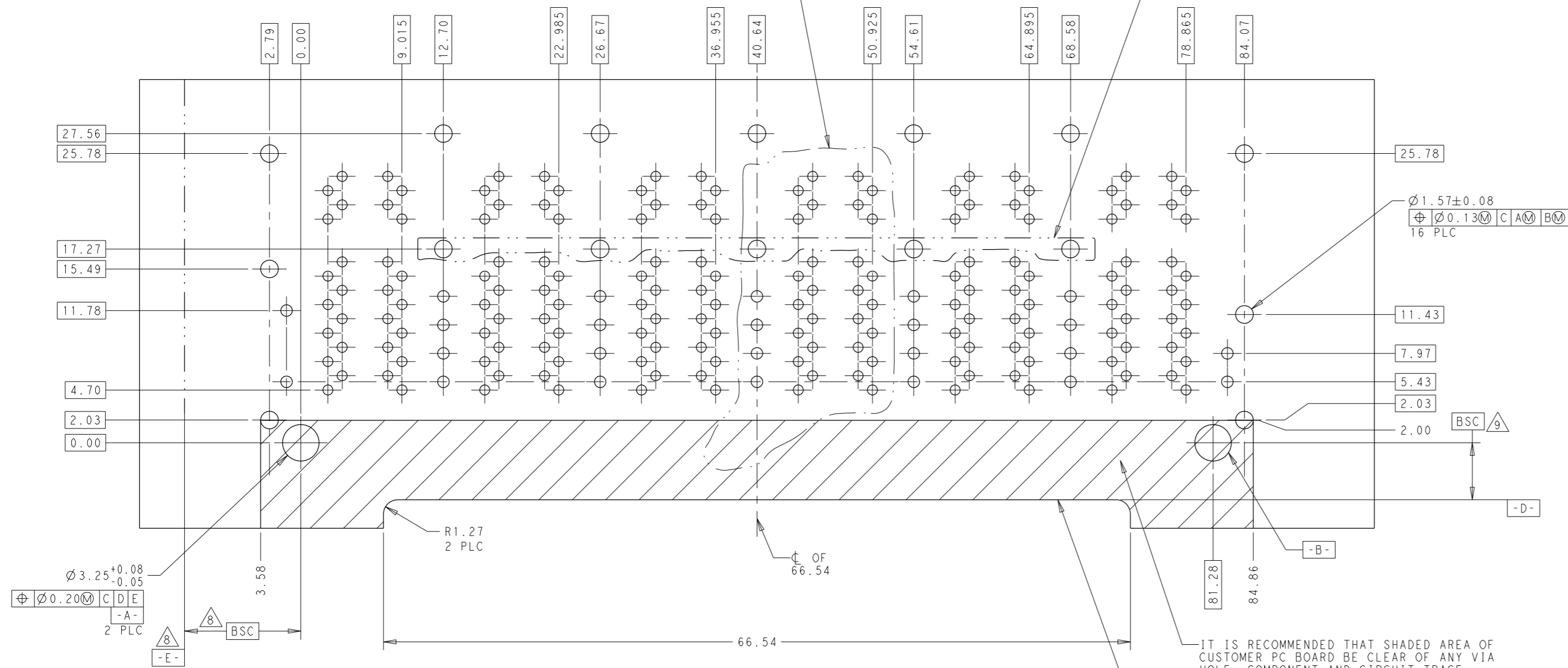
C

B

A

SEE DETAIL A

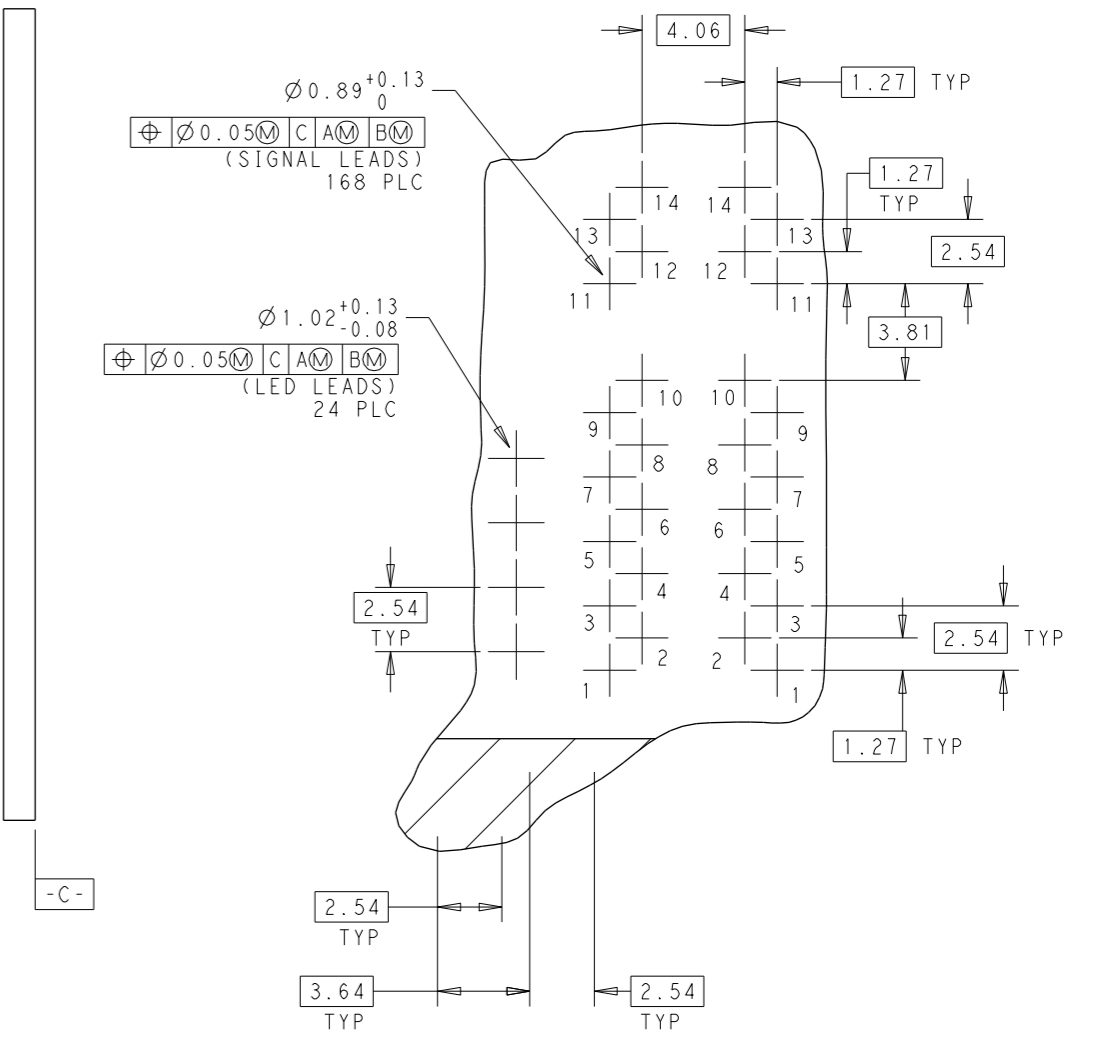
THE 5 GROUNDING HOLES ARE RESERVED FOR NON-PoE PART



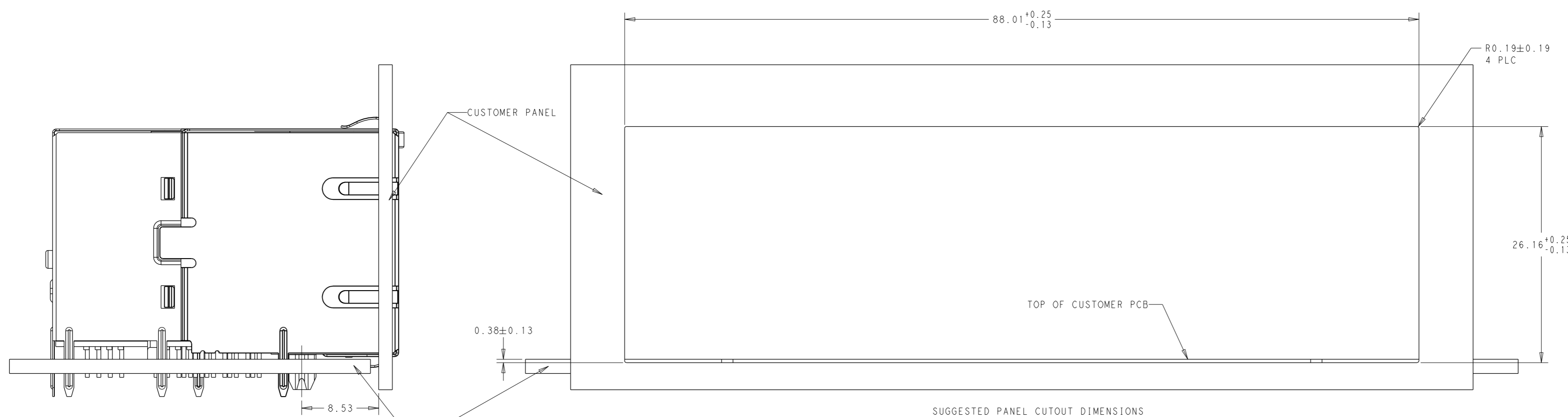
RECOMMENDED PCB LAYOUT COMPONENT SIDE VIEW

IT IS RECOMMENDED THAT SHADED AREA OF CUSTOMER PC BOARD BE CLEAR OF ANY VIA HOLE, COMPONENT AND CIRCUIT TRACE

RECOMMENDED PCB FRONT EDGE CUTOUT: THE BOTTOM SHIELD GROUND TABS (FRONT) SHOULD NOT BE SEATED ON THE TOP OF THE PCB




DETAIL A SCALE 5:1



SUGGESTED PANEL CUTOUT DIMENSIONS

SHOWN WITH PANEL AND CUSTOMER PCB ASSEMBLY

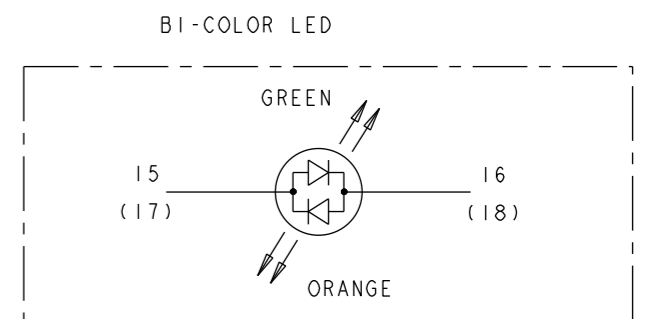
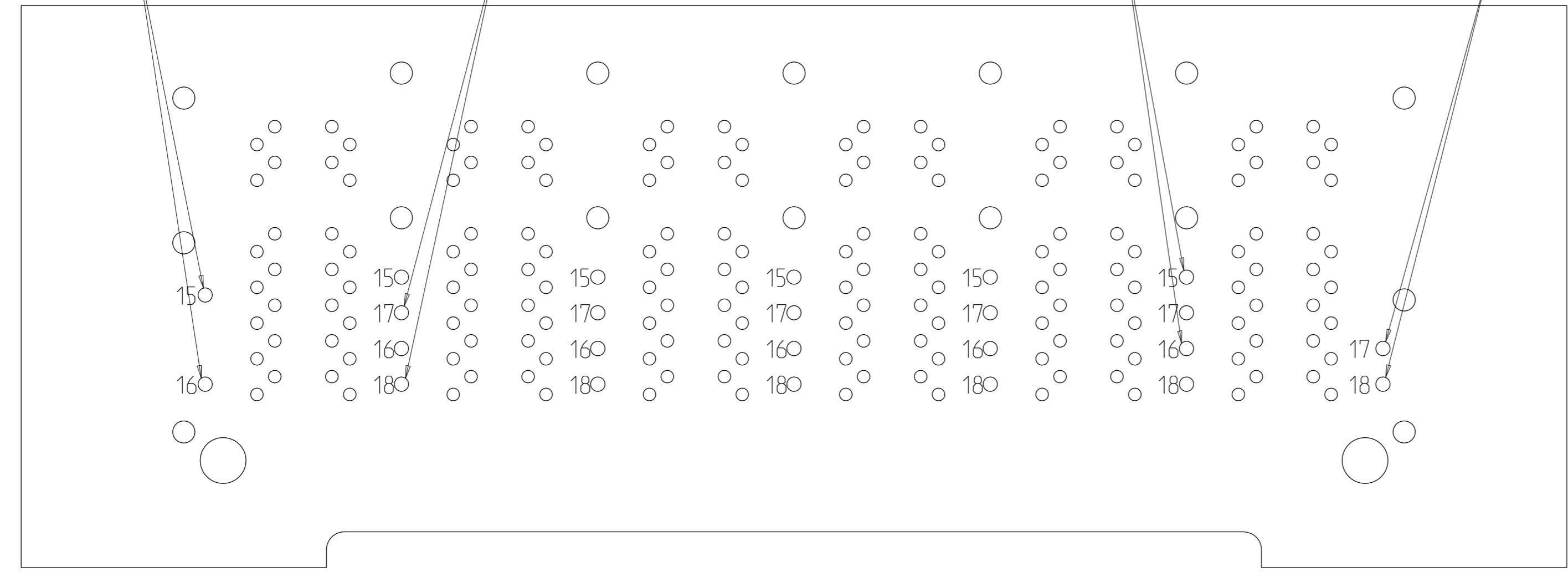
|                                                                                               |                  |                                          |                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------|------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                                        |                  | DWN: TOMMY REN/IEBRY LIN 19MAY2014       |  <p><b>trp</b> CONNECTOR<br/>a bel group<br/>DONGGUAN CHINA</p> |
| DIMENSIONS: mm                                                                                |                  | CHK: TOMMY REN 19MAY2014                 |                                                                                                                                                      |
| TOLERANCES UNLESS OTHERWISE SPECIFIED:                                                        |                  | APPV: TONY YUAN 19MAY2014                |                                                                                                                                                      |
| 0 PLC ±<br>1 PLC ±0.25<br>2 PLC ±0.25<br>3 PLC ±<br>4 PLC ±<br>ANGLES ±<br>APPLICATION SPEC ± |                  | MODEL NAME: MAGJACK STACK 4PPoE          |                                                                                                                                                      |
| PRODUCT SPEC                                                                                  | APPLICATION SPEC | DESC: 2X6 S9HG154P1 GIGABIT 4PPoE W/ LED | RESTRICTED TO: -                                                                                                                                     |
|                                                                                               |                  | SIZE: A1                                 | CAGE CODE: 2250200                                                                                                                                   |
|                                                                                               |                  | CUSTOMER DRAWING                         | SCALE: 4:1 SHEET 3 OF 5 REV 4                                                                                                                        |

TOP LED 2  
LED 2 (UPPER LED LEFT)  
IS FOR UPPER PORT

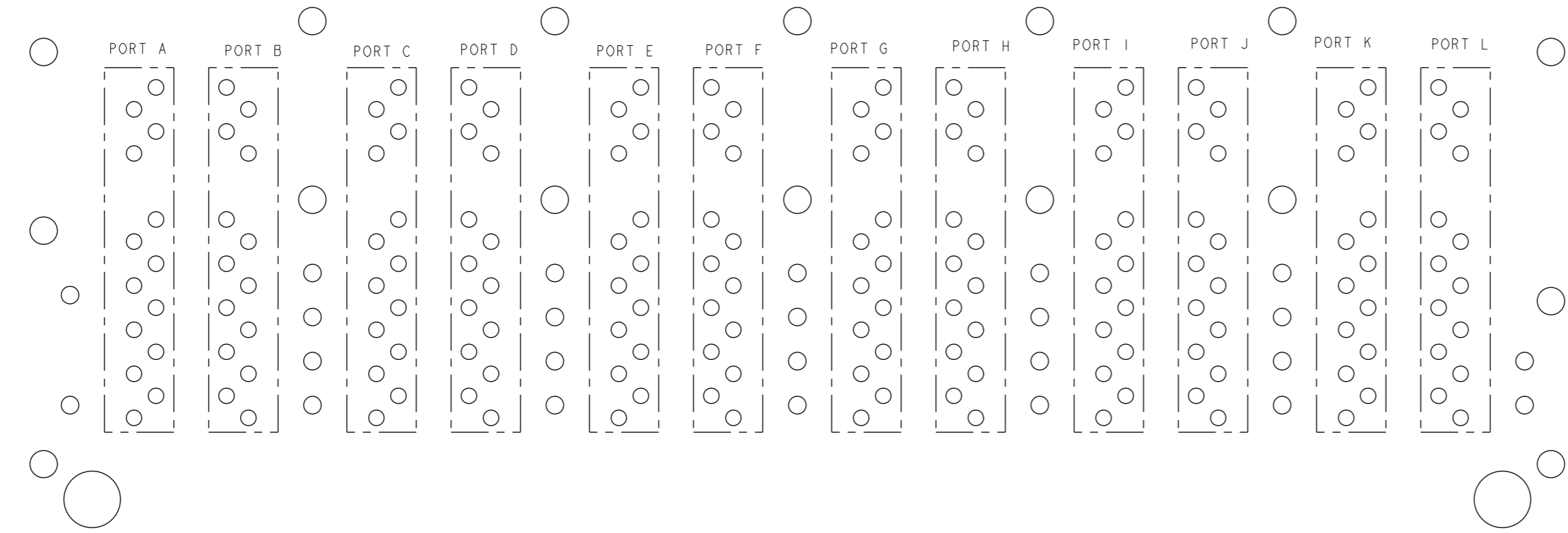
TOP LED 1  
LED 1 (UPPER LED RIGHT)  
IS FOR LOWER PORT

TOP LED 2  
LED 2 (UPPER LED LEFT)  
IS FOR UPPER PORT


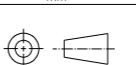
TOP LED 1  
LED 1 (UPPER LED RIGHT)  
IS FOR LOWER PORT




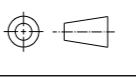
LED HOLE DESIGNATIONS  
VIEWED FROM COMPONENT SIDE



PORT ASSIGNMENT  
COMPONENT SIDE VIEW

|                                                                                       |  |                                                                                           |  |                                                                                                                           |                   |
|---------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|-------------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                                |  | DWN: TOMMY REN/19MAY2014                                                                  |  |  <b>trp</b> CONNECTOR<br>a bel group | DONGGUAN<br>CHINA |
|                                                                                       |  | CHK: TOMMY REN/19MAY2014                                                                  |  |                                                                                                                           |                   |
| DIMENSIONS:<br>mm                                                                     |  | TOLERANCES UNLESS OTHERWISE SPECIFIED:                                                    |  | APPR: TONY YUAN/19MAY2014                                                                                                 |                   |
|  |  | 0 PLC ±<br>1 PLC ±<br>2 PLC ±0.25<br>3 PLC ±<br>4 PLC ±<br>ANGLES ±<br>APPLICATION SPEC ± |  | MODEL NAME                                                                                                                |                   |
| PRODUCT SPEC                                                                          |  | APPLICATION SPEC                                                                          |  | DESC: MAGJACK STACK 4PPoE                                                                                                 |                   |
|                                                                                       |  |                                                                                           |  | 2X6 S9HG154P1 GIGABIT 4PPoE W/ LED<br>SIZE: A1 CAGE CODE: DRAWING NO: C=2250200 RESTRICTED TO:                            |                   |
|                                                                                       |  |                                                                                           |  | CUSTOMER DRAWING SCALE: 5:1 SHEET: 4 OF 5 REV: 4                                                                          |                   |

| 2250200          |     |                                                                                                                                                                                                                            |                      |          | STOCK DISPOSITION          |                                 |                               |                                |
|------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------|----------------------------|---------------------------------|-------------------------------|--------------------------------|
| REVISION HISTORY |     |                                                                                                                                                                                                                            |                      |          | A: CONTINUE AS IS          | D: USE OLD FIRST                |                               |                                |
|                  |     |                                                                                                                                                                                                                            |                      |          | B: REWORK                  | E: PARTS TO CONFORM             |                               |                                |
|                  |     |                                                                                                                                                                                                                            |                      |          | C: SCRAP                   | 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) |
| 19MAY2014        | 1   | INITIAL RELEASE                                                                                                                                                                                                            | INITIAL RELEASE      | TY       | -                          | -                               | -                             | -                              |
| 17MAY2014        | 2   | SHEET 2 TOP AND BOTTOM EMI FINGER UPDATE<br>SHEET 2 B6 AREA: DIMENSION 1.19 CHANGE TO 1.30.<br>SHEET 4 D8-D3 AREA: ADD BELOW NOTE<br>LED 2 (UPPER LED LEFT) IS FOR UPPER PORT<br>LED 1 (UPPER LED RIGHT) IS FOR LOWER PORT | CUSTOMER REQUIREMENT | TY       | -                          | -                               | -                             | -                              |
| 11JUL2014        | 3   | SHEET 2 C8-C5 AREA: ADD BACK VIEW TO HAVE THE NOTCH DIMENSIONS<br>SHEET 3 B6 AREA: REMOVE DIMENSION 2.36<br>SHEET 3 A7 AREA: ADD DIMENSION 8.53                                                                            | CUSTOMER REQUIREMENT | TY       | -                          | -                               | -                             | -                              |
| 25DEC2014        | 4   | SHEET 2 C4 ZONE: CHANGE AGENCY APPROVAL LOGO<br>UPDATE NEW COMPANY LOGO ON ALL SHEET TITLE BLOCK                                                                                                                           | COMPANY REQUIREMENT  | TY       | -                          | -                               | -                             | -                              |

|                                                                                                                                                                                                                                                                                           |       |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------|---|---------------------------------------------------------------------------------------|-------------------|-------|-------|-------|---|-------|---|--------|---|------------------|---|------------|--|------|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                                                                                                                                                                                                                                    |       | DWN: TOMMY REN/TERRY LIN 19MAY2014     |   |  | DONGGUAN<br>CHINA |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
|                                                                                                                                                                                                                                                                                           |       | CHK: TOMMY REN 19MAY2014               |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| DIMENSIONS: mm                                                                                                                                                                                                                                                                            |       | TOLERANCES UNLESS OTHERWISE SPECIFIED: |   | APPR: TONY YUAN 19MAY2014                                                             |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| <table border="1"> <tr><td>0 PLC</td><td>±</td></tr> <tr><td>1 PLC</td><td>±</td></tr> <tr><td>2 PLC</td><td>±0.25</td></tr> <tr><td>3 PLC</td><td>±</td></tr> <tr><td>4 PLC</td><td>±</td></tr> <tr><td>ANGLES</td><td>±</td></tr> <tr><td>APPLICATION SPEC</td><td>±</td></tr> </table> |       | 0 PLC                                  | ± | 1 PLC                                                                                 | ±                 | 2 PLC | ±0.25 | 3 PLC | ± | 4 PLC | ± | ANGLES | ± | APPLICATION SPEC | ± | MODEL NAME |  | DESC |  |
| 0 PLC                                                                                                                                                                                                                                                                                     | ±     |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| 1 PLC                                                                                                                                                                                                                                                                                     | ±     |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| 2 PLC                                                                                                                                                                                                                                                                                     | ±0.25 |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| 3 PLC                                                                                                                                                                                                                                                                                     | ±     |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| 4 PLC                                                                                                                                                                                                                                                                                     | ±     |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| ANGLES                                                                                                                                                                                                                                                                                    | ±     |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| APPLICATION SPEC                                                                                                                                                                                                                                                                          | ±     |                                        |   |                                                                                       |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
|                                                                                                                                                                                                      |       | MAGJACK                                |   | 2X6 S9HG154P1 GIGABIT 4PPoE W/ LED                                                    |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| PRODUCT SPEC                                                                                                                                                                                                                                                                              |       | STACK 4PPoE                            |   | RESTRICTED TO                                                                         |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
|                                                                                                                                                                                                                                                                                           |       | A1                                     |   | C=2250200                                                                             |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |
| CUSTOMER DRAWING                                                                                                                                                                                                                                                                          |       | SCALE 1:1                              |   | SHEET 5 OF 5 REV 4                                                                    |                   |       |       |       |   |       |   |        |   |                  |   |            |  |      |  |