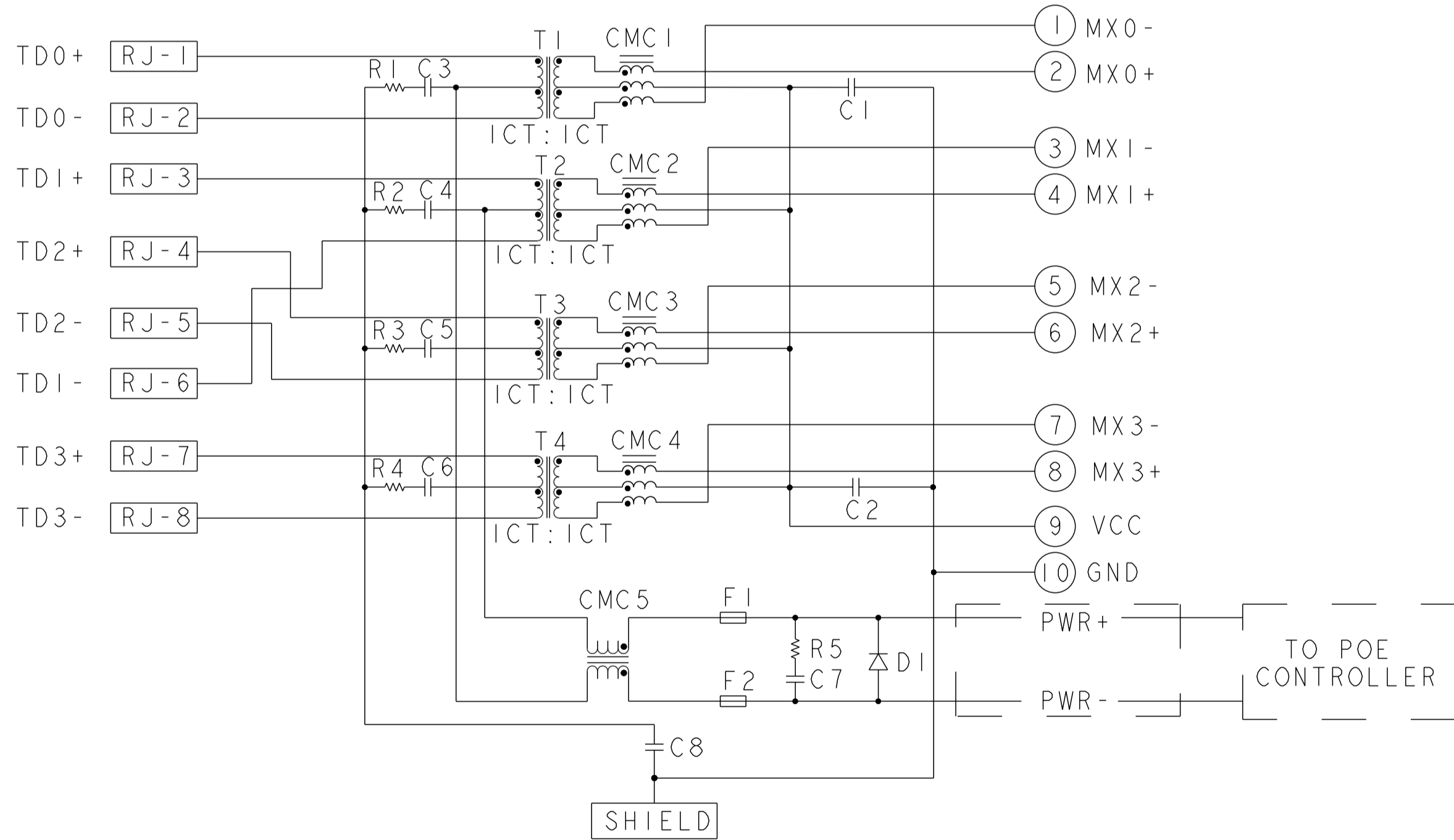


CIRCUIT S9HG48A STACKED SCHEMATIC ②⑦

TOP AND BOTTOM PORTS

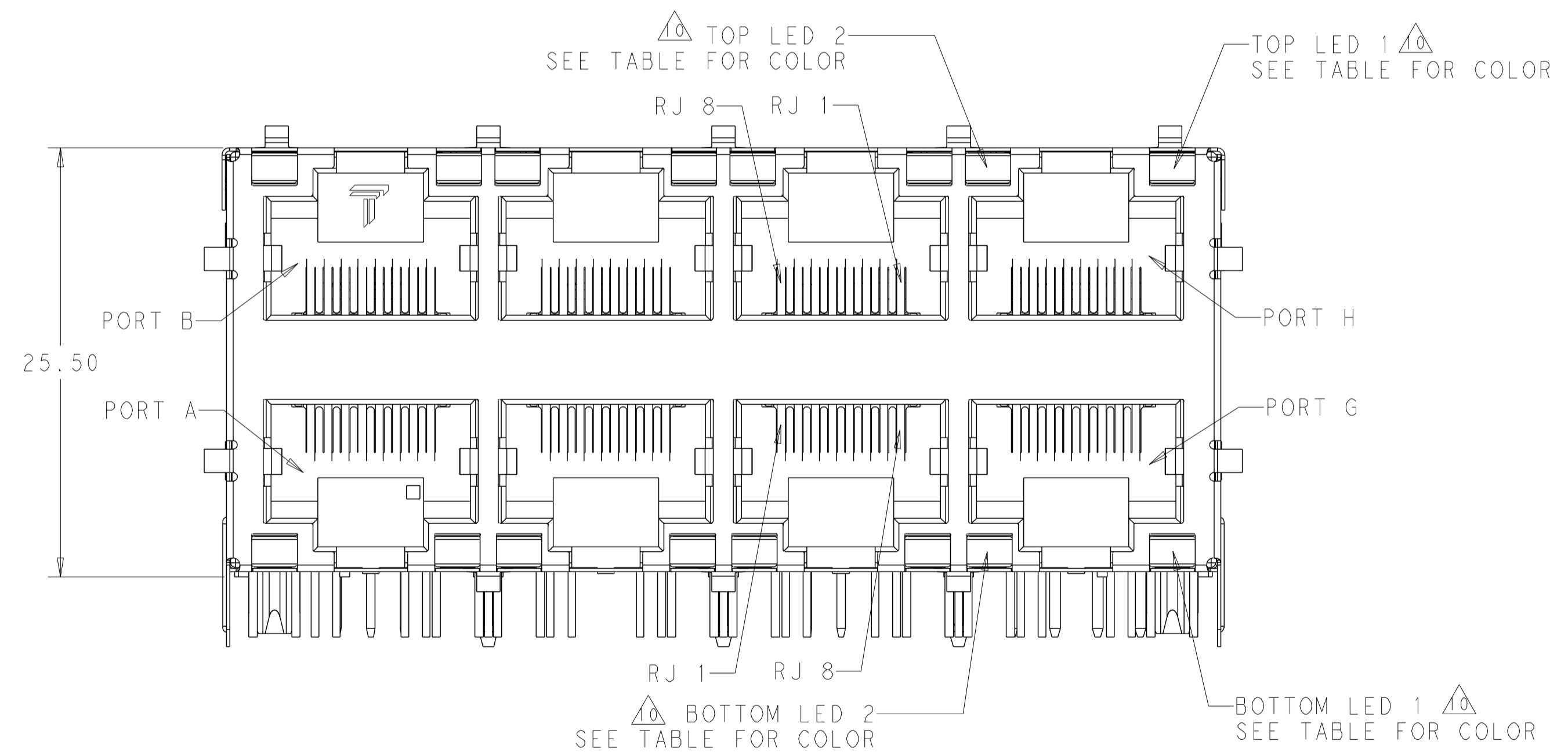
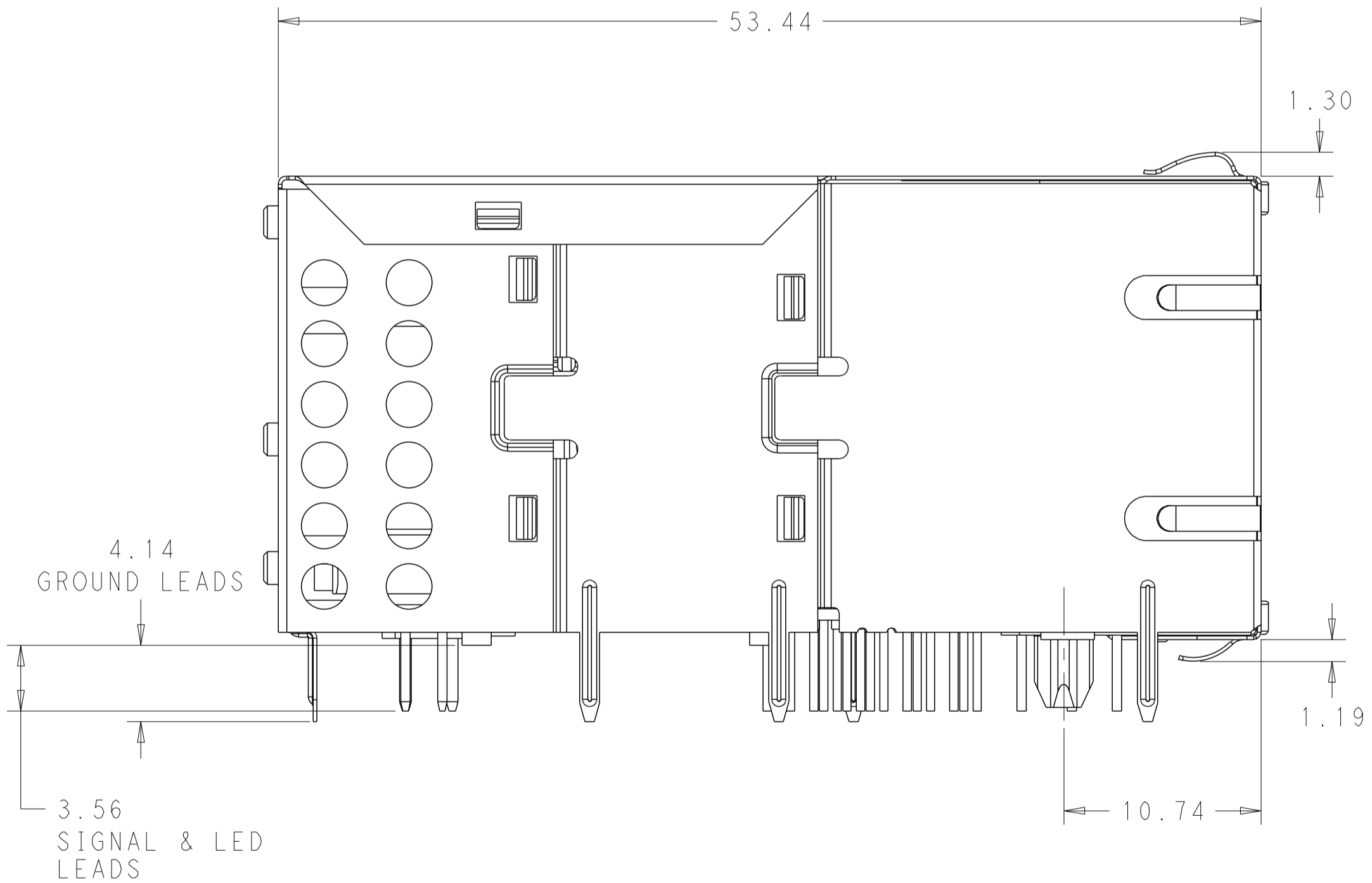
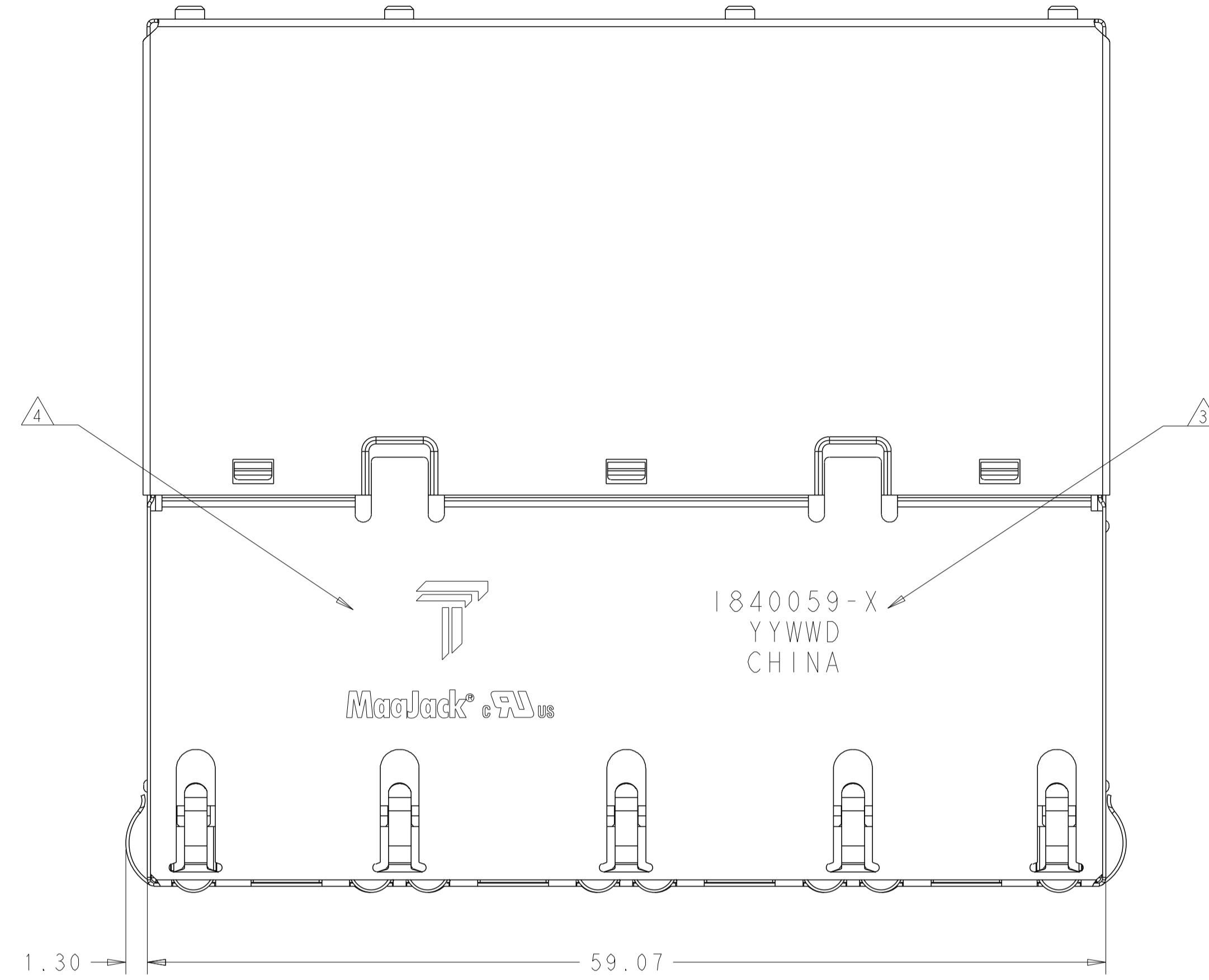


C1-C2 = 220nF, 25V CAPACITORS
 C3-C6 = 10nF, 250V CAPACITORS
 C7 = 100nF, 100V CAPACITOR
 C8 = 1000pF, 2KV CAPACITOR
 R1-R4 = 75 Ohms, 1/16W RESISTORS
 R5 = 4.7 Ohms, 1/10W RESISTOR
 F1-F2 = 63V, 1.5A FUSES
 D1 = Io: 1A, Vr: 100V DIODE

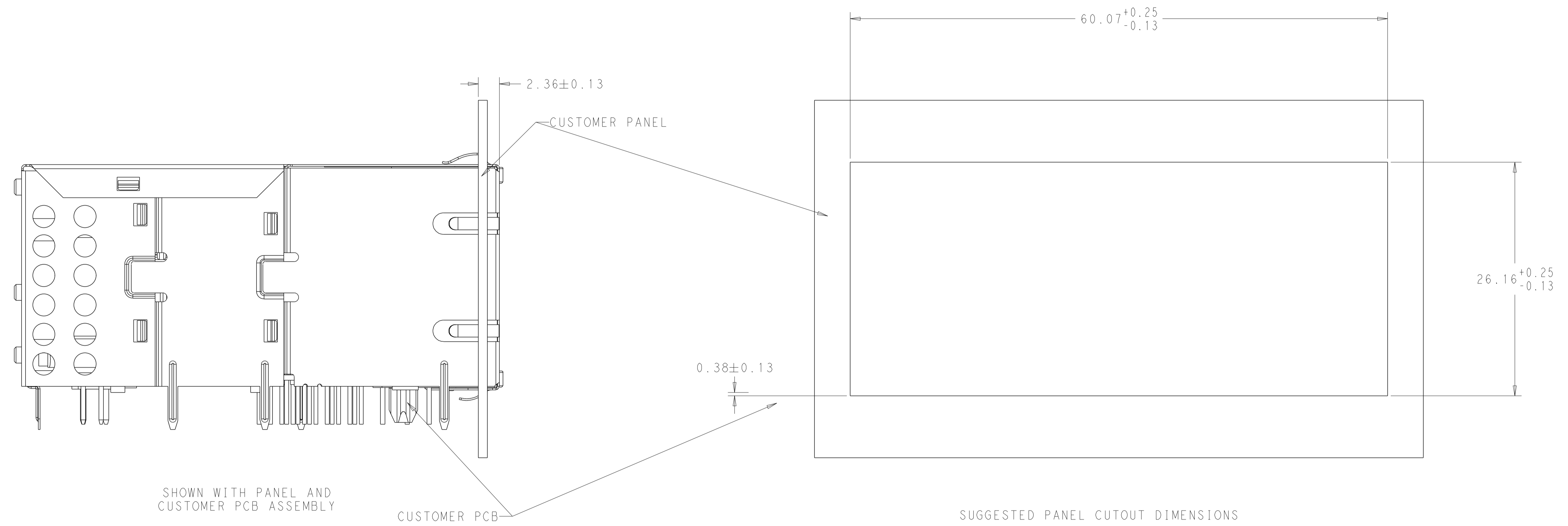
- ① MATERIALS:
 - HOUSING: THERMOPLASTIC, BLACK, FLAMMABILITY RATING UL 94V-0.
 - SHIELD: BRASS, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL, POST DIPPED WITH 2.54um MIN SAC SOLDER ON SOLDER TAILS.
 - CONTACTS: PHOSPHOR BRONZE, PLATED WITH 1.27um MIN OVERALL NICKEL UNDERPLATE, WITH SELECT 0.05um MIN GOLD OVER 0.76um MIN PALLADIUM-NICKEL AT MATING INTERFACE AND 2.54um MIN MATTE TIN ON SOLDER TAILS.
 - LED: DIFFUSED EPOXY LENS, CARBON STEEL LEAD FRAME LEADS, PREPLATED WITH 2.03um MIN SILVER OVER 1.02um 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, PoE PLUS
 - IMPEDANCE: 100 OHMS
 - TURNS RATIO (CHIP: CABLE): 1:1 ALL FOUR PAIRS
 - OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 18mADC BIAS FROM 0°C TO 70°C, ACROSS RJ1-RJ2 & RJ3-RJ6; 8mADC BIAS FROM 0°C TO 70°C, ACROSS RJ4-RJ5 & RJ7-RJ8.
 - DIELECTRIC (ISOLATION VOLTAGE): 2250 VDC(MAX) FOR 60 SECONDS WITH A RISE TIME OF 500V/SEC AND WITH ALL PORTS CONNECTED.
 - ALL FOUR PAIRS BI-DIRECTIONAL
 - POE CURRENT: 600mADC MAX
 - PERFORMANCE @ 25°C: SEE TABLE ON SHEET 5
- ③ PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN ARE LOCATED IN THE APPROXIMATE AREA SHOWN. DATE CODE: YYWW WHERE YY IS YEAR, WW IS WORK WEEK, D IS DAY OF WEEK, WITH SUNDAY = 1.
- ④ TRP CONNECTOR LOGO AND AGENCY APPROVAL LOGO ARE LOCATED IN THE APPROXIMATE AREA SHOWN.
- 5. OPERATING TEMPERATURE: FROM 0°C TO 70°C.
- 6. RJ45 CAVITIES CONFORM TO FCC RULES AND REGULATIONS PART 68 SUBPART F.
- ⑤ INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND SUPPORT AUTO-MDI/MDIX.
- ⑥ DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.
- ⑦ BASIC DIMENSION ESTABLISHED BY CUSTOMER, BUT NOT TO BE GREATER THAN 5.08.
- ⑧ LED IS DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA
 LED COLOR: DOMINANT WAVELENGTH (λD):
 GREEN 568 nm TYP at IF=20mA
 ORANGE 610 nm TYP at IF=20mA
 FORWARD VOLTAGE (VF):
 GREEN 2.2V TYP at IF=20mA
 ORANGE 2.1V TYP at IF=20mA
- 11. THE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS, PEAK TEMPERATURE 260°C MAX, 10 SECONDS MAX.


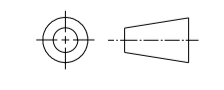
GRN/ORA	GRN/ORA	GRN/ORA	GRN/ORA	1840059-7
BOTTOM LED 2	BOTTOM LED 1	TOP LED 2	TOP LED 1	PART NUMBER

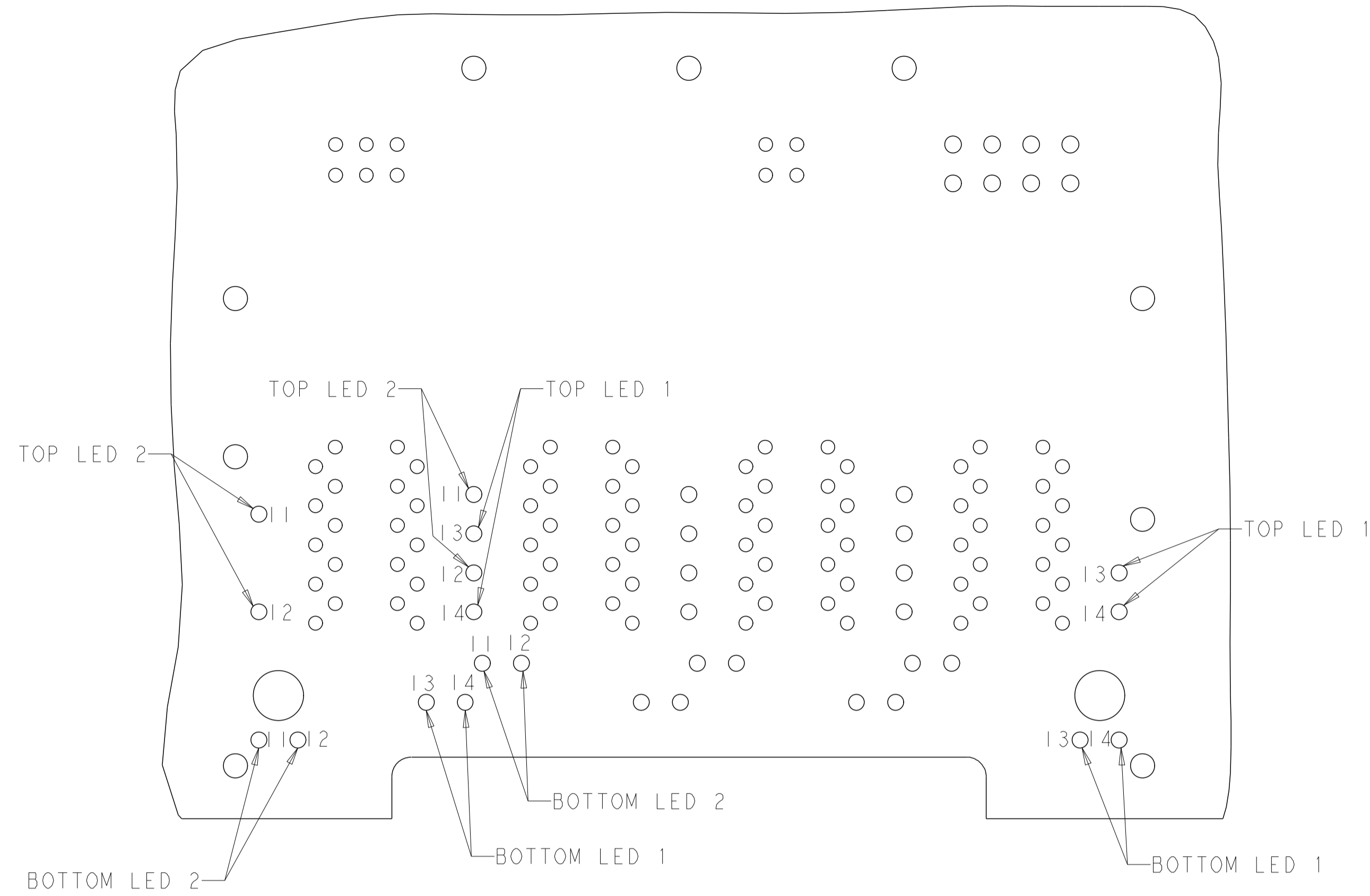
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWR: TOMMY REN/11/11/17SEP2012 CHK: TONY YUAN 17SEP2012 APVD: KEITH ZHU 17SEP2012	 trp CONNECTOR <small>a bel group</small> DONGGUAN CHINA
DIMENSIONS: mm	TOLERANCES UNLESS OTHERWISE SPECIFIED:	MODEL NAME: MAGJACK STACK PoE+	
 PRODUCT SPEC: 108-104004	0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ±	DESC: 2X4 S9HG48A GIGABIT PoE+ W/ LED	
CUSTOMER DRAWING		SIZE: A1	CAGE CODE: 1840059
SCALE: NTS		SHEET: 1	REV: 3



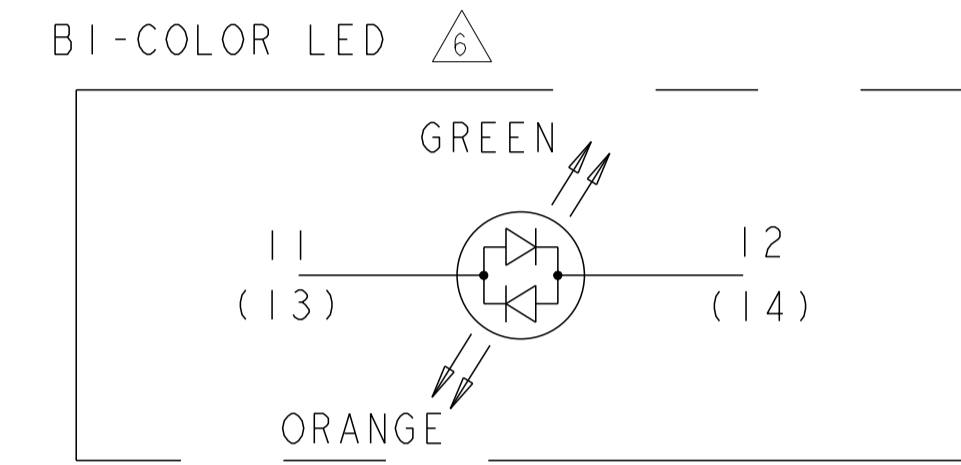
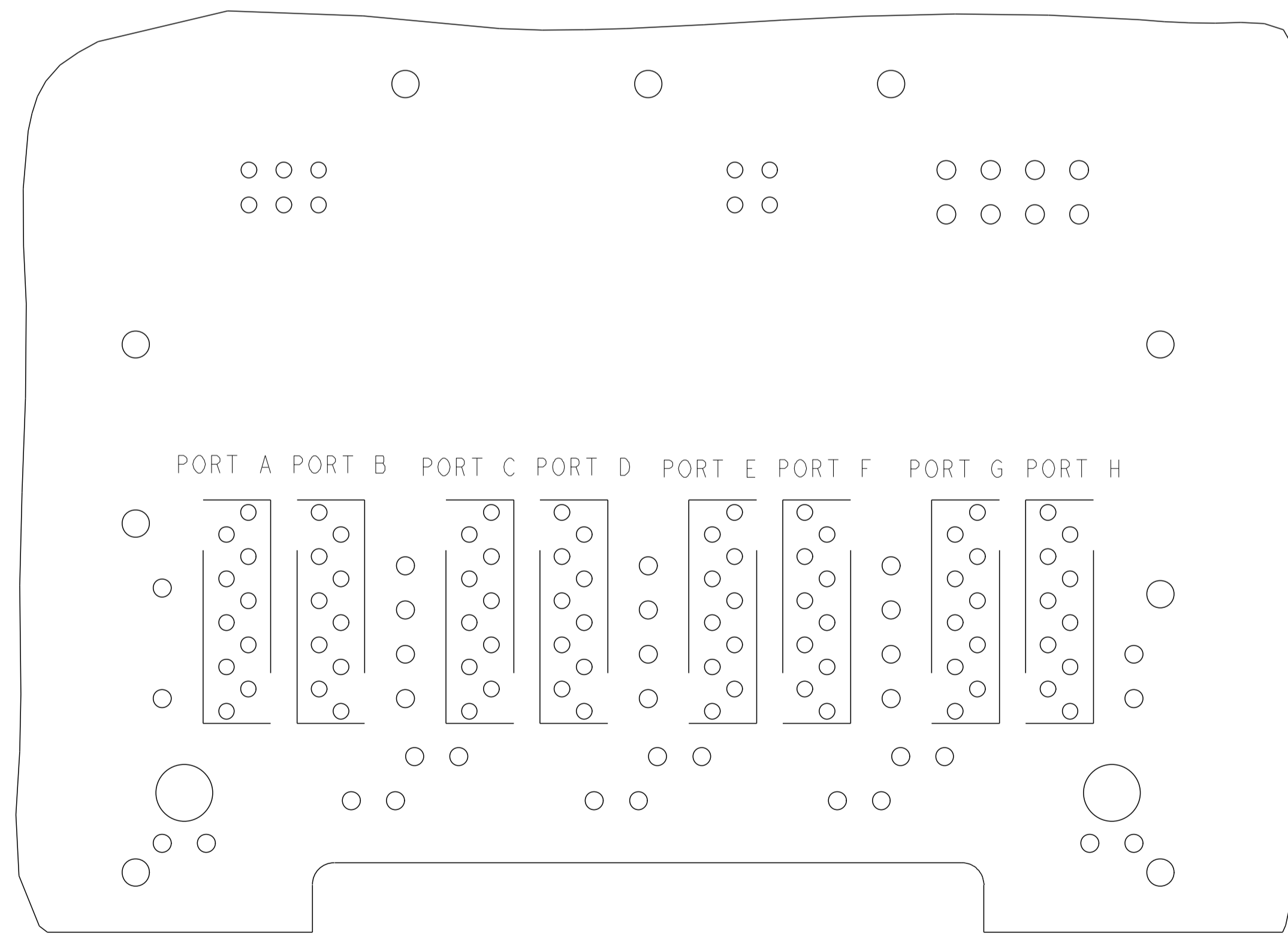
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN: TOMMY REN/YI LIU 17SEP2012 CHK: TONY YUAN 17SEP2012 APVD: KEITH ZHU 17SEP2012	DONGGUAN CHINA
DIMENSIONS: mm	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ±0.25 ANGLES ±°	MODEL NAME MAGJACK STACK PoE+	
PRODUCT SPEC 108-104004	APPLICATION SPEC -	SIZE A1	CAGE CODE -
CUSTOMER DRAWING		DRAWING NO. 1840059	RESTRICTED TO -
		SCALE NTS	SHEET 2 OF 6 REV 3




THIS DRAWING IS A CONTROLLED DOCUMENT.		DWG: TOMMY REN/YI LIU 17SEP2012		 trp CONNECTOR a bel group		DONGGUAN CHINA	
DIMENSIONS: mm		CHK: TONY YUAN 17SEP2012				DESC: 2X4 S9HG48A GIGABIT PoE+ W/ LED	
		TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPROV: KEITH ZHU 17SEP2012		SIZE: A1	
PRODUCT SPEC: 108-104004		0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ± 4 PLC ± ANGLES ± APPLICATION SPEC ±		MODEL NAME: MAGJACK STACK PoE+		DRAWING NO: C=1840059	
				CUSTOMER DRAWING		SCALE: NTS SHEET 4 OF 6 REV 3	



LED HOLE DESIGNATIONS
VIEWED FROM COMPONENT SIDE



THIS DRAWING IS A CONTROLLED DOCUMENT.		DRW: TOMMY REN/YI LIU 17SEP2012	 trp CONNECTOR <small>a bel group</small>	DONGGUAN CHINA
DIMENSIONS: mm		CHK: TONY YUAN 17SEP2012		DESC: 2X4 S9HG48A GIGABIT PoE+ W/ LED
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APP'D: KEITH ZHU 17SEP2012	MODEL NAME: MAGJACK STACK PoE+	RESTRICTED TO: -
0 PLC ±0.25	1 PLC ±0.25		SIZE: A1	CAGE CODE: C=1840059
2 PLC ±0.25	3 PLC ±		SCALE: NTS	SHEET 5 OF 6
4 PLC ±	ANGLES ±		PRODUCT SPEC: 108-104004	REV: 3
APPLICATION SPEC			CUSTOMER DRAWING	


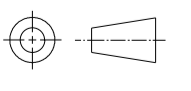
TRANSMISSION PERFORMANCE AT 25°C

FREQUENCY [MHz]	INSERTION LOSS [dB max.] LIMITS	RETURN LOSS [dB min.] LIMITS	CROSSTALK NEXT [dB min.] LIMITS
1.0-9.9	$-(0.4+0.1*\log(F))$	-27	$-(66-21*\log(F))$
10.0-49.9	$-(0.5+0.3*\log(F/10))$	$-(27-17*\log(F/10))$	$-(45-16*\log(F/10))$
50.0-79.9	$-(1+1.4*\log(F/80))$	$-(27-17*\log(F/10))$	$-(25-30*\log(F/100))$
80.0-99.9	$-(1.3+3*\log(F/100))$	$-(27-17*\log(F/10))$	$-(25-30*\log(F/100))$
100.0-200	$-(4+9*\log(F/200))$	$-(1-30*\log(F/200))$	$-(20-16.5*\log(F/200))$

CM-DM [dB min.]		DM-CM [dB min.]		CMR [dB min.]	
FREQUENCY [MHz]	LIMITS	FREQUENCY [MHz]	LIMITS	FREQUENCY [MHz]	LIMITS
1.0-9.9	$-(48-12*\log(F))$	1.0-9.9	$-(54.5-14.5*\log(F))$	1.0-9.9	$-(57-23*\log(F))$
10.0-49.9	$-(36-21*\log(F/10))$	10.0-49.9	-25	10.0-19.9	$-(57-23*\log(F))$
50.0-79.9	$-(18-11*\log(F/100))$	50.0-79.9	-25	20.0-79.9	-27
80.0-99.9	$-(18-11*\log(F/100))$	80.0-99.9	-25	80.0-99.9	$-(27-14.5*\log(F/80))$
100.0-199.9	$-(8.7-15.5*\log(F/400))$	100.0-199.9	$-(9-23*\log(F/500))$	100.0-199.9	$-(27-14.5*\log(F/80))$
200.0-399.9	$-(8.7-15.5*\log(F/400))$	200.0-499.9	$-(9-23*\log(F/500))$	200.0-399.9	$-(21.5-39*\log(F/200))$
400.0-1000.0	$-(4.5-10.5*\log(F/1000))$	500.0-1000	$-(6-10*\log(F/1000))$	400.0-1000.0	-10

TRANSMISSION PERFORMANCE AT 25°C

FREQUENCY [MHz]	POWER SOURCE CMR [dB Min.] TYPICAL
1.0-9.9	$-2-7*\log(F)$
10.0-19.9	$-9.1-11.3*\log(F/20)$
20.0-49.9	$-12.5-16.9*\log(F/20)$
50.0-79.9	$-19.2-19.7*\log(F/50)$
80.0-99.9	$-23.2-6.9*\log(F/80)$
100.0-199.9	$-23.9+12.6*\log(F/100)$
200.0-399.0	$-20.1+12.6*\log(F/200)$
400.0-899.0	$-16.3+37.5*\log(F/400)$
900.0-1000	$-3.1-94*\log(F/900)$

THIS DRAWING IS A CONTROLLED DOCUMENT.		DMR TOMMY REN/YI LIU 17SEP2012	 trp CONNECTOR a bel group	DONGGUAN CHINA
DIMENSIONS: mm		CHK TONY YUAN 17SEP2012		MODEL NAME
		APPRO KEITH ZHU 17SEP2012	MAGJACK	SIZE A1
TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ± ANGLES ±		PRODUCT SPEC 108-104004	STACK PoE+	DRAWING NO. 1840059
APPLICATION SPEC		CUSTOMER DRAWING	SCALE NTS	SHEET 6 OF 6 REV 3