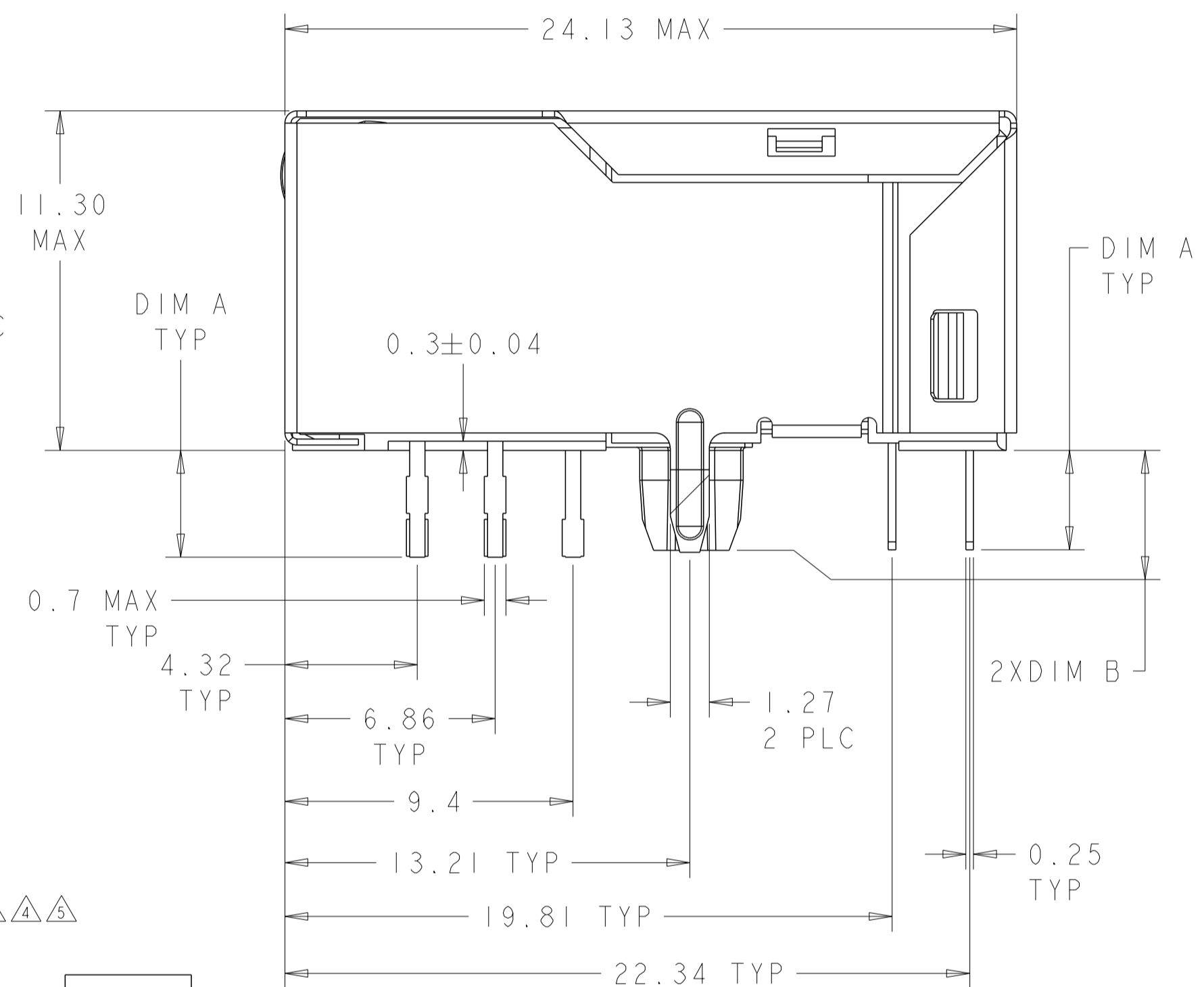
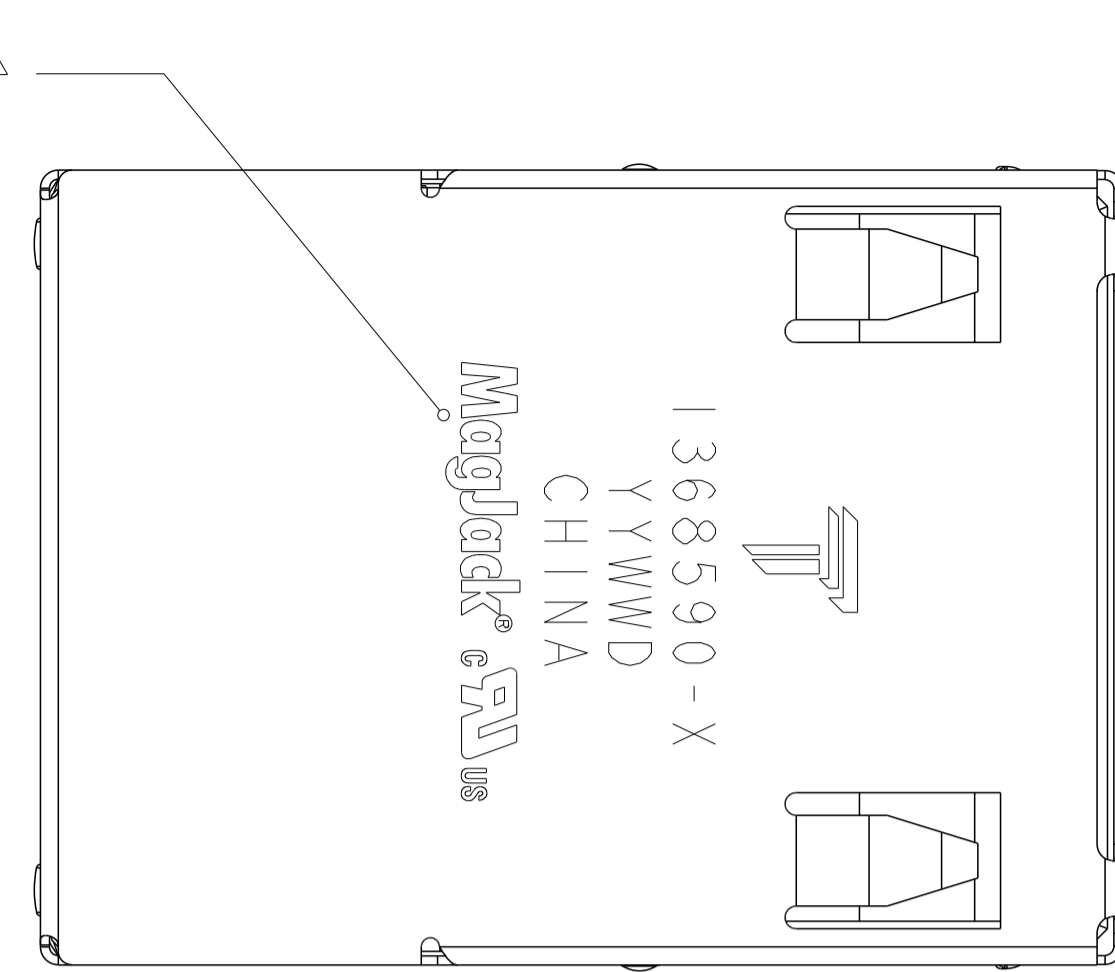
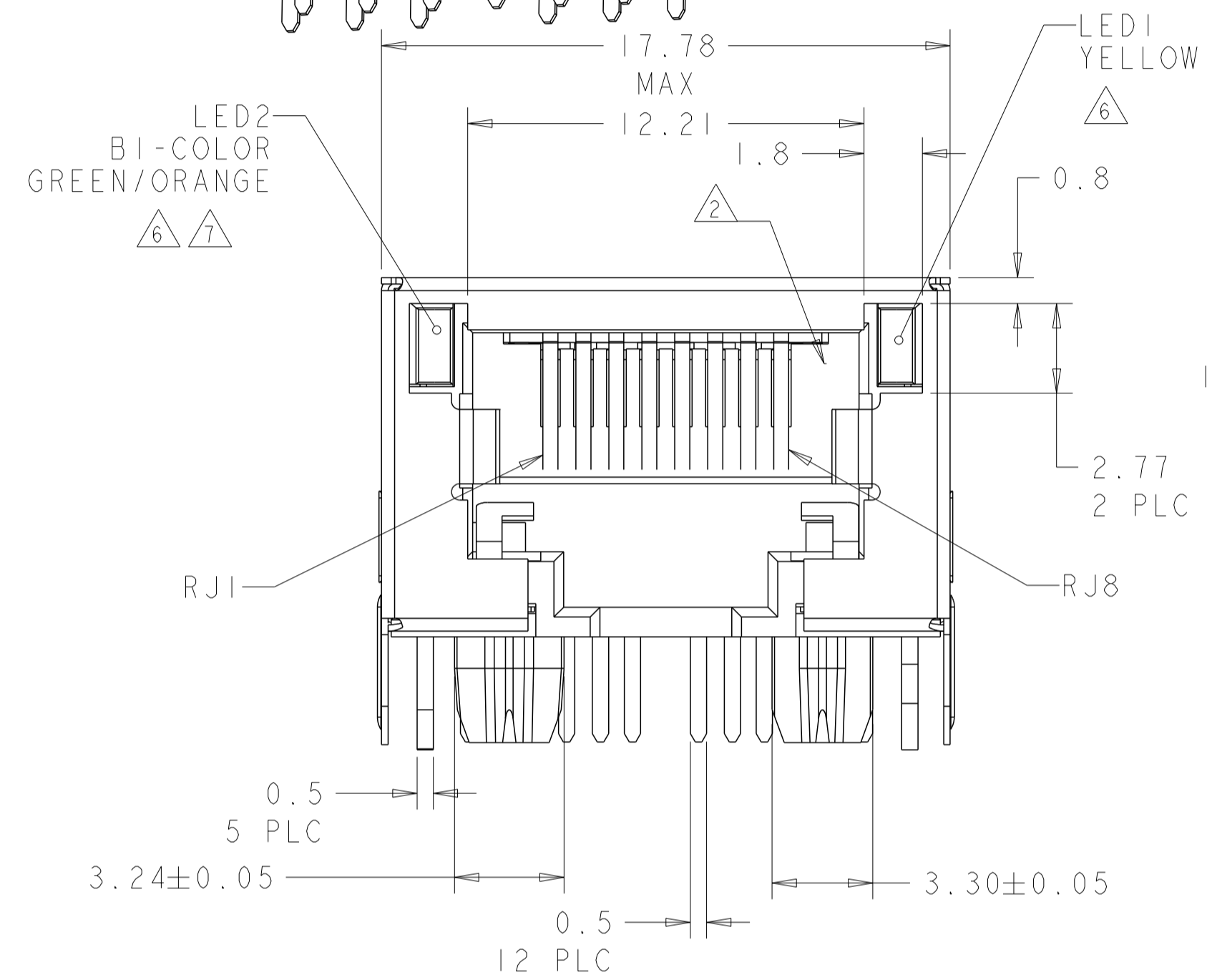
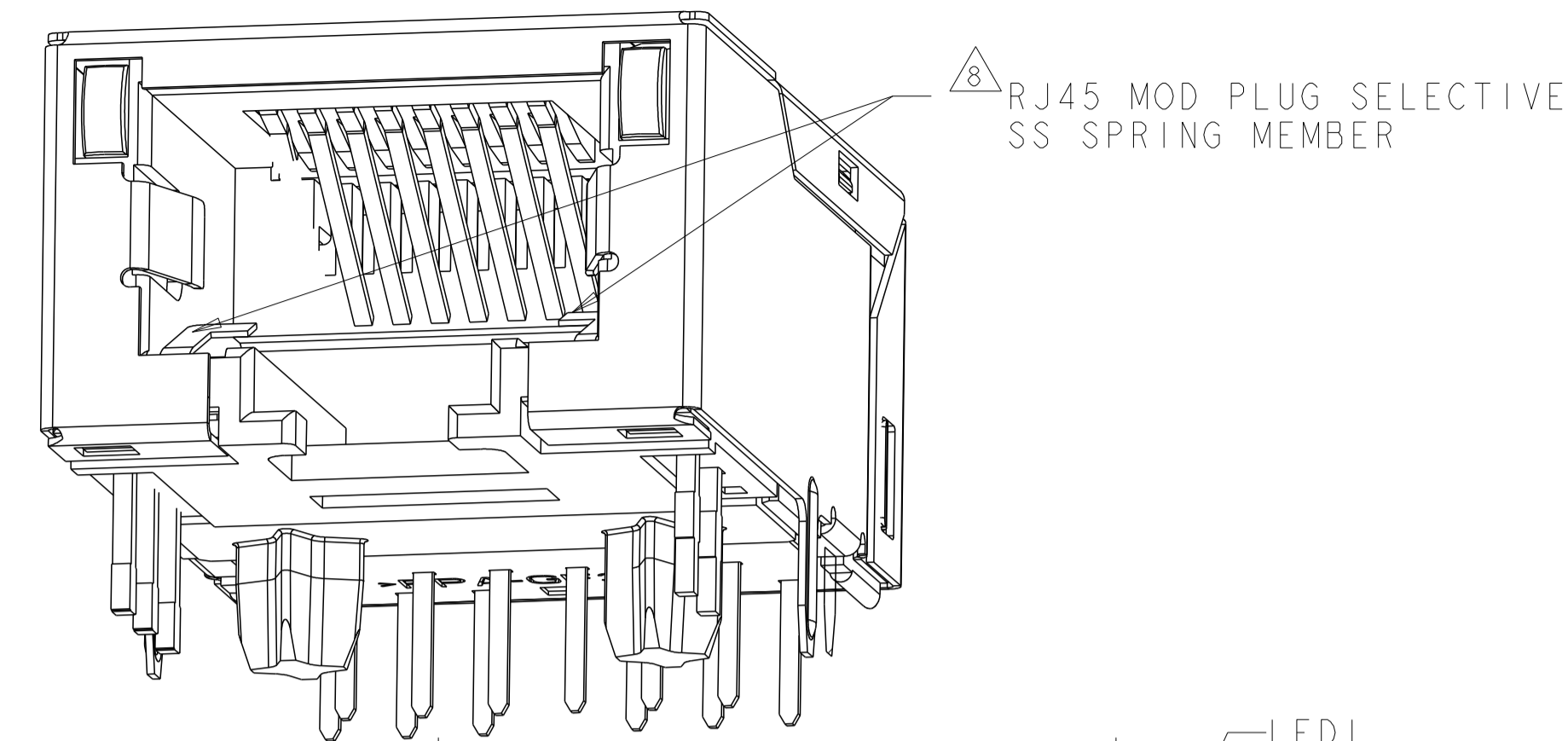


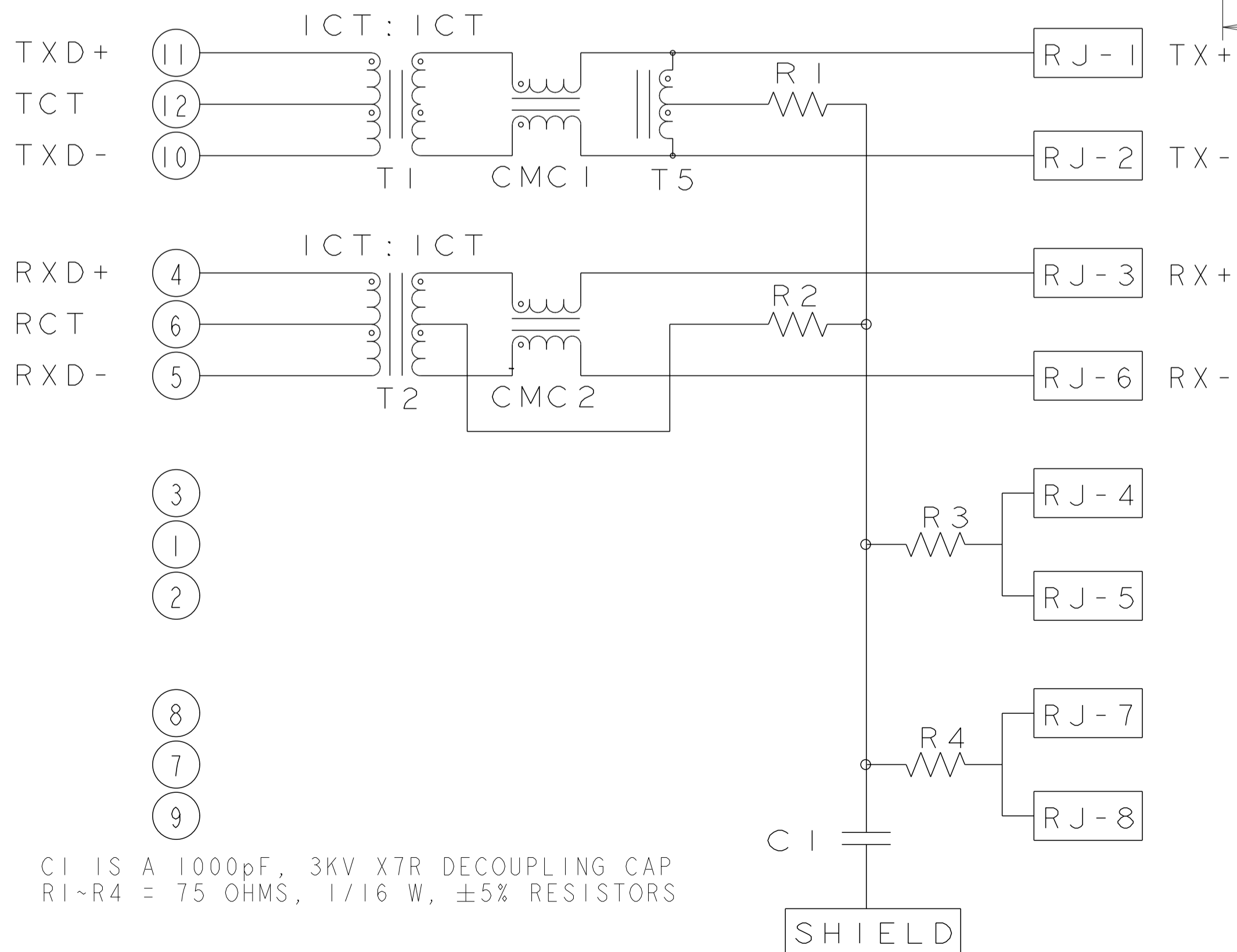
THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

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	BY	CHK	APPV
D	10MAY2013	TY	KZ	
E	06JAN2015	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

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

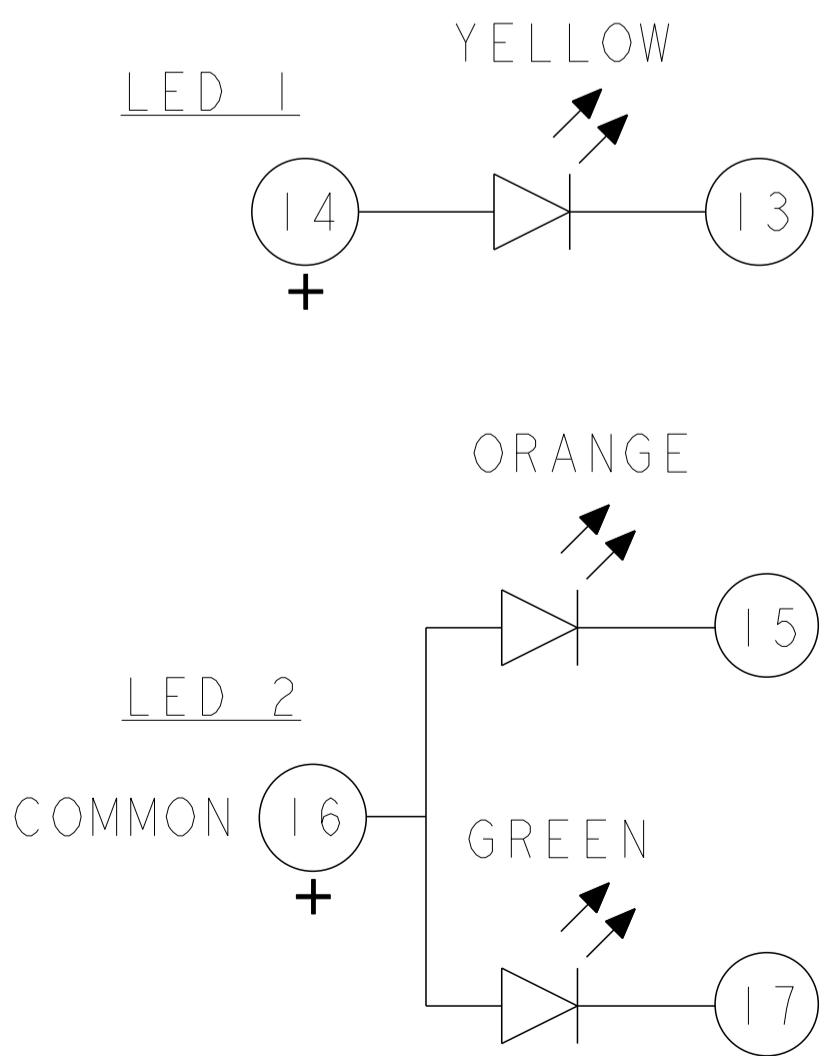
- △ MAGNETICS:  
 - APPLICATION: 10/100 BASE-T  
 - IMPEDANCE: 100 OHMS  
 - TURNS RATIO (CHIP:CABLE): TX 1:1, RX: 1:1  
 - OPEN CIRCUIT INDUCTANCE (OCL): 350uH (MIN) @100KHz, 0.1 VRMS  
 - 8 mA DC BIAS FROM 0°C TO 70°C, TX AND RX  
 - PERFORMANCE @25°C:

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.

- △ THE MAGNETICS ARE ASYMMETRICAL, AND DO NOT SUPPORT AUTO-MDIX.  
 △ OPERATING TEMPERATURE: FROM 0°C TO +70°C.  
 △ 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  
 △ 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.  
 △ 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.  
 △ TRADEMARK, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN, AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN.  
 △ 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.  
 △ 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-  
 SCALE: 6:1 SHEET 1 OF 2 REV E

