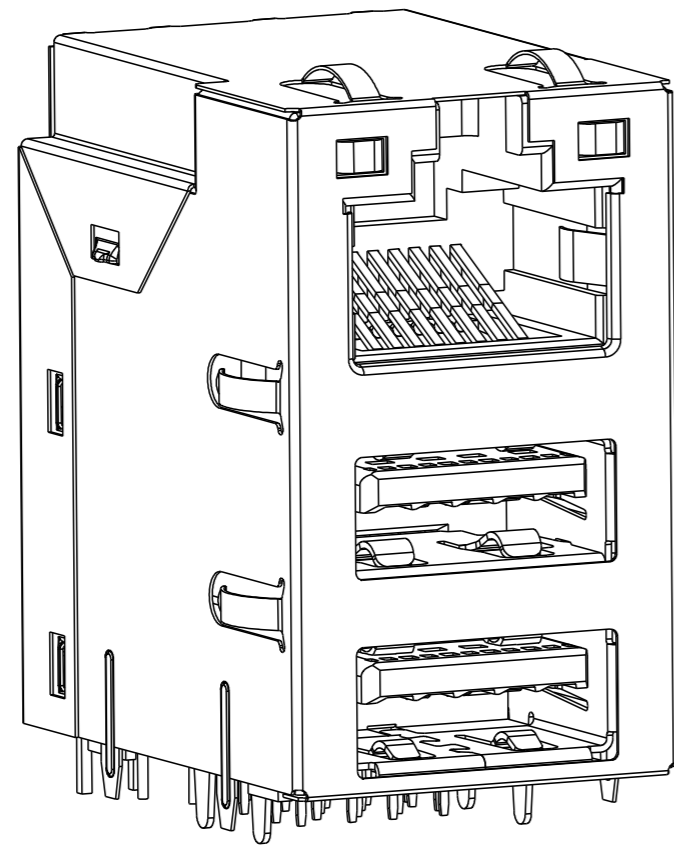


THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

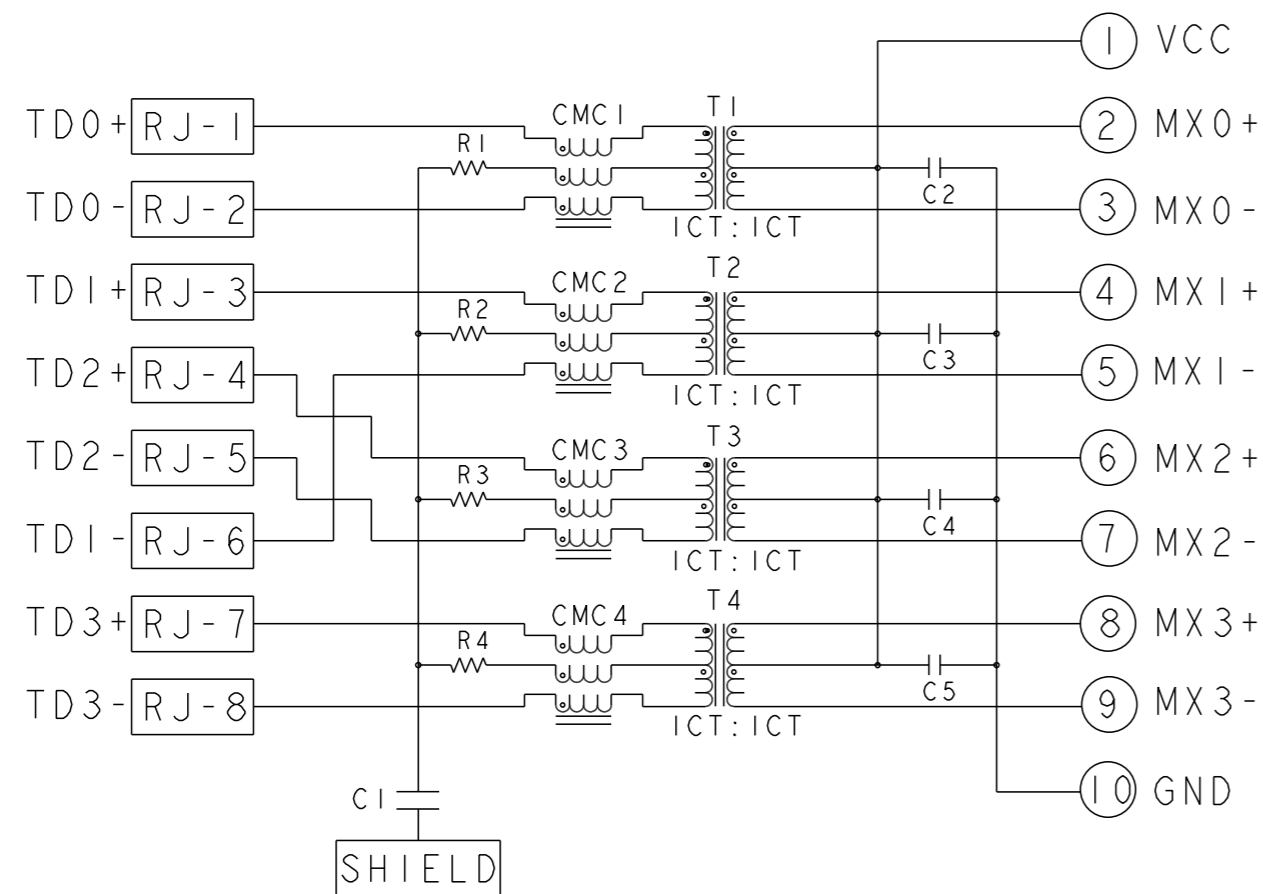
PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS:
 5736910 5939955 6425781 6428361 6554638 6840817 7123117
 7429195 7717749 7808751 6217391 6149050 7924130

REVISIONS				
P	LTR	DESCRIPTION	DATE	APVD
4		SEE LAST SHEET	26AUG2019	TRY TY



WITH EMI FINGER

URG153 GIGABIT CIRCUIT ²₃



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

- MATERIALS
 USB MATERIALS:
 HOUSING: THERMOPLASTIC, BLUE, FLAMMABILITY RATING UL 94V-0
 USB 3.1 GEN 1 CONTACT TYPE 1: PHOSPHOR BRONZE, WITH 1.27um MIN OVERALL NICKEL UNDERPLATE AND SELECTIVE 0.762um MIN GOLD PLATING AT MATING INTERFACE
 USB 3.1 GEN 1 CONTACT TYPE 2: 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.

- MAGNETICS
 -APPLICATION : 10/100/1000 BASE-T
 -IMPEDANCE: 100 OHMS
 -TURNS RATIO(CHIP: CABLE): 1:1 ALL FOUR PAIRS
 -OPEN CIRCUIT INDUCTANCE(OCL): 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

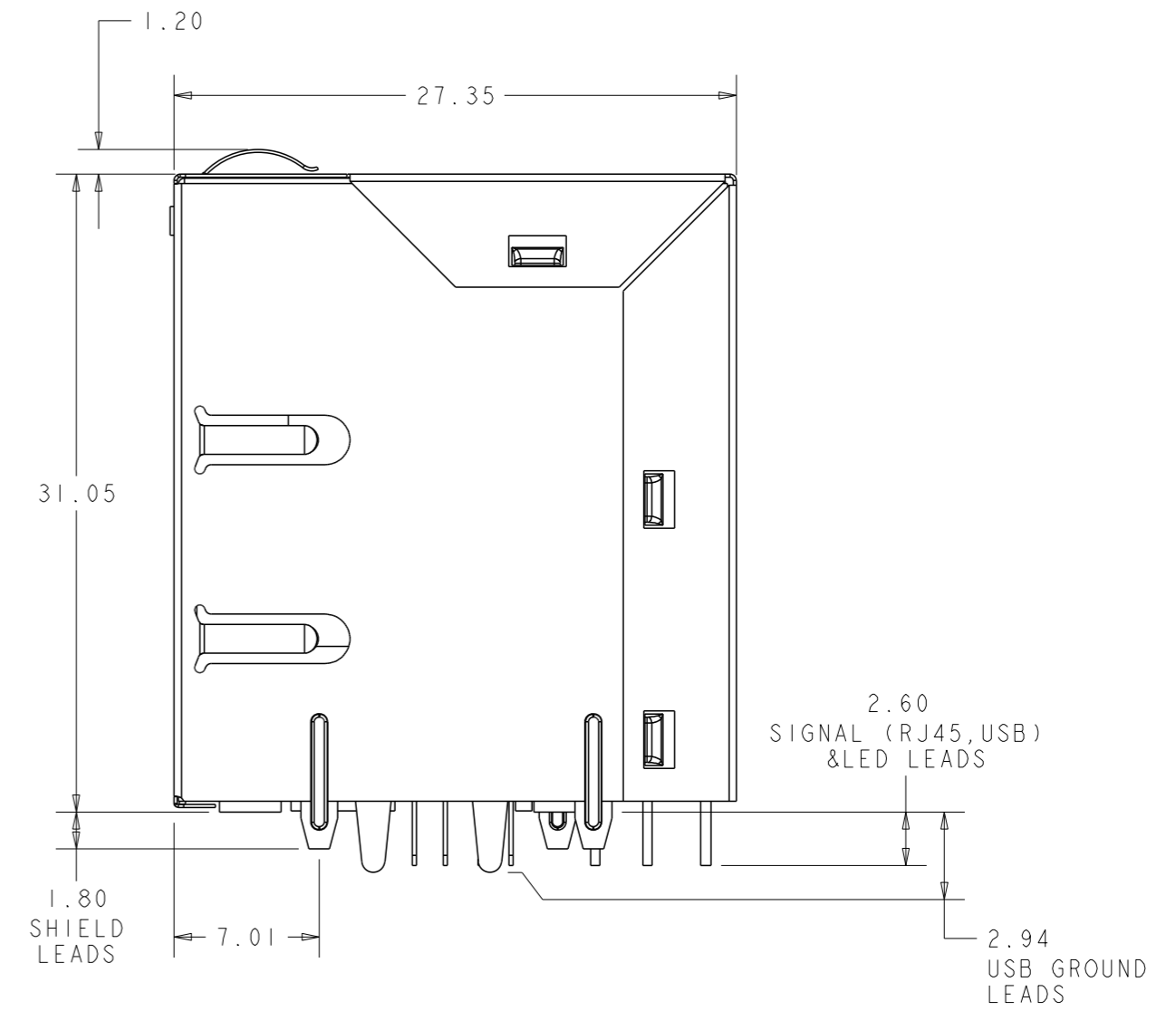
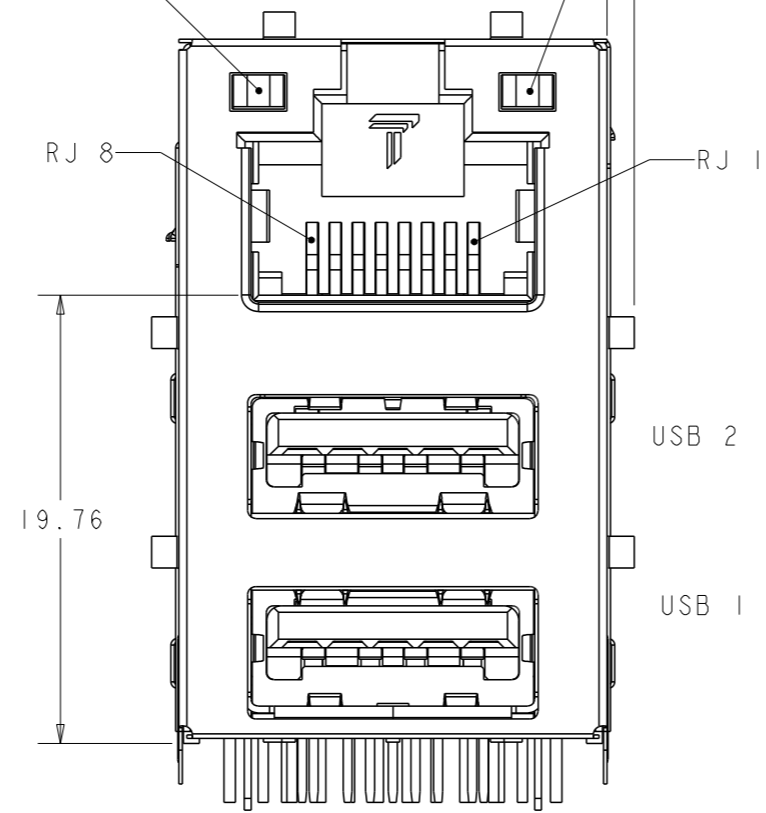
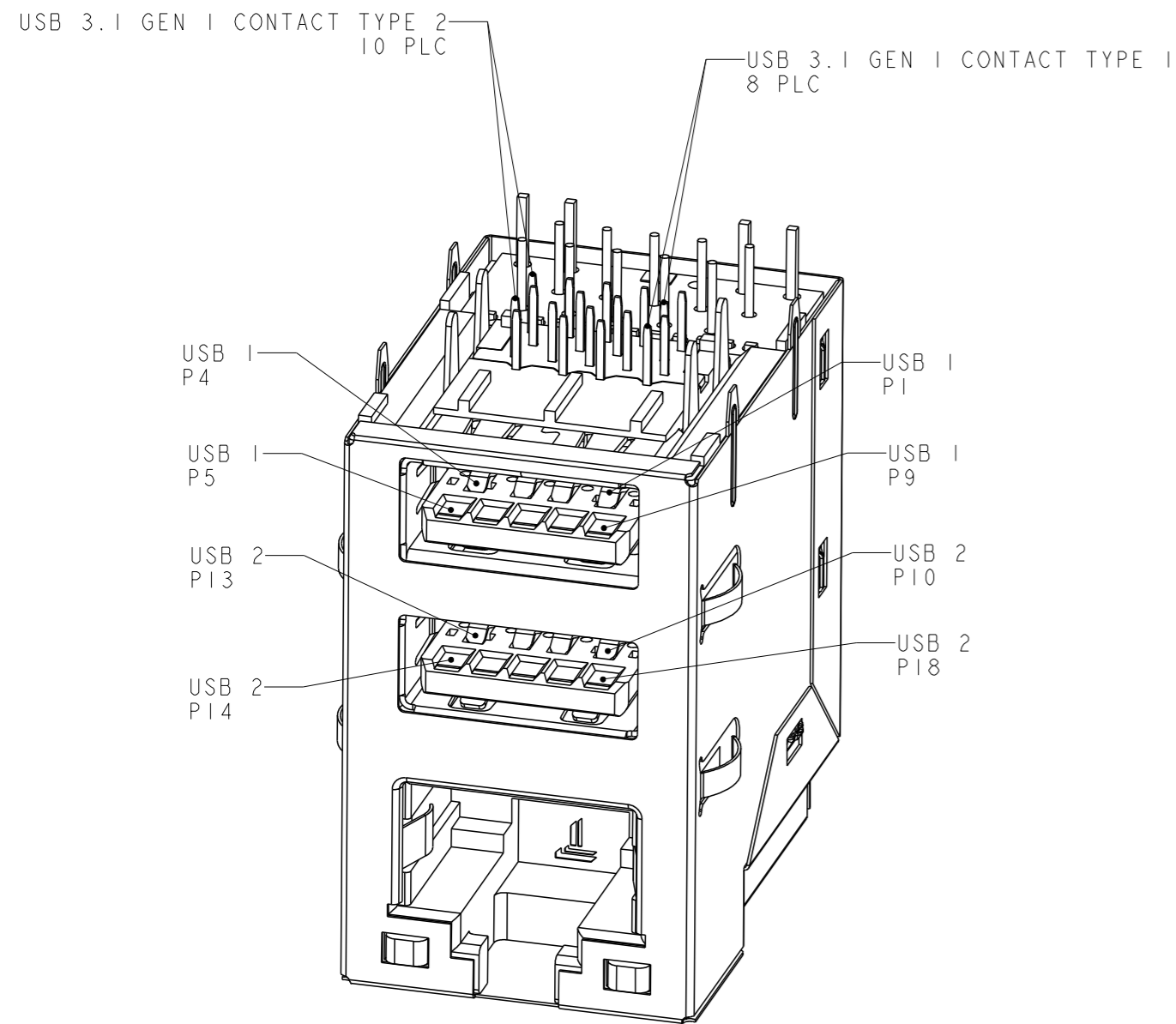
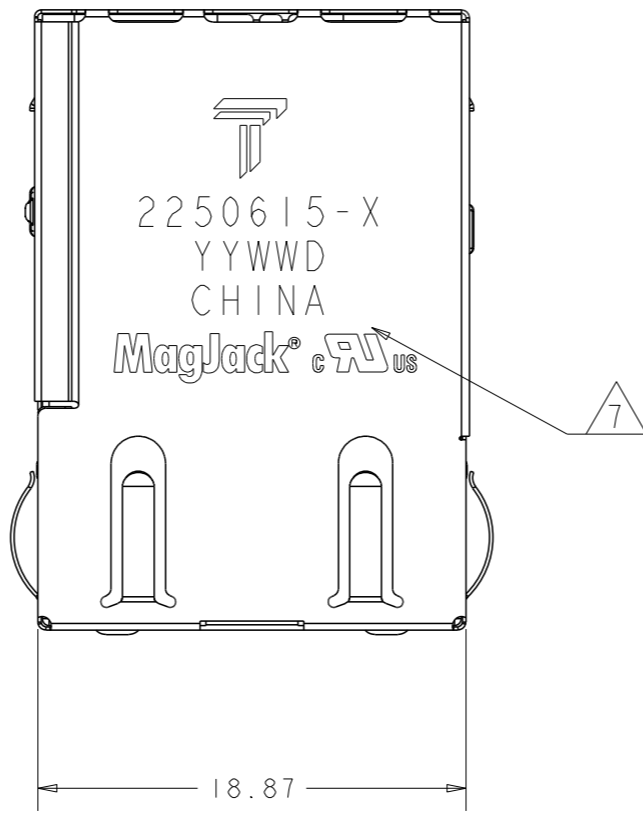
⁸ LED IS WITH CONSTANT CURRENT AT APPROX 20mA.
 LED COLOR: DONINANT WAVELENGTH(λD), GREEN = 568±5nm TYP. at IF=20mA
 FORWARD VOLTAGE(VF), GREEN 2.2V TYP. at IF=20mA.
 DONINANT WAVELENGTH(λD), YELLOW = 590±3nm TYP. at IF=20mA.
 FORWARD VOLTAGE(VF), YELLOW 2.1V TYP. at IF=20mA.


9. PARTS SHOULD BE RECOMMENDED FOR IR REFLOW SOLDERING PROCESS, PEAK TEMPERATURE 260°C MAX, DURATION TIME 10 SECONDS MAX, OVER 230°C WITHIN 40-60 SECONDS.

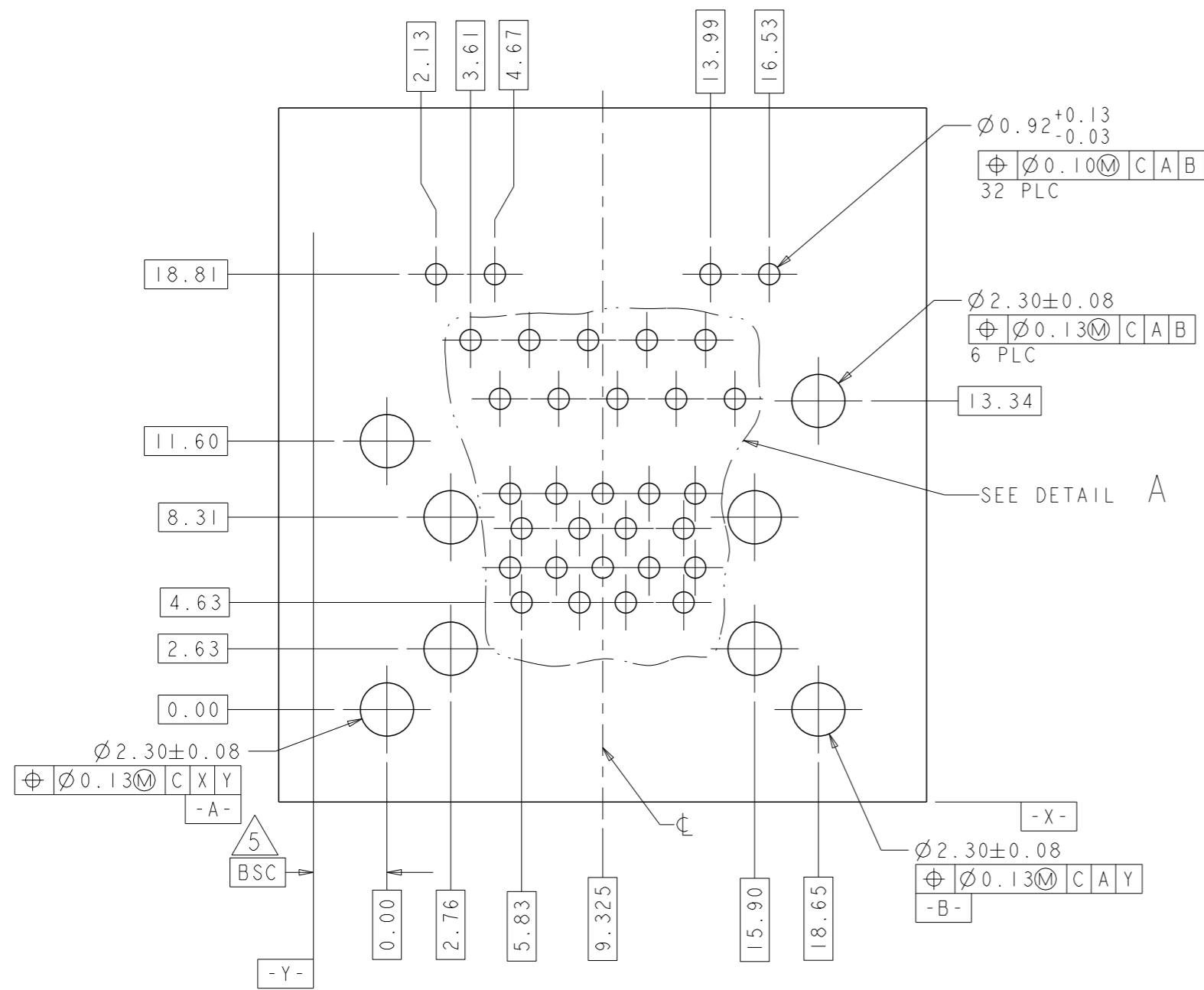
10. LOW HALOGEN SPEC(EXCEPT LIGHT PIPE):
 CHLORINE (Cl) 900PPM MAX
 BROMINE (Br) 900PPM MAX
 TOTAL BROMINE AND CHLORINE (Br+Cl) 1500PPM MAX
 LIGHT PIPE COMPLY WITH LOW HALOGEN SPECIFICATION "DIN VDE 0472"
 CHLORINE (Cl) 1000PPM MAX
 BROMINE (Br) 1000PPM MAX
 TOTAL BROMINE AND CHLORINE (Br+Cl) 2000PPM MAX

YELLOW	GREEN	GREEN	2250615-1
13-14	14-13	12-11	PART NUMBER
LED2		LED1	

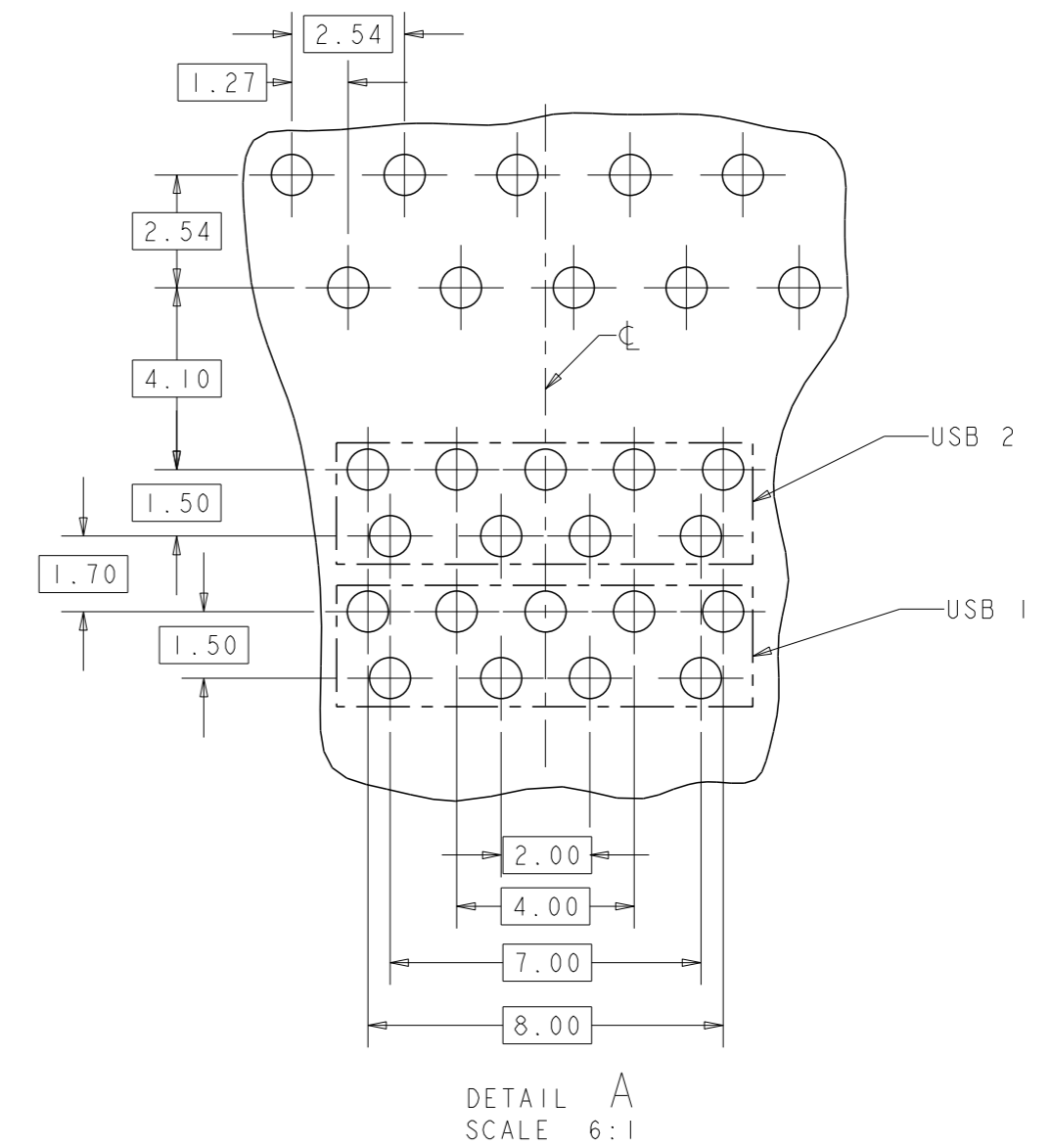
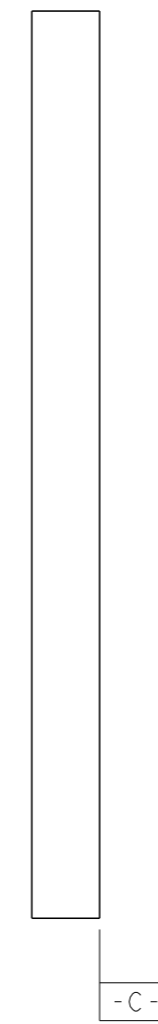
THIS DRAWING IS A CONTROLLED DOCUMENT. AND COMPLIANT TO ASME Y14.5M		DWN: TOWER YU / YI LIU 13SEP2018	 trp CONNECTOR DONGGUAN CHINA	
DIMENSIONS: mm		CHK: BILL LIU 13SEP2018		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD: TONY YUAN 13SEP2018	DESC: MAGJACK OVER DUAL USB3.1 GEN 1 URG153 CIRCUIT, GIGABIT, W/ LEDS	
0 PLC ± 1 PLC ± 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC		MODEL NAME: MAGJACK OVER USB NON-PoE	SIZE: A2	RESTRICTED TO: -
PRODUCT SPEC: 108-104004		DRAWING NO: C-2250615		SCALE: 3:1
CUSTOMER DRAWING			SHEET 1 OF 5	REV 4




THIS DRAWING IS A CONTROLLED DOCUMENT, AND COMPLIANT TO ASME Y14.5M		DWN TOWER YU / YI LIU 13SEP2018	 trp CONNECTOR a bel group	DONGGUAN CHINA	
DIMENSIONS: mm		CHK BILL LIU 13SEP2018		DESC MAGJACK OVER DUAL USB3.1 GEN 1 URG153 CIRCUIT, GIGABIT, W/ LEDS	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD TONY YUAN 13SEP2018	SIZE A2	CAGE CODE C-2250615	RESTRICTED TO -
0 PLC ± 1 PLC ± 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC		MODEL NAME MAGJACK OVER USB NON-POE	DRAWING NO C-2250615		
PRODUCT SPEC 108-104004		CUSTOMER DRAWING		SCALE 3:1	SHEET 2 OF 5 REV 4

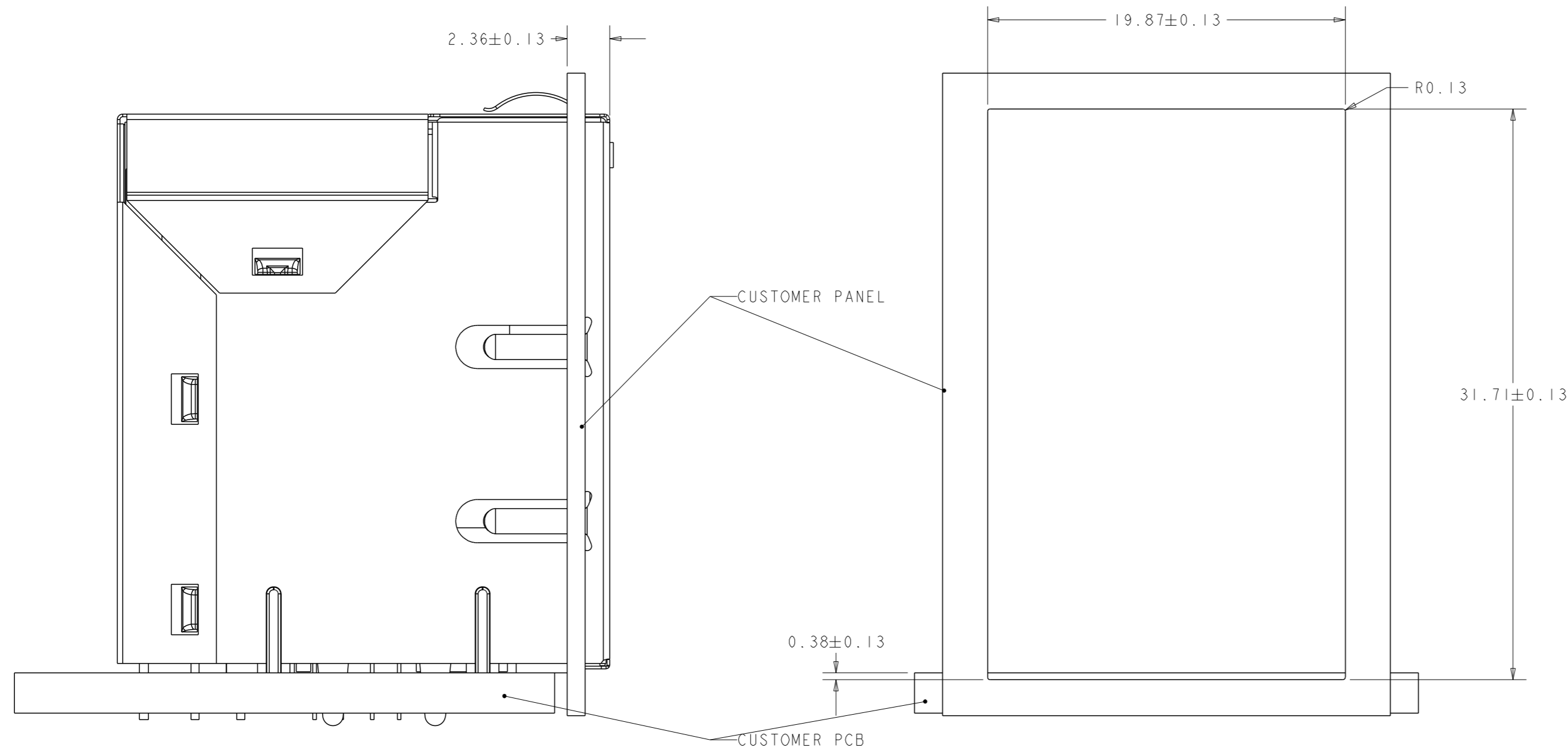


RECOMMENDED PC BOARD LAYOUT
(VIEW FROM COMPONENT SIDE)

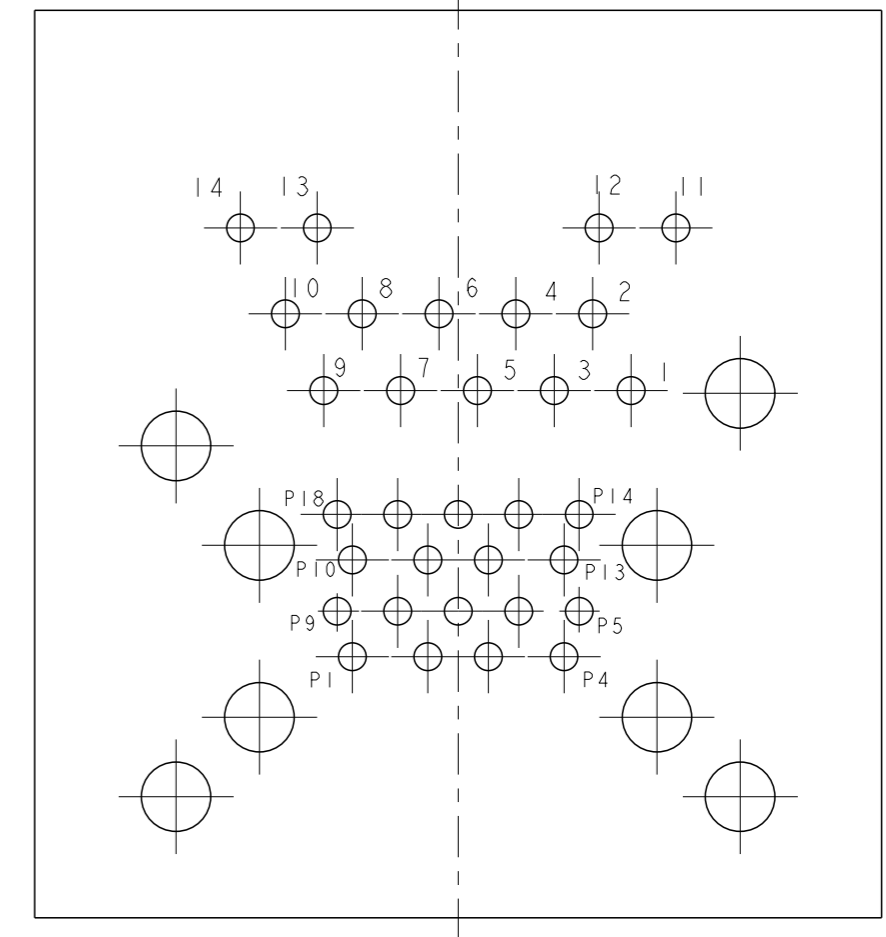


DETAIL A
SCALE 6:1

THIS DRAWING IS A CONTROLLED DOCUMENT. AND COMPLIANT TO ASME Y14.5M		DWN TOWER YU / YI LIU 13SEP2018	 trp CONNECTOR a bel group DONGGUAN CHINA			
DIMENSIONS: mm		CHK BILL LIU 13SEP2018				
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD TONY YUAN 13SEP2018	DESC MAGJACK OVER DUAL USB3.1 GEN 1 URGI53 CIRCUIT, GIGABIT, W/ LEDS			
0 PLC ± 1 PLC ± 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC		MODEL NAME MAGJACK OVER USB NON-POE	SIZE A2	DRAWING NO C-2250615	RESTRICTED TO -	
PRODUCT SPEC 108-104004	-	CUSTOMER DRAWING		SCALE 3:1	SHEET 3 OF 5	REV 4



SUGGEST CUSTOMER CUTOUT DIMENSIONS


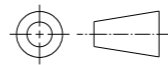


USB 3.1 GEN 1 STANDARD-A CONNECTOR PIN ASSIGNMENTS

PIN NUMBER	SIGNAL NAME	DESCRIPTION
P1 & P10	VBUS	POWER
P2 & P11	D-	USB 2.0 DIFFERENTIAL PAIR
P3 & P12	D+	
P4 & P13	GND	
P5 & P14	STDA_SSRX-	SUPERSPEED RECEIVER DIFFERENTIAL PAIR
P6 & P15	STDA_SSRX+	
P7 & P16	GND_DRAIN	GROUND FOR SIGNAL RETURN
P8 & P17	STDA_SSTX-	SUPERSPEED TRANSMITTER DIFFERENTIAL PAIR
P9 & P18	STDA_SSTX+	

THIS DRAWING IS A CONTROLLED DOCUMENT, AND COMPLIANT TO ASME Y14.5M		DWN: TOWER YU / YI LIU CHK: BILL LIU APVD: TONY YUAN			DONGGUAN CHINA
DIMENSIONS: mm	TOLERANCES UNLESS OTHERWISE SPECIFIED:	MODEL NAME: MAGJACK OVER USB NON-POE	DESC: MAGJACK OVER DUAL USB3.1 GEN 1 URG153 CIRCUIT, GIGABIT, W/ LEDS	SIZE: A2	RESTRICTED TO: -
PRODUCT SPEC: 108-104004	APPLICATION SPEC: -	APVD: TONY YUAN	DRAWING NO: C-2250615	SCALE: 3:1	SHEET 4 OF 5
CUSTOMER DRAWING			REV: 4		

2250615_C					STOCK DISPOSITION			
					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)
13SEP2018	1	-	INITIAL RELEASE	TONY YUAN	-	-	-	-
21MAR2019	2	NOTE AND TITLE BLOCK: CHANGE USB 3.0 TO USB 3.1 GEN 1	DRAWING CLARIFICATION	TONY YUAN	A	A	A	A
24MAY2019	3	NOTE 5: CHANGE YELLOW LED WAVE LENGTH FROM 588nm TO 590nm	DRAWING CLARIFICATION	TONY YUAN	A	A	A	A
26AUG2019	4	SHEET 2, A4: UPDATE VIEW SHOWING USB STANDOFF CHANGE	PRODUCT IMPROVEMENT	TONY YUAN	A	A	A	A

THIS DRAWING IS A CONTROLLED DOCUMENT. AND COMPLIANT TO ASME Y14.5M		DWN TOWER YU / YI LIU 13SEP2018	 trp CONNECTOR a bel group		DONGGUAN CHINA	
DIMENSIONS: mm		CHK BILL LIU 13SEP2018			DESC MAGJACK OVER DUAL USB3.1 GEN 1 URGI53 CIRCUIT, GIGABIT, W/ LEDS	
		APVD TONY YUAN 13SEP2018	SIZE A2		CAGE CODE C-2250615	RESTRICTED TO -
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± 1 PLC ± 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC		MODEL NAME MAGJACK OVER USB NON-POE		DRAWING NO C-2250615		
PRODUCT SPEC 108-104004		CUSTOMER DRAWING		SCALE 3:1	SHEET 5 OF 5	REV 4