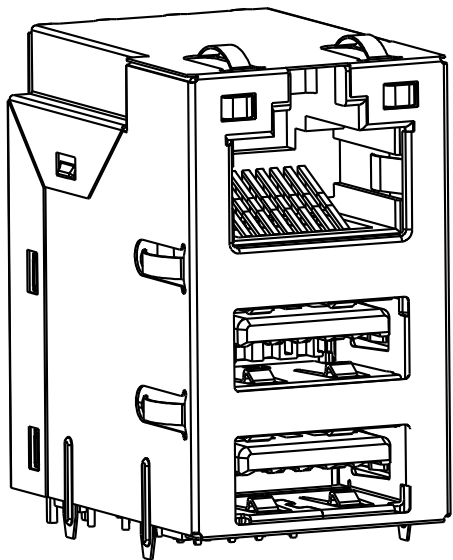


THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

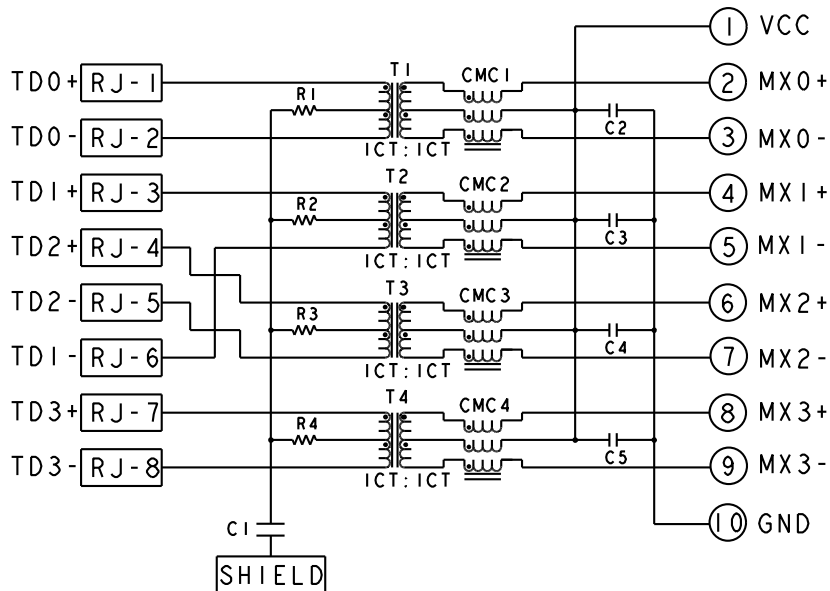
PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS:  
5736910 5939955 6425781 6428361 6554638 6840817 7123117  
7429195 7717749 7808751 6217391 6149050 7924130

REVISIONS

| P | LTR | DESCRIPTION                                | DATE      | DWN | APVD |
|---|-----|--------------------------------------------|-----------|-----|------|
| 6 |     | EC-1411035, LOGO CHANGE;ADD USB COLOR SPEC | 05JAN2015 | JC  | TY   |



URG154 GIGABIT CIRCUIT



C1: 1000pF, 2kV, CAPACITOR;  
C2-C5: 100nF, 50V, CAPACITORS;  
R1-R4: 750hms, 1/16W, RESISTORS

1. MATERIALS
- USB MATERIALS:
- HOUSING: THERMOPLASTIC, BLUE, FLAMMABILITY RATING UL 94V-0
  - USB 2.0 CONTACT: PHOSPHOR BRONZE, WITH 1.27um MIN OVERALL NICKEL UNDERPLATE AND SELECTIVE 0.762um MIN GOLD PLATING AT MATING INTERFACE
  - USB 3.0 CONTACT: COPPER BASE ALLOY, WITH 1.27um MIN OVERALL NICKEL UNDERPLATE AND SELECTIVE 0.762um MIN GOLD PLATING AT MATING INTERFACE
- RJ45 MATERIALS:
- HOUSING: THERMOPLASTIC, BLACK, FLAMMABILITY RATING UL 94V-0
  - SHIELD: STAINLESS STEEL, PREPLATED WITH MIN 0.76um SEMI-BRIGHT NICKEL POST DIPPED WITH 2.54um MIN SOLDER ON SOLDER TAILS
  - CONTACT: PHOSPHOR BRONZE, WITH 1.27um MIN OVERALL NICKEL UNDERPLATE AND SELECTIVE 1.27um MIN GOLD PLATING AT MATING INTERFACE
- LED MATERIALS:
- DIFFUSED EPOXY LENS, CARBON STEEL LEAD FRAME LEADS, PREPLATED WITH 2.03um MIN SILVER OVER 1.02 MIN NICKEL OVER 1.02um MIN COPPER UNDERPLATE, POST PLATED WITH 2.54um MIN MATTE TIN AND/OR 2.54um MIN SAC SOLDER DIP OR PURE TIN SOLDER DIP.

2. MAGNETICS
- APPLICATION : 10/100/1000 BASE-T
  - IMPEDANCE: 100 OHMS
  - TURNS RATIO(CHIP:CABLE): 1:1 ALL FOUR PAIRS
  - OPEN CIRCUIT INDUCTANCE(OCIL): 350uH MIN @100kHz, 0.1 VRMS, 8mADC BIAS FROM 0°C TO 70°C, ALL FOUR PAIRS
  - ALL FOUR PAIRS BI-DIRECTIONAL
  - PERFORMANCE @ 25°C:
  - INSERTION LOSS (IL): 1.1 dB MAX FROM 0.5MHz TO 100MHz
  - RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 40MHz
  - 12-20LOG(f/80)dB MIN FROM 40.1 MHz TO 100MHz
  - CROSSTALK ATTENUATION: 35 dB MIN FROM 0.5 MHz TO 40 MHz
  - 33-20LOG(f/50) dB MIN FROM 40.1 MHz TO 100 MHz
  - 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.

3. THE MAGNETIC CIRCUIT ON ALL FOUR CHANNELS IS SYMMETRICAL AND SUPPORTS AUTO-MDIX OPERATION.
4. OPERATING TEMPERATURE: 0°C - 70°C.

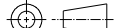
5. DATUM Y AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.

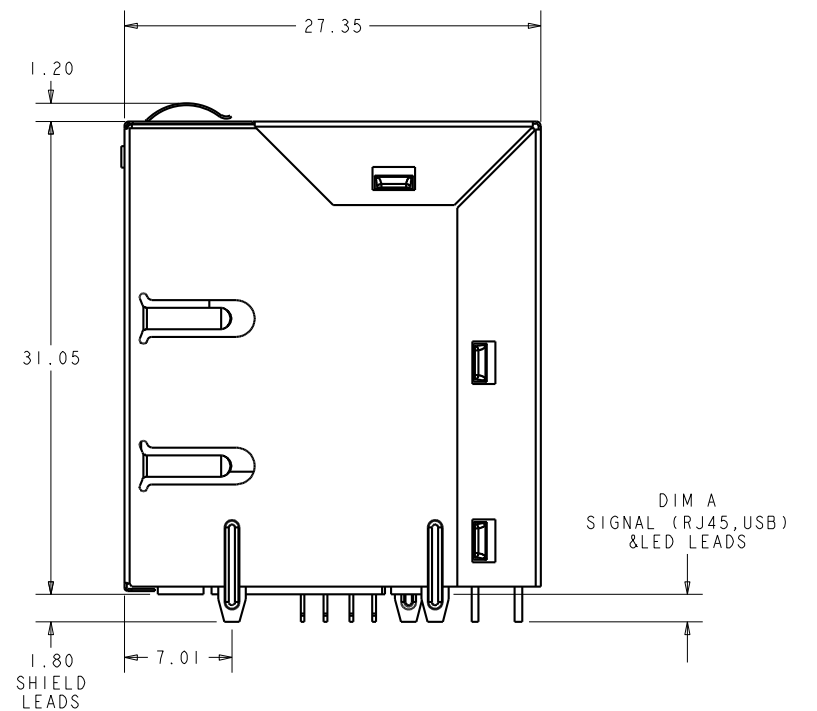
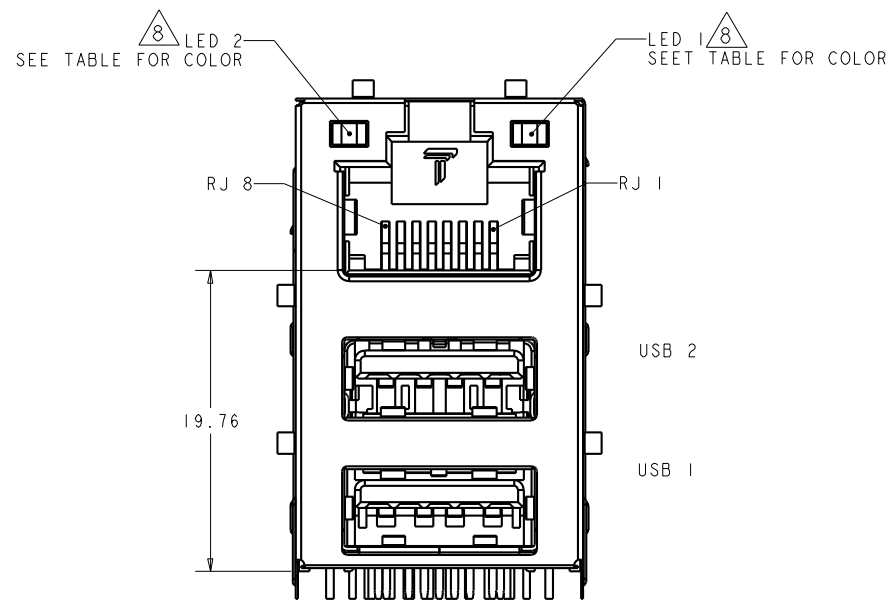
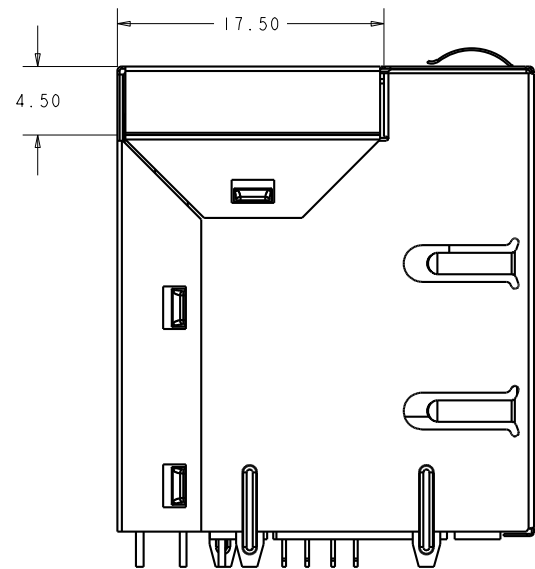
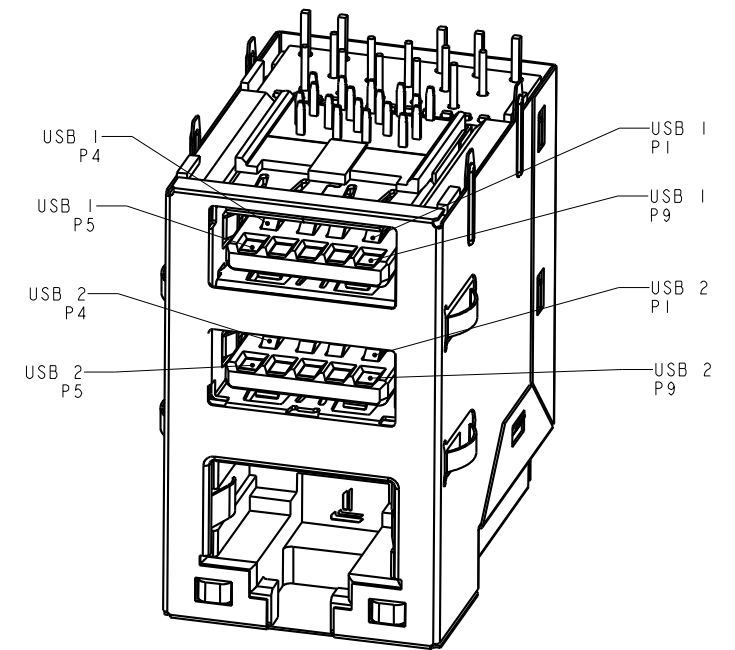
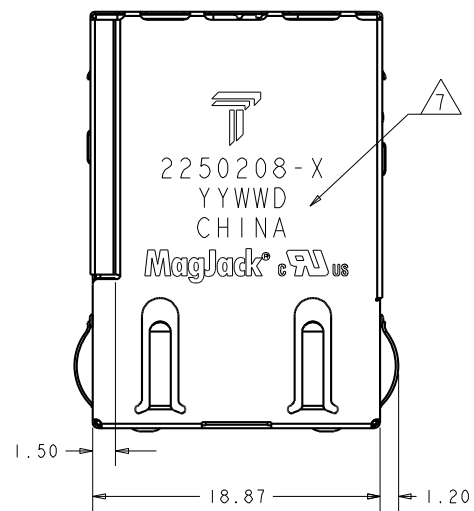
6. RJ45 CAVITY CONFORMS TO FCC RULES AND REGULATION PART 68 SUBPART F.

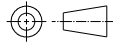
7. TRP CONNECTOR LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN, AGENCY APPROVAL MARKING IN APPROPRIATE LOCATION SHOWN. DATE CODE: YYWW WHERE "YY" IS YEAR, "WW" IS WORK WEEK, "D" IS DAY OF WEEK, WITH SUNDAY= 1

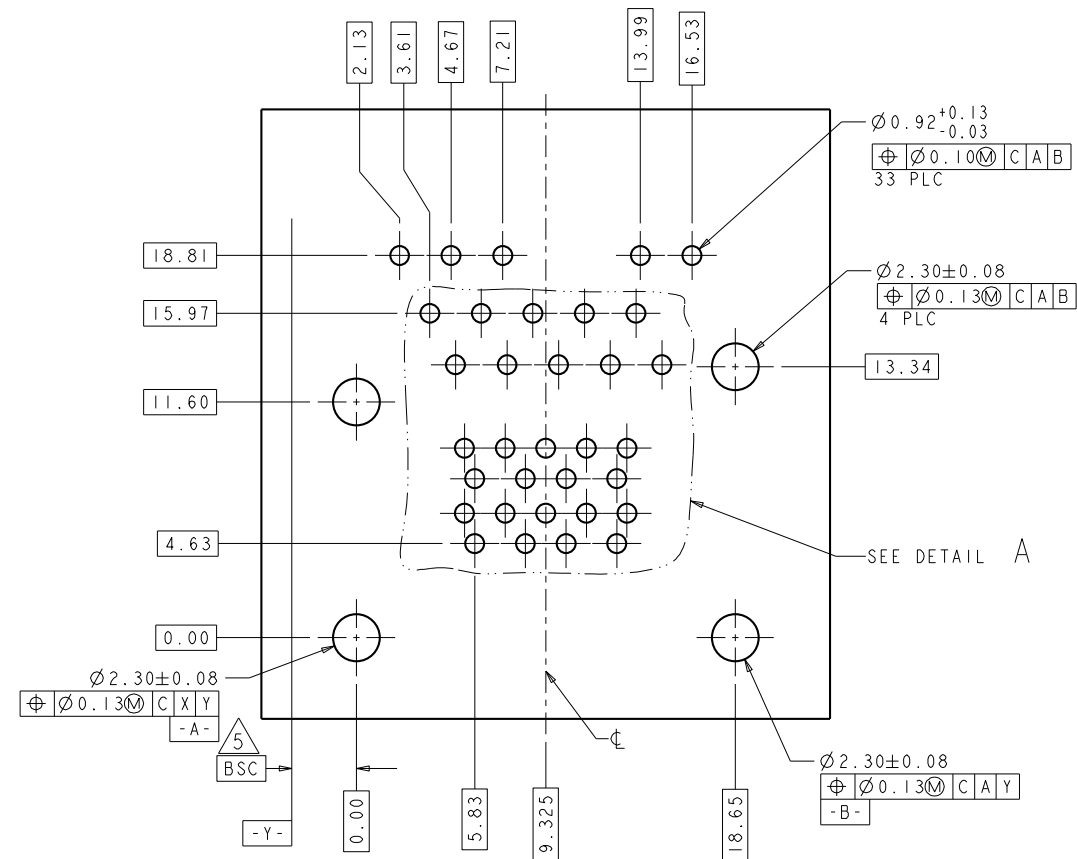
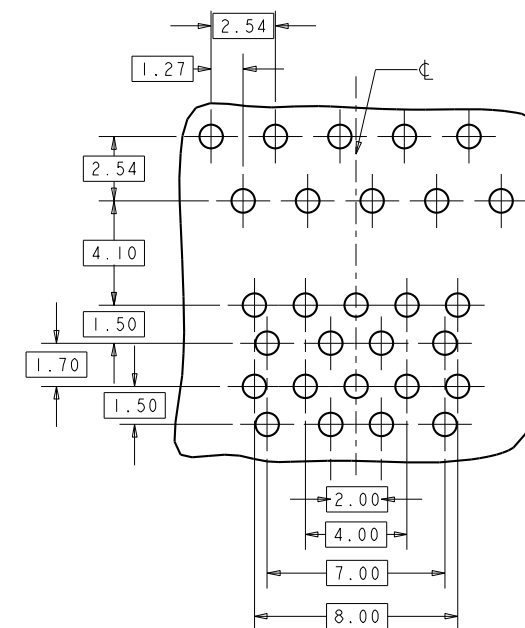
8. LED IS DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA
- LED COLOR:
- DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP at IF=20mA; YELLOW, 588nm TYP AT IF=20mA; ORANGE, 605nm TYP AT IF=20mA
  - FORWARD VOLTAGE (VF): GREEN 2.2V TYP at IF=20mA; YELLOW, 2.1V TYP AT IF=20mA; ORANGE, 2.1V TYP AT IF=20mA
9. THE PARTS ARE RECOMMENDED FOR IR REFLOW SOLDERING PROCESS, PEAK TEMPERATURE 260°C MAX, 10 SECONDS MAX, DURATION TIME 10 SECONDS MAX, OVER 230°C WITHIN 40-60 SECONDS.
10. LOW HALOGEN SPEC (EXCEPT LIGHT PIPE):
- CHLORINE (Cl) 900PPM MAX
  - BROMINE (Br) 900PPM MAX
  - TOTAL BROMINE AND CHLORINE (Br+Cl) 1500PPM MAX
  - LIGHT PIPE COMPLY WITH LOW HALOGEN SPECIFICATION "DIN VDE 0472"
  - CHLORINE (Cl) 1000PPM MAX
  - BROMINE (Br) 1000PPM MAX
  - TOTAL BROMINE AND CHLORINE (Br+Cl) 2000PPM MAX

|       |              |        |             |
|-------|--------------|--------|-------------|
| 2.30  | GREEN/ORANGE | YELLOW | 2250208-2   |
| 1.80  | GREEN/ORANGE | YELLOW | 2250208-1   |
| DIM A | LED2         | LED1   | PART NUMBER |

|                                                                                       |                  |                                                                     |                                                                                                                           |           |                                                             |                             |
|---------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------|-----------------------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                                |                  | DWN<br>JAMISON CHEN<br>18JUN2014                                    |  <b>trp</b> CONNECTOR<br>a bel group |           | DONGGUAN<br>CHINA                                           |                             |
| DIMENSIONS:<br>mm                                                                     |                  | CHK<br>QUENTIN LIU<br>18JUN2014                                     |                                                                                                                           |           |                                                             |                             |
| TOLERANCES UNLESS OTHERWISE SPECIFIED:                                                |                  | APVD<br>TONY YUAN<br>18JUN2014                                      | MODEL NAME                                                                                                                |           | DESC                                                        |                             |
|  |                  | 0 PLC ±<br>1 PLC ±<br>2 PLC ±0.25<br>3 PLC ±<br>4 PLC ±<br>ANGLES ± | MAGJACK<br>OVER USB NON-PoE                                                                                               |           | MAGJACK OVER DUAL USB3.0<br>URG154, GIGABIT CIRCUIT, W/ LED |                             |
| PRODUCT SPEC                                                                          | APPLICATION SPEC |                                                                     | SIZE<br>A2                                                                                                                | CAGE CODE | DRAWING NO<br>C-2250208                                     | RESTRICTED TO<br>-          |
| -                                                                                     | -                |                                                                     | CUSTOMER DRAWING                                                                                                          |           | SCALE<br>3:1                                                | SHEET<br>1 OF 4<br>REV<br>6 |

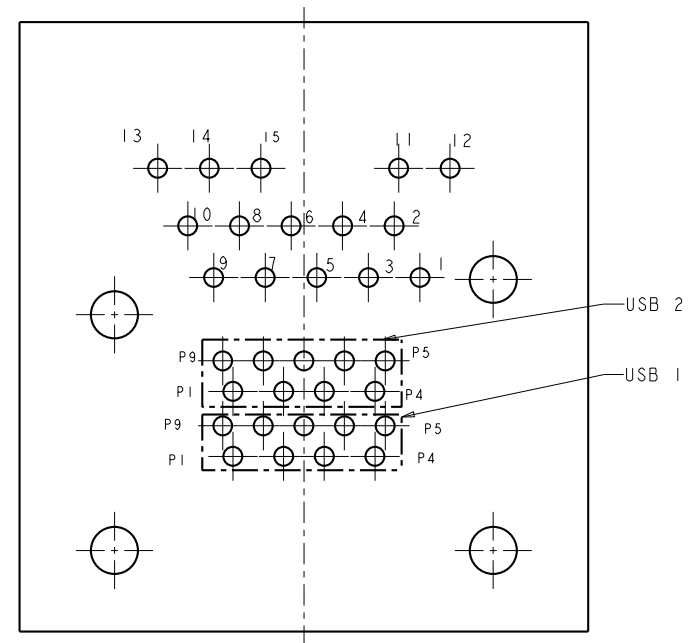
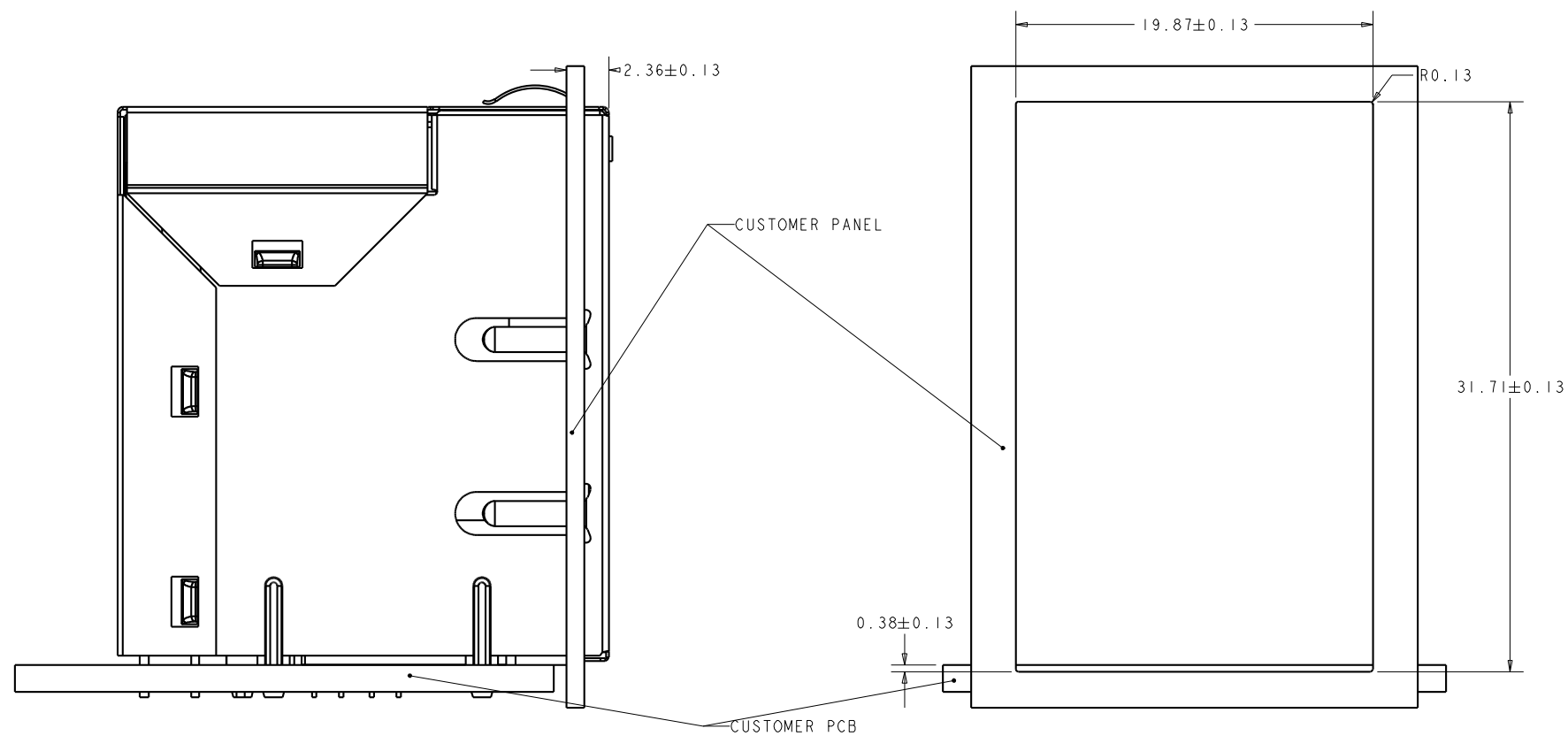


|                                                                                       |  |                                                                                         |                                                                                                                           |                    |                                                                     |                         |
|---------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------|-------------------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                                |  | DWN<br>JAMISON CHEN<br>18JUN2014                                                        |  <b>trp</b> CONNECTOR<br>a bel group |                    | DONGGUAN<br>CHINA                                                   |                         |
|                                                                                       |  | CHK<br>QUENTIN LIU<br>18JUN2014                                                         |                                                                                                                           |                    |                                                                     |                         |
|                                                                                       |  | APVD<br>TONY YUAN<br>18JUN2014                                                          | MODEL NAME<br>MAGJACK                                                                                                     |                    | DESC<br>MAGJACK OVER DUAL USB3.0<br>URG154, GIGABIT CIRCUIT, W/ LED |                         |
| DIMENSIONS:<br>mm                                                                     |  | TOLERANCES UNLESS<br>OTHERWISE SPECIFIED:                                               |                                                                                                                           | SIZE<br>A2         | CAGE CODE                                                           | DRAWING NO<br>C-2250208 |
|  |  | 0 PLC ±<br>1 PLC ±<br>2 PLC ±0.25<br>3 PLC ±<br>4 PLC ±<br>ANGLES ±<br>APPLICATION SPEC |                                                                                                                           | RESTRICTED TO<br>- |                                                                     | REV<br>6                |
| PRODUCT SPEC<br>-                                                                     |  | CUSTOMER DRAWING                                                                        |                                                                                                                           | SCALE<br>3:1       | SHEET<br>2 OF 4                                                     | REV<br>6                |

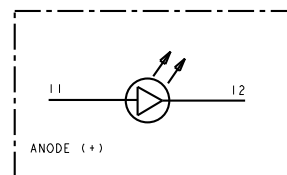
RECOMMENDED PC BOARD LAYOUT  
(VIEW FROM COMPONENT SIDE)

DETAIL A  
SCALE 5:1

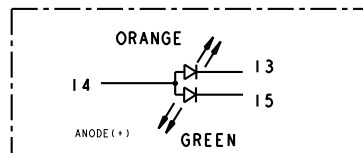
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|----------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|--|
| THIS DRAWING IS A CONTROLLED DOCUMENT. |  | DWN 18JUN2014<br>JAMISON CHEN<br>CHK 18JUN2014<br>QUENTIN LIU<br>APVD 18JUN2014<br>TONY YUAN                                      |  |  <b>trp</b> CONNECTOR<br>a bel group |  | DONGGUAN CHINA                                                      |  |
| DIMENSIONS:<br>mm                      |  | 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 |  | MODEL NAME<br>MAGJACK                                                                                                     |  | DESC<br>MAGJACK OVER DUAL USB3.0<br>URG154, GIGABIT CIRCUIT, W/ LED |  |
| PRODUCT SPEC<br>-                      |  | OVER USB NON-PoE                                                                                                                  |  | SIZE<br>A2                                                                                                                |  | CAGE CODE<br>-                                                      |  |
|                                        |  |                                                                                                                                   |  | DRAWING NO<br>C=2250208                                                                                                   |  | RESTRICTED TO<br>-                                                  |  |
| CUSTOMER DRAWING                       |  |                                                                                                                                   |  | SCALE 3:1                                                                                                                 |  | SHEET 3 OF 4 REV 6                                                  |  |

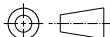


SINGLE COLOR LED



BI-COLOR LED



|                                                                                       |  |                                                                                              |                                                                                                                           |                                                                     |                        |                    |          |
|---------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------|--------------------|----------|
| THIS DRAWING IS A CONTROLLED DOCUMENT.                                                |  | DWN<br>JAMISON CHEN<br>18JUN2014                                                             |  <b>trp</b> CONNECTOR<br>a bel group |                                                                     | DONGGUAN<br>CHINA      |                    |          |
|                                                                                       |  | CHK<br>QUENTIN LIU<br>18JUN2014                                                              |                                                                                                                           |                                                                     |                        |                    |          |
|                                                                                       |  | APVD<br>TONY YUAN<br>18JUN2014                                                               |                                                                                                                           |                                                                     |                        |                    |          |
| DIMENSIONS:<br>mm                                                                     |  | TOLERANCES UNLESS<br>OTHERWISE SPECIFIED:                                                    |                                                                                                                           | DESC<br>MAGJACK OVER DUAL USB3.0<br>URG154, GIGABIT CIRCUIT, W/ LED |                        |                    |          |
|  |  | 0 PLC ±-<br>1 PLC ±-<br>2 PLC ±0.25<br>3 PLC ±-<br>4 PLC ±-<br>ANGLES ±-<br>APPLICATION SPEC |                                                                                                                           |                                                                     |                        |                    |          |
| PRODUCT SPEC                                                                          |  | MAGJACK<br>OVER USB NON-PoE                                                                  |                                                                                                                           | SIZE<br>A2                                                          | CAGE CODE<br>C-2250208 | RESTRICTED TO<br>- |          |
| -                                                                                     |  | CUSTOMER DRAWING                                                                             |                                                                                                                           |                                                                     | SCALE<br>3:1           | SHEET<br>4 OF 4    | REV<br>6 |