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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	DWN	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

1. 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.

² 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(λ D), GREEN = 568 \pm 5nm TYP. at IF=20mA
 FORWARD VOLTAGE(VF), GREEN 2.2V TYP. at IF=20mA.
 DONINANT WAVELENGTH(λ D), YELLOW = 590 \pm 3nm TYP. at IF=20mA.
 FORWARD VOLTAGE(VF), YELLOW 2.1V TYP. at IF=20mA.

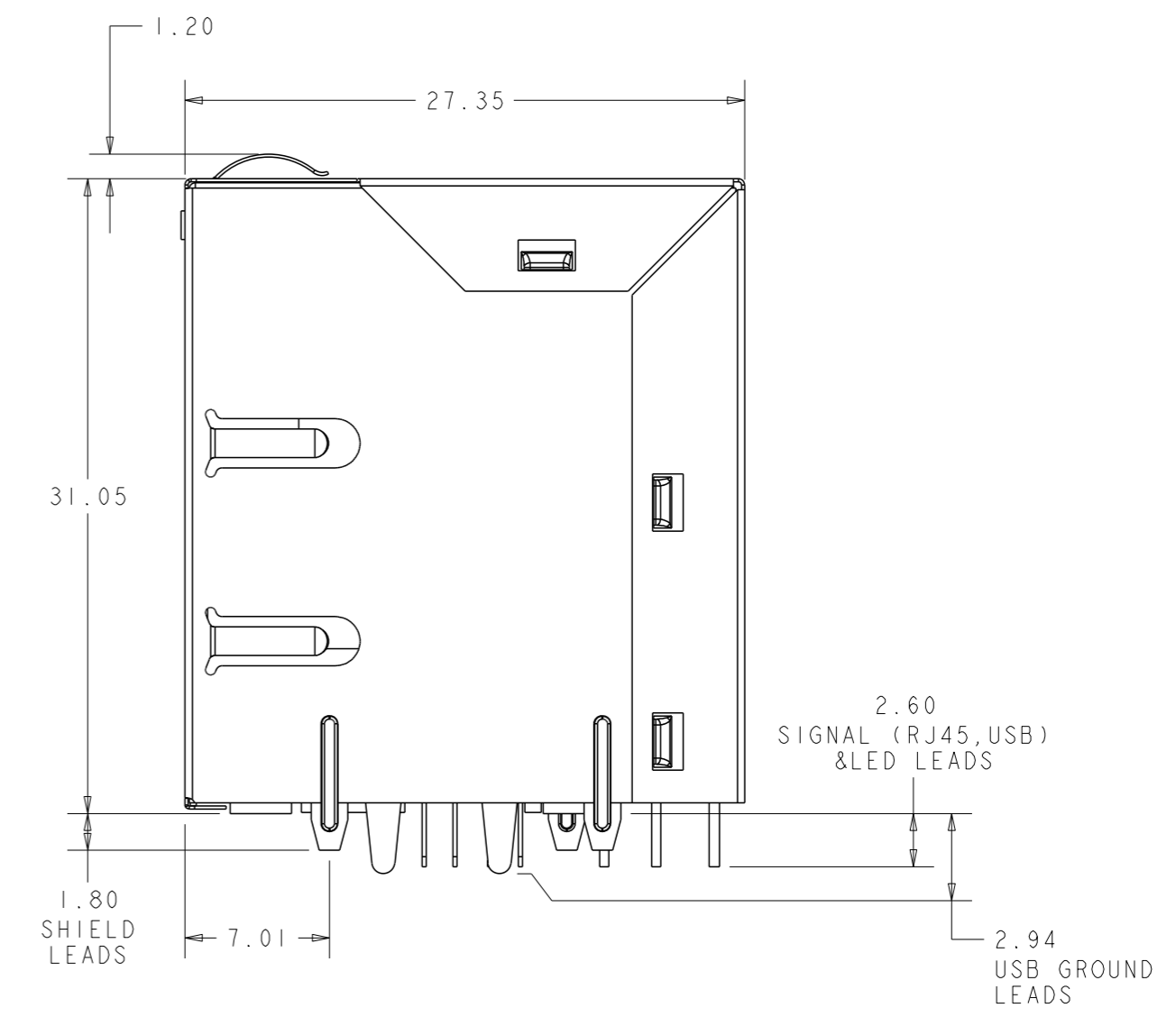
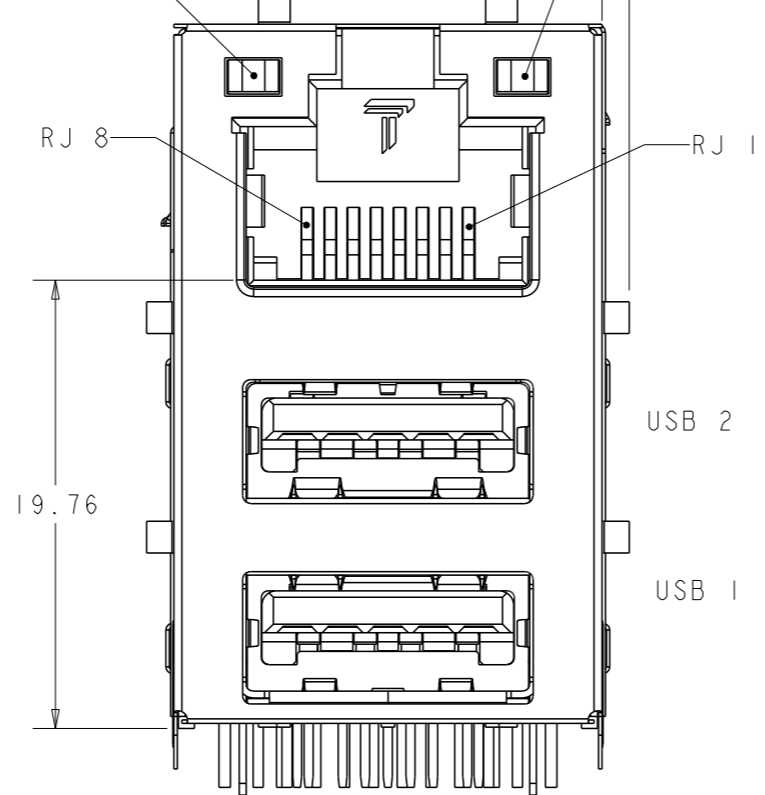
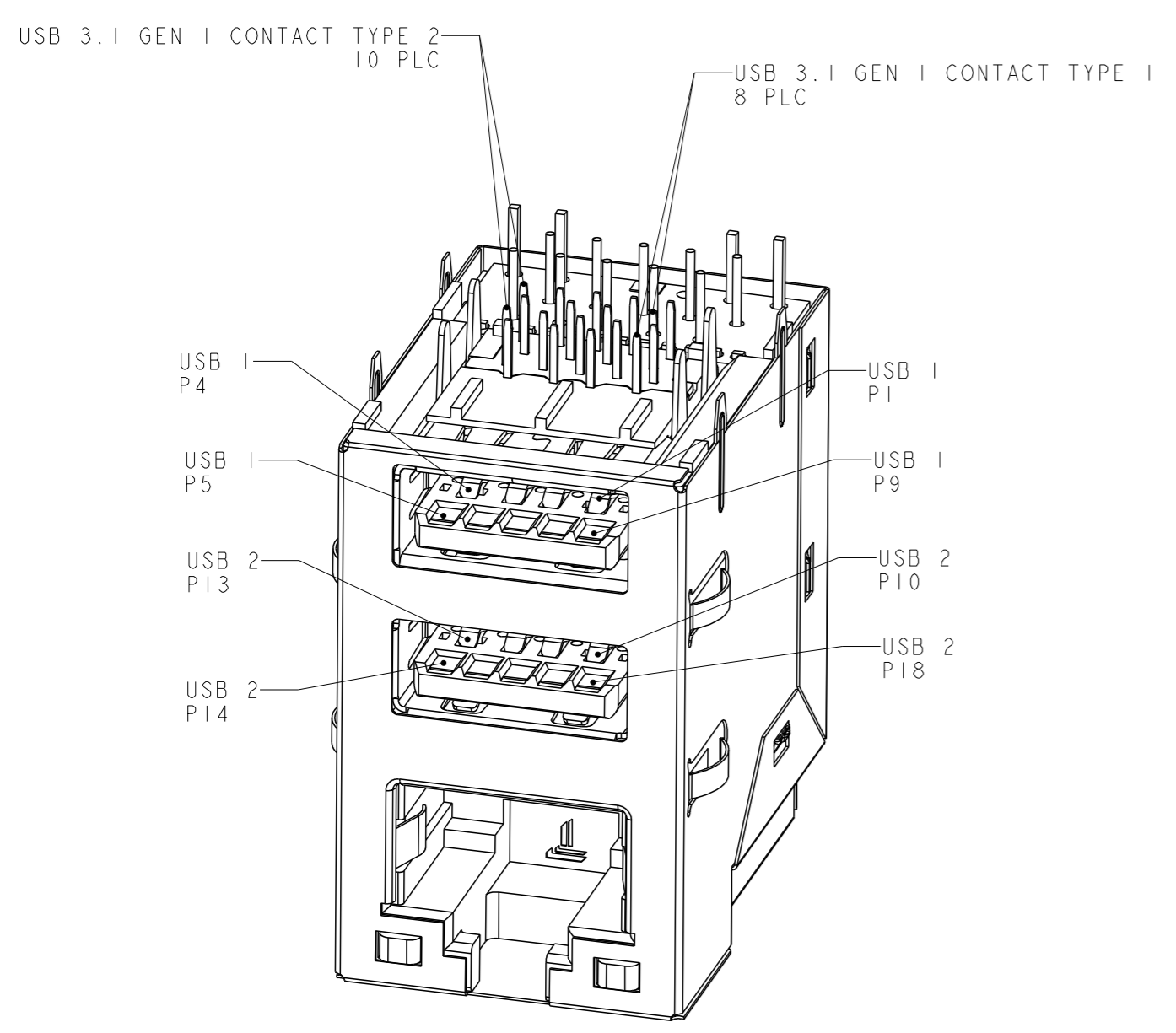
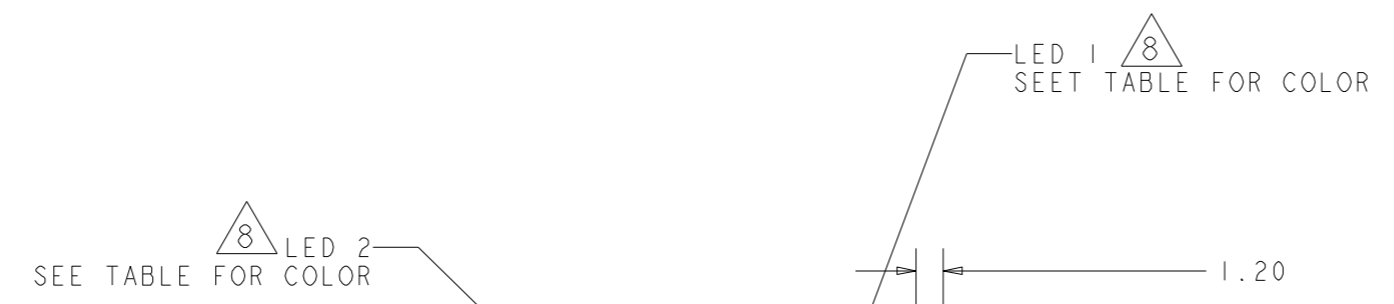
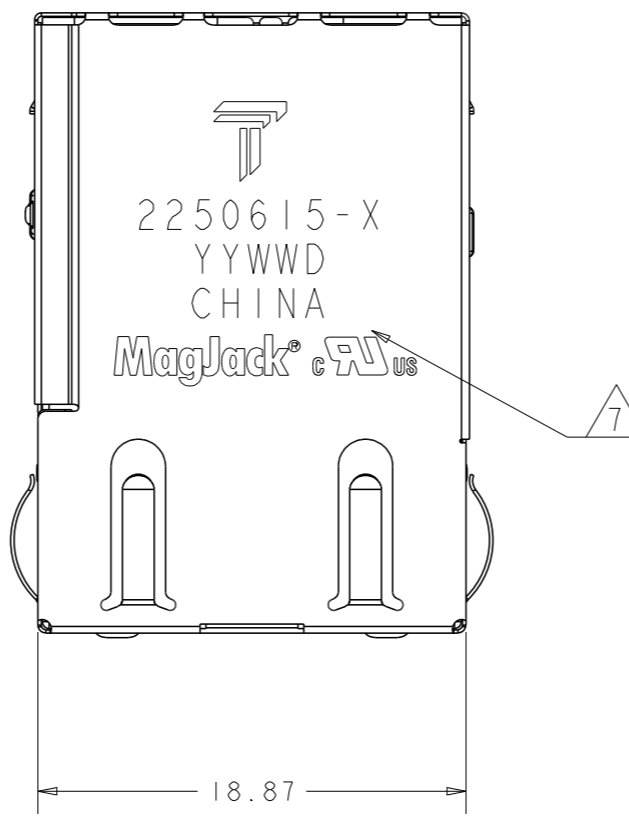
9. PARTS SHOULD BE RECOMMENDED FOR IR REFLOW SOLDERING PROCESS, PEAK TEMPERATURE 260°C MAX, DURATION TIME 10 SECONDS MAX, OVER 230°C WITHIN 40-60 SECONDS.


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

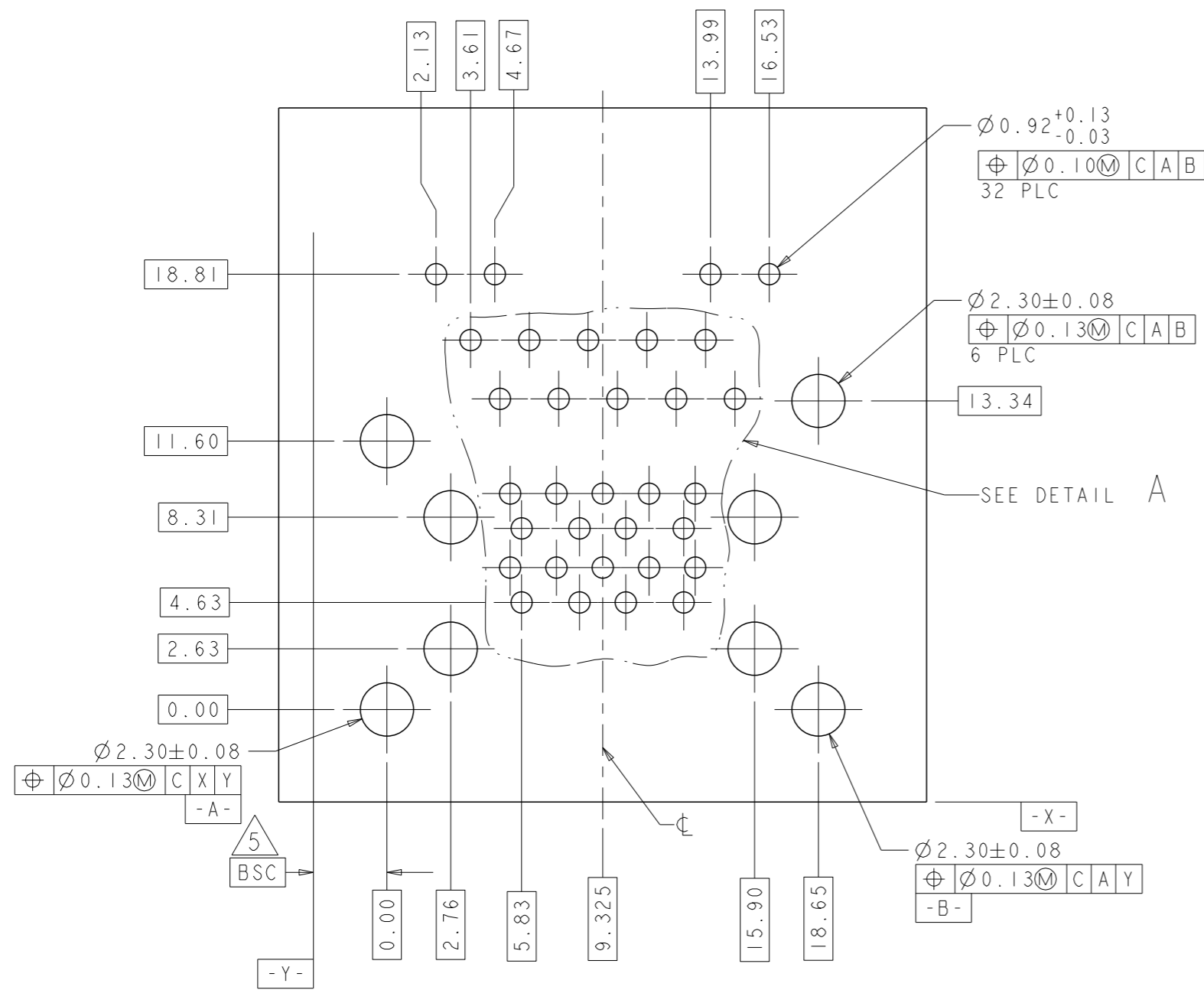
YELLOW	GREEN	GREEN	2250615-1
13-	14-	12-	PART NUMBER
LED2		LED1	

THIS DRAWING IS A CONTROLLED DOCUMENT. AND COMPLIANT TO ASME Y14.5M		DWN TOWER YU / YI LIU 13SEP2018	 DONGGUAN CHINA		
DIMENSIONS: mm		CHK BILL LIU 13SEP2018			
		APVD TONY YUAN 13SEP2018	DESC MAGJACK OVER DUAL USB3.1 GEN 1 URG153 CIRCUIT, GIGABIT, W/ LEDS		
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC \pm 1 PLC \pm 2 PLC ± 0.25 3 PLC \pm 4 PLC \pm ANGLES \pm		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 1 OF 5
				REV 4	

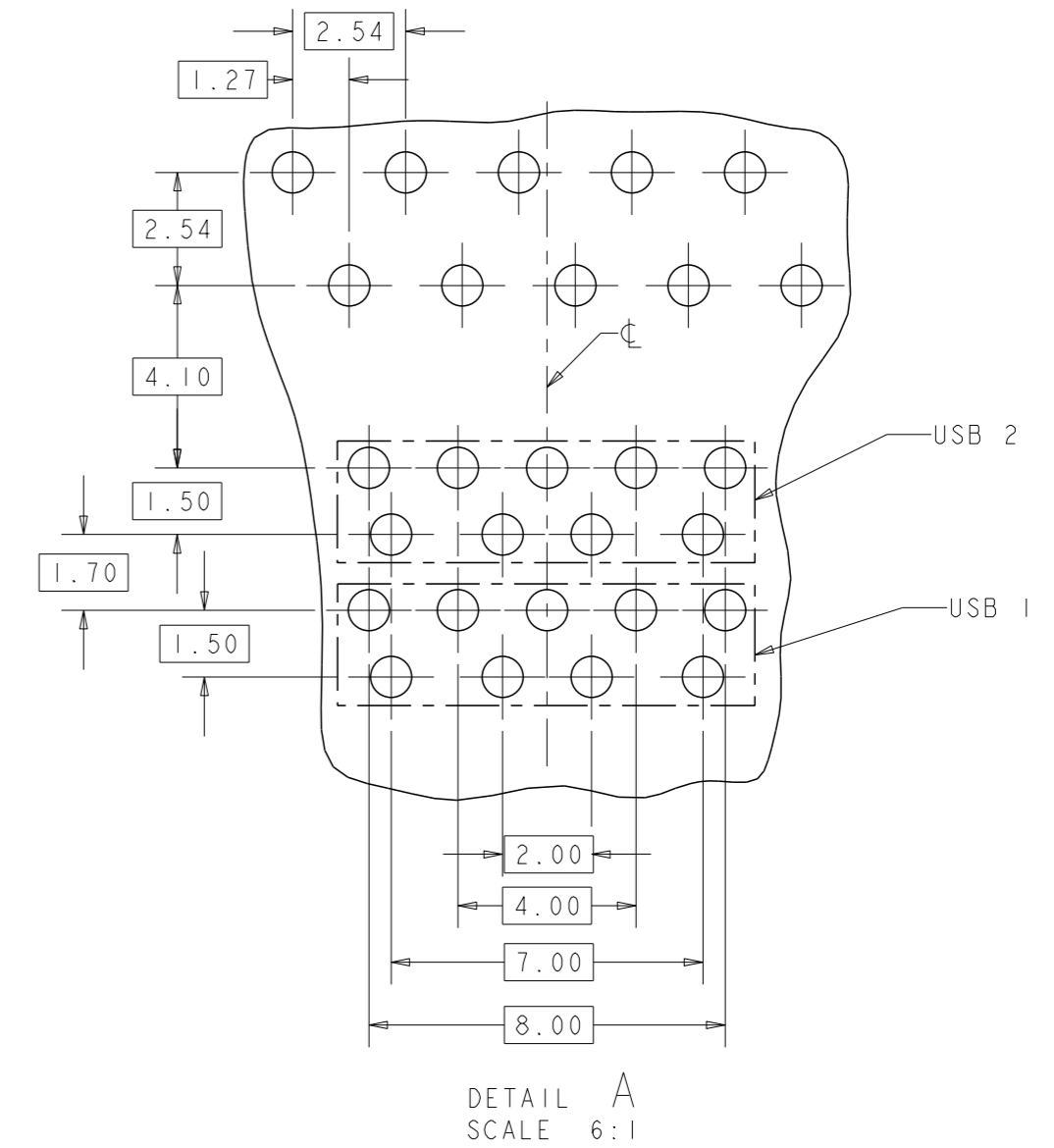
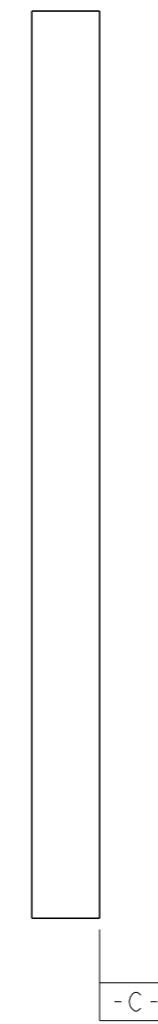
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DIMENSIONS: mm		CHK BILL LIU 13SEP2018		DESC MAGJACK OVER DUAL USB3.1 GEN 1 URG153 CIRCUIT, GIGABIT, W/ LEDS	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD TONY YUAN 13SEP2018	SIZE A2	CAGE CODE C-2250615	RESTRICTED TO -
0 PLC ± 1 PLC ± 2 PLC ±0.25 3 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

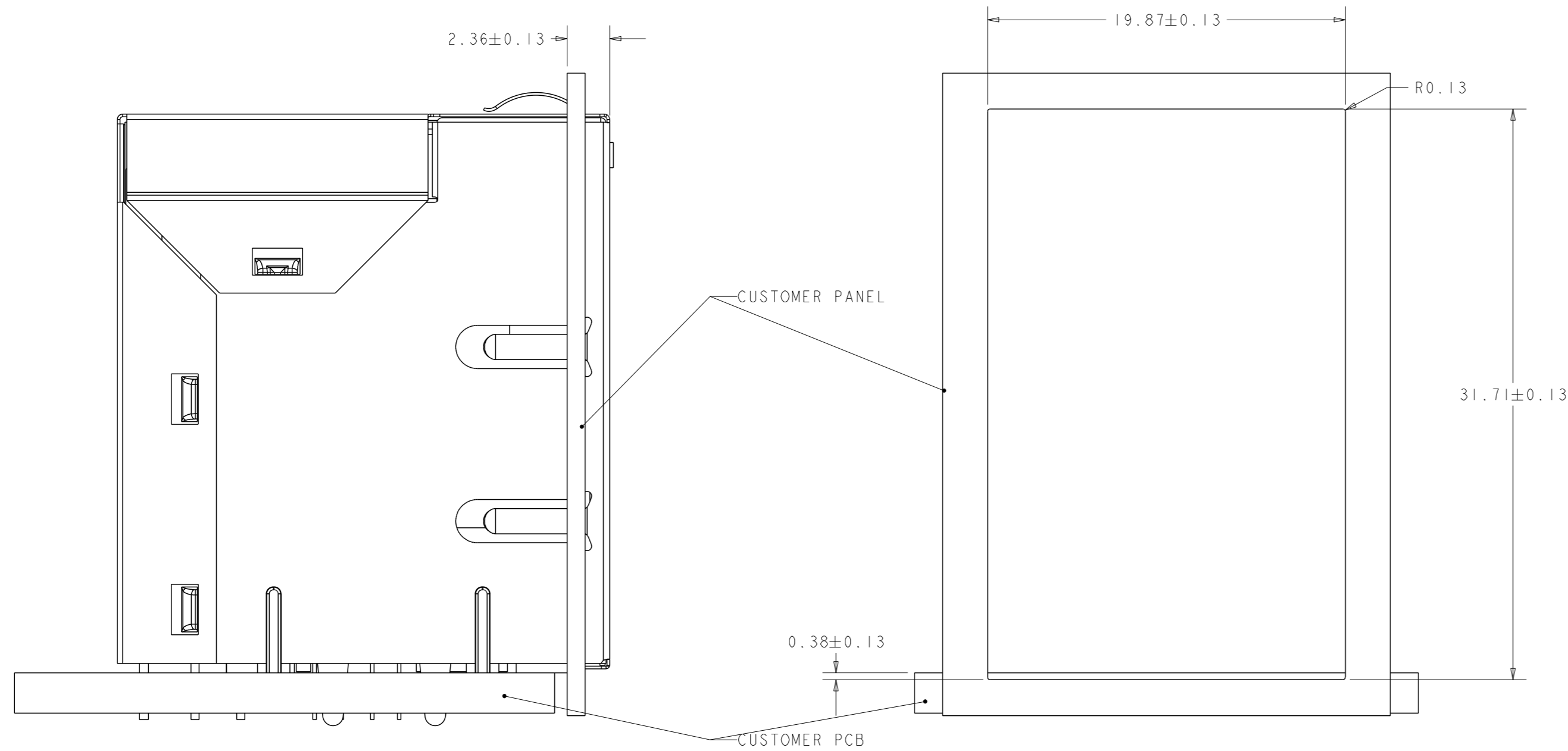


RECOMMENDED PC BOARD LAYOUT
(VIEW FROM COMPONENT SIDE)

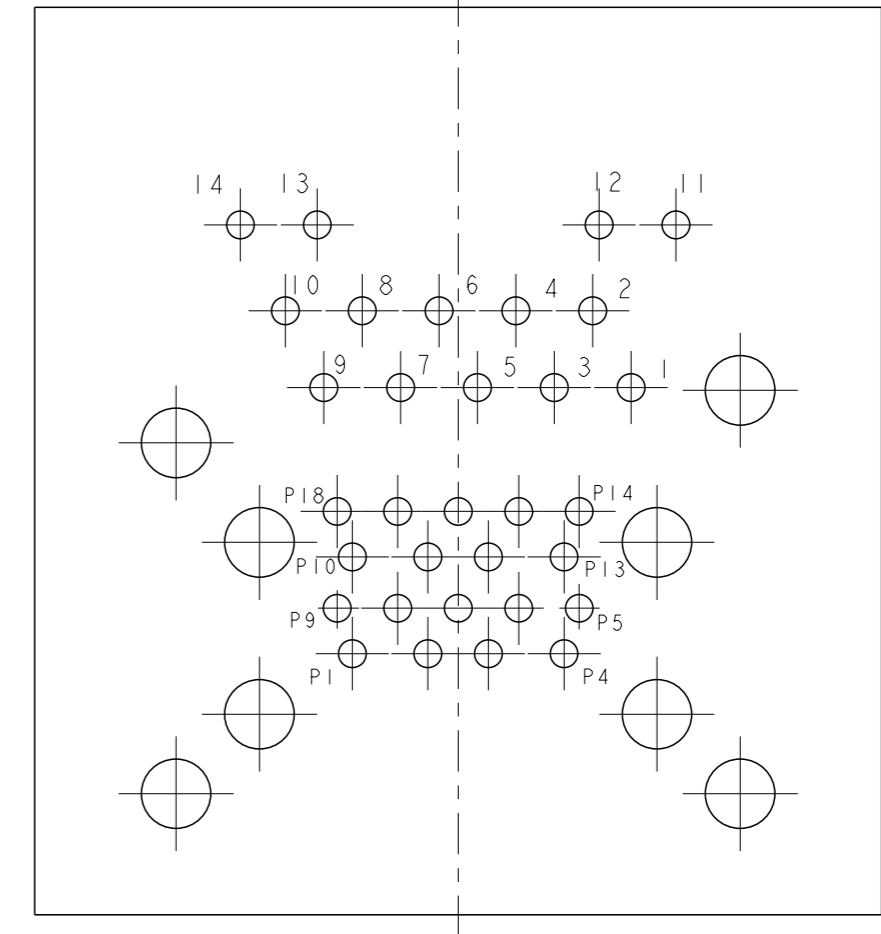


DETAIL A
SCALE 6:1

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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
PRODUCT SPEC 108-104004		DRAWING NO C-2250615	
		CUSTOMER DRAWING	
		SCALE 3:1	SHEET 3 OF 5
		REV 4	




SUGGEST CUSTOMER CUTOUT DIMENSIONS


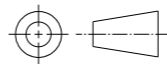


USB 3.1 GEN 1 STANDARD-A CONNECTOR PIN ASSIGNMENTS

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+	

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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
PRODUCT SPEC 108-104004	-	CAGE CODE C-2250615	DRAWING NO C-2250615
CUSTOMER DRAWING		SCALE 3:1	RESTRICTED TO - SHEET 4 OF 5 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

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CUSTOMER DRAWING			SHEET 5	OF 5
			REV 4	