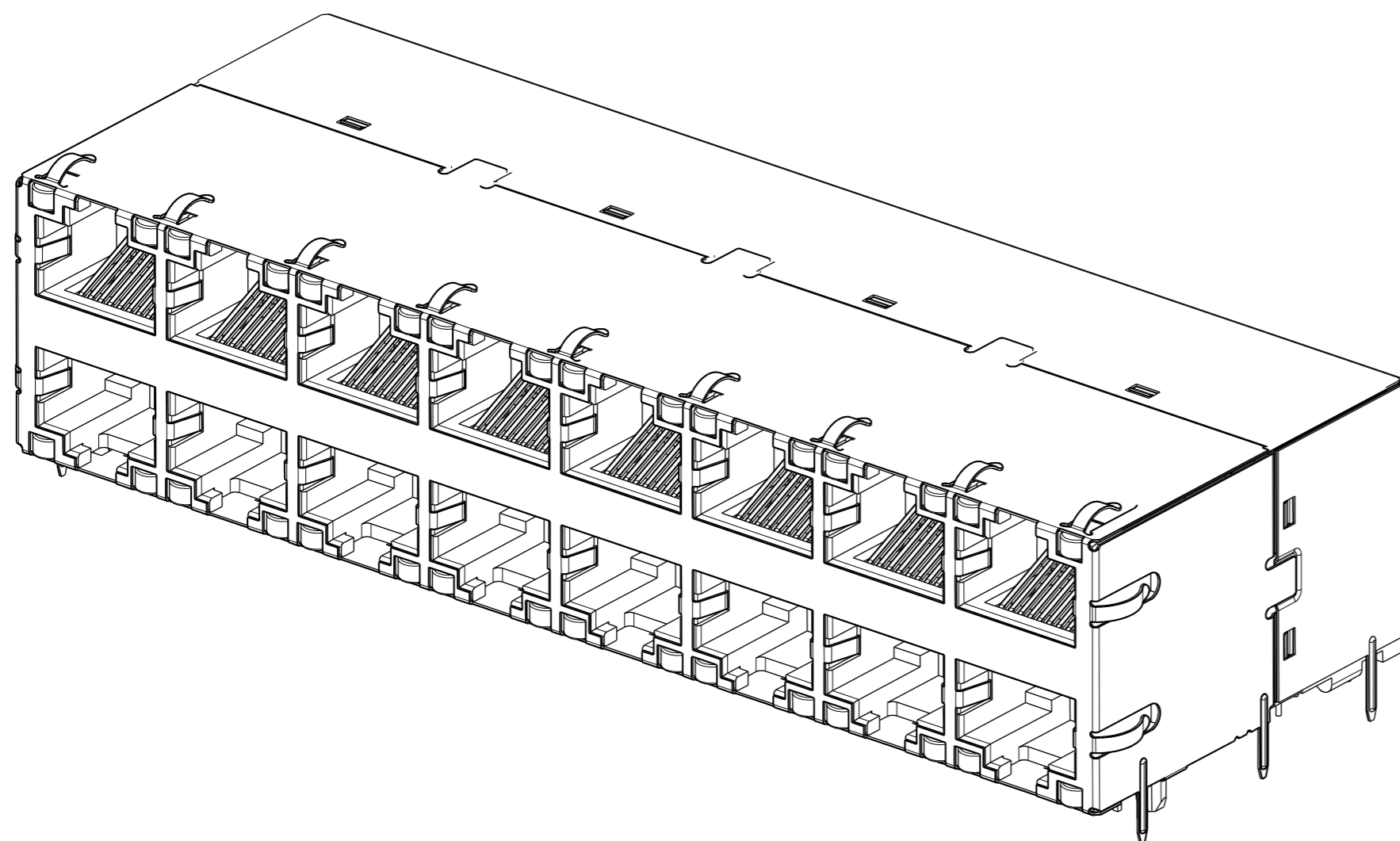


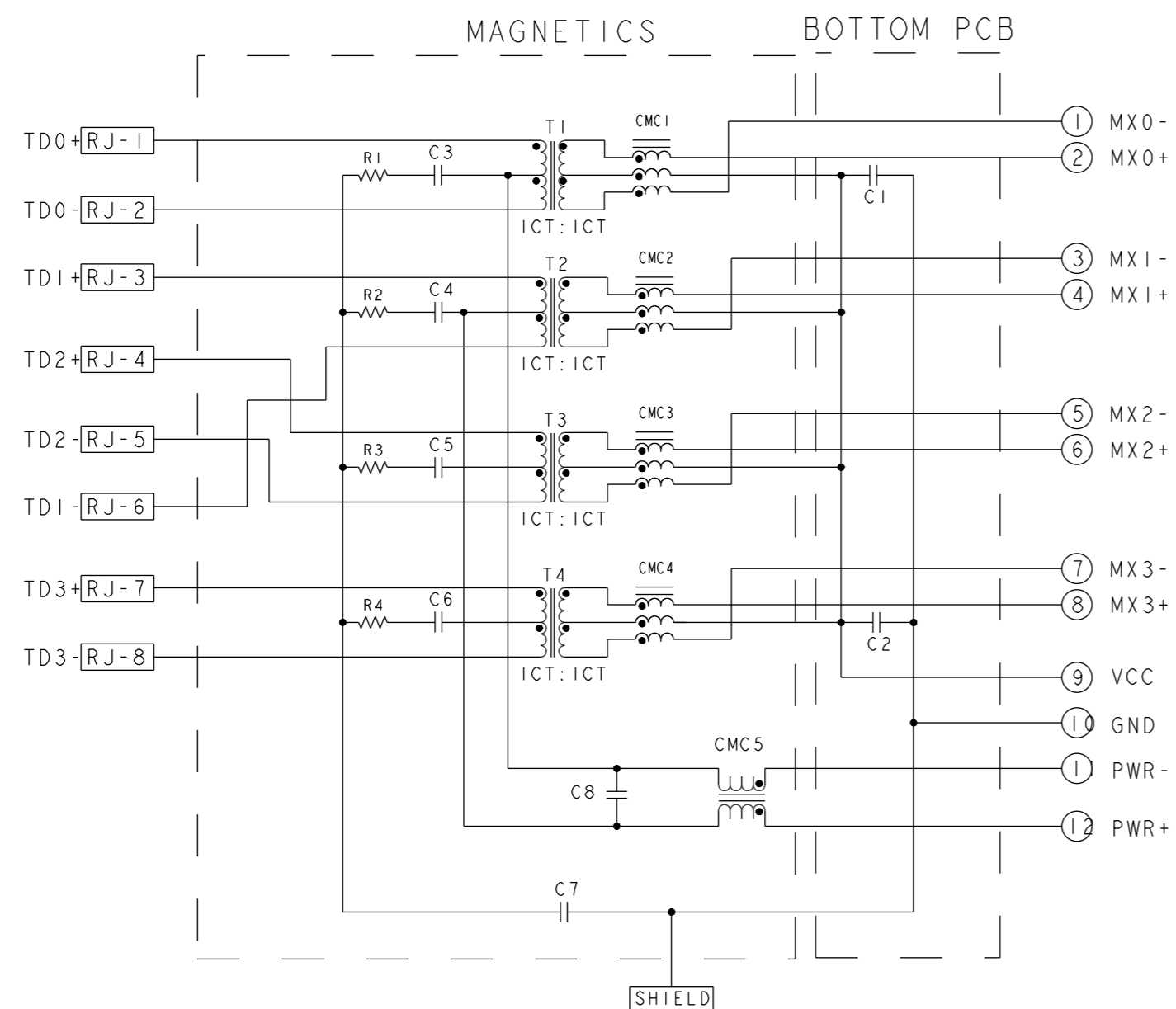
THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

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	APPV	BY
2	06JAN2015	EC-1411035 COMPANY LOGO CHANGE	RL	TY



S9HG02 GIGABIT PoE PLUS CIRCUIT  $\Delta\Delta$   
 TOP AND BOTTOM PORTS



C1-C2=10nF, 50V, CAPACITORS  
 C3-C6=22nF, 100V, CAPACITORS  
 C7=1000pF, 3kV, CAPACITOR  
 C8=68nF, 100V CAPACITOR  
 R1-R4=75 OHMS, 1/16W, RESISTORS

- 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 TIP ON SOLDER TAILS.  
 CONTACTS: PHOSPHOR BRONZE, 1.27um MIN OVERALL NICKEL UNDERPLATE  
 WITH 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, PoE PLUS  
 IMPEDANCE: 100 OHMS  
 TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS  
 OPEN CIRCUIT INDUCTANCE (OCL):  
 350 uH MIN @ 100KHz, 0.1 VRMS WITH 19mA DC BIAS FROM 0°C TO 70°C, ACROSS  
 RJ1-RJ2 & RJ3-RJ6.  
 350 uH MIN @ 100KHz, 0.1 VRMS WITH 8mA DC BIAS FROM 0°C TO 70°C, ACROSS  
 RJ4-RJ5 & RJ7-RJ8.  
 ALL FOUR PAIRS BI-DIRECTIONAL  
 POE CURRENT: 600mA DC MAX  
 PERFORMANCE @25°C:  
 INSERTION LOSS (IL): 1.1dB MAX FROM 1.0MHz TO 100MHz  
 RETURN LOSS (RL): 18dB MIN FROM 1.0MHz TO 40MHz  
 12-20LOG(f/80)dB MIN FROM 40.1MHz TO 100MHz  
 CROSSTALK ATTENUATION: 35dB MIN FROM 1.0MHz TO 40MHz  
 33-20LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz  
 COMMON MODE REJECTION RATIO (CMRR):  
 30dB MIN FROM 1.0MHz TO 100MHz  
 THE ELECTRICAL ISOLATION MEETS 1500VRMS & 2250VDC & 1500V IMPULSE (10/700Us)  
 AT 5,000 METERS ALTITUDE.

- PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN LOCATED IN APPROXIMATE AREA SHOWN,  
 DATE CODE: YYWWD WHERE "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.

- OPERATING TEMP: FROM 0°C TO 70°C.

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

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

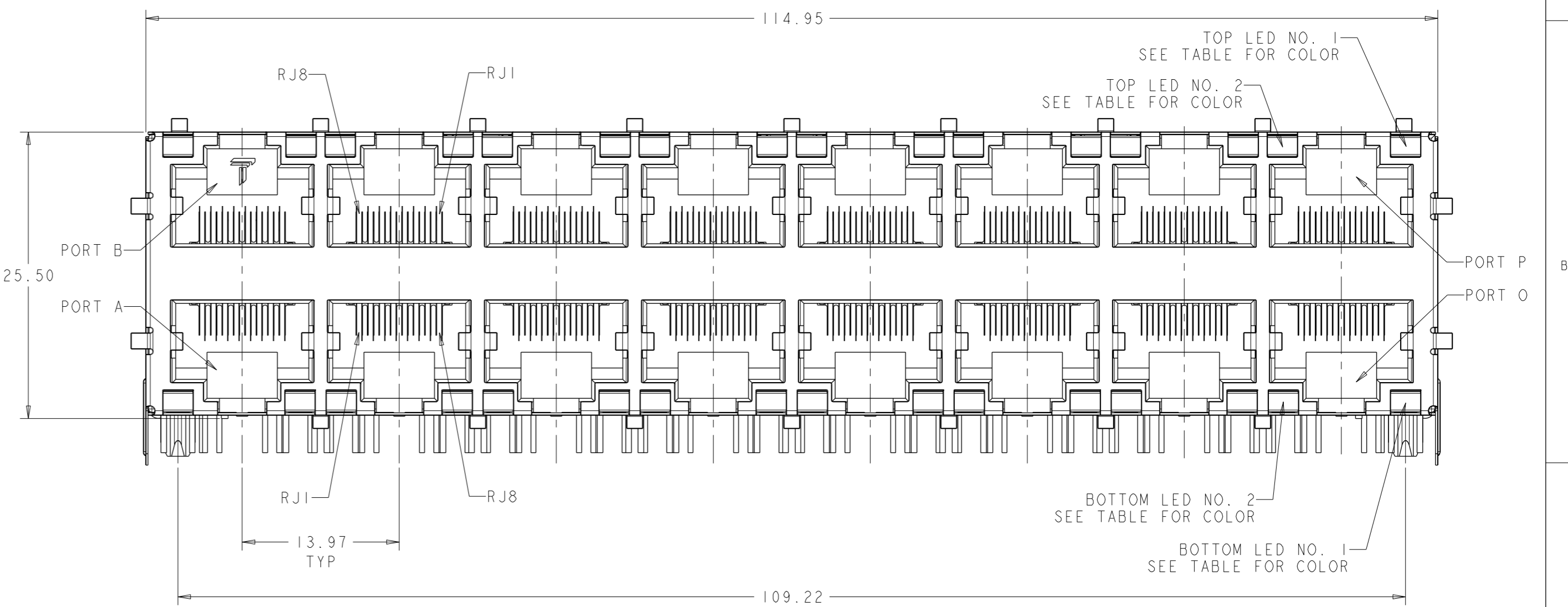
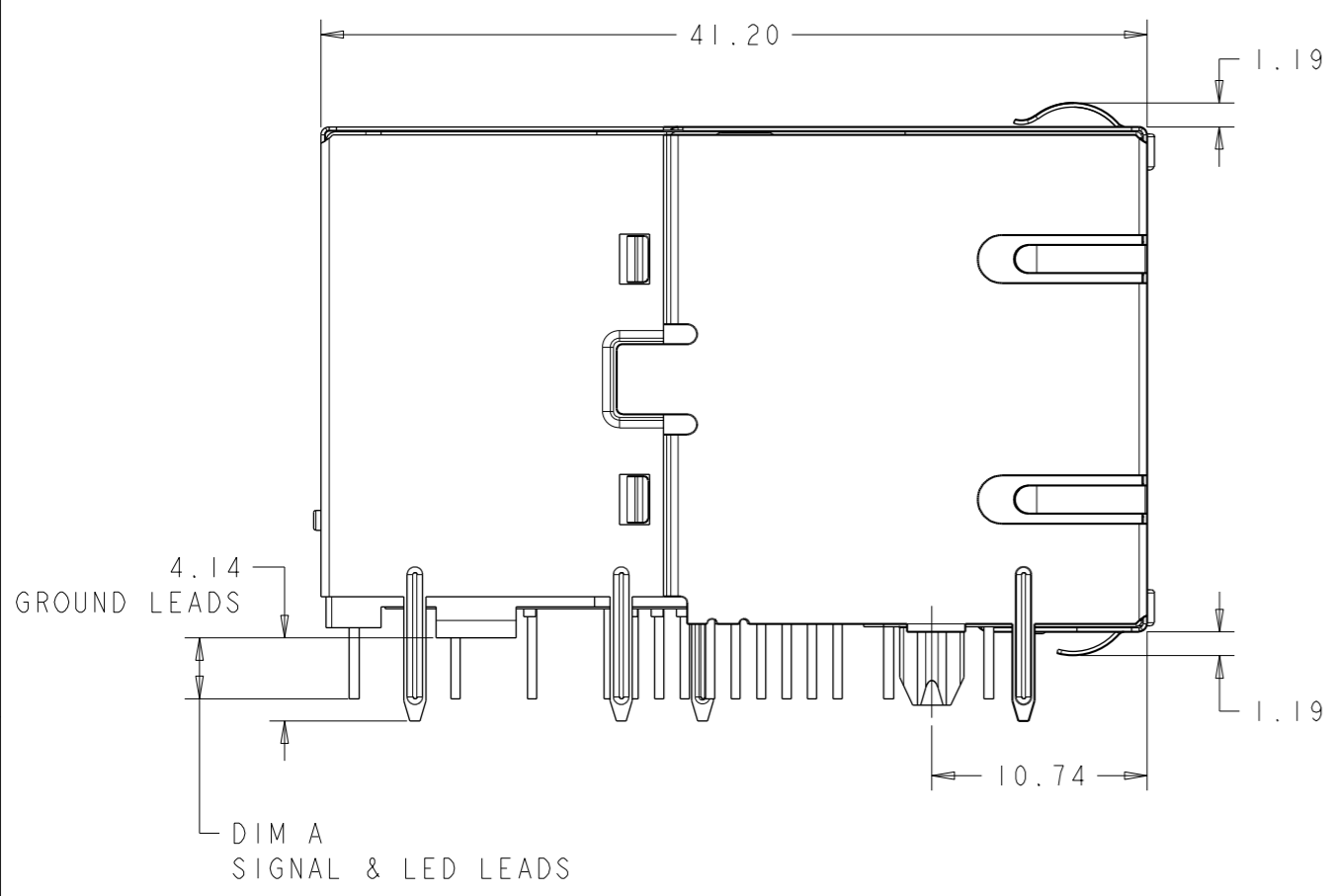
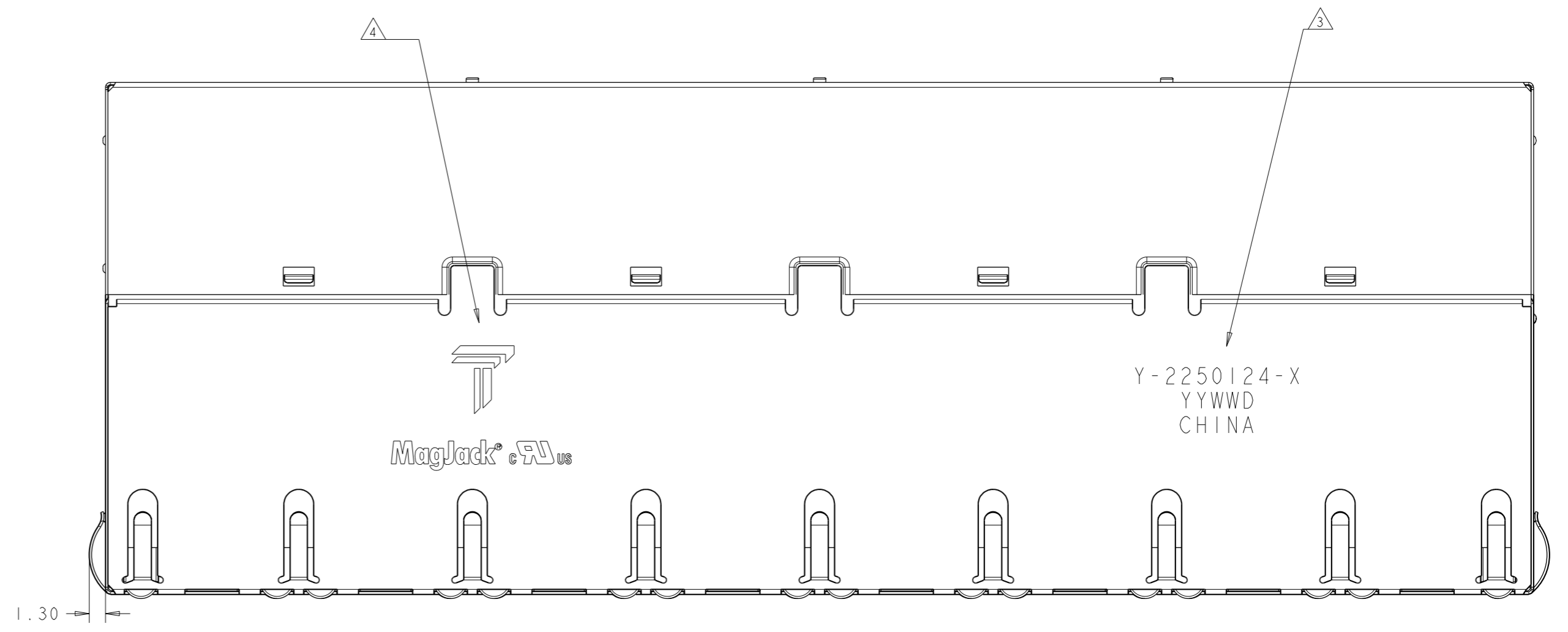
- DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.

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

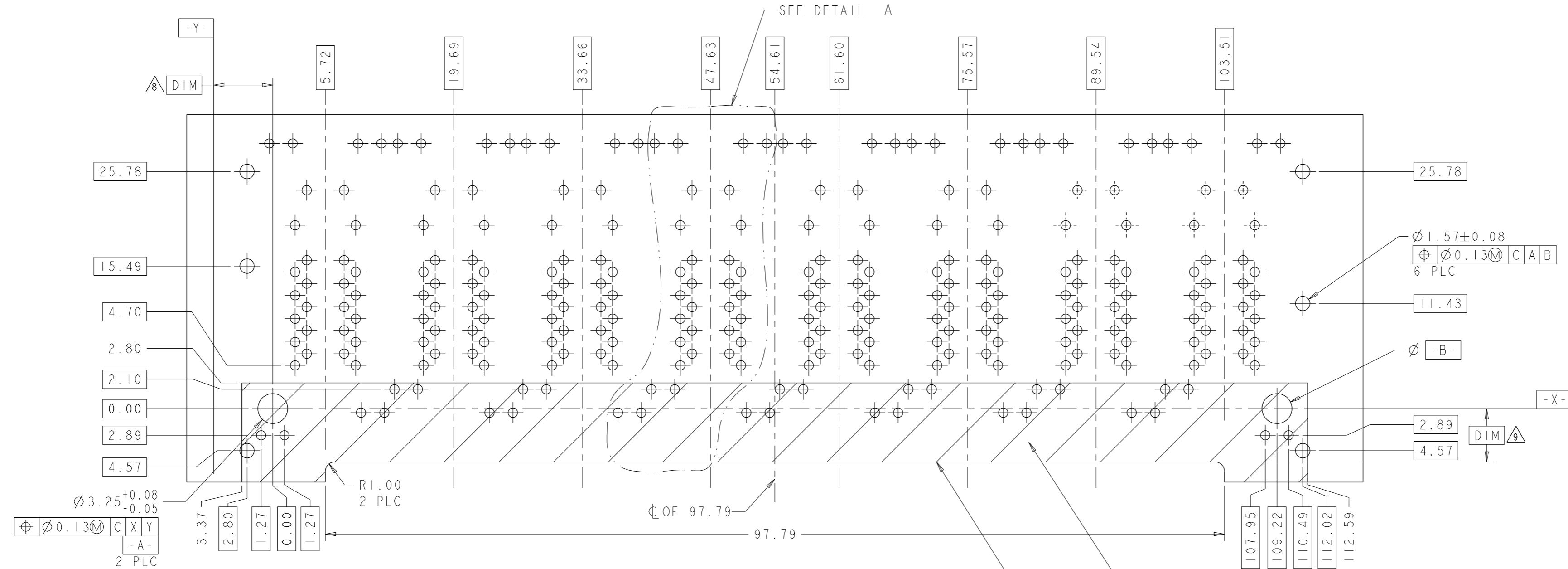
- LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA  
 LED COLOR: DOMINANT WAVELENGTH ( $\lambda_D$ ): GREEN 568 nm TYP. @ IF=20mA  
 FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA

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

2.60	GREEN	GREEN	GREEN	GREEN	2-2250124-1
DIM A	BOTTOM LED NO. 2	BOTTOM LED NO. 1	TOP LED NO. 2	TOP LED NO. 1	PART NO.
THIS DRAWING IS A CONTROLLED DOCUMENT.					
DIMENSIONS: mm		TOLERANCES UNLESS OTHERWISE SPECIFIED:		DWN: TOMMY REN/TEHRY LIN 220C12013 CHK: TOMMY REN 220C12013 APPV: TONY YUAN 220C12013 MODEL NAME: MAGJACK DESC: 2X8 S9HG02 GIGABIT PoE PLUS CIRCUIT, WITH LED SIZE: A1 CAGE CODE: 2250124 DRAWING NO: 2250124 RESTRICTED TO: - SCALE: NTS SHEET: 1 of 4 REV: 2	
PRODUCT SPEC		APPLICATION SPEC		CUSTOMER DRAWING	



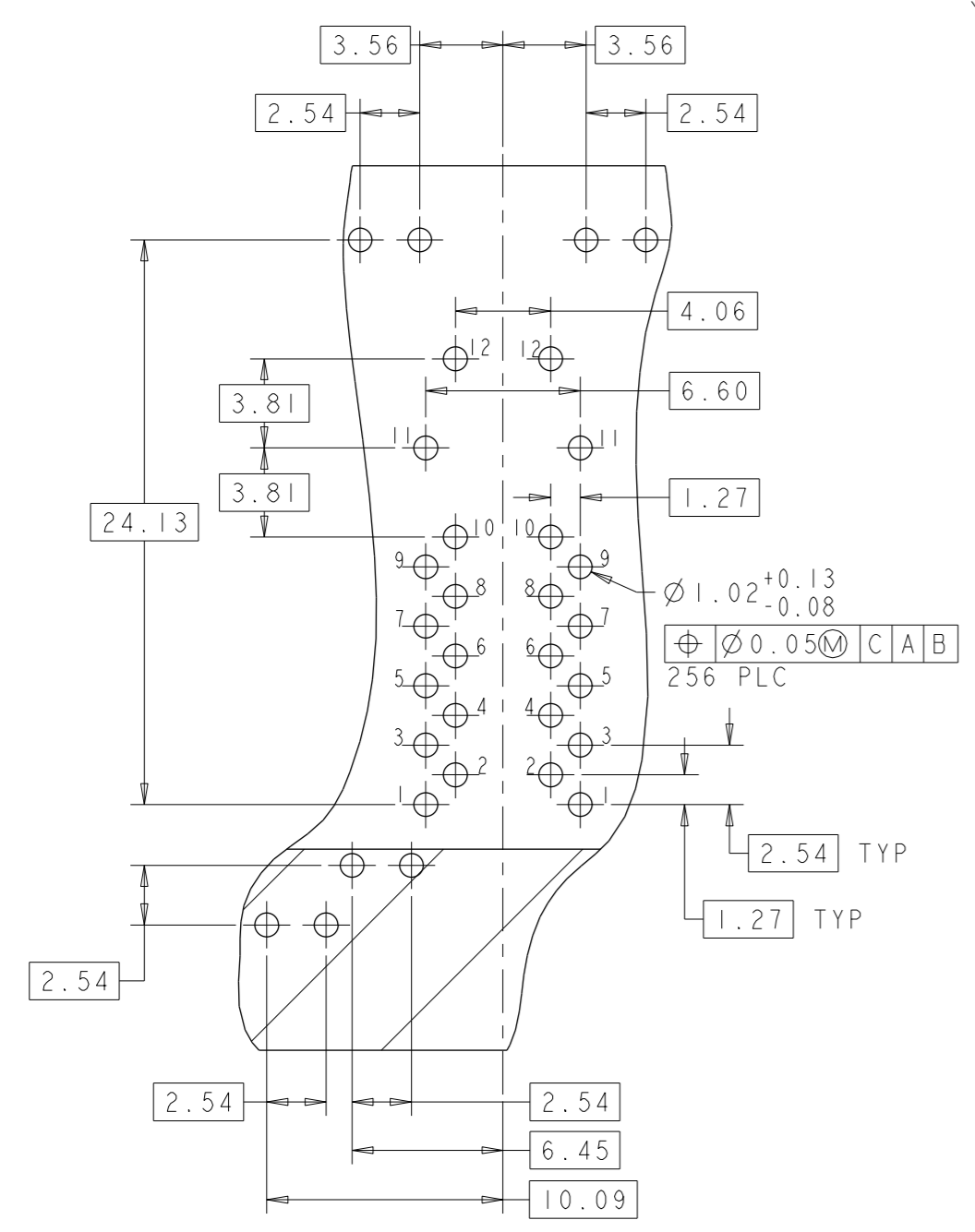
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN: TOMMY REN/IEERRY LIN 220C12013	<p><b>trp</b> CONNECTOR a bel group</p> <p>DONGGUAN CHINA</p>
DIMENSIONS: mm		CHK: TOMMY REN 220C12013	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPV: TONY YUAN 220C12013	
0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC ±		MODEL NAME: MAGJACK	
PRODUCT SPEC		DESC: 2X8 S9HG02 GIGABIT PoE PLUS CIRCUIT, WITH LED	SIZE: A1
		CUSTOMER DRAWING	SCALE: NTS
			SHEET 2 OF 4
			REV 2



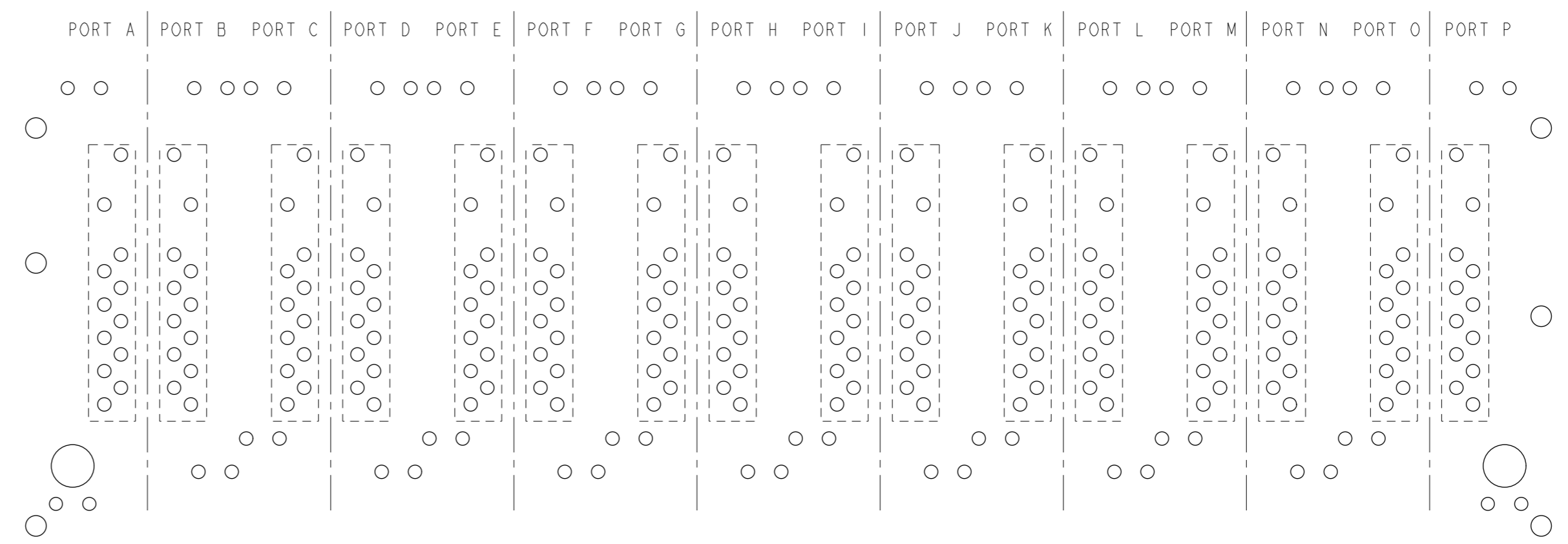
SUGGESTED CUSTOMER PC BOARD LAYOUT  
VIEWED FROM COMPONENT SIDE

IT IS RECOMMENDED THAT SHADED AREA ON CUSTOMER PC BOARD BE CLEAR OF ANY VIA HOLE, COMPONENT, CIRCUIT TRACE WHICH HAS EQUAL POTENTIAL WITH CABLE SIDE SIGNAL AND PoE SIGNAL


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

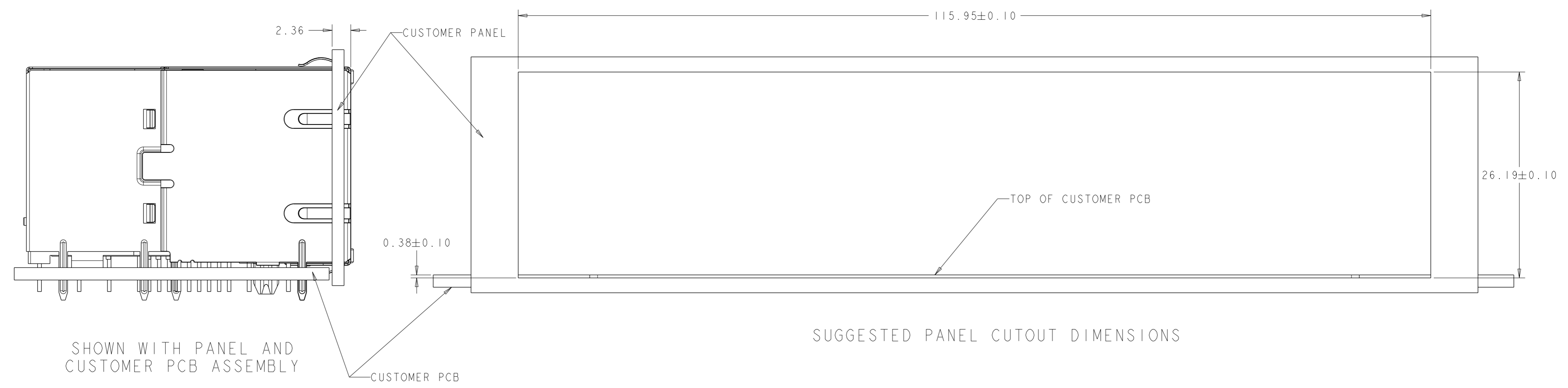
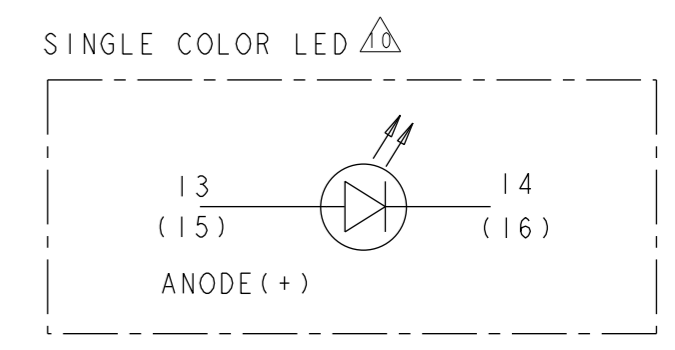
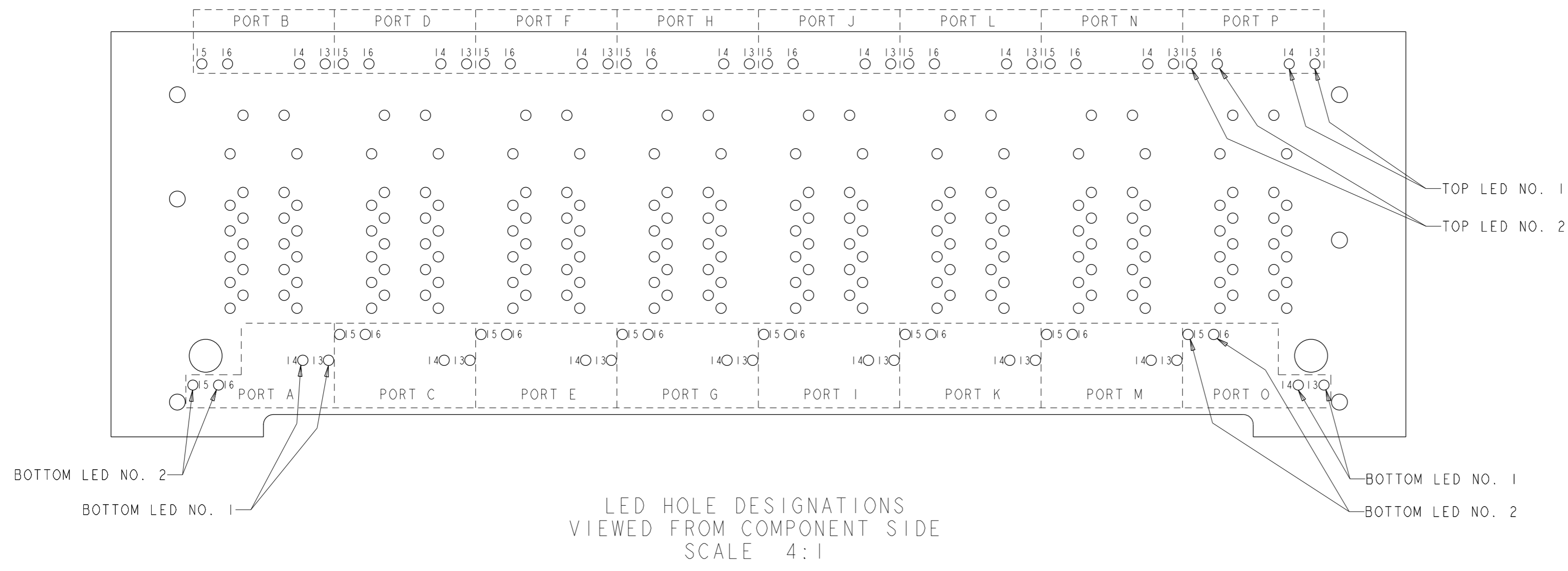


DETAIL A  
SCALE 5:1



PORT ASSIGNMENT  
VIEWED FROM COMPONENT SIDE

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN: 220C12013		 <b>trp</b> CONNECTOR DONGGUAN CHINA
DIMENSIONS: mm		CHK: 220C12013		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPR: 220C12013		MODEL NAME: MAGJACK DESC: 2X8 S9HG02 GIGABIT PoE PLUS CIRCUIT, WITH LED
0 PLC ±0.25		MODEL NAME: TONY YUAN		
1 PLC ±0.25		DESC: 220C12013		SIZE: A1 SCALE: NTS
2 PLC ±0.25		MAGJACK		
3 PLC ±		STACK PoE PLUS		SHEET 3 OF 4 REV 2
4 PLC ±		CUSTOMER DRAWING		
ANGLES: ±		DRAWING NO: C=2250124		
APPLICATION SPEC: ±		RESTRICTED TO: -		



SHOWN WITH PANEL AND CUSTOMER PCB ASSEMBLY

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN: TOMMY REN/TERRY LIN 220C12013		<b>trp</b> CONNECTOR a bel group DONGGUAN CHINA
DIMENSIONS: mm		CHK: TOMMY REN 220C12013		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPV: TONY YUAN 220C12013		DESC: 2X8 S9HG02 GIGABIT PoE PLUS CIRCUIT, WITH LED
0 PLC	±0.25	MODEL NAME	MAGJACK	SIZE: A1
1 PLC	±0.25	PRODUCT SPEC	STACK PoE PLUS	CAGE CODE: C=2250124
2 PLC	±0.25	APPLICATION SPEC		RESTRICTED TO: -
3 PLC	±			SCALE: NTS
4 PLC	±			SHEET 4 OF 4
ANGLES	±			REV 2