

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	LTN	DESCRIPTION	DATE	OWN APVD
E		EC-1703035	22MAR2017	TRY TY

1. MATERIALS

- HOUSING: THERMOPLASTIC, FLAMMABILITY RATING UL 94V-0.
- SHIELD: BRASS 0.20mm THICK, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL. SOLDER TABS POST DIPPED WITH 2.54um MIN SAC SOLDER.
- CONTACTS: PHOSPHOR BRONZE 0.46mm X 0.30mm, PHOSPHOR BRONZE, 1.27um MIN NICKEL UNDERPLATE, WITH 1.27um MIN GOLD PLATING AT MATING INTERFACE AND 2.54um MIN MATTE TIN ON SOLDER TAILS,
- SOLDER TAILS: 0.25mm THICK, PHOSPHOR BRONZE, 1.27um MIN OVERALL NICKEL UNDERPLATE, 3um TIN PLATE
- LIGHT EMITTING DIODE (LED): DIFFUSED EPOXY LENS, 0.5mm X 0.5mm CARBON STEEL WIREFRAME LEADS PREPLATED WITH 2.03um MIN. SILVER PLATE OVER 1.02um MIN. NICKEL OVER 1.02um MIN. COPPER UNDERPLATE; LEADS POST-PLATED WITH 3.05um MIN. MATTE TIN, TIP TIN DIPPING

2. RJ45 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68 SUB PART F.

3. MAGNETICS

- APPLICATION: 10/100 BASE-T, PoE
- IMPEDANCE: 100 OHMS
- TURNS RATIO (CHIP:CABLE): TX = 1:1, RX = 1:1
- OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS, 8mADC BIAS FROM 0°C TO 70°C, TX AND RX
- POE CURRENT: 350mADC MAX
- PERFORMANCE @ 25°C:
 - INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz
 - RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 30MHz
 - 18-20LOG(f/30)dB MIN FROM 30.1MHz TO 60MHz
 - 12dB MIN FROM 60.1MHz TO 80MHz
 - CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 40MHz
 - 33-20LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz
 - COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz
- ISOLATION VOLTAGE: 2250VDC FOR 60 SECONDS WITH A RISE TIME OF 500 V/SEC

4. OPERATING TEMPERATURE: FROM 0°C TO +70°C.

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

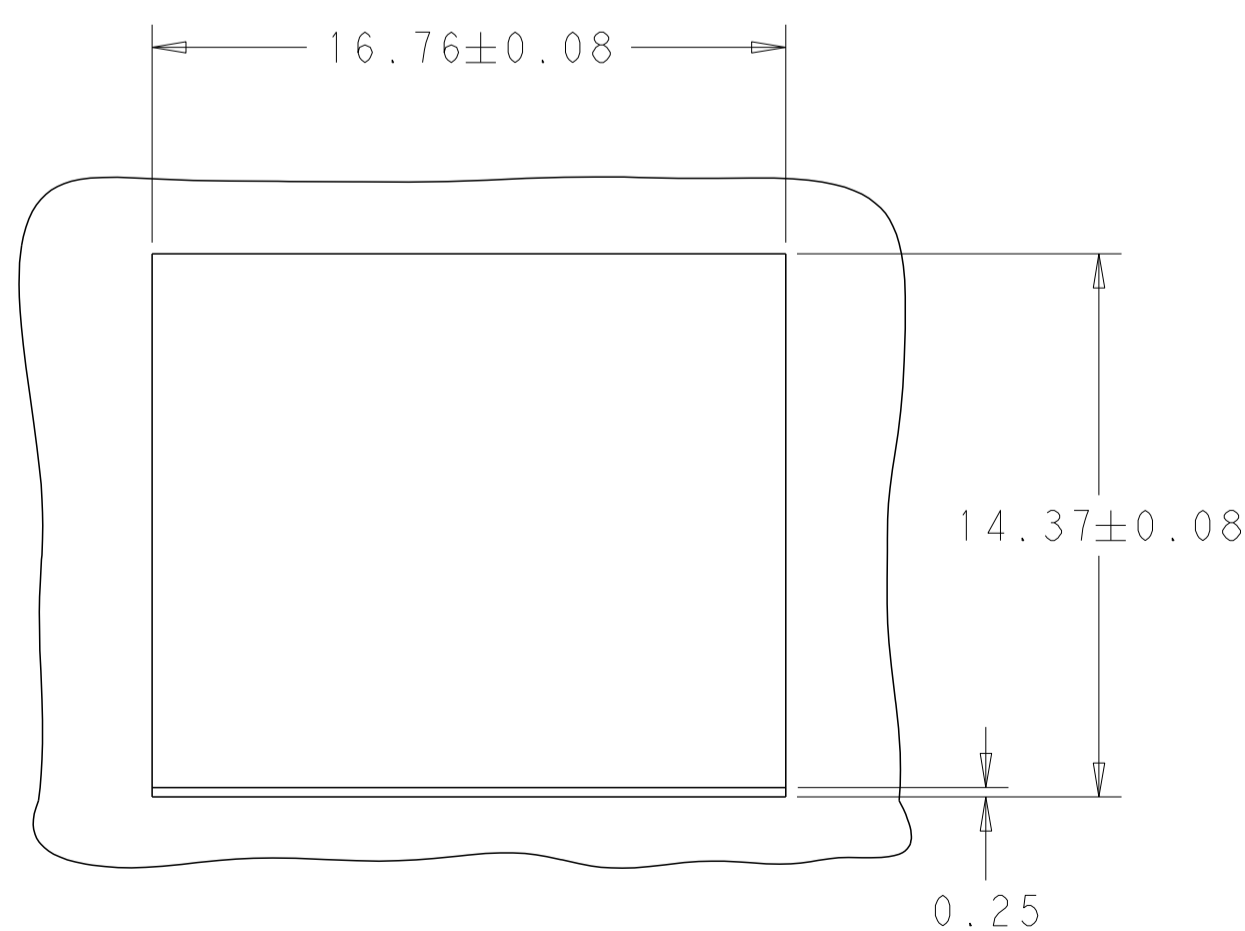
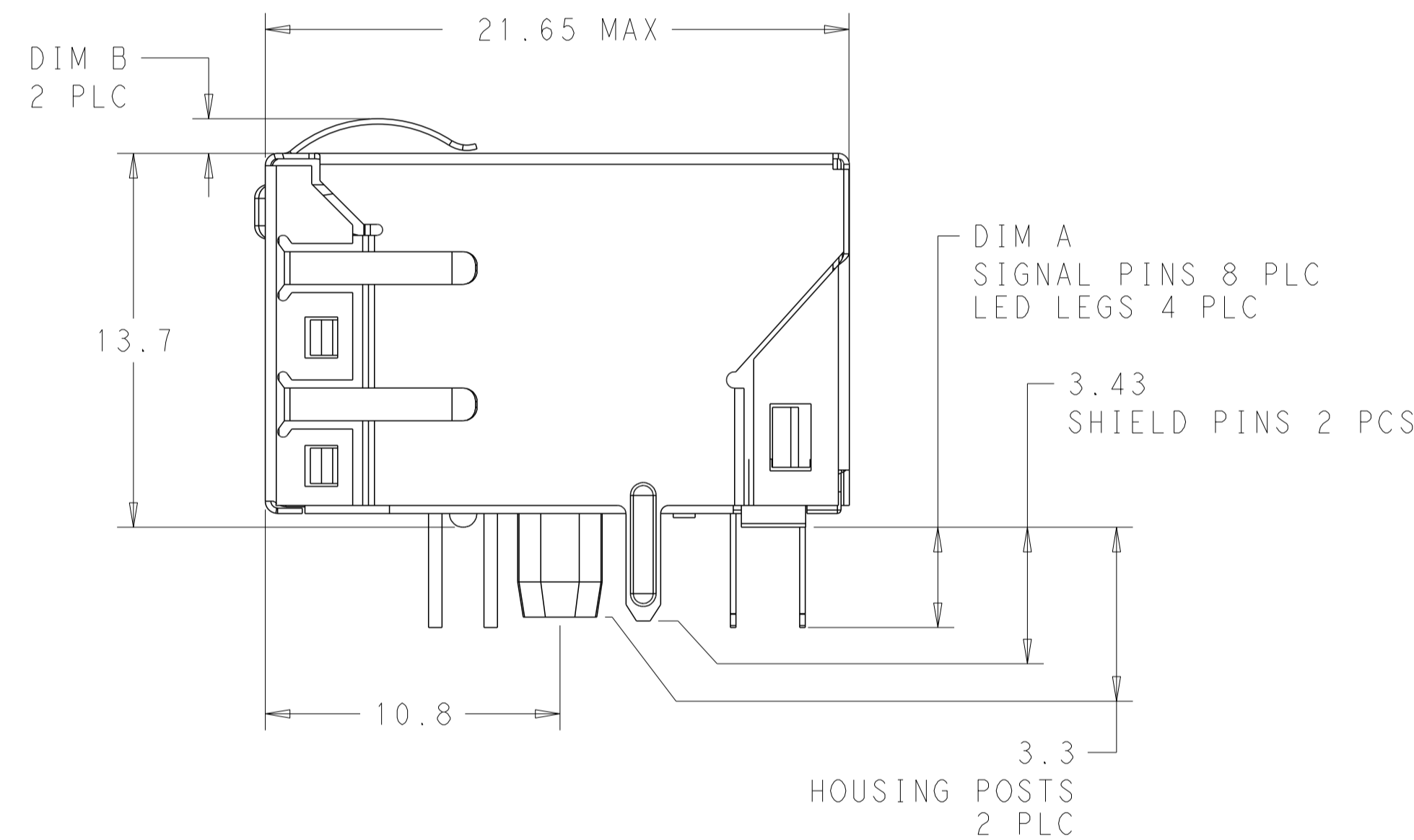
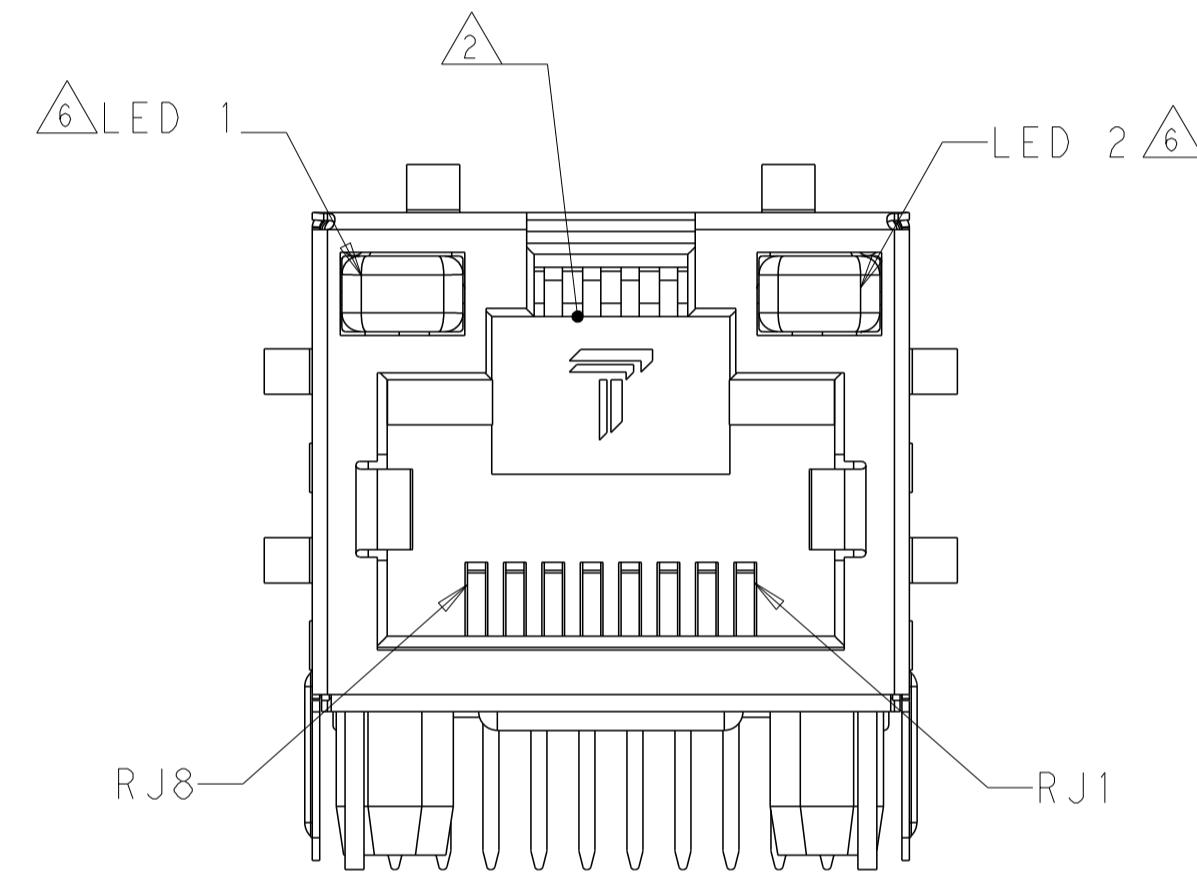
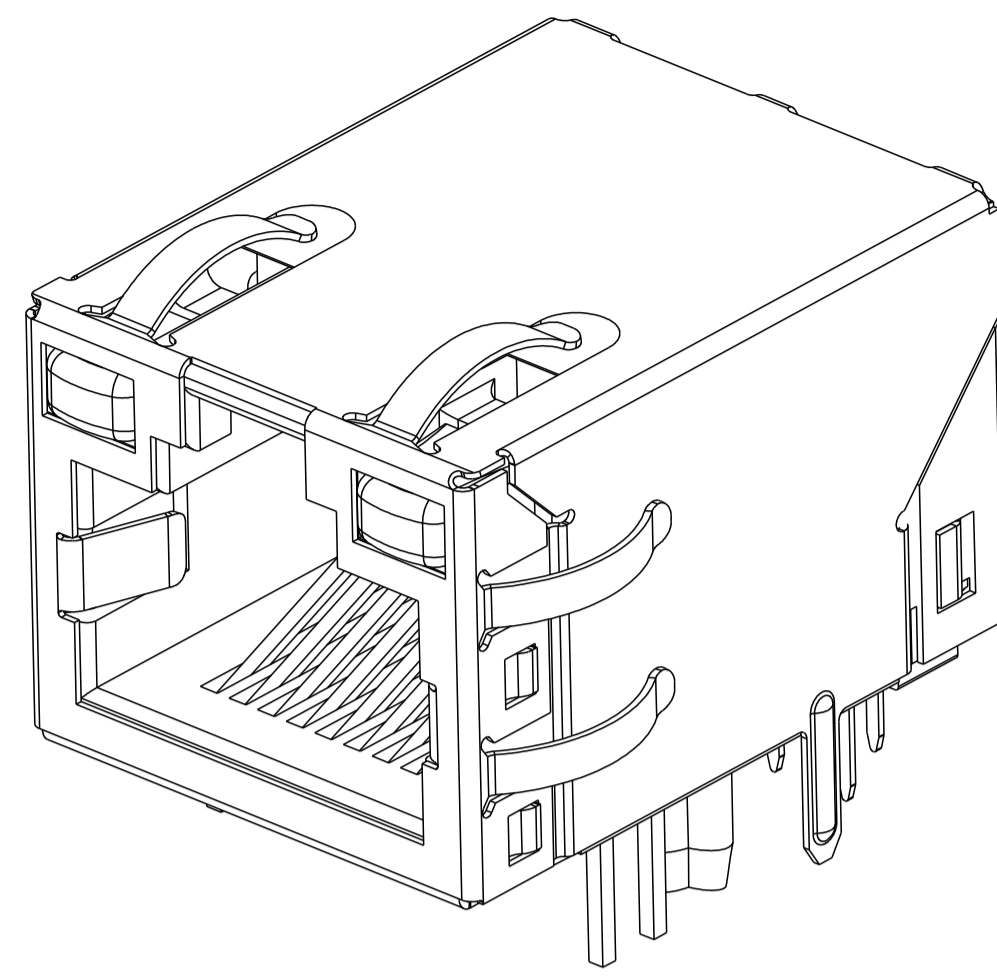
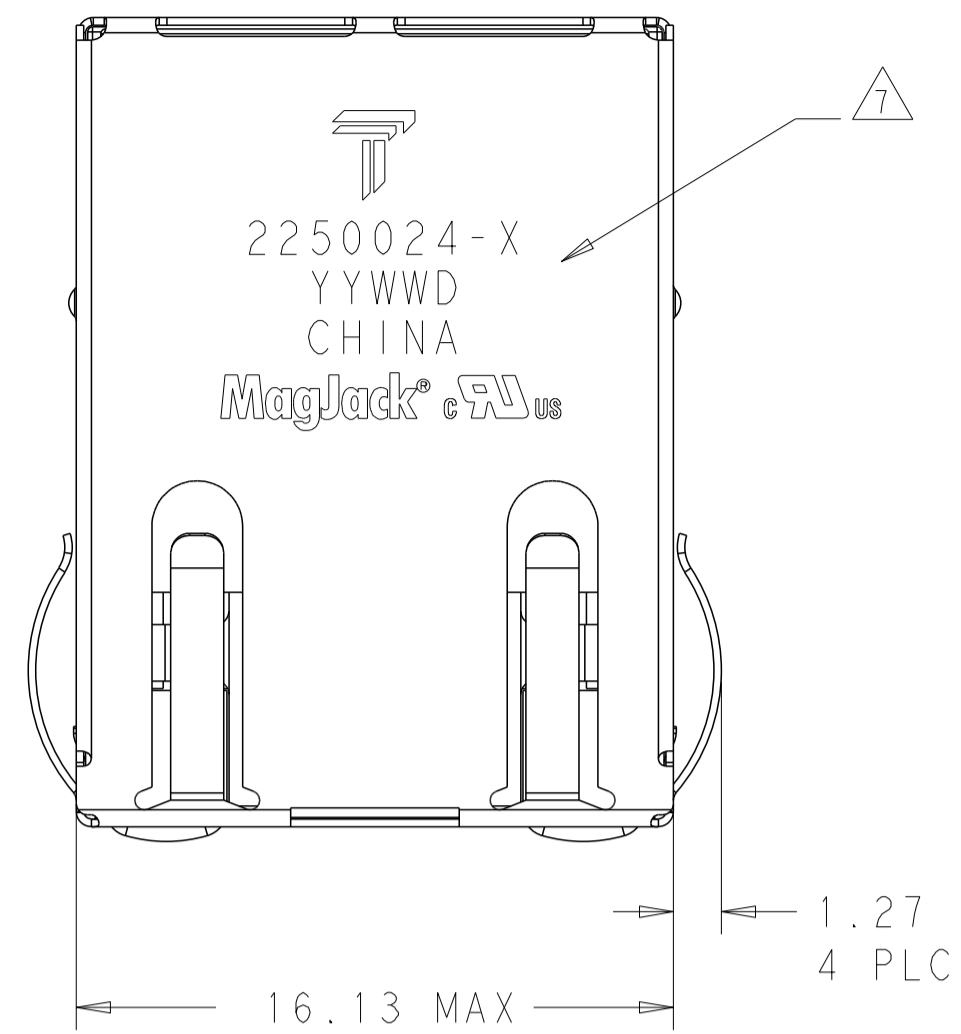
6. THE 250 OHM LED RESISTORS ARE OPTIONAL, PLEASE SEE CHART FOR PRESENCE OR ABSENCE OF RESISTORS
 IF LEDS WITHOUT 250 OHM RESISTORS, LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA
 LED COLOR: DOMINATE WAVELENGTH (λD): GREEN 568 nm TYP @ IF=20mA
 FORWARD VOLTAGE(VF): GREEN 2.2V TYP @ IF = 20mA

IF LEDS WITH BUILT-IN 250 OHM RESISTORS. LEDS ARE DRIVEN WITH 5V VOLTAGE AND THE MAX OPERATING CURRENT IS 20mA
 LED COLOR: DOMINATE WAVELENGTH (λD): GREEN 568 nm TYP @ VF=5V
 FORWARD CURRENT (IF): GREEN 12mA TYP @ VF = 5V
 DOMINATE WAVELENGTH (λD): YELLOW 588 nm TYP @ VF=5V
 FORWARD CURRENT (IF): YELLOW 13mA TYP @ VF = 5V

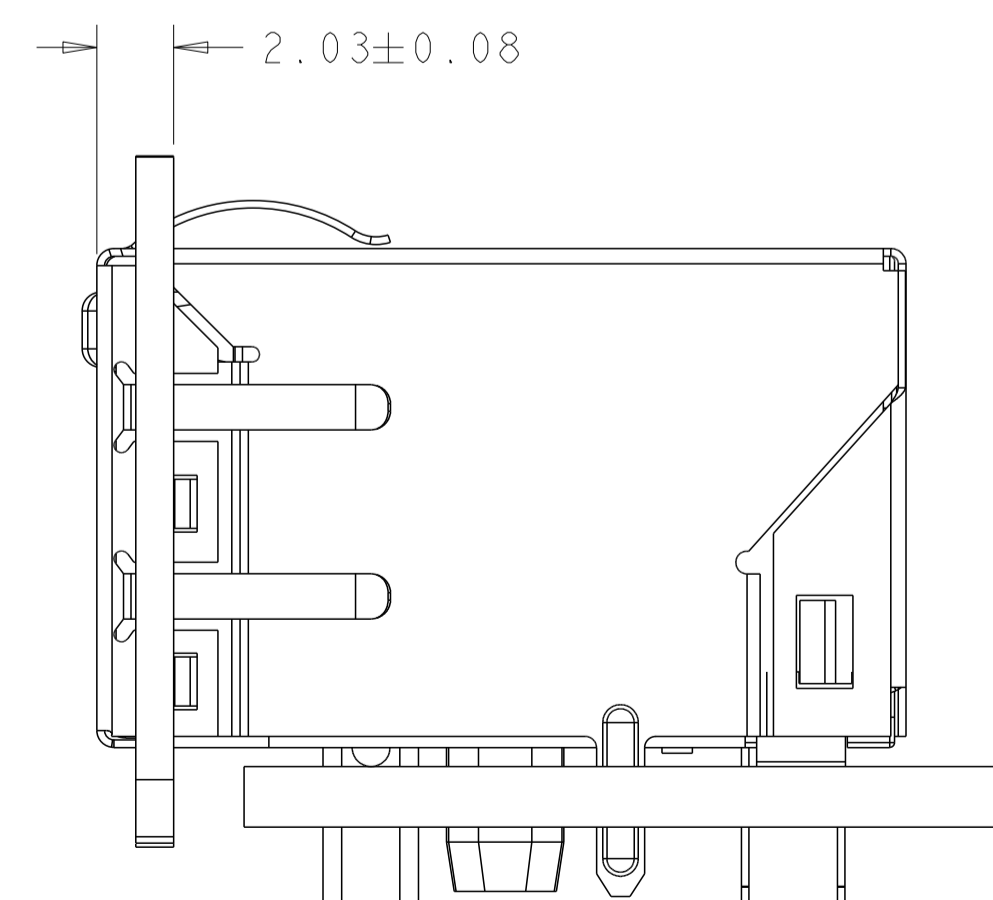
7. TRP CONNECTOR LOGO, PART NUMBER, DATE CODE, COUNTRY OF ORIGIN AND AGENCY APPROVAL MARKING IN APPROXIMATE LOCATION SHOWN. DATE CODE: YYWW WHERE YY IS YEAR, WW IS WORK WEEK, D IS DAY OF WEEK, WITH SUNDAY=1.

8. PART SHOULD BE RECOMMENDED FOR WAVE SOLDERING PROCESS, PREHEAT TEMPERATURE IS 120°C TO 160°C, 120 SECONDS TO 180 SECONDS, PEAK WAVE SOLDERING TEMPERATURE IS 260°C MAX, 10 SECONDS MAX.

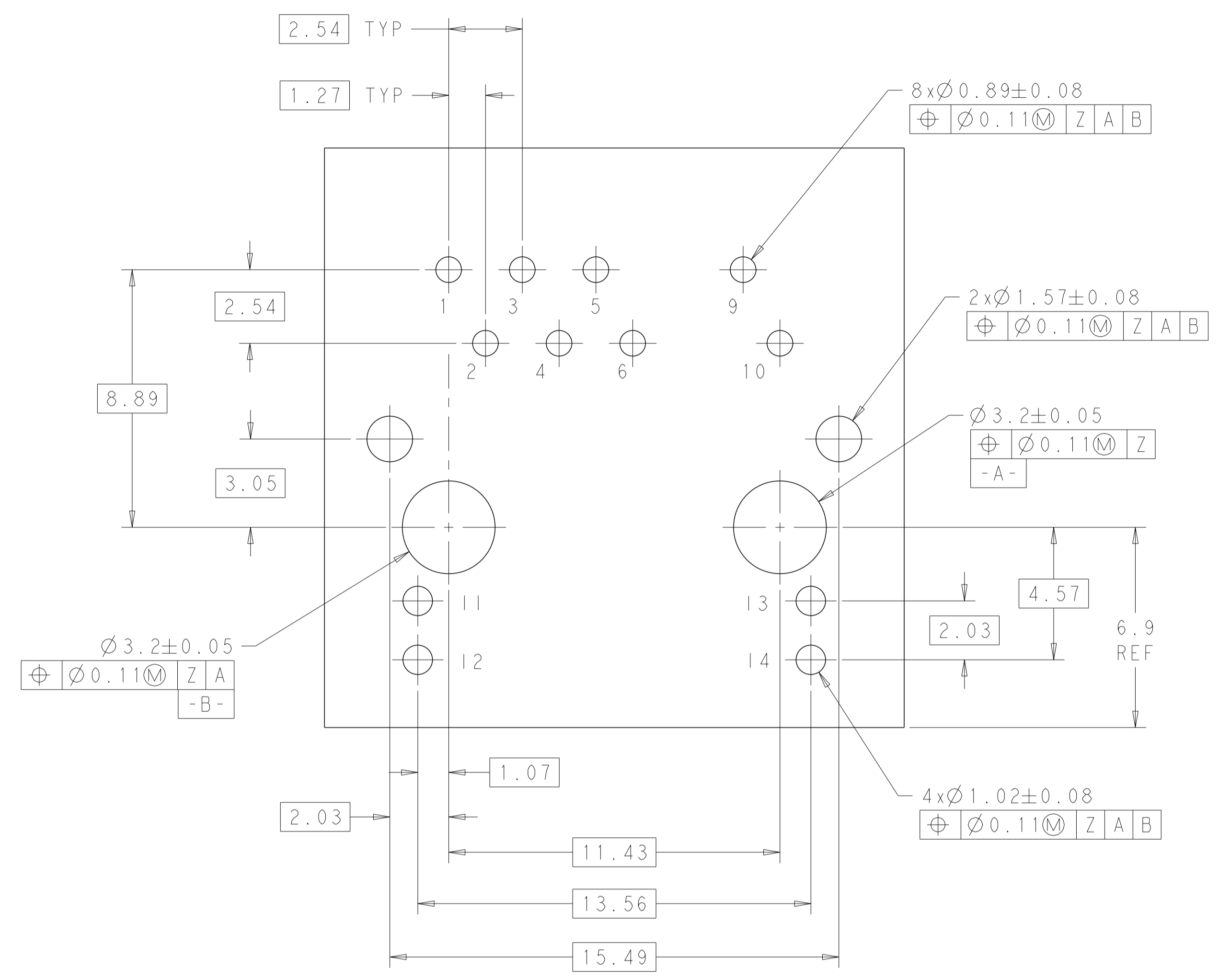
PBT	1.65	3.68	YES	GREEN	WITH	YELLOW	WITH	1-2250024-1
HTN	1.27	2.30	YES	GREEN	WITH	YELLOW	WITH	2250024-7
PBT	1.27	2.30	YES	GREEN	WITH	YELLOW	WITH	2250024-6
PBT	1.27	3.68	YES	GREEN	WITHOUT	YELLOW	WITHOUT	2250024-5
PBT	1.27	3.68	NO	GREEN	WITH	YELLOW	WITH	2250024-4
PBT	1.27	3.68	NO	GREEN	WITH	GREEN	WITH	2250024-3
PBT	1.27	3.68	YES	GREEN	WITH	GREEN	WITH	2250024-2
PBT	1.27	3.68	YES	GREEN	WITH	YELLOW	WITH	2250024-1
HOUSING MATERIAL	DIM B	DIM A	EMI FINGER	LED1	11-12	250 OHMS RESISTOR	LED2	PART NUMBER
					13-14	250 OHMS RESISTOR		



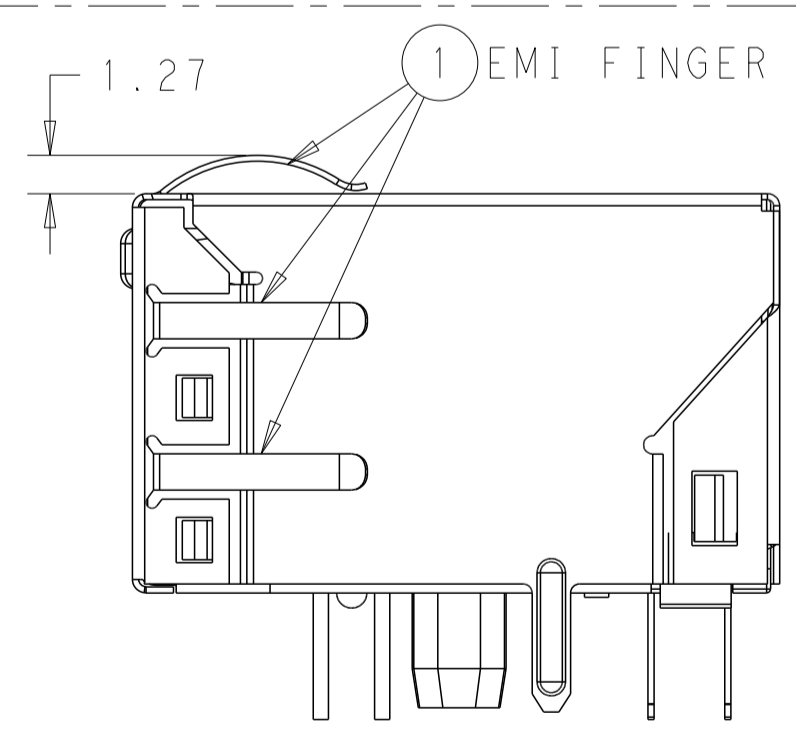
SUGGESTED PANEL CUTOUT



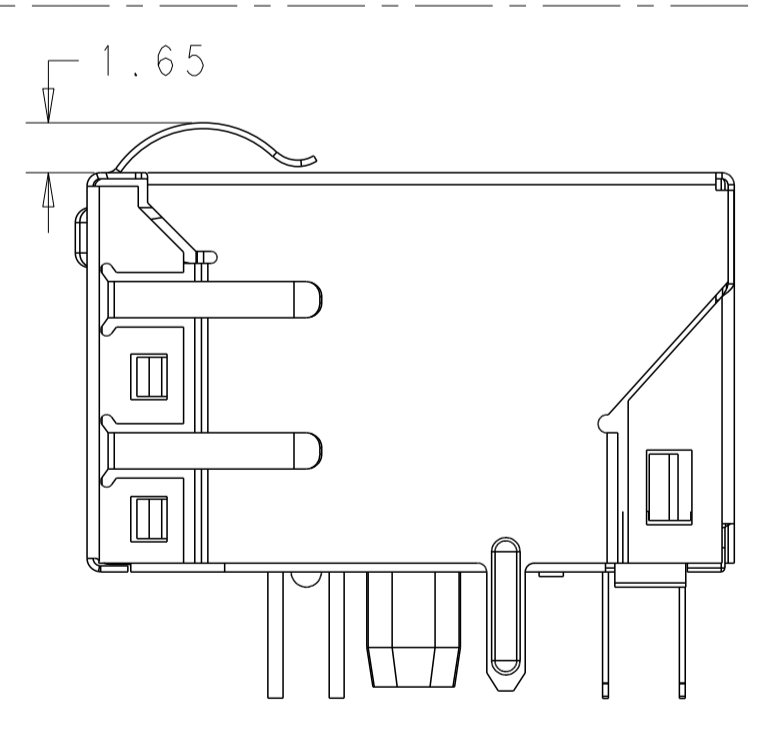
THIS DRAWING IS A CONTROLLED DOCUMENT AND COMPLIANT TO ASME Y14.5M		DWN: ROY LIU 28MAY2013 CHK: TOWER YU / FRANK LIU 28MAY2013 APVD: TONY YUAN 28MAY2013	DONGGUAN CHINA a bel group
DIMENSIONS: mm 0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ±0.25 ANGLES ±° APPLICATION SPEC	MODEL NAME: MAGJACK SINGLE PoE DESC: 1X1 7D144 10/100 POE TAB UP W/ LED SIZE: A1 SCALE: 4:1	SHEET 1 OF 2 REV E	



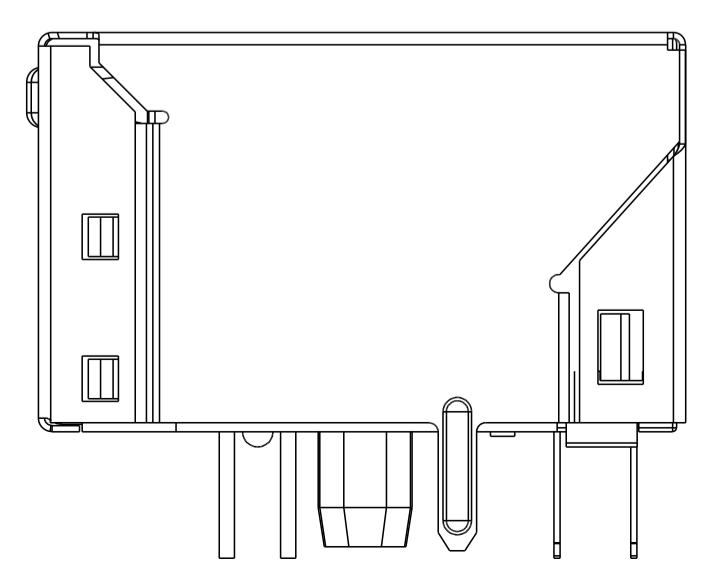
SUGGESTED PCB LAYOUT



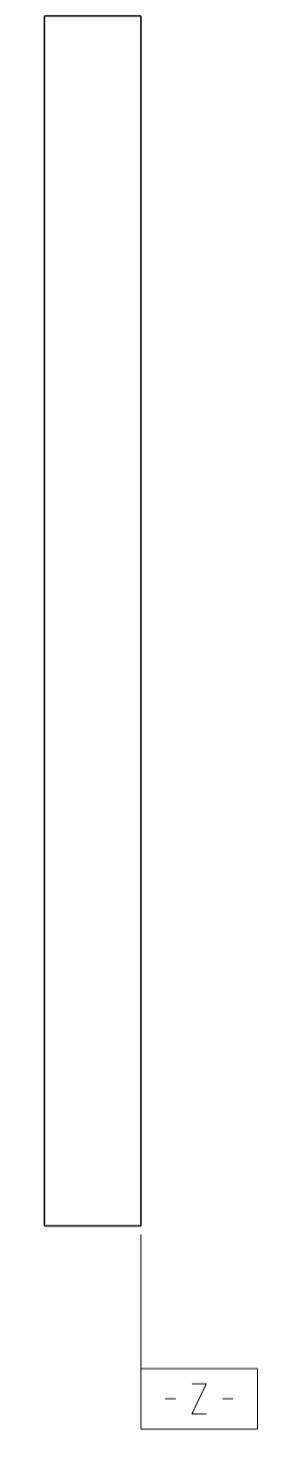
FOR 2250024-1
 2250024-2
 2250024-5
 2250024-6&7
 (SHORT PIN)



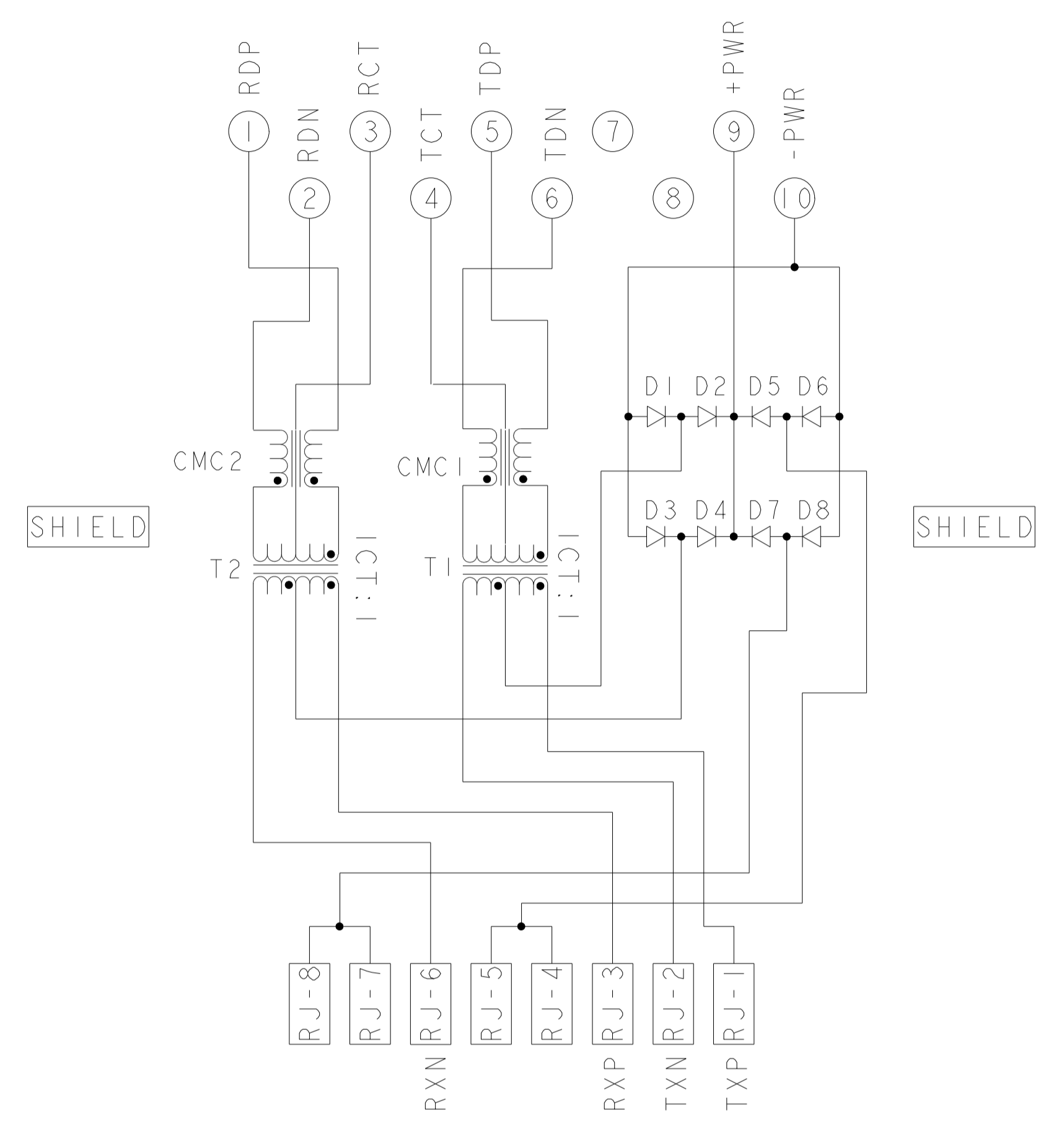
FOR 1-2250024-1



FOR 2250024-3
 2250024-4



7DI44 PoE MAGNETIC CIRCUIT



DI-D8 = RECTIFIER DIODE
 -FORWARD VOLTAGE, $V_f = 1.2V \text{ MAX @ } I_f = 0.5A$
 -FORWARD CURRENT, $I_f = 0.5A \text{ MAX}$
 -REVERSE VOLTAGE, $V_r = 80V \text{ MAX}$

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DIMENSIONS: mm 0 PLC ±0.25 1 PLC ±0.25 2 PLC ±0.25 3 PLC ±0.25 4 PLC ±0.25 ANGLES ±° APPLICATION SPEC	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 ±° APPLICATION SPEC	MODEL NAME: MAGJACK SINGLE PoE DESC: 1X1 7DI44 10/100 POE TAB UP W/ LED SIZE: A1 SCALE: 4:1 SHEET: 2 OF 2 REV: E	