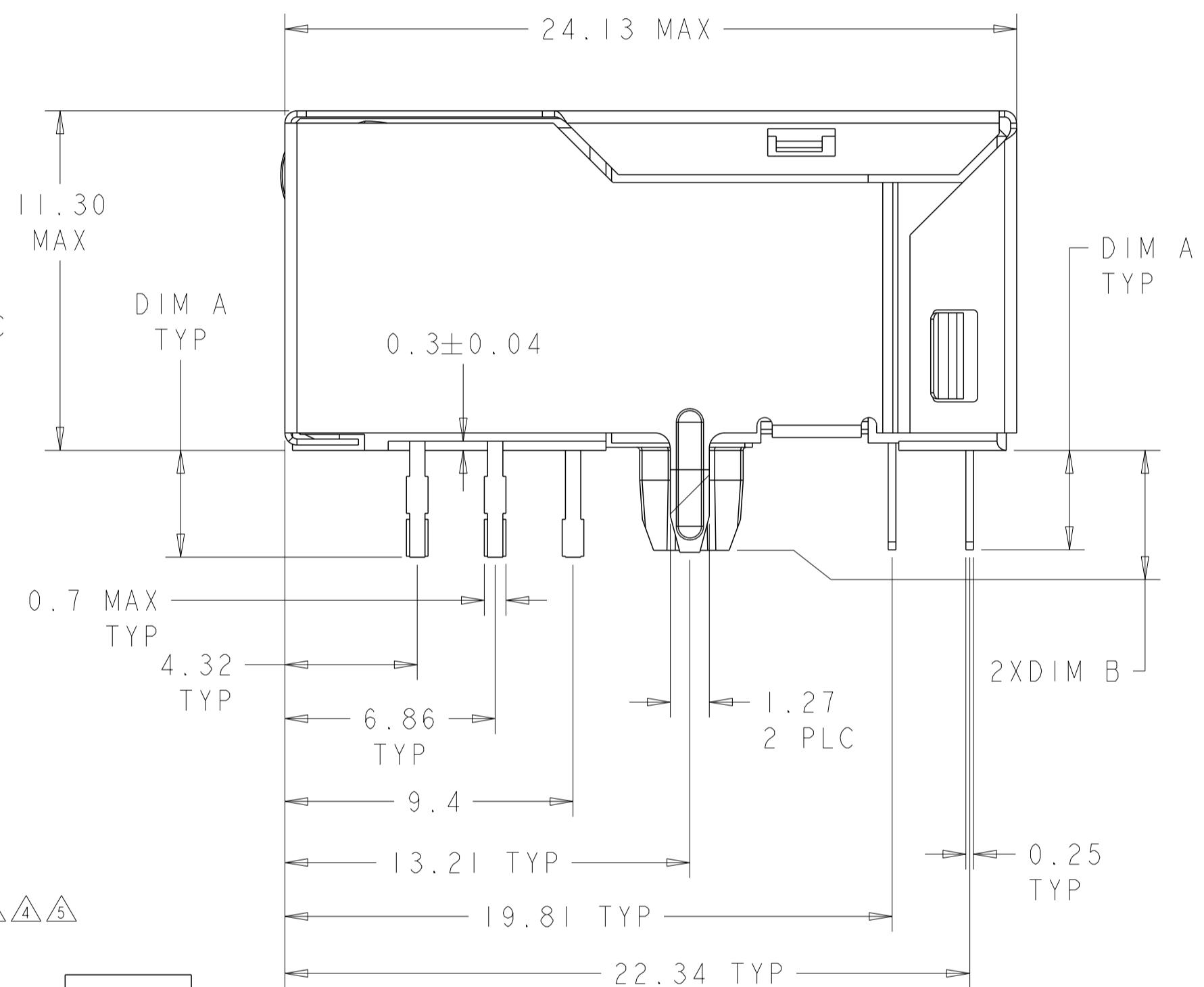
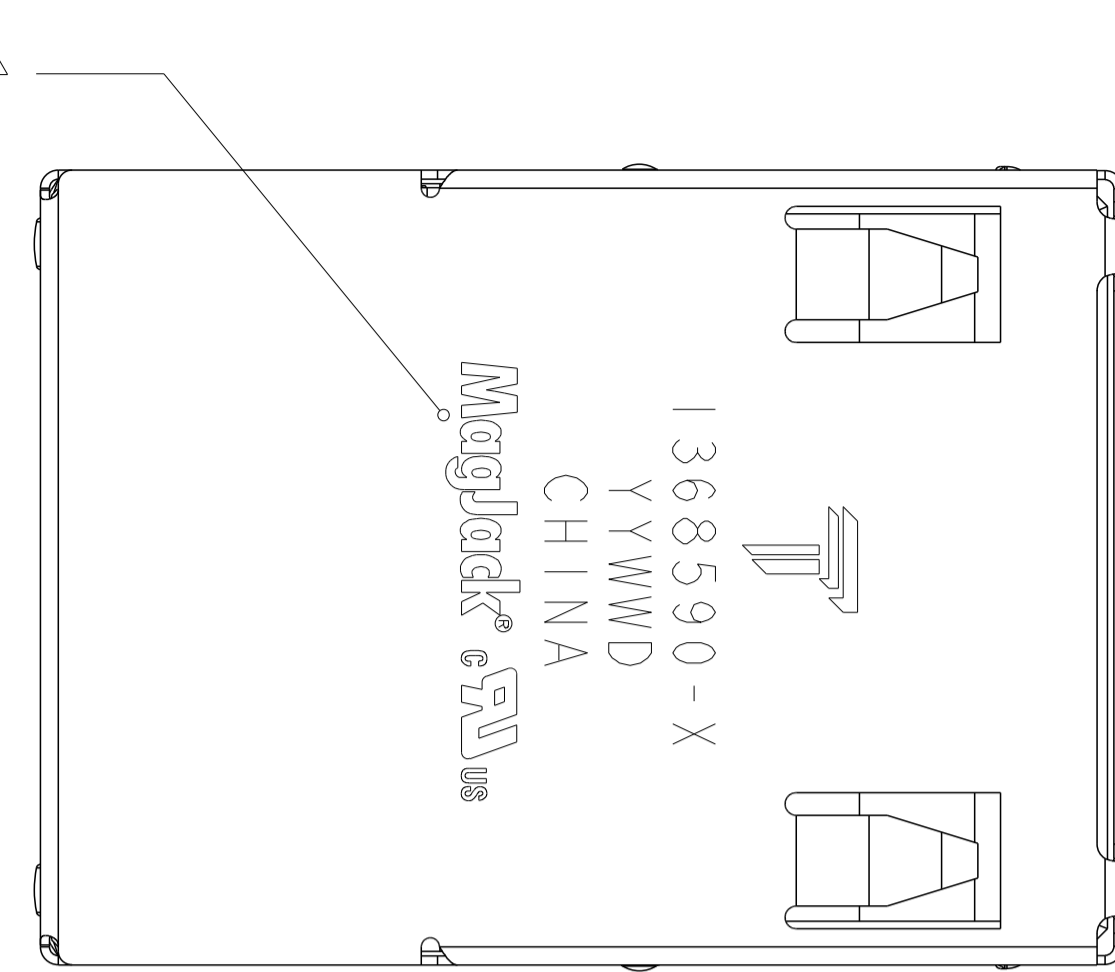
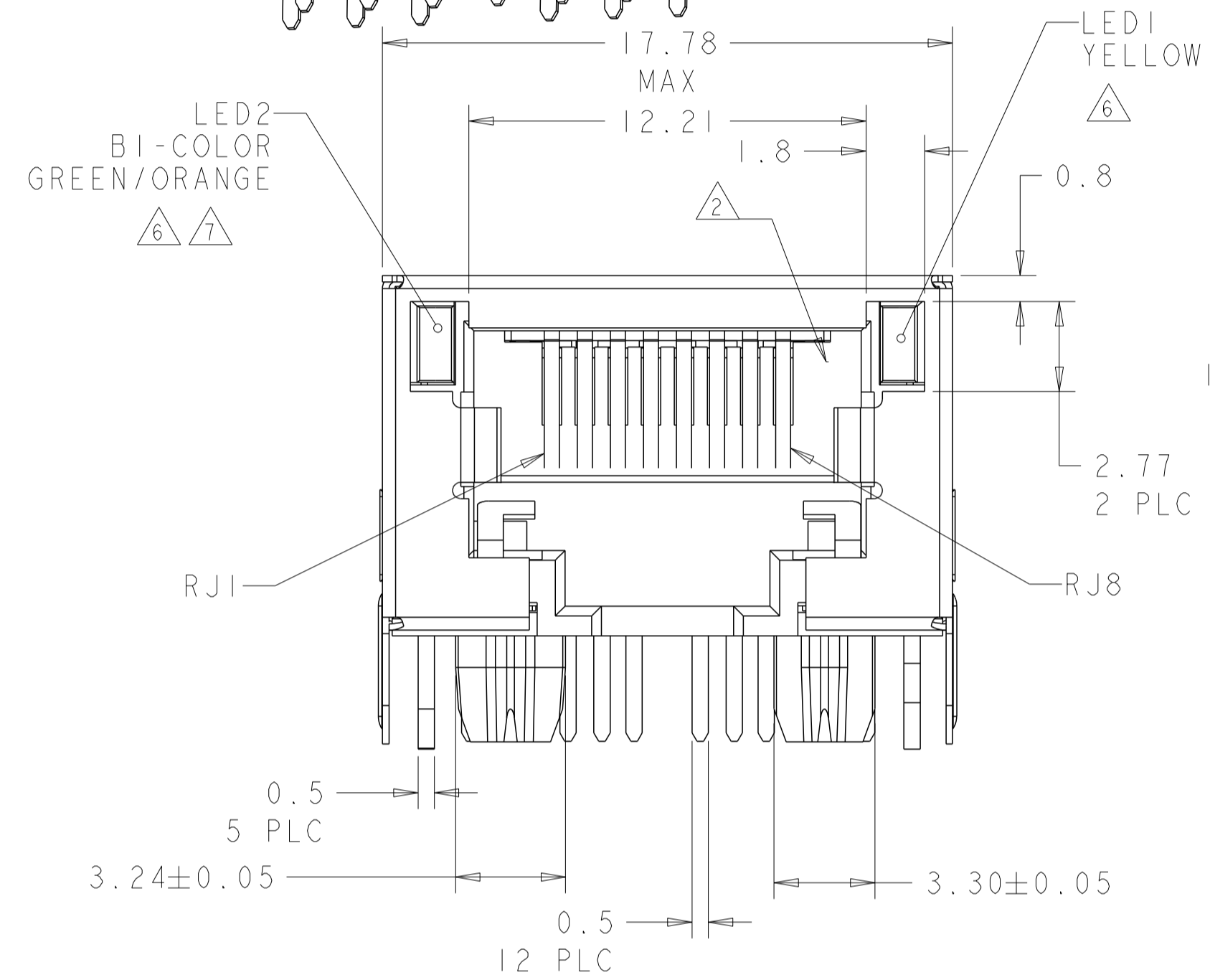
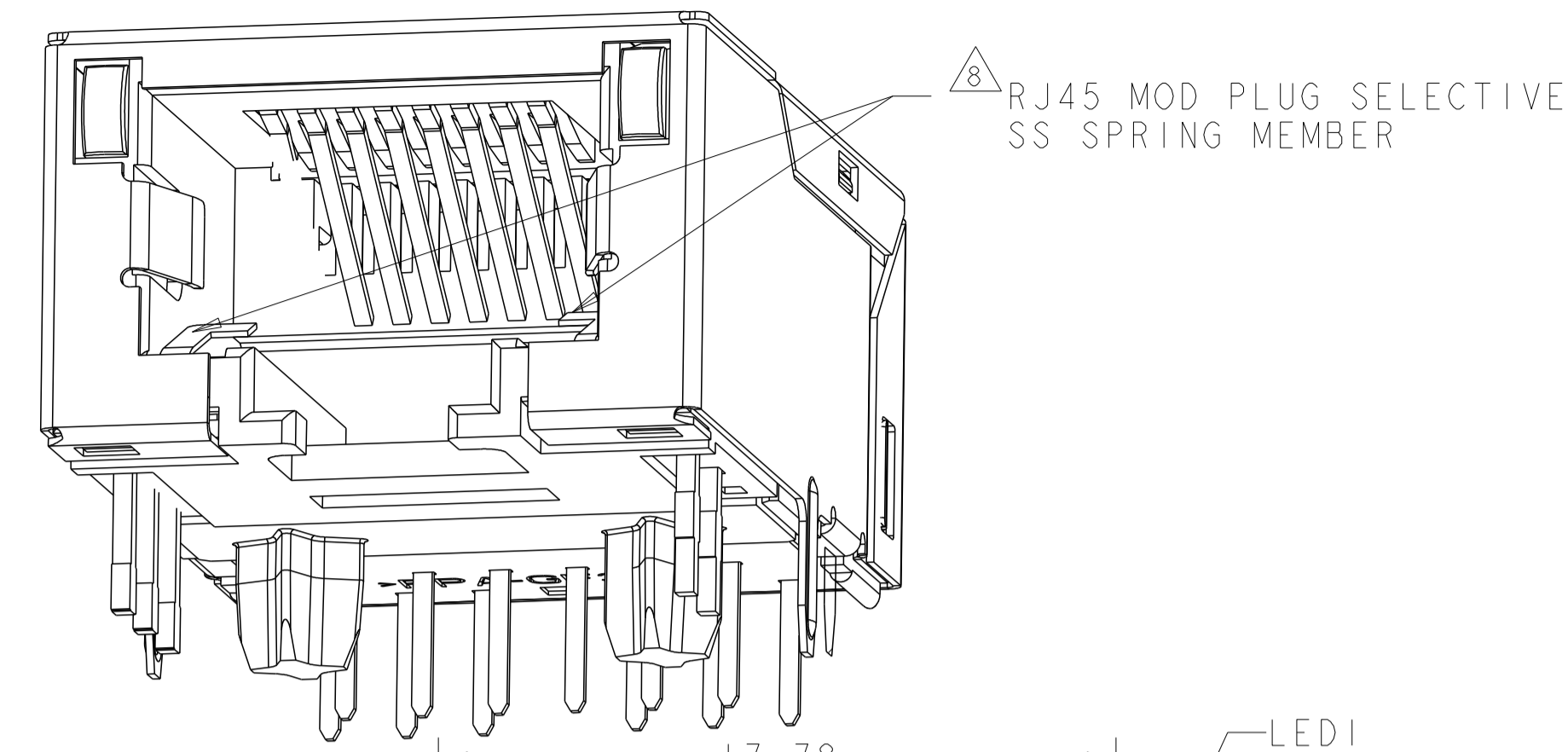


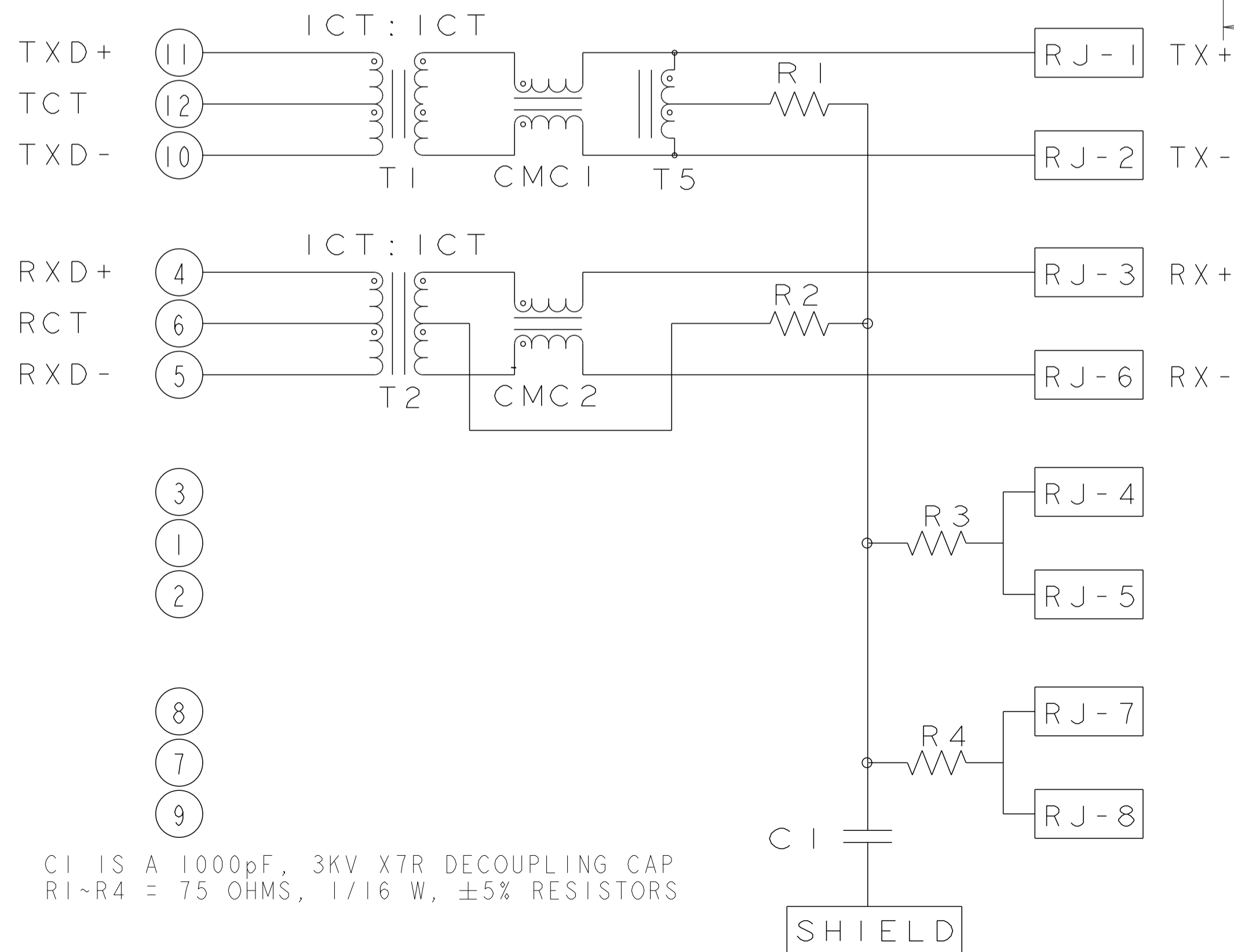
THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

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 |
| D | 10MAY2013 | LOGO CHANGE | TY | KZ |
| E | 06JAN2015 | COMPANY LOGO CHANGE AND EC-1409035 | TYR | TYN |



814 10/100 BASE-T CIRCUIT



C1 IS A 1000pF, 3KV X7R DECOUPLING CAP
 R1-R4 = 75 OHMS, 1/16 W, ±5% RESISTORS

1. MATERIALS:
 - HOUSING: HIGH TEMPERATURE NYLON, BLACK, UL 94V-0
 - SHIELD: 0.20±0.02mm THICK, BRASS PREPLATED WITH 0.76 um MIN SEMI-BRIGHT NICKEL; POST-DIPPED WITH 2um MIN LEAD FREE TIN SOLDER.
 - CONTACT TAILS: 0.25mm THICK, PHOSPHOR BRONZE, 1.27 um MIN OVERALL NICKEL UNDERPLATE, 3um MIN TIN PLATE
 - MOD JACK CONTACTS: 0.25mm THICK, PHOSPHOR BRONZE, 1.27 um MIN OVERALL NICKEL UNDERPLATE, WITH 0.76um MIN LOCALIZED GOLD PLATE AT PLUG INTERFACE
 - LIGHT EMITTING DIODE (LED): DIFFUSED EPOXY LENS, CARBON STEEL WIREFRAME PREPLATED WITH 2.03 um SILVER PLATE OVER 1.02 um NICKEL OVER 1.02 um COPPER UNDERPLATES; LEADS POST-PLATED WITH 3.05 um TIN, TIP TIN DIPPING
 - LIGHT PIPE: POLYETHER SULFONE

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

- ③ MAGNETICS:
 - APPLICATION: 10/100 BASE-T
 - IMPEDANCE: 100 OHMS
 - TURNS RATIO (CHIP:CABLE): TX 1:1, RX: 1:1
 - OPEN CIRCUIT INDUCTANCE (OCL): 350uH (MIN) @100KHz, 0.1 VRMS
 - 8 mA DC BIAS FROM 0°C TO 70°C, TX AND RX
 - PERFORMANCE @25°C:

| FREQUENCY | RETURN LOSS (dB MIN) CIRCUIT IMPEDANCE = 100 OHMS ±15% |
|-----------------|--|
| 0.5 MHz-30 MHz | 18 |
| 30.1 MHz-60 MHz | 18-20 log(f/30) f IS FREQUENCY IN MHz |
| 60.1 MHz-80 MHz | 12 |

| FREQUENCY | INSERTION LOSS (dB MAX) | COMMON MODE REJECTION RATIO (dB MIN) | CROSSTALK ATTENUATION (dB MIN) |
|------------------|-------------------------|--------------------------------------|--|
| 0.5 MHz-40 MHz | 1.1 | 30 | 35 |
| 40.1 MHz-100 MHz | | | 33-20 log(f/50) (f IS FREQUENCY IN MHz) |

- ISOLATION VOLTAGE: COMPLIES WITH IEEE802.3.2002, PARA 23.5.1.1, ITEM a AND b.

④ THE MAGNETICS ARE ASYMMETRICAL, AND DO NOT SUPPORT AUTO-MDIX.

⑤ OPERATING TEMPERATURE: FROM 0°C TO +70°C.

⑥ LED IS DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA.
 LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP. at IF=20mA
 FORWARD VOLTAGE (VF): GREEN 2.2V TYP. at IF=20mA
 DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP. at IF=20mA
 FORWARD VOLTAGE (VF): YELLOW 2.1V TYP. at IF=20mA
 DOMINANT WAVELENGTH (λD): ORANGE 605 nm TYP. at IF=20mA
 FORWARD VOLTAGE (VF): ORANGE 2.1V TYP. at IF=20mA

⑦ LED 2 WILL EMULATE "YELLOW" LIGHT WHEN BOTH GREEN AND ORANGE DIODES ARE DRIVEN AT CONSTANT CURRENT (20mA RECOMMENDED) TO INDICATE THE THIRD COLOR STATE.

⑧ RJ45 MOD PLUG SELECTIVE - THIS CONNECTOR UTILIZES STAINLESS STEEL SPRING MEMBER WHICH PREVENTS THE INSERTION OF A RJ11 (6 POSITION) PLUG INTO THE JACK PORT, WHILE ALLOWING A RJ45 (8 POSITION) PLUG TO MATE FREELY.

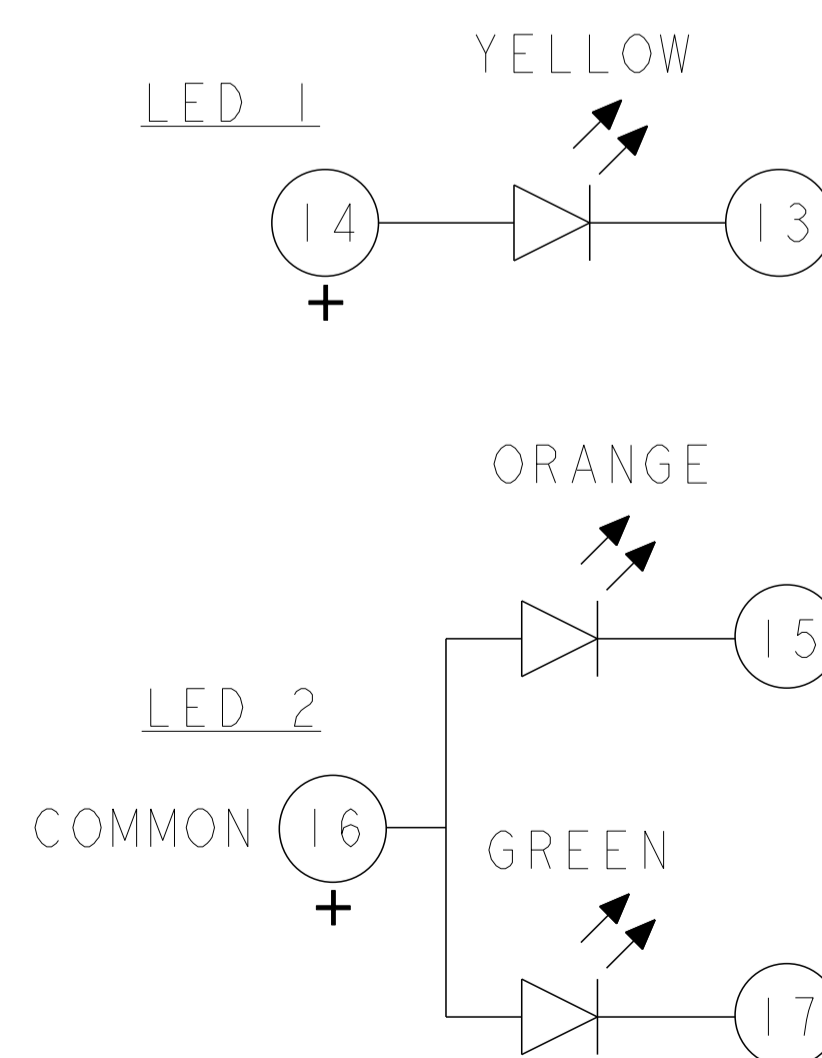
WARNING: THIS FEATURE WAS DEVELOPED FOR TYPICAL PLUG INSERTION FORCES. EXCESSIVE INSERTION FORCE MAY OVERCOME THE SELECTIVE FEATURES AND DAMAGE THE CONNECTOR.

⑨ TRADEMARK, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN, AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.

⑩ PART SHOULD BE COMPLIANT WITH BOTH WAVE SOLDERING PROCESS PEAK SOLDERING TEMPERATURE 260°C MAX, 10 SECONDS MAX; AND IR REFLOW SOLDERING PROCESS PEAK SOLDERING TEMPERATURE 260°C MAX DURATION TIME 10 SECONDS MAX, OVER 230°C WITHIN 40- 60 SECONDS.

⑪ PART SHOULD BE COMPLIANT WITH WAVE SOLDERING PROCESS ONLY, PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS, PEAK SOLDERING TEMPERATURE 260°C MAX, 10 SECONDS MAX;

12 1368590-1 SHOWN UNLESS OTHERWISE NOTED



| TRAY | WAVE | 1.8 | 1.8 | 1368590-3 |
|----------------|----------------|-------|-------|-----------|
| TRAY | WAVE | 1.50 | 1.50 | 1368590-2 |
| TRAY | WAVE | 3.3 | 3.18 | 1368590-1 |
| PACKAGE METHOD | SOLDER PROCESS | DIM B | DIM A | PART NO. |

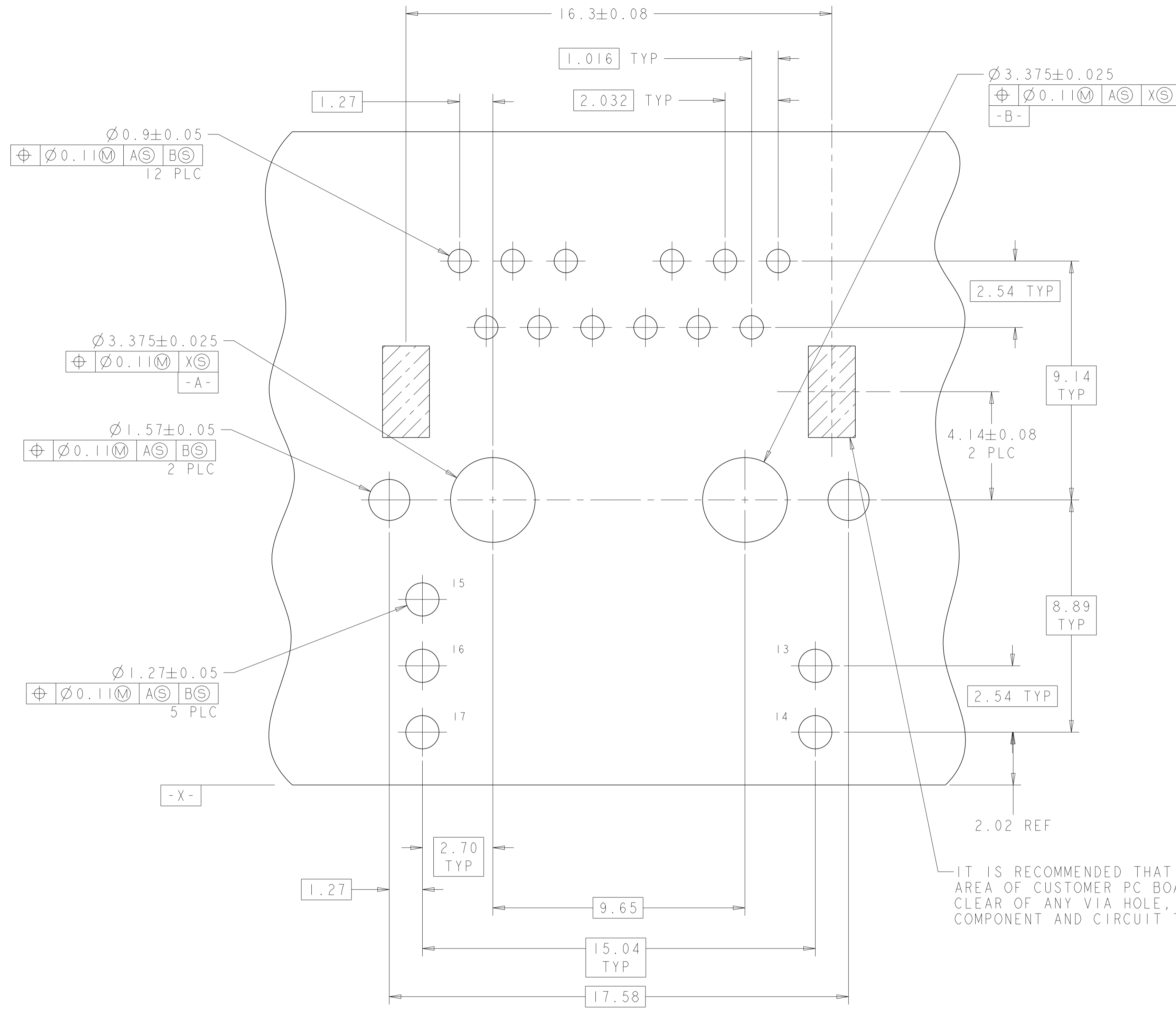
THIS DRAWING IS A CONTROLLED DOCUMENT. DWG: TOWER YU 25JUL2005
 CHK: TEDDY X LONG 25JUL2005
 APPV: TEDDY X LONG 25JUL2005

TRP CONNECTOR DONGGUAN CHINA

MODEL NAME: MAGJACK
 DESC: 1X1 814 10/100 TAB DOWN LOW PROFILE W/ LED

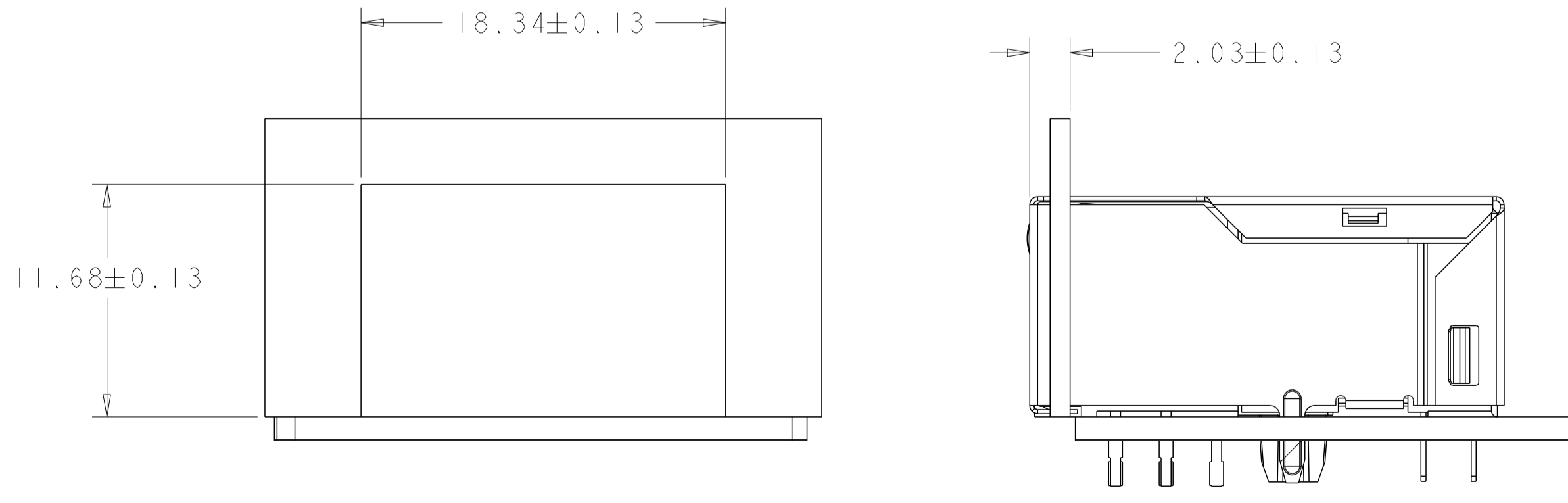
SIZE: A1
 CAGE CODE: 1368590
 DRAWING NO: 108-2207
 APPLICATION SPEC: 114

CUSTOMER DRAWING SCALE: 6:1 SHEET 1 OF 2 REV E

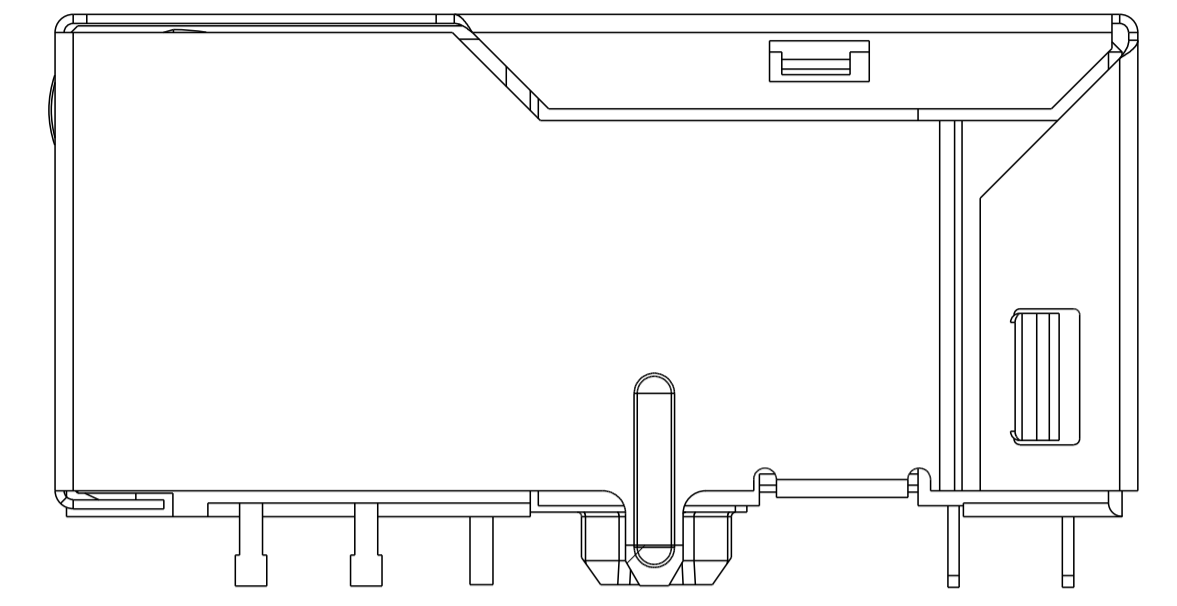
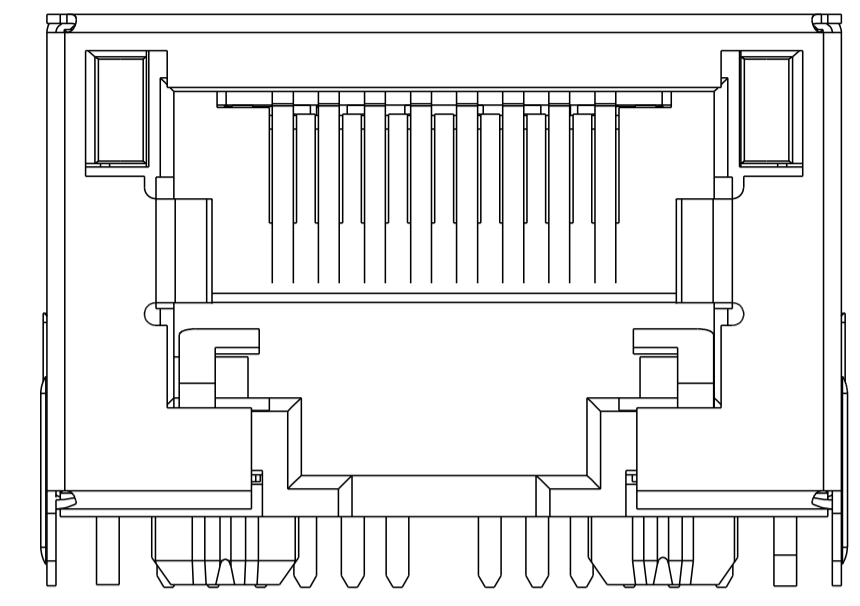


SUGGESTED PCB LAYOUT
(COMPONENT SIDE)

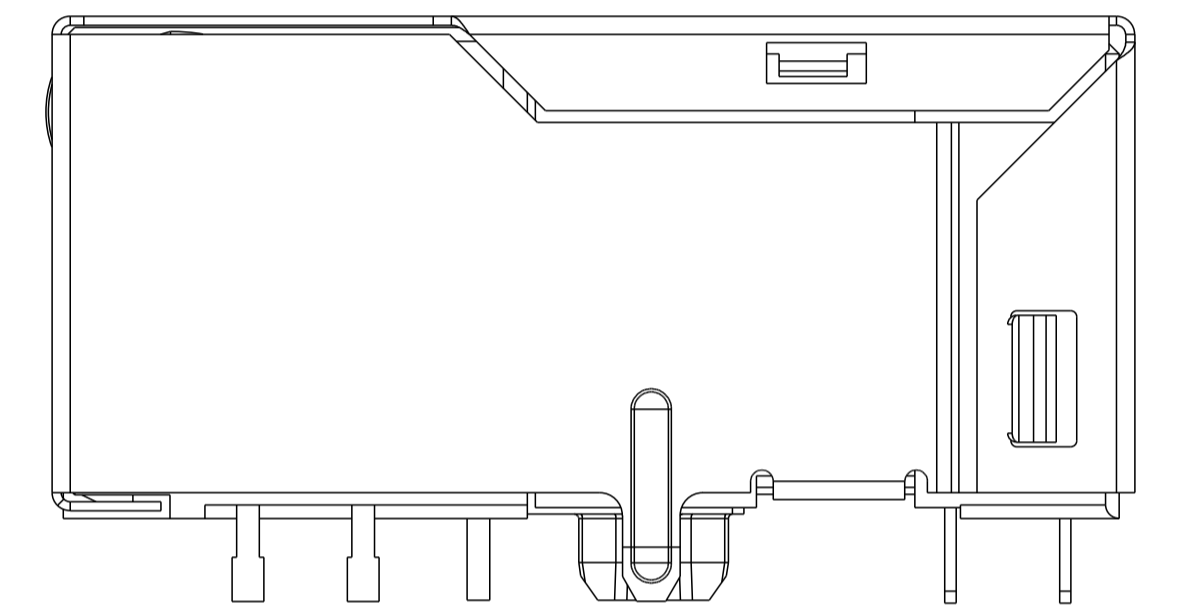
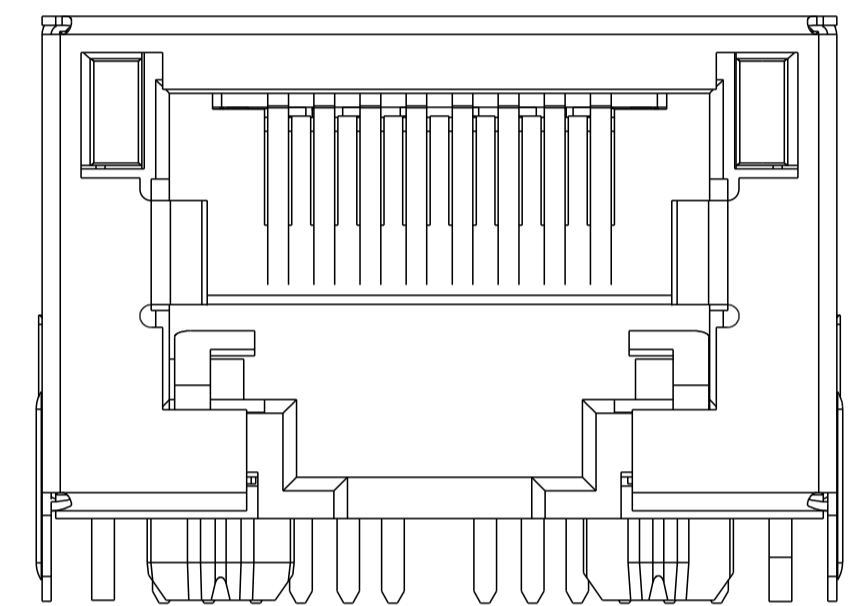
IT IS RECOMMENDED THAT SHADED AREA OF CUSTOMER PC BOARD BE CLEAR OF ANY VIA HOLE, COMPONENT AND CIRCUIT TRACE



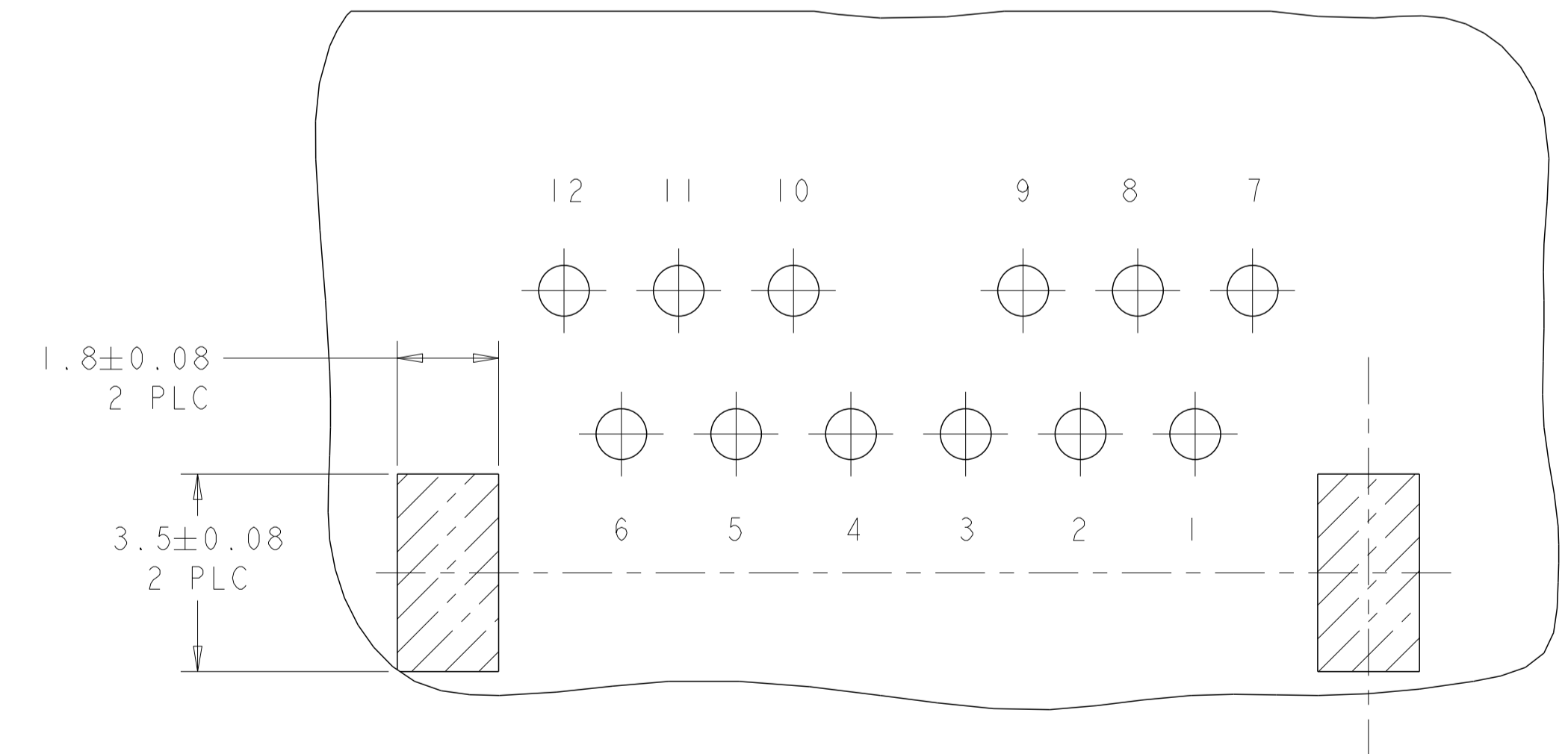
SUGGESTED PANEL OPENING



1368590-2



1368590-3



PIN DESIGNATIONS

| | | | | | |
|--|---|------------------------------|---|---|---------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | OWN: TOWER YU 25JUL2005 | trp CONNECTOR a bel group | DONGGUAN CHINA | |
| DIMENSIONS: mm | | CHK: TEDDY X LONG 25JUL2005 | | DESC: 1X1 814 10/100 TAB DOWN LOW PROFILE W/ LED | RESTRICTED TO |
| | | APVD: TEDDY X LONG 25JUL2005 | | SIZE: A1 | SCALE: 6:1 |
| PRODUCT SPEC: 108-2207 | TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±0.25, 1 PLC ±0.25, 2 PLC ±0.25, 3 PLC ±0.25, 4 PLC ±0.25, ANGLES ±0.25, APPLICATION SPEC: 114 | MODEL NAME: MAGJACK | CAGE CODE: 1368590 | SHEET 2 OF 2 | |
| | | CUSTOMER DRAWING | REV: E | | |