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PRELIMINARY

RoHS

ELECTRICAL CHARACTERISTICS @ 25°C

TURNS 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 ≤ f ≤ 40MHz	16 dB MIN
40MHz < f ≤400MHz	16-10LOG(f/40MHz) dB
400MHz < f ≤500MHz	6-30LOG(f/400MHz) dB

CM TO CM REJ

1MHz - 500MHz	-25 dB MIN

CM TO DM REJ

1MHz - 500MHz	-25 dB MIN

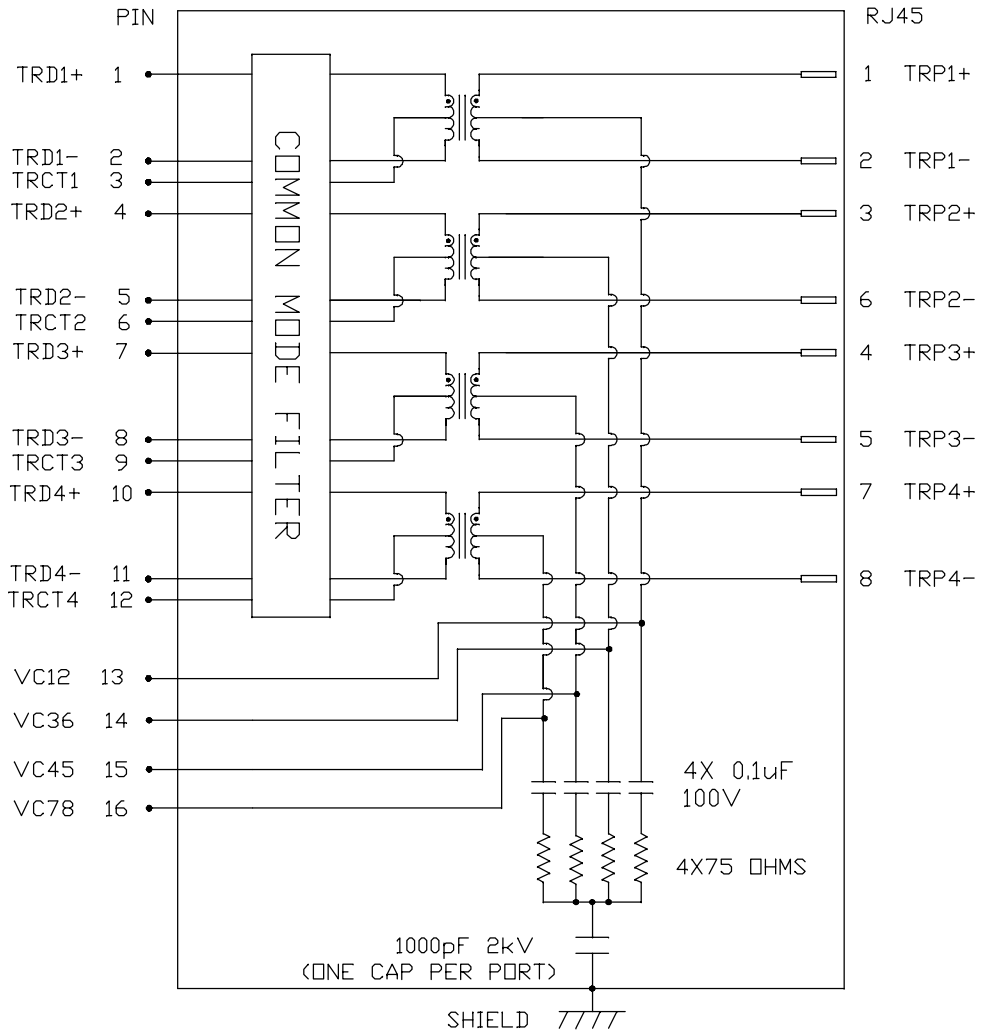
HIPOT (Isolation Voltage): 2250VDC

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



REV. : 1 | PAGE : 2

ORIGINATED BY: CHOW WANCHUNG DATE: 2021-05-31	TITLE: 2X2 10 Gigabit MagJack® 4PPoE, 60W PRESS FIT PATENTED	PART NO. / DRAWING NO.: G53-48NV-011B FILE NAME: G53-48NV-011B_1.DWG	STANDARD DIM. TOL. IN INCH: .X, .XX, .XXX [ ] METRIC DIM. AS REF. UNIT : INCH [mm] SCALE : N/A SIZE : A4
DRAWN BY: TANG YUAN DATE: 2021-05-31			

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Please read our datasheet & drawing disclaimer here.

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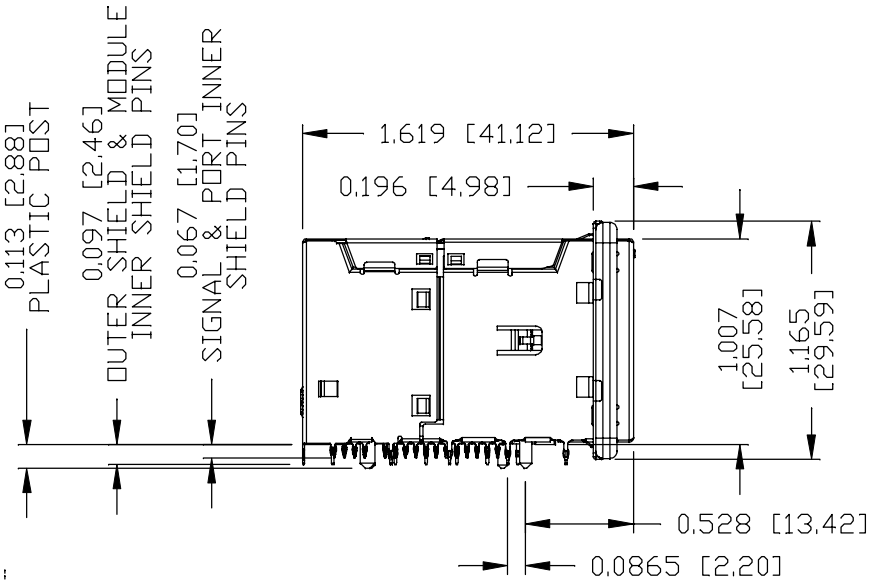

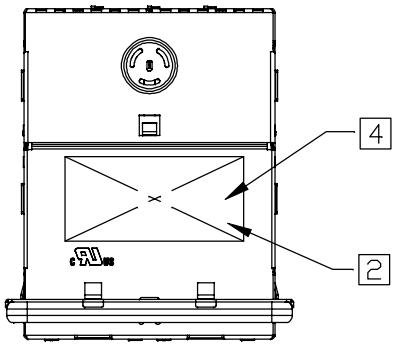

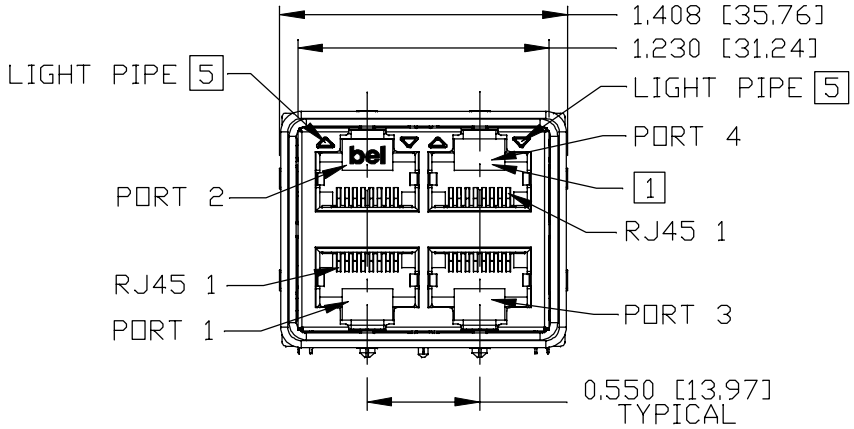

NOTES:

PLASTIC HOUSING: THERMOPLASTIC PA, 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 UL 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. RECOMMNENDED MINIMUM CUSTOMER PCB THICKNESS IS 0.080 INCH.

REV. : 1	PAGE : 3

ORIGINATED BY ANTON LIAO DATE 2021-05-31	TITLE 2X2 10 Gigabit MagJack® 4PPoE, 60W PRESS FIT PATENTED	PART NO. / DRAWING NO. G53-48NV-011B	STANDARD DIM. TOL. IN INCH .X .XX .XXX ±0.010
DRAWN BY SANDY LIN DATE 2021-05-31		FILE NAME G53-48NV-011B_1.DWG	[ ] METRIC DIM. AS REF. UNIT : INCH [mm] SCALE : N/A SIZE : A4

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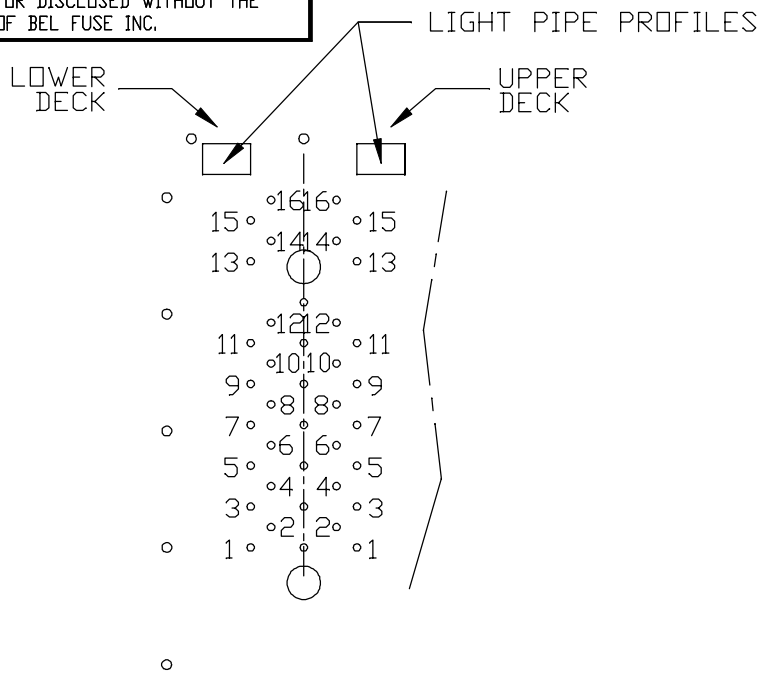
PRELIMINARY

RoHS

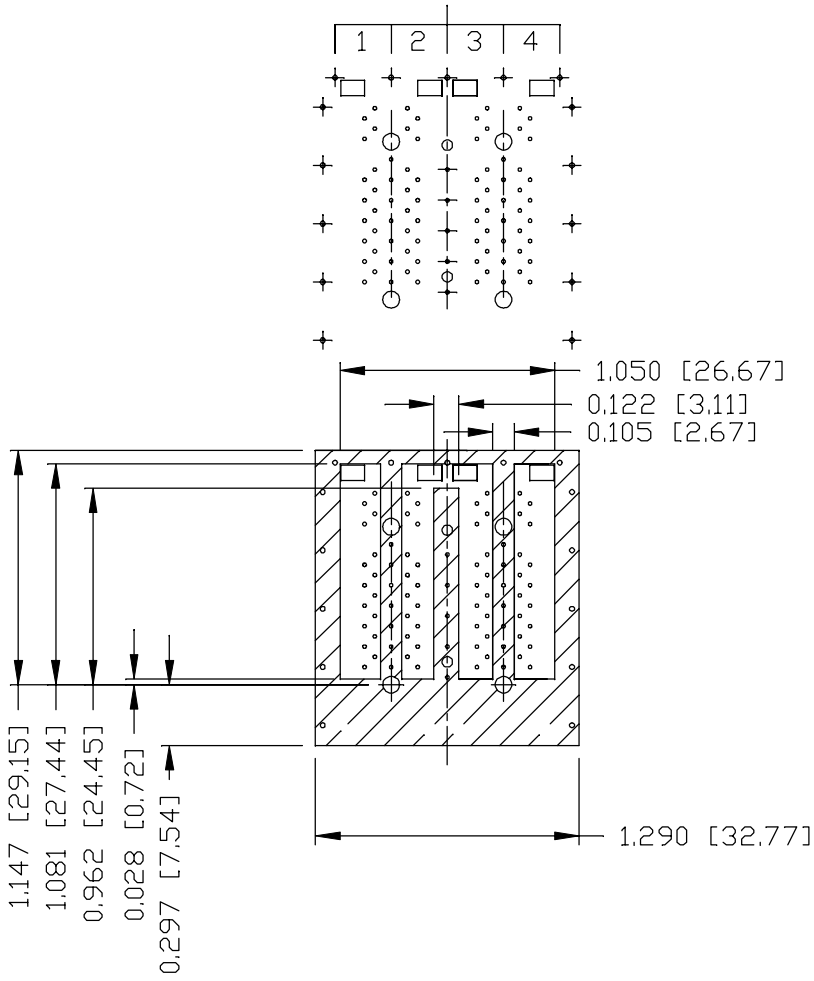
LIGHT PIPE PROFILES



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.

REV. : 1 | PAGE : 4

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DRAWN BY SANDY LIN DATE 2021-05-31		FILE NAME G53-48NV-011B_1.DWG	[ ] METRIC DIM. AS REF. UNIT : INCH [mm] SCALE : N/A SIZE : A4

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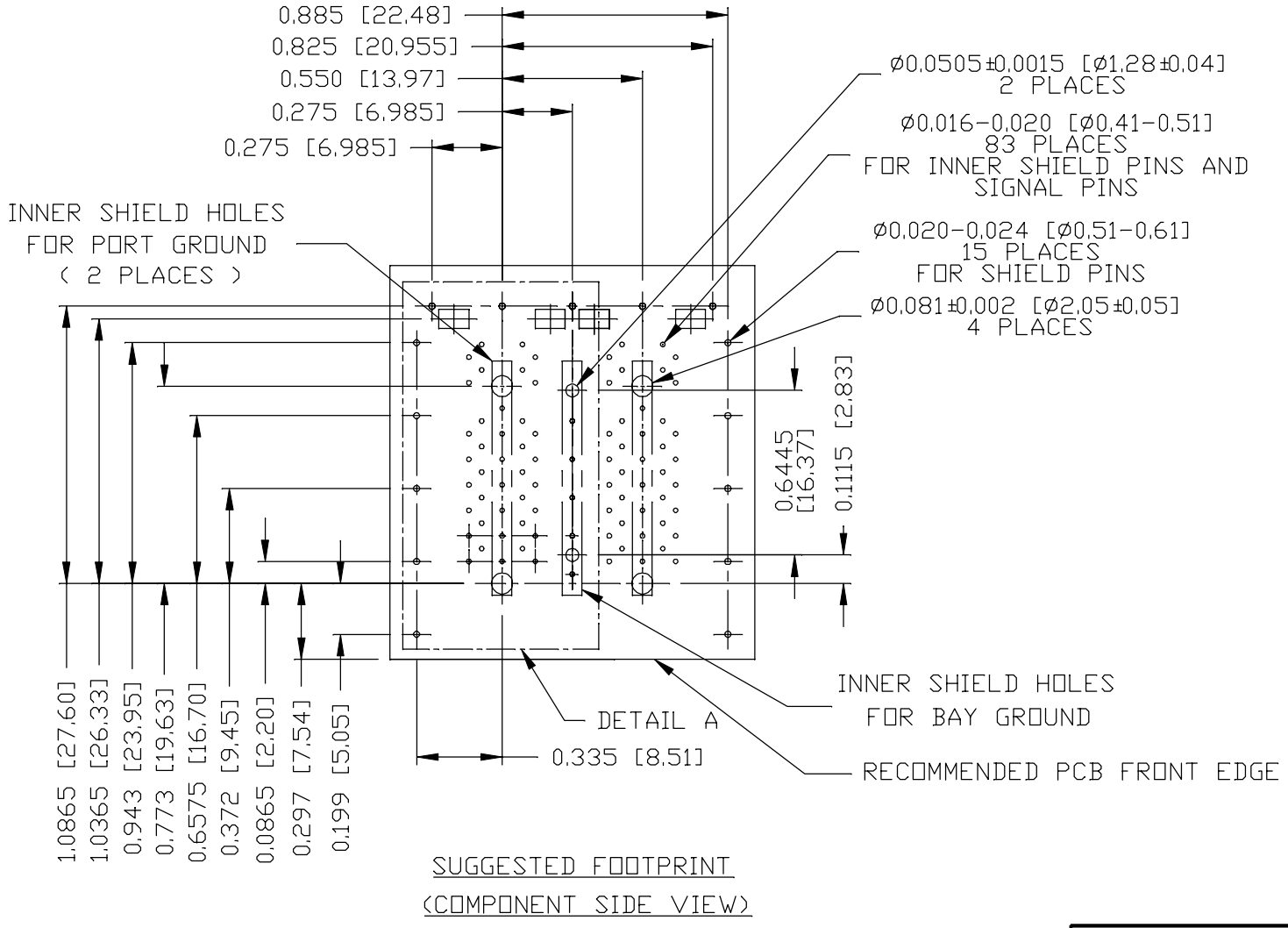

SUGGESTED FOOTPRINT
(COMPONENT SIDE VIEW)

REV. : 1				PAGE : 5	
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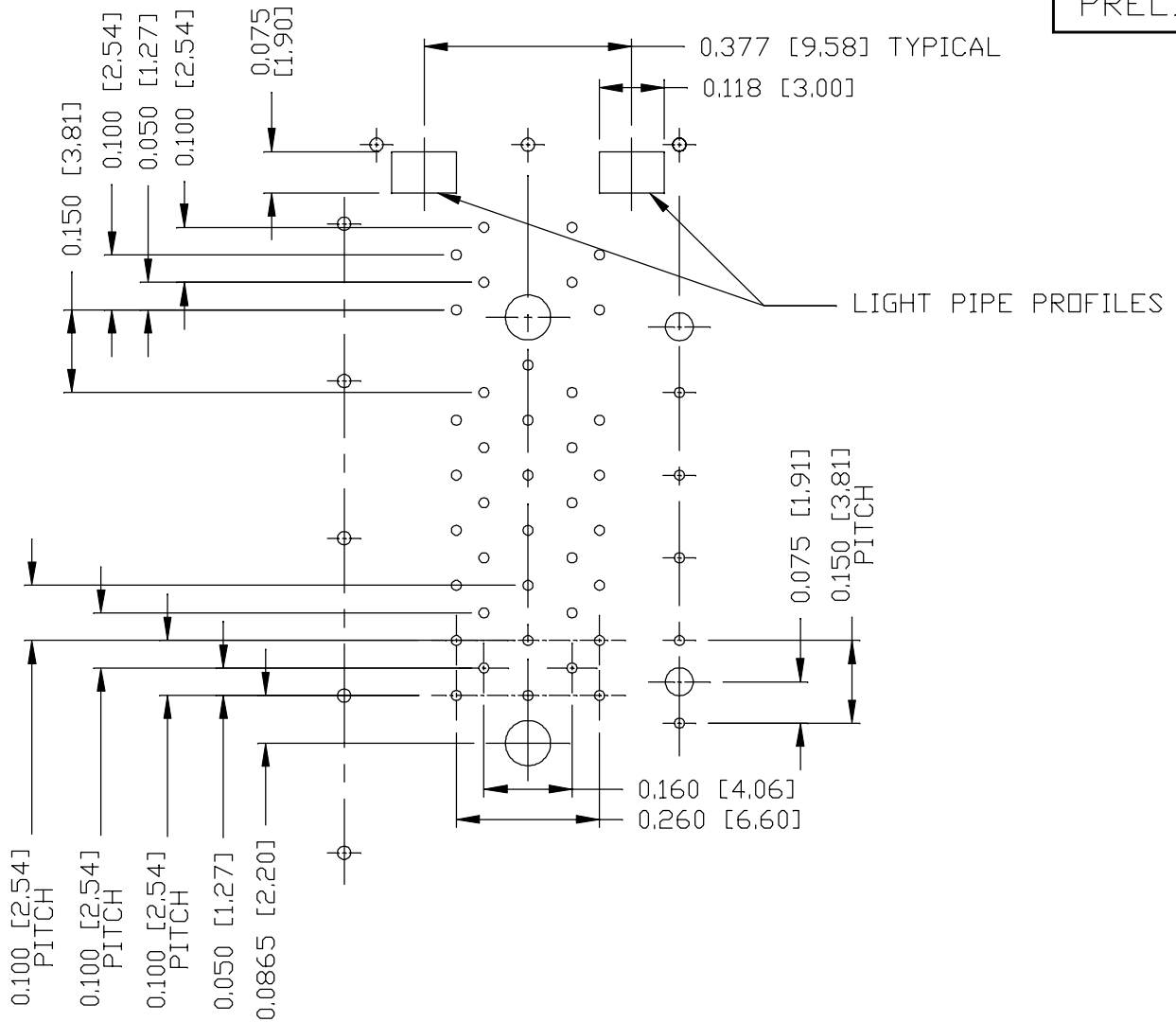

DETAIL A

ORIGINATED BY: ANTON LIAO DATE: 2021-05-31	TITLE: 2X2 10 Gigabit MagJack® 4PPoE, 60W PRESS FIT PATENTED	PART NO. / DRAWING NO.: G53-48NV-011B	STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REF.	REV. : 1 / PAGE : 6
DRAWN BY: SANDY LIN DATE: 2021-05-31		FILE NAME: G53-48NV-011B_1.DWG	.X / .XX / .XXX ±0.004	UNIT : INCH [mm] SCALE : N/A SIZE : A4	bel MAGNETIC SOLUTIONS a bel group

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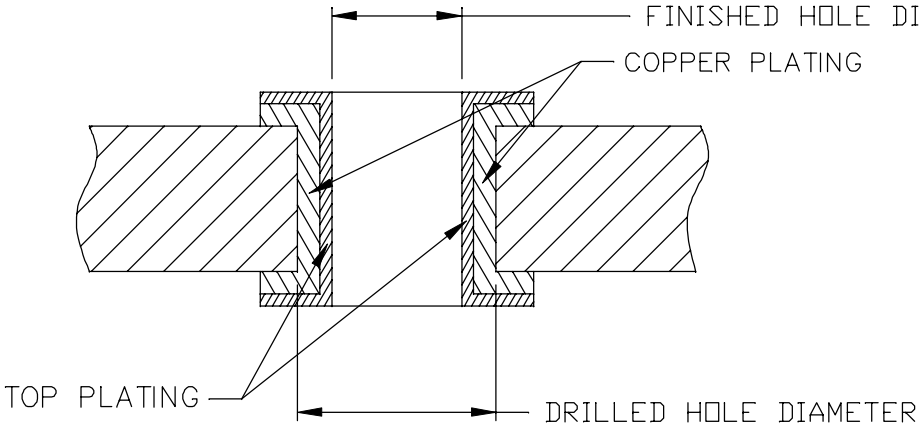

PLATED-THROUGH-HOLE	DRILLED HOLE DIAMETER	FINISHED HOLE DIAMETER
FOR SIGNAL PINS AND INNER SHIELD PINS	0.022 [0.57]	0.016-0.020 [0.41-0.51]
FOR SHIELD PINS	0.026 [0.66]	0.020-0.024 [0.51-0.61]

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 PRESERVITAVE (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. : 1 | PAGE : 7

ORIGINATED BY
ANTON LIAO
DATE 2021-05-31

DRAWN BY
SANDY LIN
DATE 2021-05-31

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

PART NO. / DRAWING NO.
G53-48NV-011B

FILE NAME
G53-48NV-011B_1.DWG

STANDARD DIM. TOL. IN INCH		[ ] METRIC DIM. AS REF.
.X		UNIT : INCH [mm]
.XX		SCALE : N/A
.XXX	±0.005	SIZE : A4

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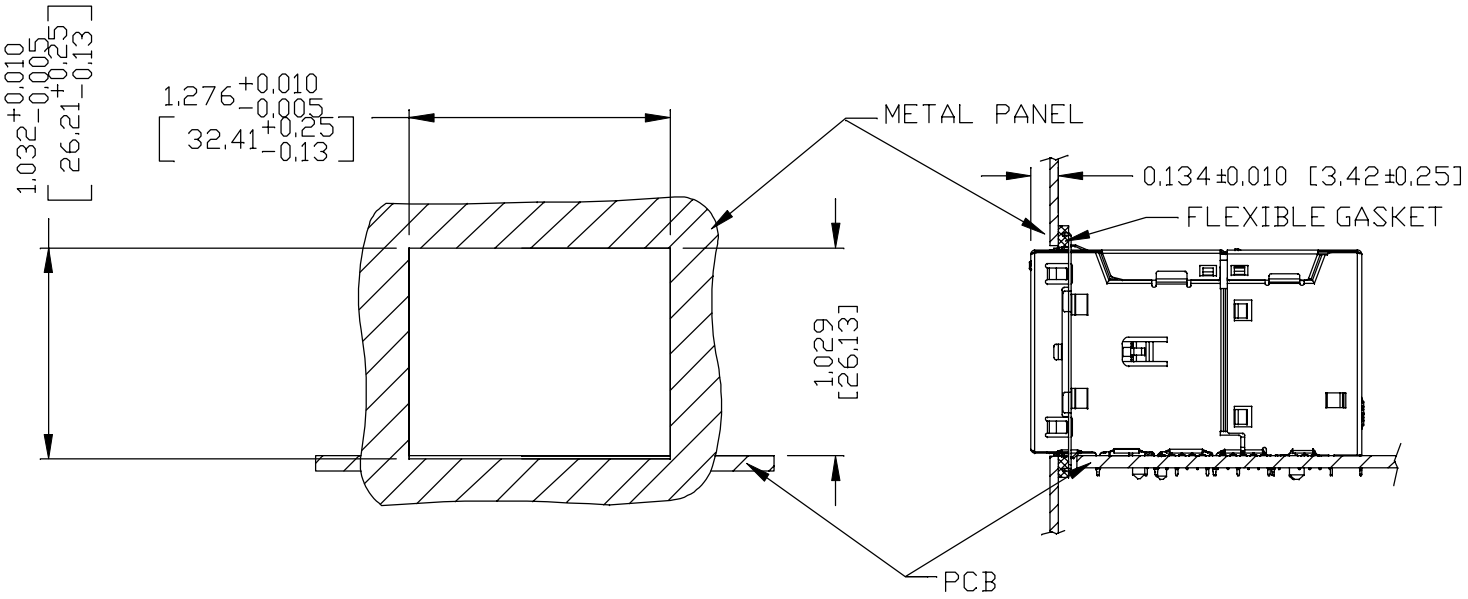
SUGGESTED PANEL OPENING



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 FLEXIBLE GASKET THICKNESS BEFORE COMPRESSION IS 0.103 INCH.
3. 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)

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