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**RoHS**



POWER | PROTECT | CONNECT

**DOCUMENT / PART NO.:** G53-48NV-011D

**TITLE:** PRODUCT SPECIFICATION

ISSUE	DESCRIPTION OF CHANGE									REVIEWED BY	APPROVED BY	ECN#							
1	PRELIMINARY									LI QUAN KUN	LEUNG WAI SHUN (2021-10-15)								
2	UPDATE SOME DIMENSIONS AND CORRECT THE HOUSING MATERIAL									ANTON LIAO									
<b>PAGE</b>	1	2	3	4	5	6	7	8											
<b>REV.</b>	2	2	2	2	2	2	2	2											
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<b>REV.</b>																			

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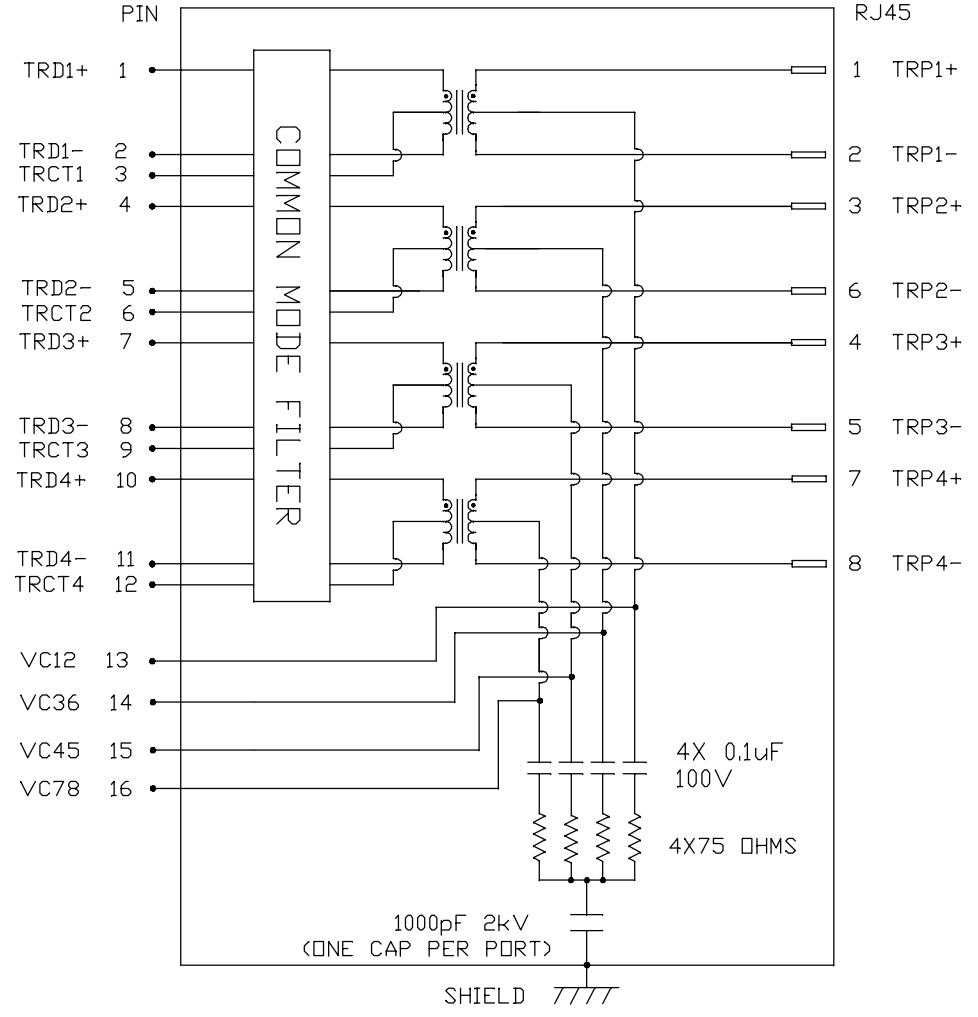
PRELIMINARY



ELECTRICAL CHARACTERISTICS @ 25°C

**URNS RATIO**  
 TP1 1CT : 1CT  
 TP2 1CT : 1CT  
 TP3 1CT : 1CT  
 TP4 1CT : 1CT  
**INS. LOSS (MAX)**  
 1MHz TO 20MHz -0.8 dB  
 50MHz -1.0 dB  
 200MHz -1.2 dB  
 400MHz -2.0 dB  
 500MHz -3.0 dB  
**RET. LOSS (MIN) @ 100 OHMS**  
 1MHz <math>\leq f \leq 40\text{MHz}</math> 16 dB MIN  
 40MHz <math>< f \leq 400\text{MHz}</math> 16-10LOG<math>(f/40\text{MHz})</math> dB  
 400MHz <math>< f \leq 500\text{MHz}</math> 6-30LOG<math>(f/400\text{MHz})</math> dB  
**CM TO CM REJ**  
 1MHz - 500MHz -25 dB MIN  
**CM TO DM REJ**  
 1MHz - 500MHz -25 dB MIN  
**HIPOT (Isolation Voltage):** 2250VDC  
 100% OF PRODUCTION TESTED TO COMPLY WITH IEEE 802.3 ISOLATION REQUIREMENTS.  
 BALANCED DC LINE CURRENT 600mA MAX. CONTINUOUS.  
 1.2A MAX. FOR 200 MILLISECONDS.  
 OPERATING TEMPERATURE: -40°C TO +85°C.

SCHEMATIC



**ORIGINATED BY**  
 CHOW WANCHUNG  
**DATE** 2021-10-29  
**DRAWN BY**  
 TANG YUAN  
**DATE** 2021-10-29

**TITLE**  
 2X2 10 Gigabit MagJack®  
 4PPoE, 60W  
 PRESS FIT  
 PATENTED

**PART NO. / DRAWING NO.**  
 G53-48NV-011D  
**FILE NAME**  
 G53-48NV-011D\_2.DWG

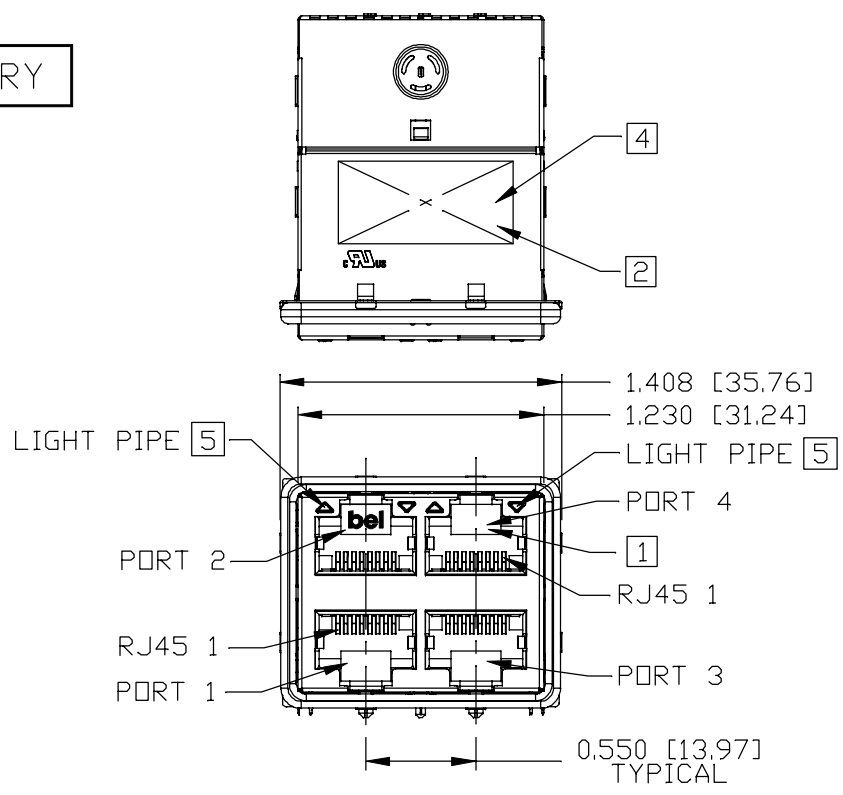
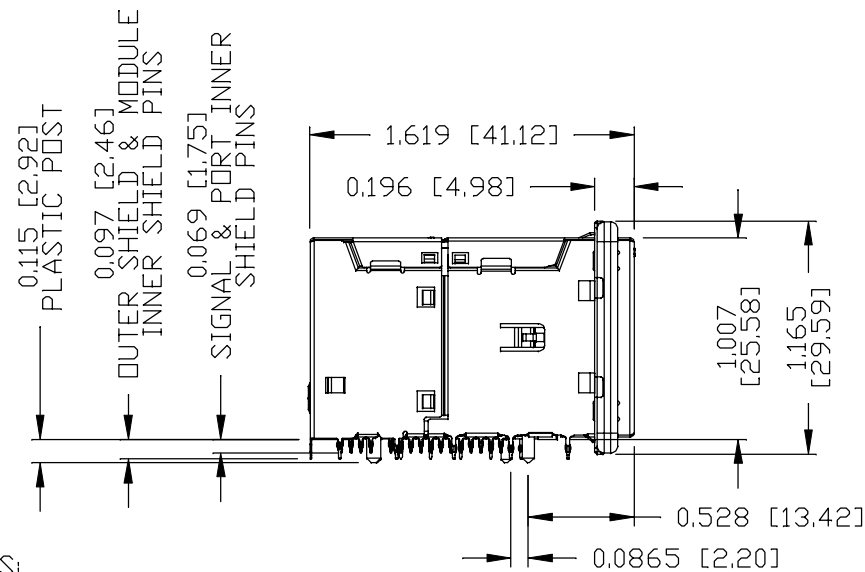
<b>STANDARD DIM.</b>		<b>[ ] METRIC DIM.</b>	
TOL. IN INCH		AS REF.	
.X	/	UNIT : INCH [mm]	
.XX	/	SCALE : N/A	
.XXX	/	SIZE : A4	

REV. : 2 PAGE : 2



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PRELIMINARY



NOTES:

- PLASTIC HOUSING: THERMOPLASTIC PBT, BLACK, FLAMMABILITY RATING UL 94V-0
- CONTACT PLATING: 50 MICRO-INCH HARD GOLD PLATING OR EQUIVALENT
- OUTPUT PINS: NICKEL PLATED ON COPPER ALLOY PRESS FIT PINS
- METAL SHIELD: NICKEL OR TIN PLATED ON COPPER ALLOY.

- [1] JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.
- [2] MARK PART WITH MFG LOGO, NAME, PART NUMBER AND DATE CODE.
- 3. THE PRODUCT IS RoHS COMPLIANT.

- c US UL RECOGNIZED - FILE #E169987.
- [4] THE PRODUCT IS PATENTED. "PATENTED" MARKING IS ON THE TOP SURFACE. THE PATENT NUMBER ARE U.S. PAT. 7,429,195 & U.S. PAT. 6,840,817 AND U.S. PAT. 7,924,130 AND U.S. PAT. 7,123,117
- [5] THE FINISHED GOODS IS WITHOUT SMD LED. THE SMD LED IS PROVIDED BY CUSTOMER HERSELF, AND THE SMD LED IS MOUNTED ON CUSTOMER PCB.
- 6. RECOMMENDED MINIMUM CUSTOMER PCB THICKNESS IS 0.080 INCH.

ORIGINATED BY ANTON LIAO	DATE 2021-10-29
DRAWN BY LI QUANKUN	DATE 2021-10-29

<b>TITLE</b>	2X2 10 Gigabit MagJack®
	4PPoE, 60W PRESS FIT PATENTED

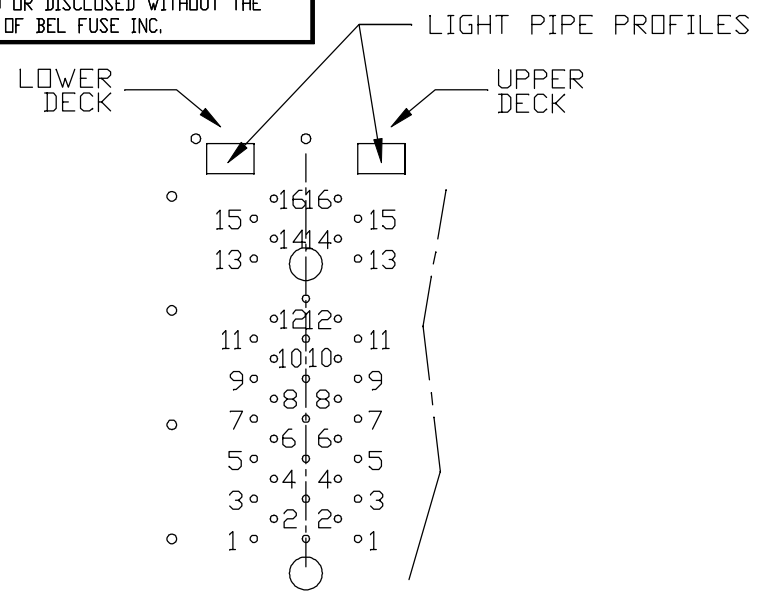
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<b>FILE NAME</b>	G53-48NV-011D_2.DWG

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.X	UNIT : INCH [mm]
.XX	SCALE : N/A
.XXX	±0.010
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REV. : 2	PAGE : 3
a bel group	

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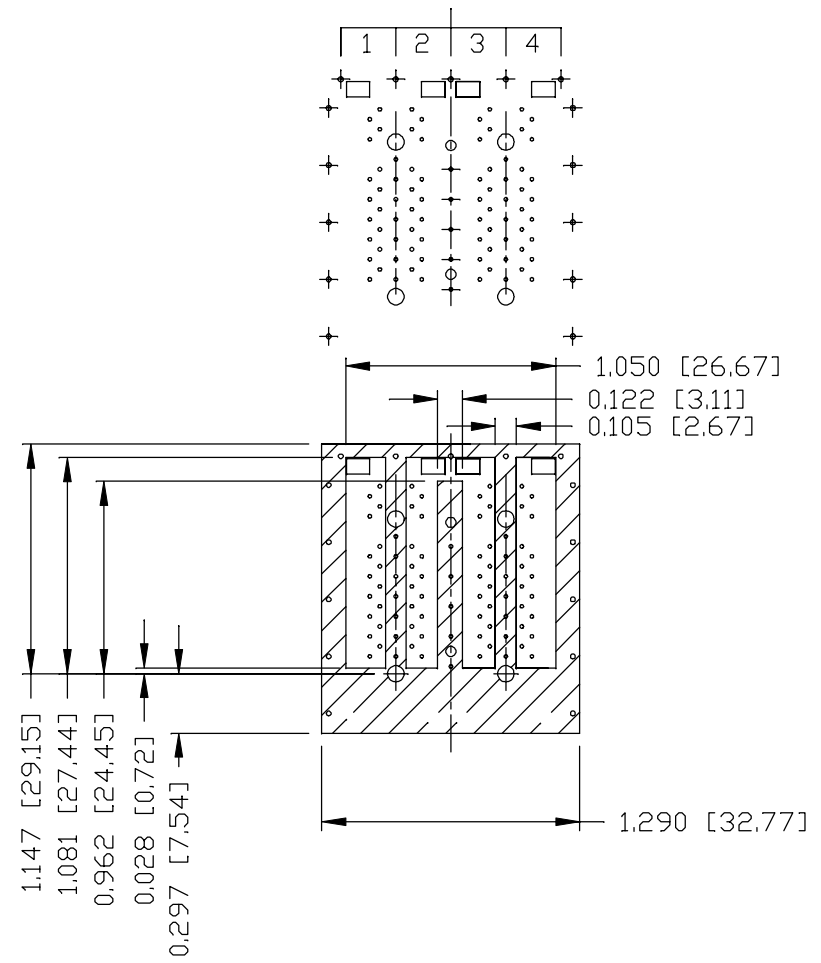
PRELIMINARY



PIN-OUT INFORMATION  
(COMPONENT SIDE VIEW)

10	TRD4+		
9	TRCT3		
8	TRD3-		
7	TRD3+		
6	TRCT2	16	VC78
5	TRD2-	15	VC45
4	TRD2+	14	VC36
3	TRCT1	13	VC12
2	TRD1-	12	TRCT4
1	TRD1+	11	TRD4-

PORT ASSIGNMENT  
(COMPONENT SIDE VIEW)



THE SHADED AREA ON THE CUSTOMER BOARD ARE RECOMMENDED TO BE CLEAR OFF ANY VIA HOLE OR COMPONENT PAD.

ORIGINATED BY  
ANTON LIAD  
DATE 2021-10-29

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LI QUANKUN  
DATE 2021-10-29

TITLE  
2X2 10 Gigabit MagJack®  
4PPoE, 60W  
PRESS FIT  
PATENTED

PART NO. / DRAWING NO.  
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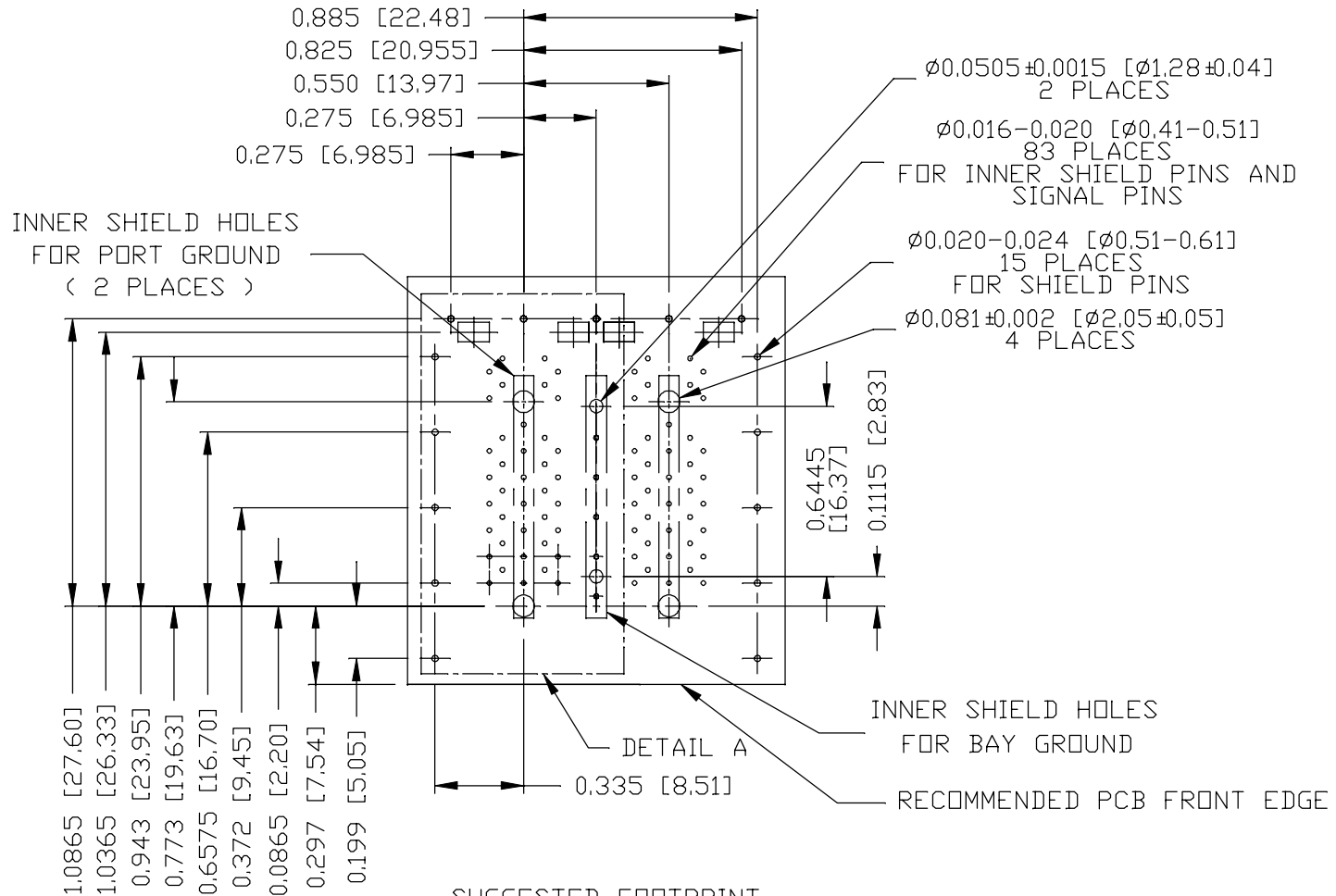
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SUGGESTED FOOTPRINT  
 (COMPONENT SIDE VIEW)

REV. : 2 PAGE : 5

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 LI QUANKUN  
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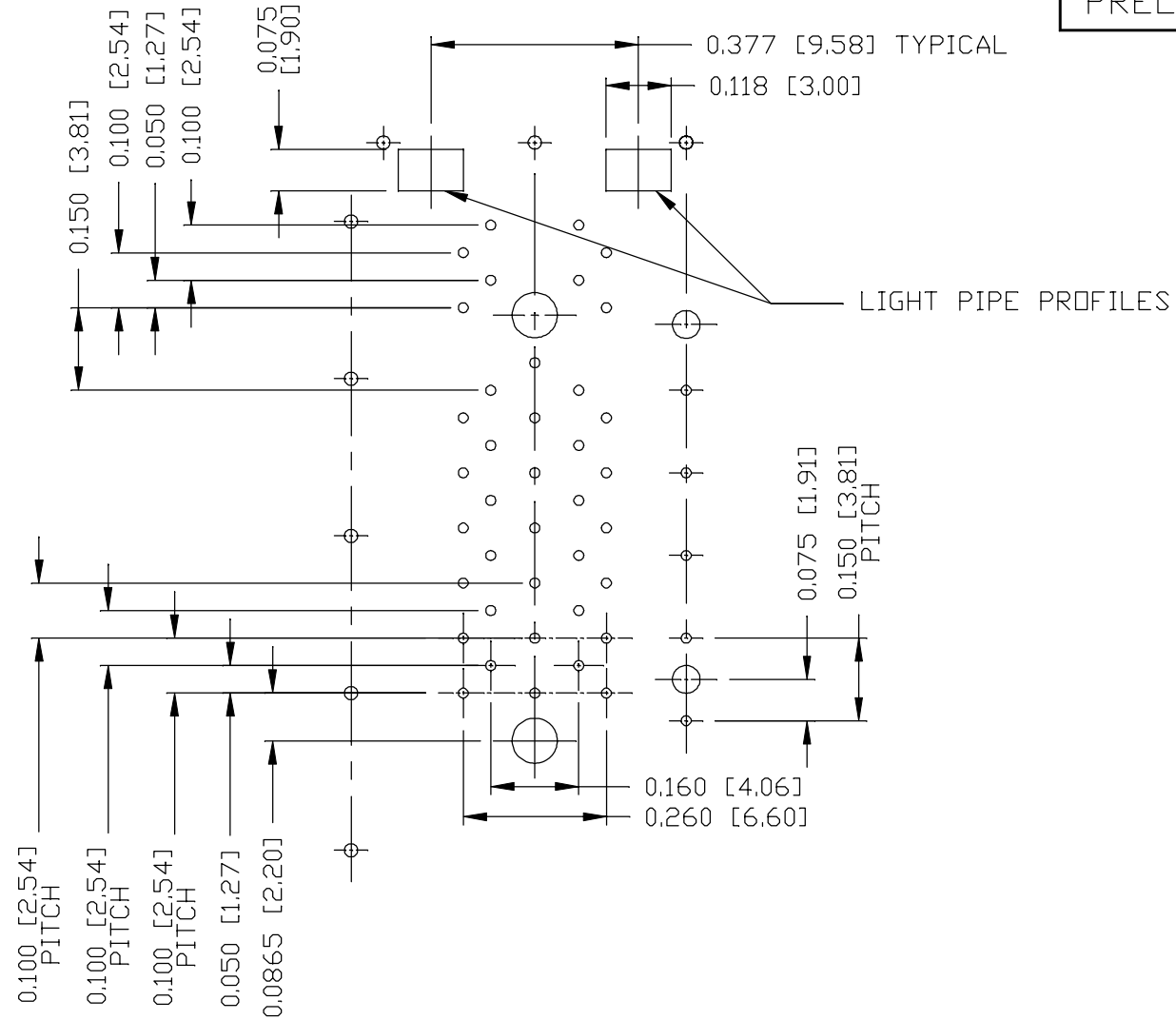
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PRELIMINARY



DETAIL A

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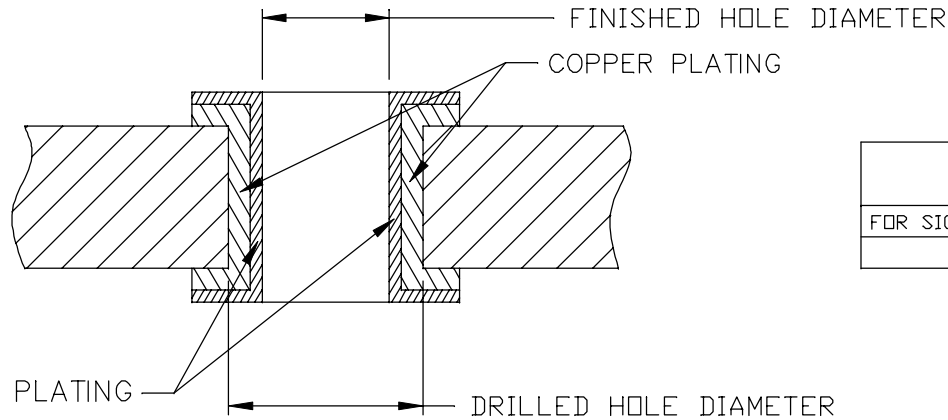
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PRELIMINARY



PLATED-THROUGH-HOLE	DRILLED HOLE DIAMETER	FINISHED HOLE DIAMETER
FOR SIGNAL PINS AND INNER SHIELD PINS	0.022 [0.57]	0.016-0.020 [0.41-0.51]
FOR SHIELD PINS	0.026 [0.66]	0.020-0.024 [0.51-0.61]

PLATED-THROUGH-HOLE CROSS-SECTION

PLATING	THICKNESS IN MICRO-INCHES [MICRONS]
COPPER	1000-2000 [25-50]
TOP PLATING - USE ONE OPTION LISTED BELOW:	
HOT AIR SOLDER LEVELING (HASL) TIN-LEAD (Sn-Pb)	160-400 [4-10]
IMMERSION TIN (Sn)	20-40 [0.5-1.0]
ORGANIC SOLDERABILITY PRESERVATIVE (OSP)	10-20 [0.2-0.5]
IMMERSION GOLD (Au) OVER NICKEL (Ni) (ENIG)	5-20 [0.1-0.5] (Au) OVER 50-100 [1.2-2.5] (Ni)
TIN-LEAD (Sn-Pb)	400-1000 [10-25]
IMMERSION SILVER (Ag)	5-8 [0.10-0.15]

RECOMMENDED PLATED-THROUGH-HOLE CONSTRUCTION DETAILS FOR PRESS-FIT PINS

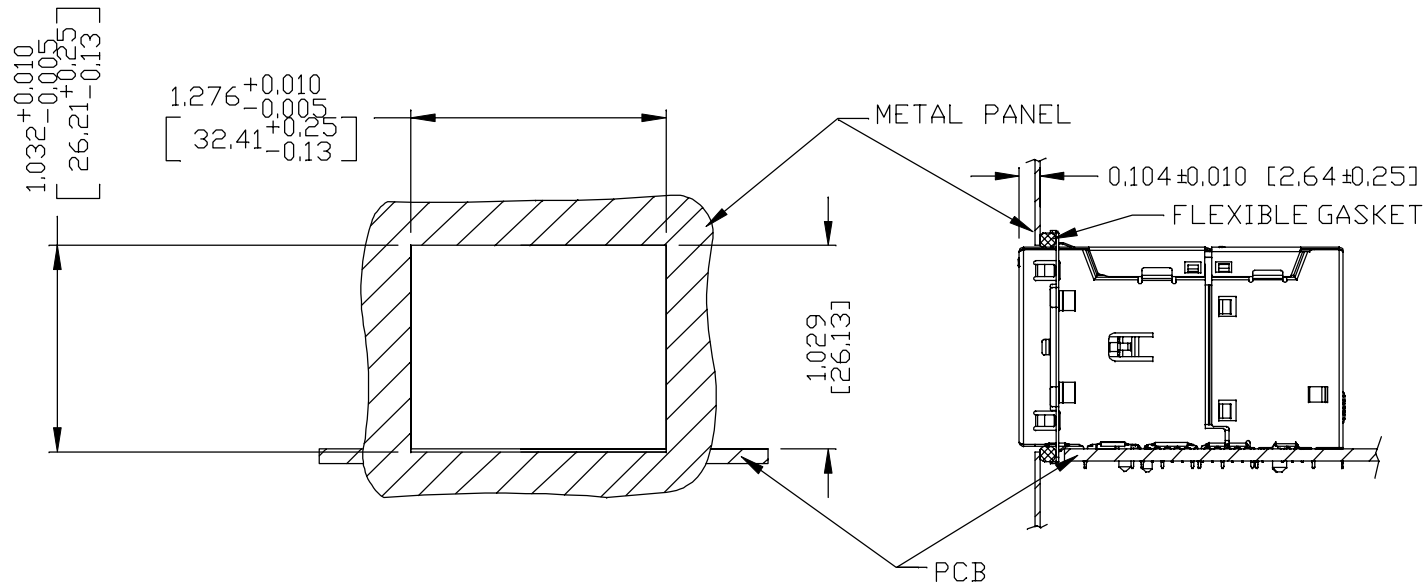
REV. :	2	PAGE :	7
		<b>MAGNETIC SOLUTIONS</b> a bel group	

ORIGINATED BY ANTON LIAD DATE 2021-10-29	TITLE 2X2 10 Gigabit MagJack® 4PPoE, 60W PRESS FIT PATENTED	PART NO. / DRAWING NO. G53-48NV-011D	STANDARD DIM. [ ] METRIC DIM. AS REF.			
			TOL. IN INCH	UNIT : INCH [mm]		
			.X	SCALE : N/A		
DRAWN BY LI QUANKUN DATE 2021-10-29		FILE NAME G53-48NV-011D_2.DWG	.XX	±0.005		SIZE : A4
			.XXX			

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SUGGESTED PANEL OPENING

PRELIMINARY



NOTE:

1. THE DISTANCE OF PANEL INSIDE SURFACE RELATIVE TO FRONT SURFACE OF PART IS ONLY A SUGGESTION. IN CASE THIS DISTANCE IS DIFFERENT, THE REQUIRED PANEL OPENING DIMENSIONS CHANGE ACCORDINGLY.
2. RECOMMENDED COMPRESSION OF THE FLEXIBLE GASKET MATERIAL OF 25%.
3. RECOMMENDED FLEXIBLE GASKET THICKNESS BEFORE COMPRESSION IS 0.103 INCH.
4. THE FLEXIBLE GASKET CAN BE ORDERD SEPARATELY VIA PART NUMBER 0080M1700-06.

PACKING INFORMATION

PACKING TRAY : 0200M9999-L9 (TOP)

0200M9999-Q8 (BOTTOM)

PACKING QUANTITY : 15 PCS FINISHED GOODS PER TRAY.

7 TRAYS (105 PCS FINISHED GOODS) PER CARTON BOX.

REMARK : CARDBOARDS ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE CARTON BOX. (INCLUDE THE UPPERMOST AND LOWERMOST TRAY)

REV. : 2 PAGE : 8

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