



POWER | PROTECT | CONNECT

DOCUMENT / PART NO.: G53-48NV-011K

TITLE : PRODUCT SPECIFICATION

ISSUE	DESCRIPTION OF CHANGE	REVIEWED BY	APPROVED BY	ECN#
1	PRELIMINARY	TONY YUAN		

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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 $\leq f \leq 40\text{MHz}$	16 dB MIN
40MHz <math>< f \leq 400\text{MHz}</math>	16-10LOG(f/40MHz) dB
400MHz <math>< f \leq 500\text{MHz}</math>	6-30LOG(f/400MHz) dB

CM TO CM REJ

1MHz - 500MHz	-25 dB MIN
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CM TO DM REJ

1MHz - 500MHz	-25 dB MIN
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HIPOT (Isolation Voltage):

2250VDC

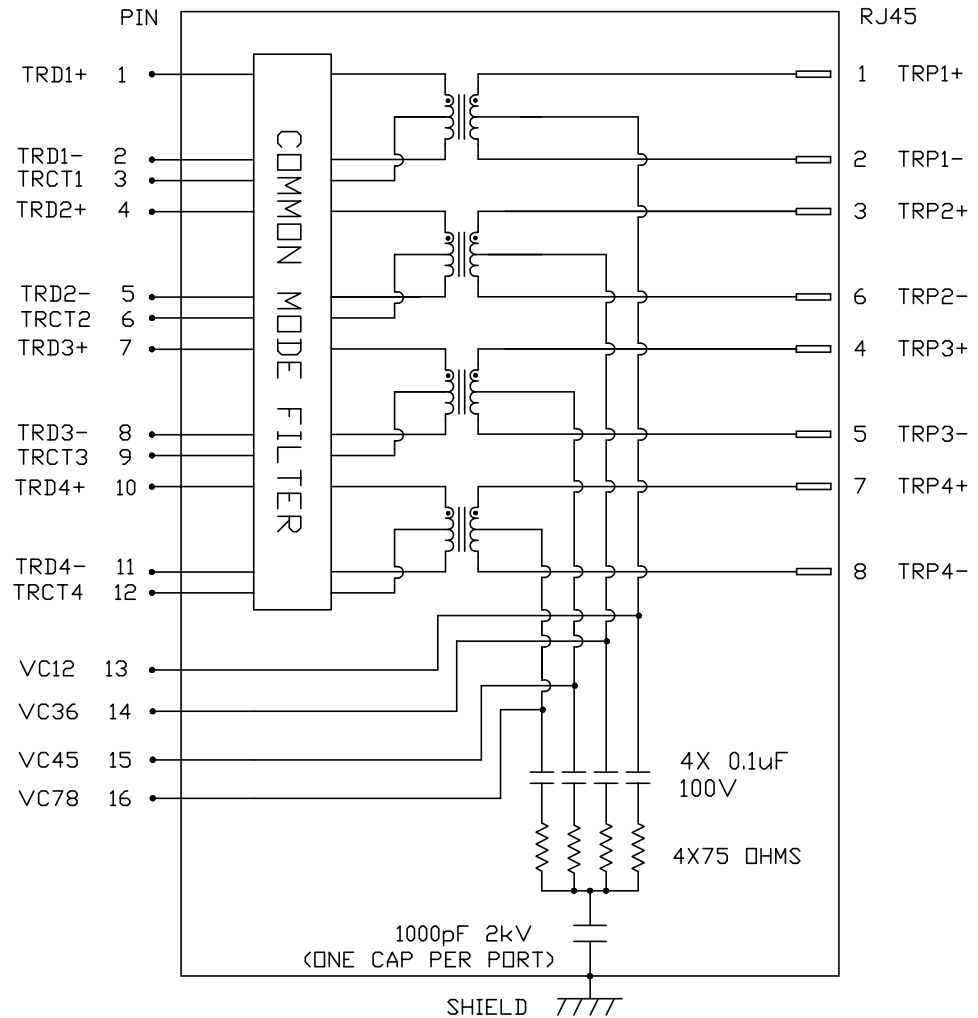
100% OF PRODUCTION TESTED TO COMPLY WITH IEEE 802.3 ISOLATION REQUIREMENTS.

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
BILL LIU
DATE 2024-07-16

DRAWN BY
TERRY LIN
DATE 2024-07-16

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

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

FILE NAME
G53-48NV-011K_1.DWG

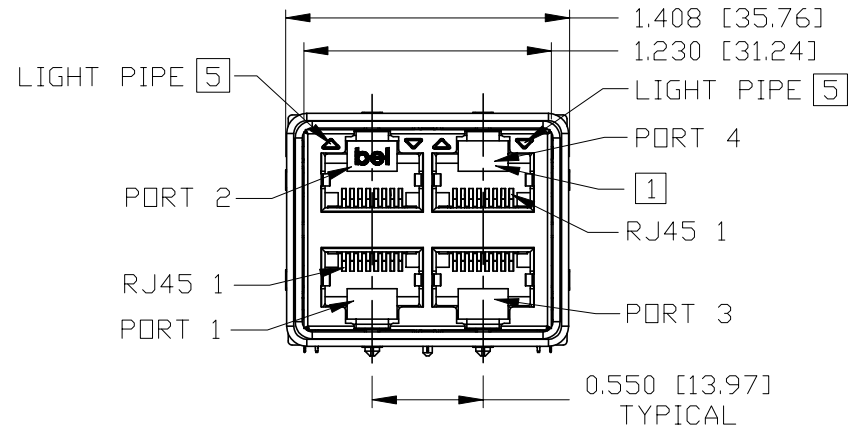
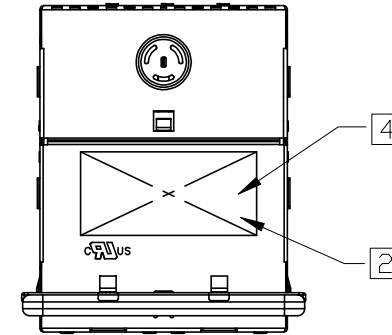
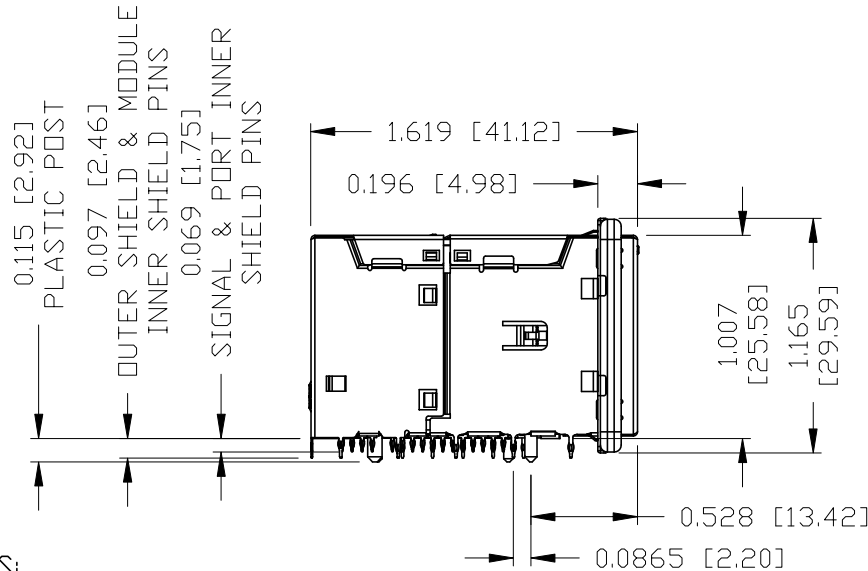
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NOTES:

- 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.
- [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 TONY YUAN	DATE 2024-07-16
DRAWN BY RICK LI	DATE 2024-07-16

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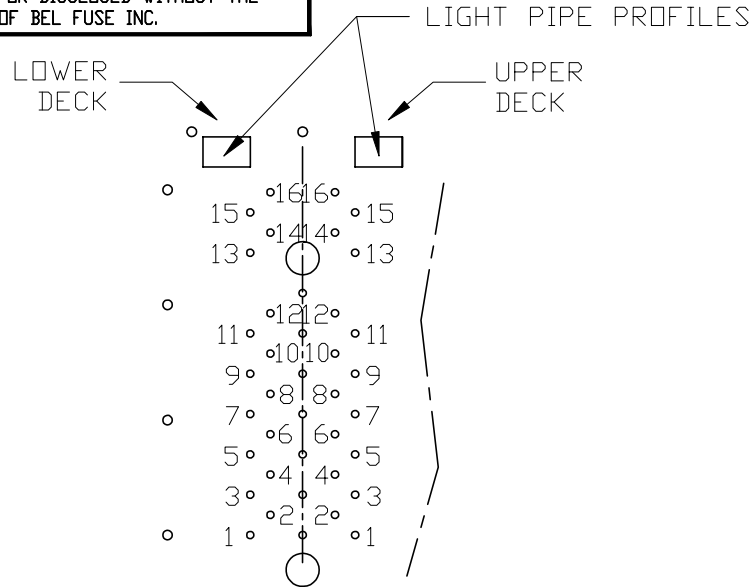
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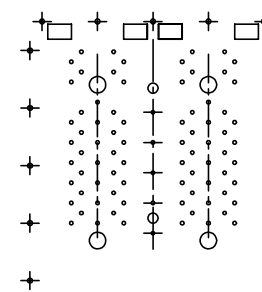


PRELIMINARY

PORT ASSIGNMENT
(COMPONENT SIDE VIEW)

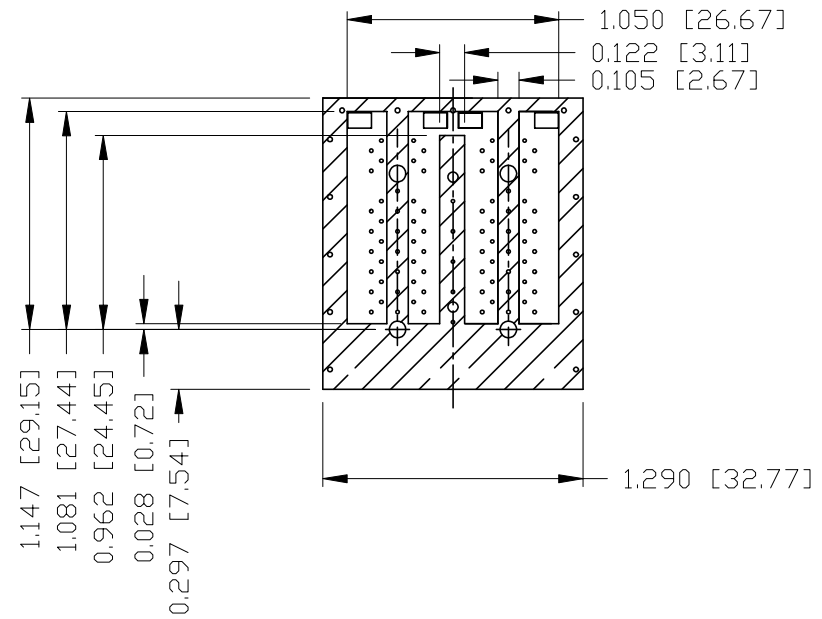


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PIN-OUT INFORMATION
(COMPONENT SIDE VIEW)

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-



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

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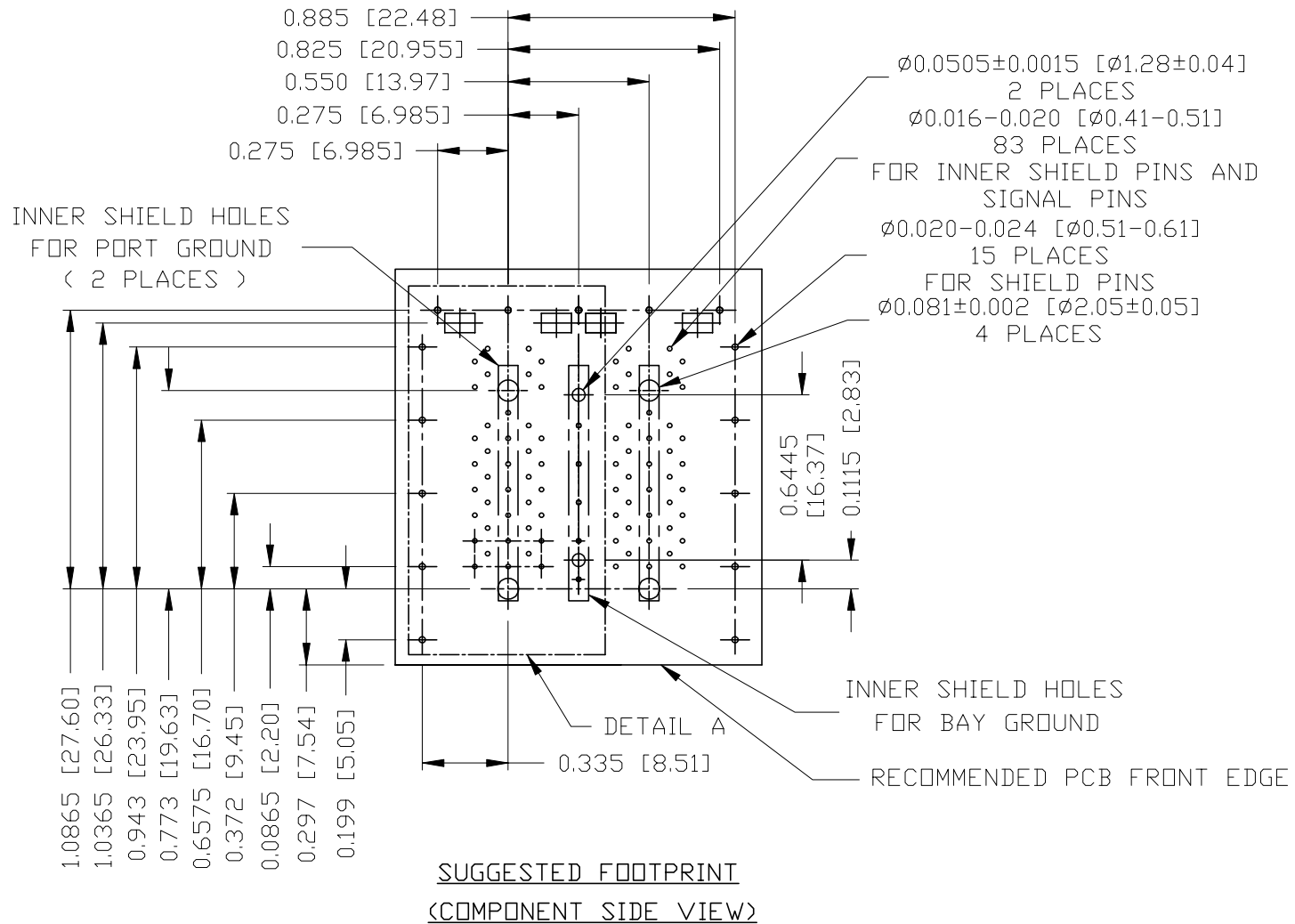
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.XXX ±0.004
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AS REF.
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SIZE : A4



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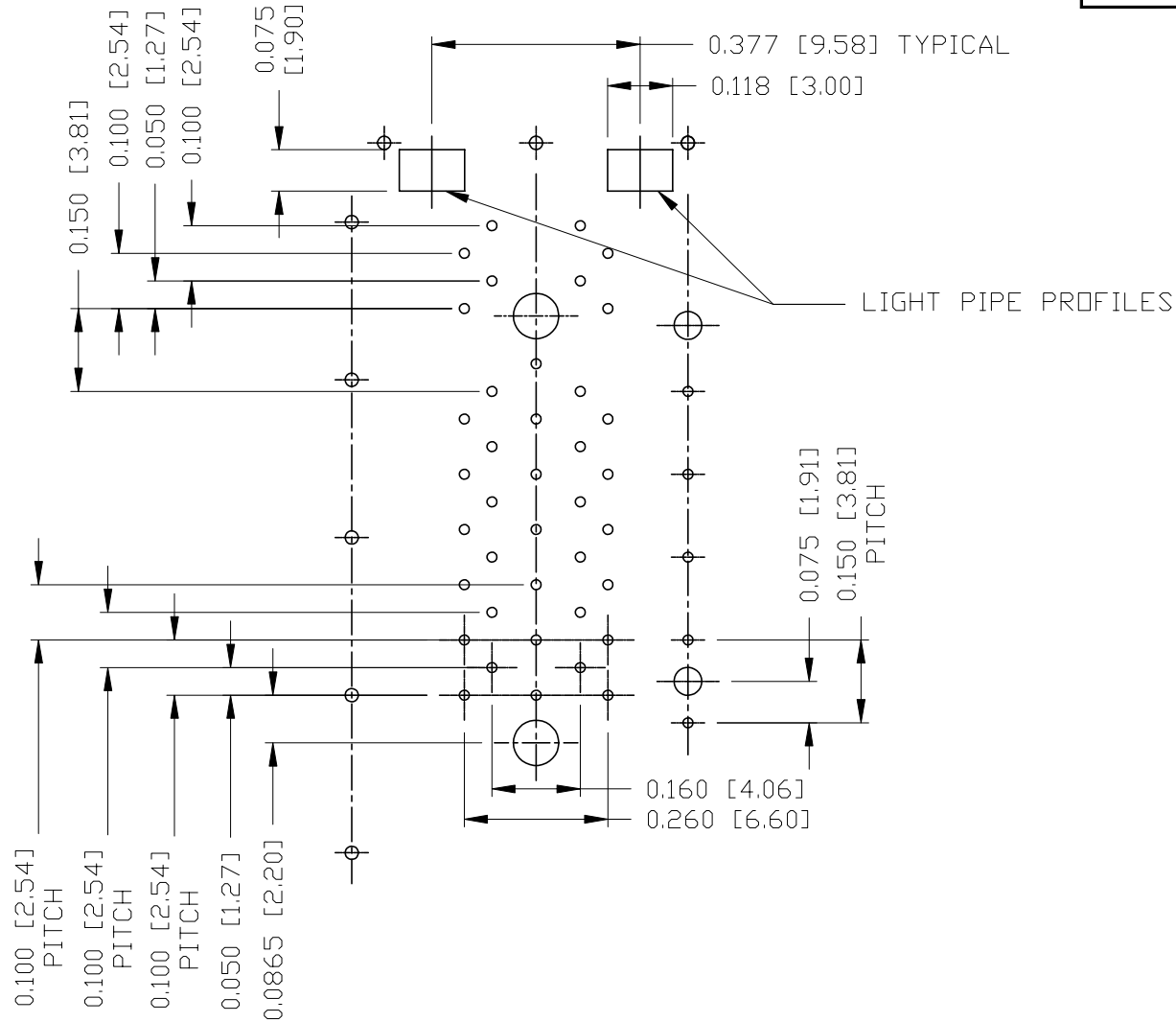
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DETAIL A

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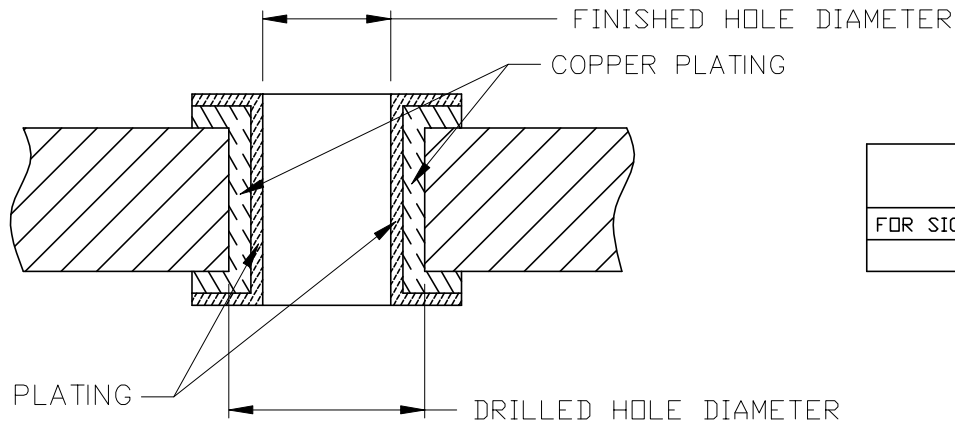
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PLATED-THROUGH-HOLE	DRILLED HOLE DIAMETER	FINISHED HOLE DIAMETER
FOR SIGNAL PINS AND INNER SHIELD PINS	0.022 [0.57]	0.016-0.020 [0.41-0.51]
FOR SHIELD PINS	0.026 [0.66]	0.020-0.024 [0.51-0.61]

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 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

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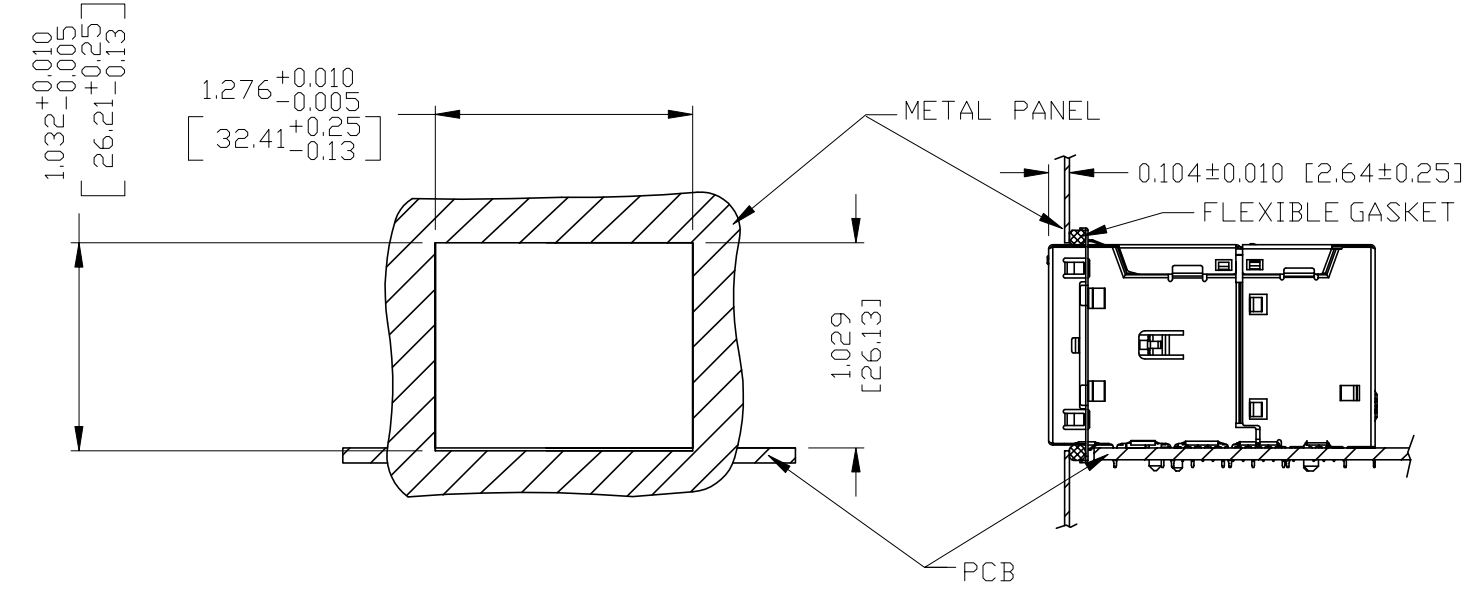


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SUGGESTED PANEL OPENING



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 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)

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