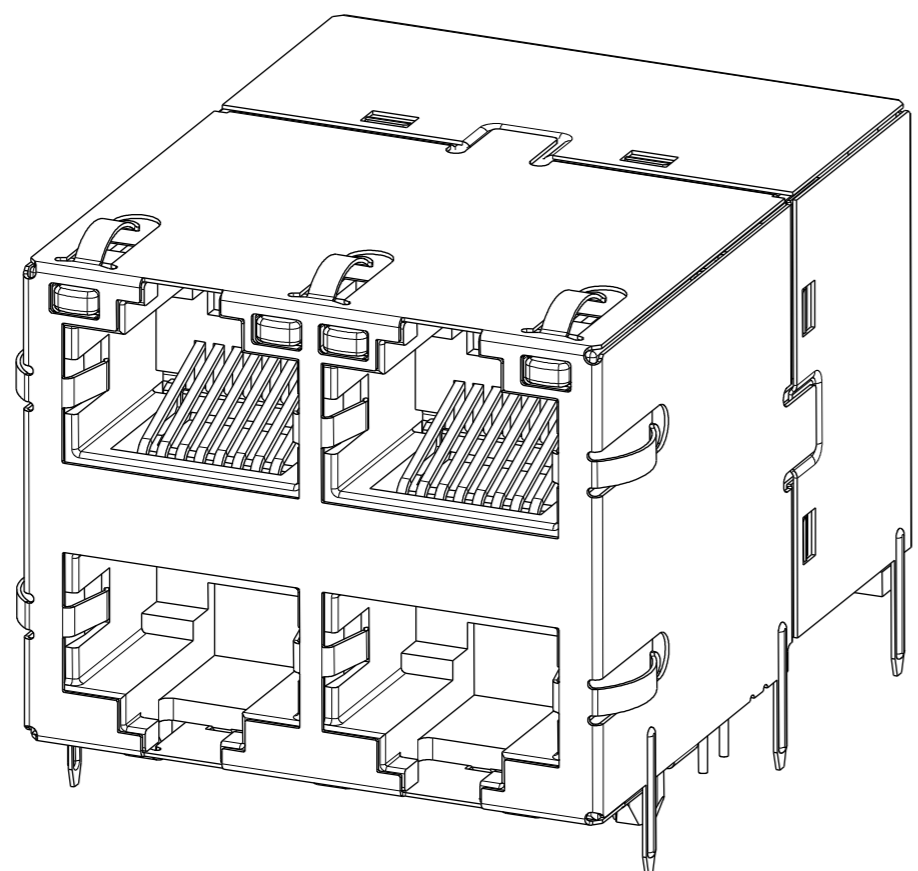


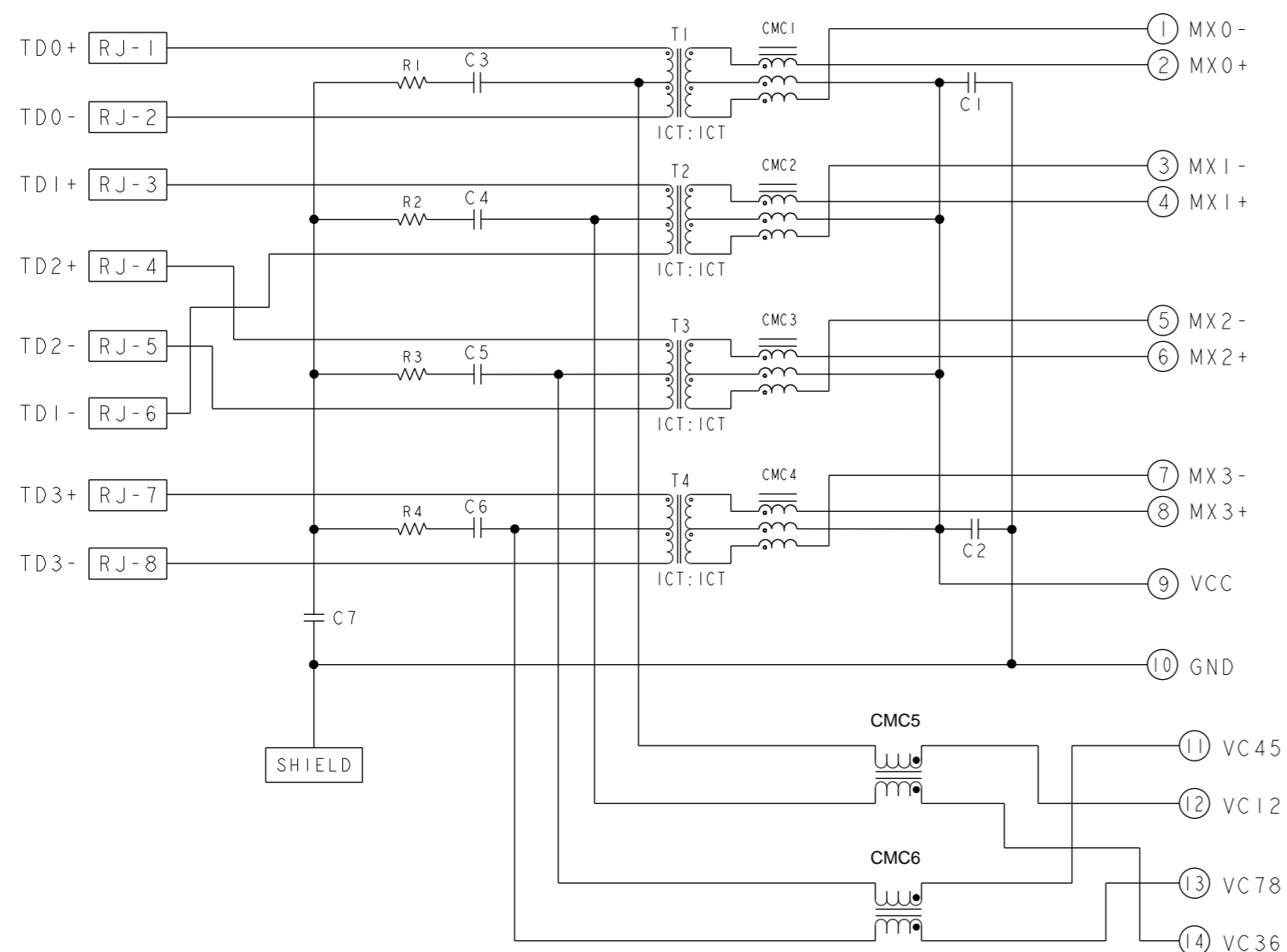
THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

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	LYR	DESCRIPTION	DATE	APPD
2		SEE FINAL SHEET	11JUN2021	RL TY



S9HFG12ET 5G 4PPOE CIRCUIT $\Delta\Delta$
 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

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 DIP
 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

Δ 2 MAGNETICS
 APPLICATION: 5G BASE-T, 4PPOE
 IMPEDANCE: 100 OHMS
 TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS
 OPEN CIRCUIT INDUCTANCE (OCL):
 ALL CHANNELS 120uH MIN @ 100kHz, 0.1 VRMS WITH 19mA DC BIAS
 ALL CHANNELS 160uH MIN @ 100kHz, 0.1 VRMS WITH 8mA DC BIAS
 ALL FOUR PAIRS BI-DIRECTIONAL
 POE CURRENT: 600mA DC
 PERFORMANCE @ 25°C (WHERE f IS FREQUENCY IN MHz):
 (a) INSERTION LOSS (MIN)
 1MHz TO 200MHz = -0.8 dB
 200MHz TO 250MHz = -1.4 dB
 (b) RETURN LOSS (MAX)
 1MHz TO 40MHz = -18 dB
 40MHz TO 250MHz = -18+10*LOG10(f/40) dB
 (c) CROSSTALK ATTENUATION (MAX)
 1MHz TO 250MHz = -20dB
 (d) COMMON MODE REJECTION (MAX)
 1MHz TO 250MHz = -20dB
 250MHz TO 500MHz = -20+25*LOG10(f/250)
 ISOLATION VOLTAGE: 2250VDC(MAX) FOR 60 SECONDS WITH A RISE TIME OF
 500V/SEC AND WITH ALL PORTS CONNECTED.

Δ 3 PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN ARE
 LOCATED IN APPROXIMATE AREA SHOWN.
 DATE CODE: YYWD WHERE "YY" IS YEAR, "WW" IS WORK WEEK, "D" IS DAY
 OF WEEK, WITH SUNDAY = 1

Δ 4 TRP CONNECTOR LOGO AND AGENCY APPROVAL LOGO ARE
 LOCATED IN APPROXIMATE AREA SHOWN.

5. OPERATING TEMP: FROM -40°C TO 85°C.

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

Δ 7 INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND
 SUPPORT AUTO-MDI/MDIX.

Δ 8 DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.

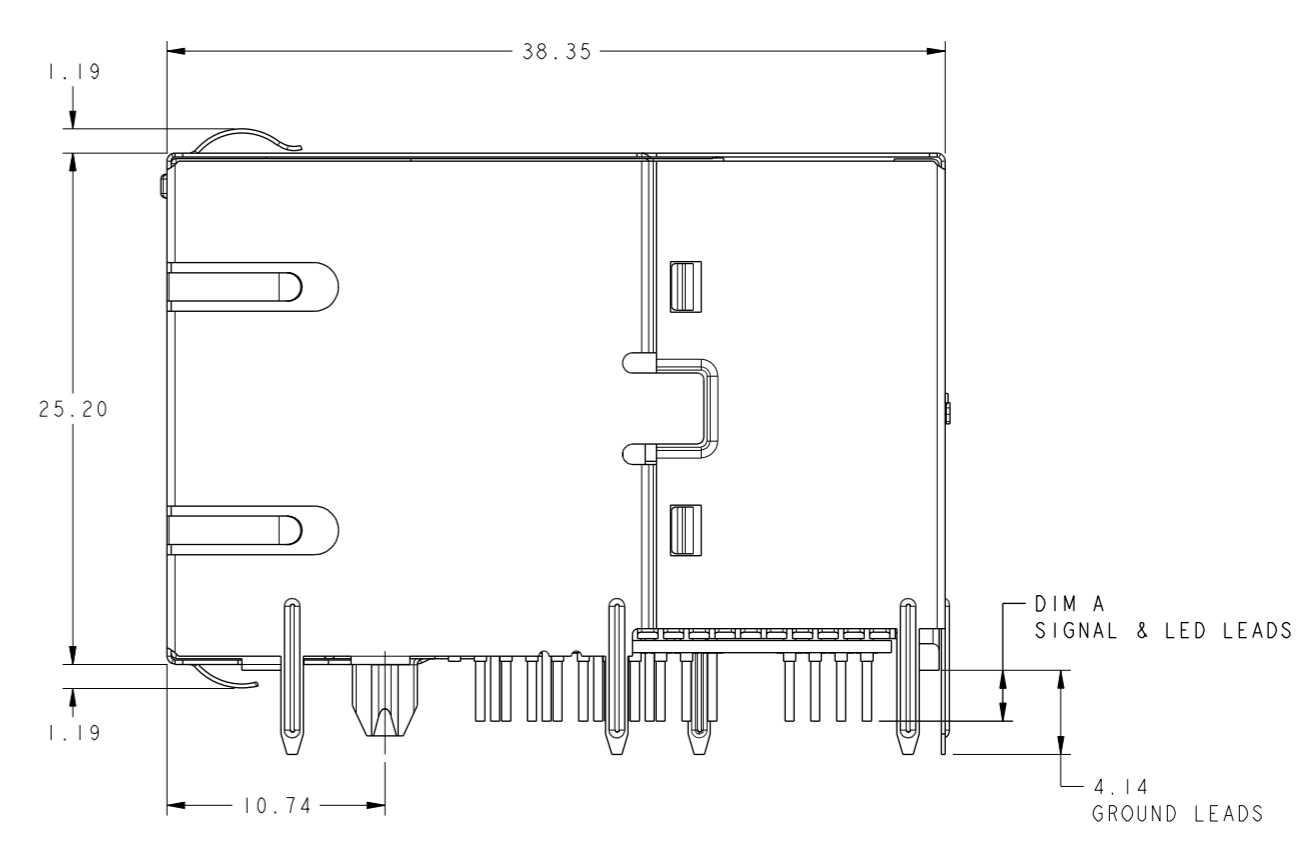
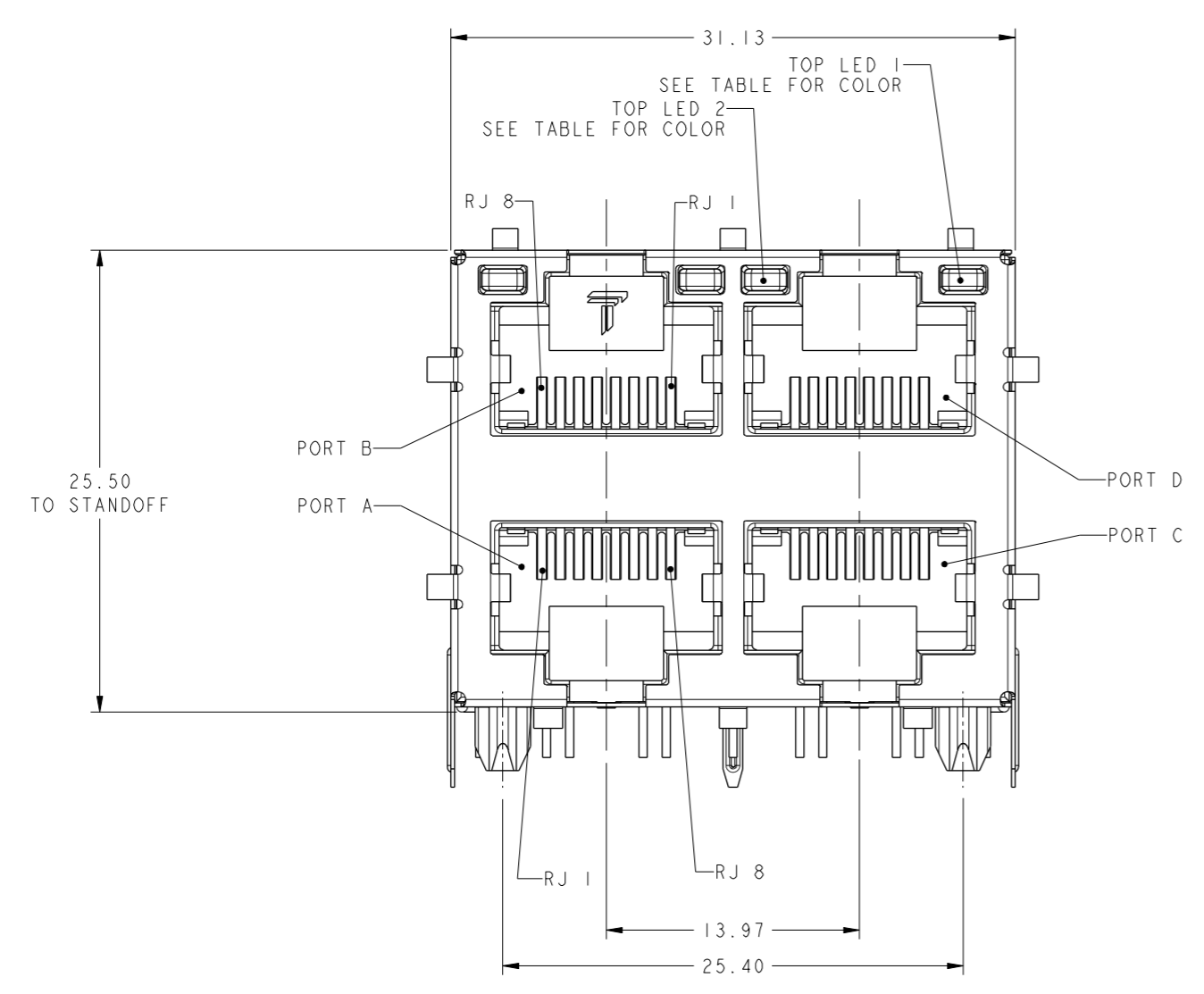
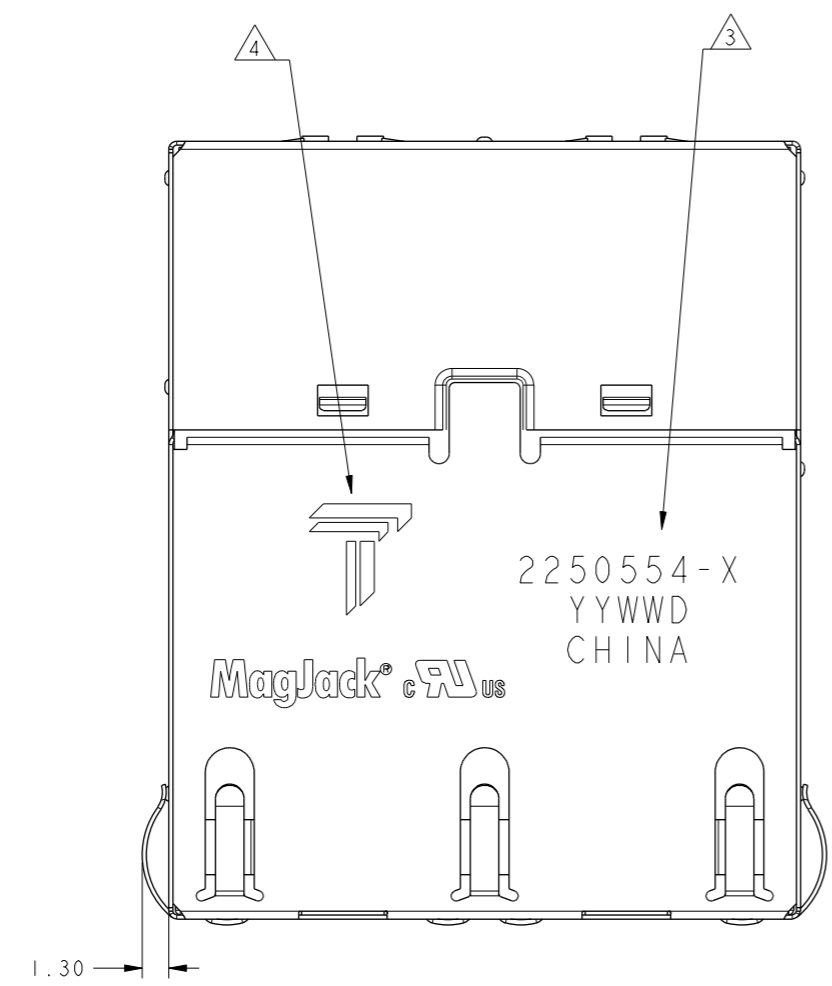
Δ 9 BASIC DIMENSION ESTABLISHED BY CUSTOMER, BUT MAY NOT BE
 GREATER THAN 5.08mm.

Δ 10 LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA
 LED COLOR: DOMINANT WAVELENGTH (λ_D): GREEN 568 nm TYP. @ IF=20mA
 FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA
 DOMINANT WAVELENGTH (λ_D): AMBER 588 nm TYP. @ IF=20mA
 FORWARD VOLTAGE (VF): AMBER 2.1V TYP. @ IF=20mA

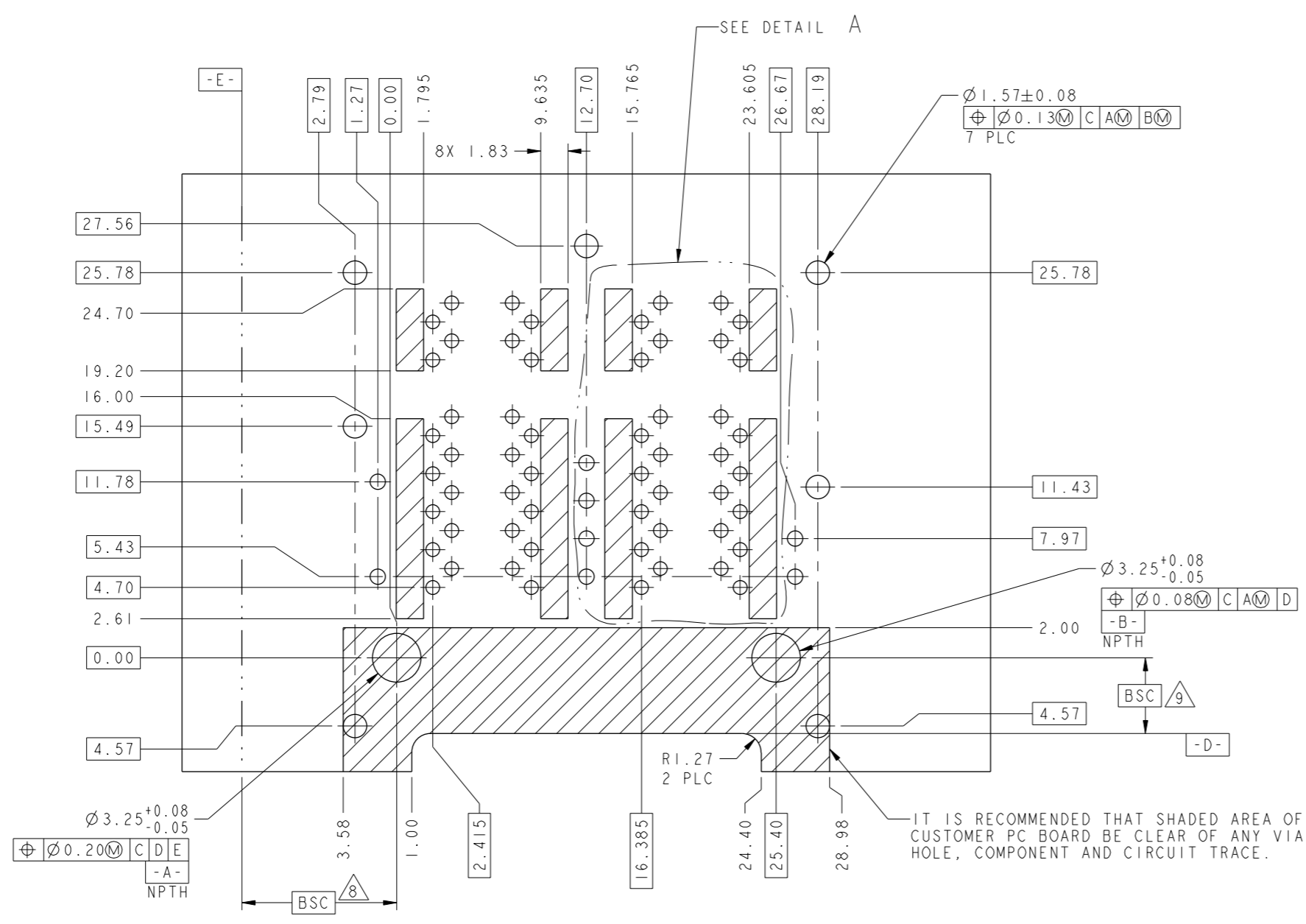
11. THE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS,
 PEAK TEMPERATURE 260°C MAX, 10 SECONDS MAX.

2.50	GREEN/AMBER	GREEN/AMBER	2250554-1
DIM A	TOP LED 2	TOP LED 1	PART NUMBER

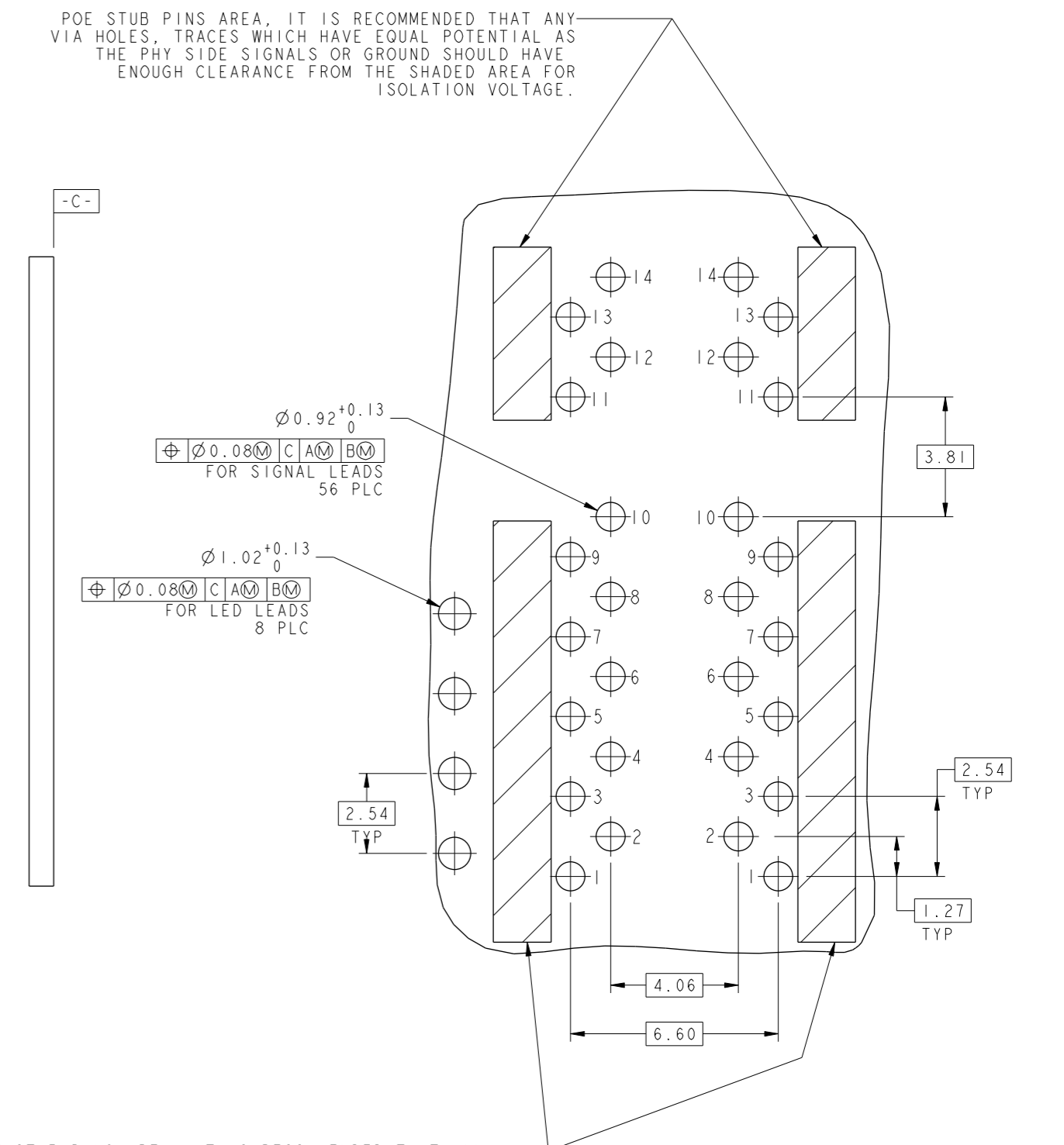
THIS DRAWING IS A CONTROLLED DOCUMENT, AND COMPLIANT TO ASME Y14.5M		DRN: RICK LI 240C12017	 DONGGUAN CHINA
DIMENSIONS: mm		CHK: TOMMY REN / BILL LIU 240C12017	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPD: TONY YUAN 240C12017	
0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC		MODEL NAME: MAGJACK STACK 4PPOE	
PRODUCT SPEC: 108-104017		DESC: 2X2 S9HFG12ET 5G 4PPOE CIRCUIT, W/ TOP LED	RESTRICTED TO
		SIZE: A1	CAGE CODE: 2250554
		CUSTOMER DRAWING	SCALE: NTS SHEET 1 OF 5 REV 2



THIS DRAWING IS A CONTROLLED DOCUMENT AND COMPLIANT TO ASME Y14.5M		DWN: RICK LI 240C12017 CHK: TOMMY REN / BILL LIU 240C12017 APPR: TONY YUAN 240C12017	DONGGUAN CHINA
DIMENSIONS: mm TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC -	MODEL NAME: MAGJACK STACK 4PPOE DESC: 2X2 S9HFG12ET 5G 4PPOE CIRCUIT, W/ TOP LED	SIZE: A1 CAGE CODE: C=2250554 DRAWING NO:	
PRODUCT SPEC: 108-104017	APPLICATION SPEC:	CUSTOMER DRAWING	SCALE: NTS SHEET: 2 OF 5 REV: 2

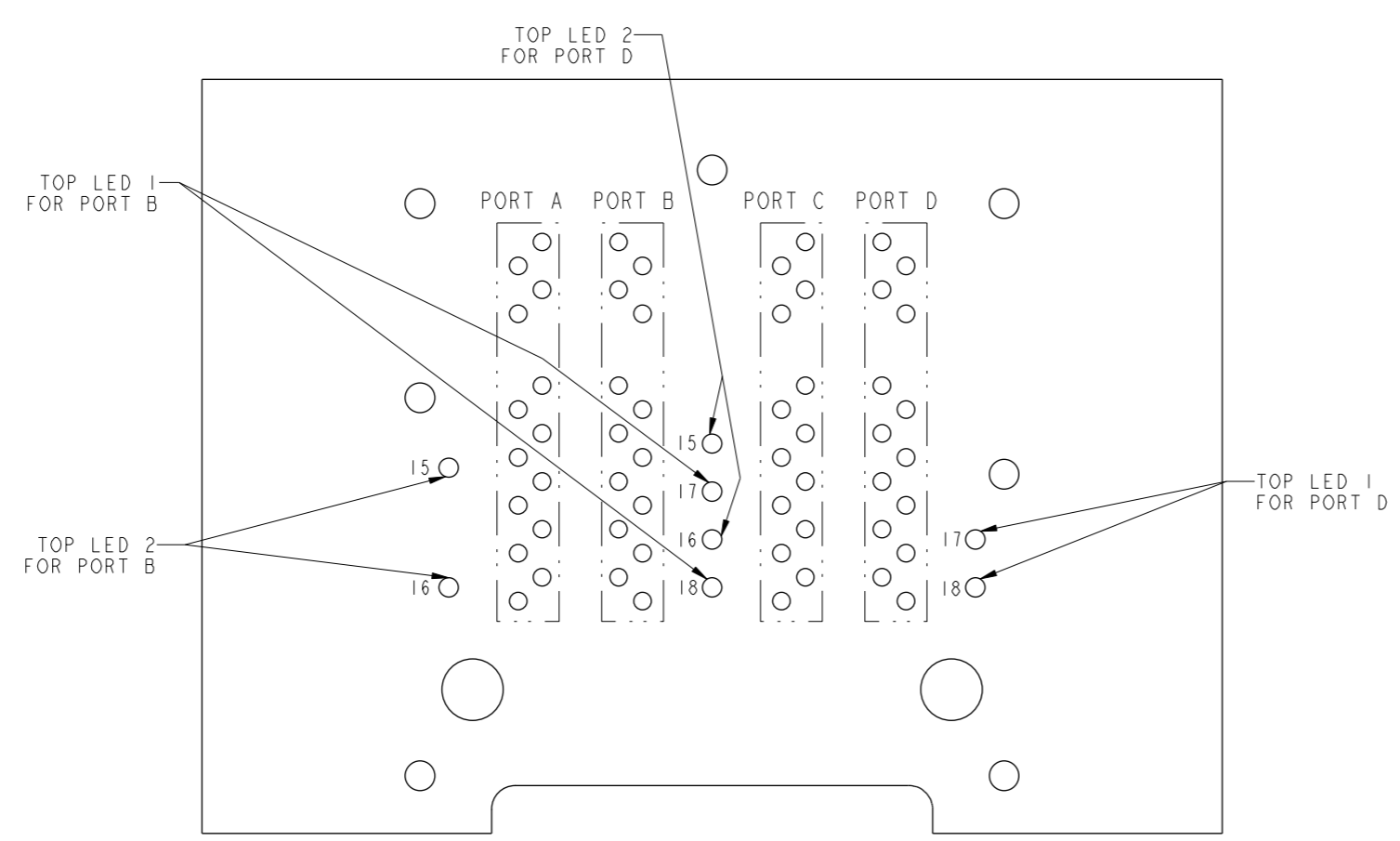


RECOMMENDED PCB LAYOUT COMPONENT SIDE VIEW

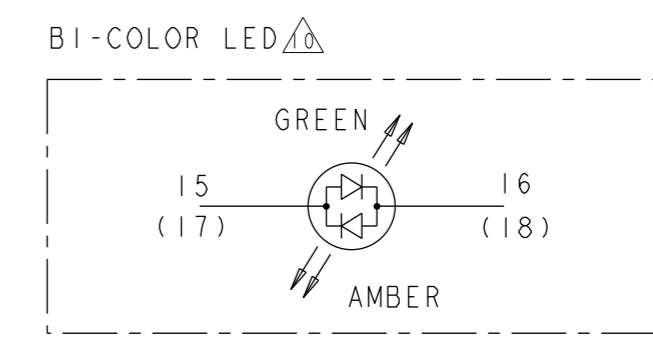


PHY SIDE STUB PINS AREA, IT IS RECOMMENDED THAT ANY VIA HOLES, TRACES WHICH HAVE EQUAL POTENTIAL AS THE CABLE SIDE SIGNAL OR POE SIGNAL SHOULD HAVE ENOUGH CLEARANCE FROM THE SHADED AREA FOR ISOLATION VOLTAGE.

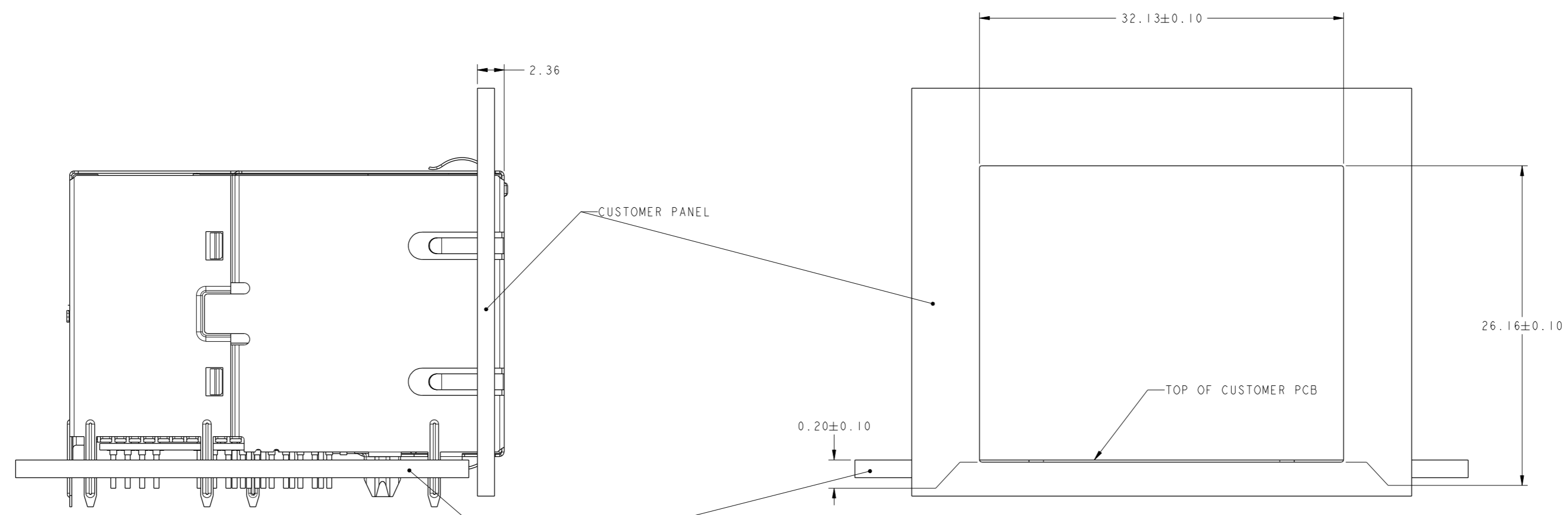
DETAIL A SCALE 8:1



PORT ASSIGNMENT & LED HOLE DESIGNATIONS COMPONENT SIDE VIEW




THIS DRAWING IS A CONTROLLED DOCUMENT, AND COMPLIANT TO ASME Y14.5M		DWN: RICK LI 240C12017 CHK: TOMMY REN / BILL LIU 240C12017 APPR: TONY YUAN 240C12017	DONGGUAN CHINA
DIMENSIONS: mm 	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC -	MODEL NAME: MAGJACK STACK 4PPOE DESC: 2X2 S9HFG12ET 5G 4PPOE CIRCUIT, W/ TOP LED SIZE: A1 SCALE: NTS SHEET: 3 OF 5 REV: 2	
PRODUCT SPEC: 108-104017	APPLICATION SPEC: -	CUSTOMER DRAWING	RESTRICTED TO: C=2250554




SHOWN WITH PANEL AND CUSTOMER PCB ASSEMBLY

SUGGESTED PANEL CUTOUT DIMENSIONS

THIS DRAWING IS A CONTROLLED DOCUMENT. AND COMPLIANT TO ASME Y14.5M		DWN: RICK LI 240C12017		 trp CONNECTOR DONGGUAN CHINA
DIMENSIONS: mm		CHK: TOMMY REN / BILL LIU 240C12017		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPV: TONY YUAN 240C12017		DESC: 2X2 S9HFG12ET 5G 4PPOE CIRCUIT, W/ TOP LED
0 PLC ±0.25	1 PLC ±0.25	MODEL NAME: MAGJACK STACK 4PPOE		SIZE: A1
2 PLC ±0.25	3 PLC ±	APPLICATION SPEC: -		SCALE: NTS
4 PLC ±	ANGLES ±	PRODUCT SPEC: 108-104017		DRAWING NO: C=2250554
		CUSTOMER DRAWING		SHEET 4 OF 5 REV 2

2250554					STOCK DISPOSITION			
2X2 S9HFG12ET 5G 4PPOE CIRCUIT, W/ TOP LED					A: CONTINUE AS IS		D: USE OLD FIRST	
					B: REWORK		E: PARTS TO CONFORM	
					C: SCRAP		F: OTHER	
REVISION HISTORY								
DATE	REV	CHANGES	REASON	APPROVAL	INVENTORY (A,B,C,D,E,F)	WORK IN PROCESS (A,B,C,F)	SUPPLIER ORDERS (A,E,F)	OPEN CUST ORDERS (A,E,F)
24OCT2017	1	-	INITIAL RELEASE	TY	-	-	-	-
11JUN2021	2	CHANGE MAGNETIC SPEC, CHANGE THE PANEL LOCATION, ADD KEEP OUT ZONE FOR STUB PINS, USE LONG LED SPACER TO REPLACE THE SHORT ONE.	DESIGN UPDATE	TY	-	-	-	-

THIS DRAWING IS A CONTROLLED DOCUMENT. AND COMPLIANT TO ASME Y14.5M		DWN: RICK LI 24OCT2017		 trp CONNECTOR DONGGUAN CHINA
DIMENSIONS: mm		CHK: TOMMY REN / BILL LIU 24OCT2017		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPV: TONY YUAN 24OCT2017		
0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC -	MODEL NAME MAGJACK STACK 4PPOE	DESC 2X2 S9HFG12ET 5G 4PPOE CIRCUIT, W/ TOP LED	SIZE CAGE CODE DRAWING NO A1 C=2250554	RESTRICTED TO CUSTOMER DRAWING
PRODUCT SPEC 108-104017	SCALE NTS	SHEET 5 OF 5	REV 2	