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LED 2 & 4 POLARITY			LED 1 & 3 POLARITY		
PIN 13	PIN 14	COLOR	PIN 15	PIN 16	COLOR
+	-	YELLOW	+	-	GREEN
			-	+	ORANGE

RoHS



**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) \_FORM TESTING**

1MHz	-20 dB
2MHz	-20 dB
100MHz	-20 dB
200MHz	-17 dB
300MHz	-13 dB
400MHz	-10 dB
500MHz	-6 dB

**CM TO DM REJ**

1MHz - 500MHz -30 dB MIN

HIPOT (Isolation Voltage): 2250VDC

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

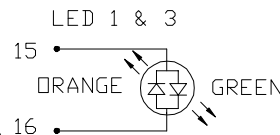
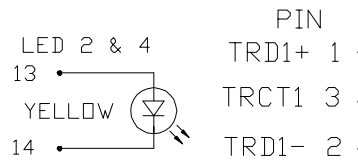
**LED 1 & 3**

V <sub>F</sub> (FORWARD VOLTAGE)	I <sub>F</sub> =20mA	GREEN	2.2V TYP.
		ORANGE	2.0V TYP.
λ <sub>D</sub> (DOMINANT WAVELENGTH)	I <sub>F</sub> =20mA	GREEN	570nm TYP.
		ORANGE	605nm TYP.

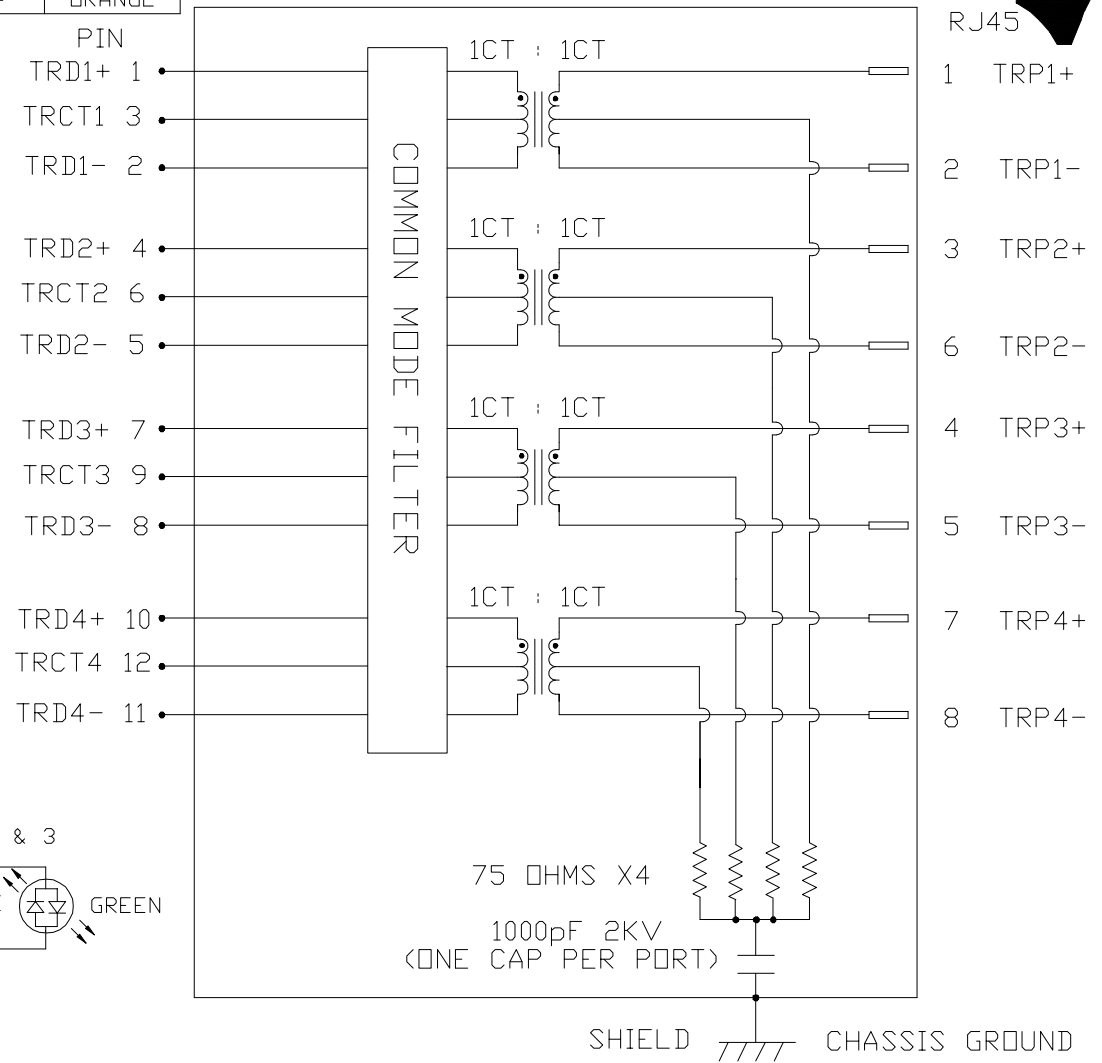
**LED 2 & 4**

V <sub>F</sub> (FORWARD VOLTAGE)	I <sub>F</sub> =20mA	YELLOW	2.1V TYP.
λ <sub>D</sub> (DOMINANT WAVELENGTH)	I <sub>F</sub> =20mA	YELLOW	590nm TYP.

OPERATING TEMPERATURE: 0°C TO +70°C.



**SCHEMATIC**



- RJ45
- 1 TRP1+
- 2 TRP1-
- 3 TRP2+
- 6 TRP2-
- 4 TRP3+
- 5 TRP3-
- 7 TRP4+
- 8 TRP4-

ORIGINATED BY  
BILL LIU  
DATE 2024-07-22

TITLE  
2X1 10 Gigabit MagJack®

PART NO. / DRAWING NO.  
G23-21YR-112G

STANDARD DIM. [ ] METRIC DIM.  
TOL. IN INCH AS REF.

DRAWN BY  
ZOU PEILONG  
DATE 2024-07-22

PATENTED

FILE NAME  
G23-21YR-112G\_1.DWG

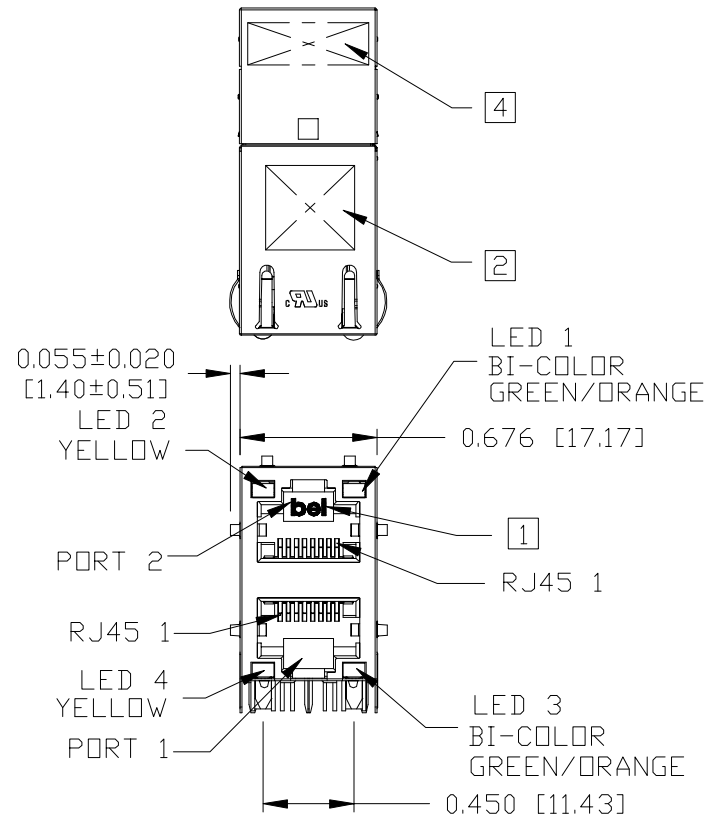
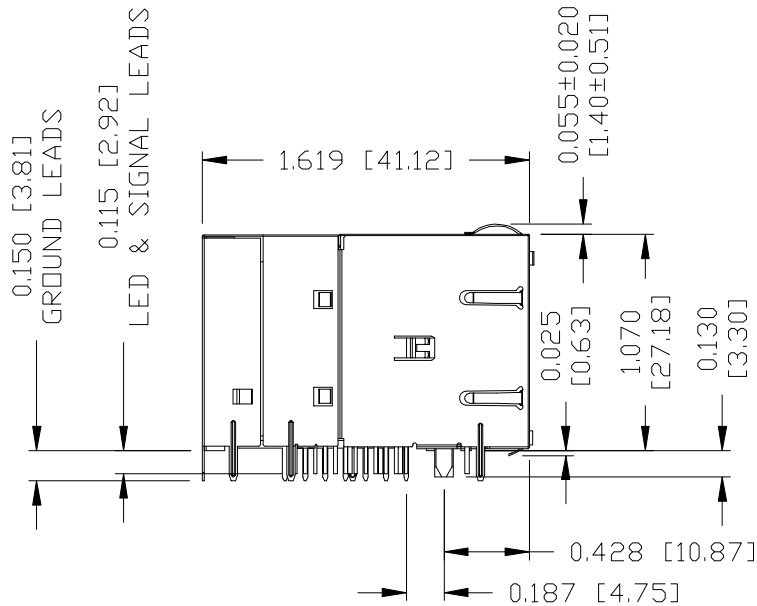
.X UNIT : INCH [mm]  
.XX SCALE : N/A  
.XXX SIZE : A4

REV. : 1 PAGE : 2



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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: TIN-COATED COPPER WIRE, DIA 0.018 INCH.  
100 MICRO-INCH MIN MATTE TIN. PINS ARE SOLDER DIPPED.
- METAL SHIELD: NICKEL PLATED ON COPPER ALLOY.  
(ALL GROUND LEADS ARE SOLDER DIPPED)

- [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 RL 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 & U.S. PAT. 7,123,117 AND U.S. PAT. 7,924,130.
- 5. THE AXIAL RETENTION FORCE OF RJ PORT IS 15LBS MIN.
- 6. THE PART IS RECOMMENDED FOR WAVE SOLDERING. THE SUGGESTED PEAK WAVE SOLDERING CONDITION IS 260°C MAX AND 10 SECONDS MAX.

ORIGINATED BY  
TONY YUAN  
DATE 2024-07-22

DRAWN BY  
CLOUD ZENG  
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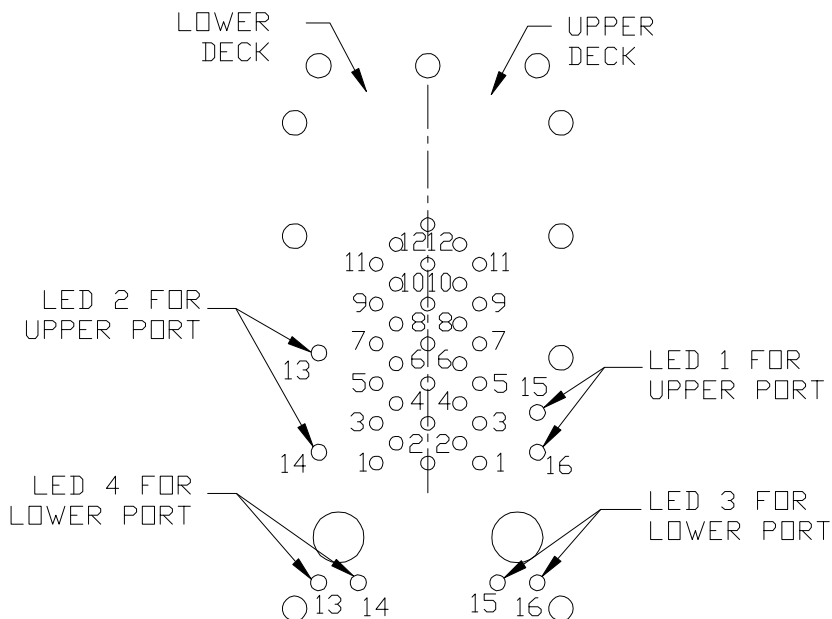
FILE NAME  
G23-21YR-112G\_1.DWG

STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REF.
.X	UNIT : INCH [mm]
.XX	SCALE : N/A
.XXX ±0.010	SIZE : A4

REV. : 1	PAGE : 3

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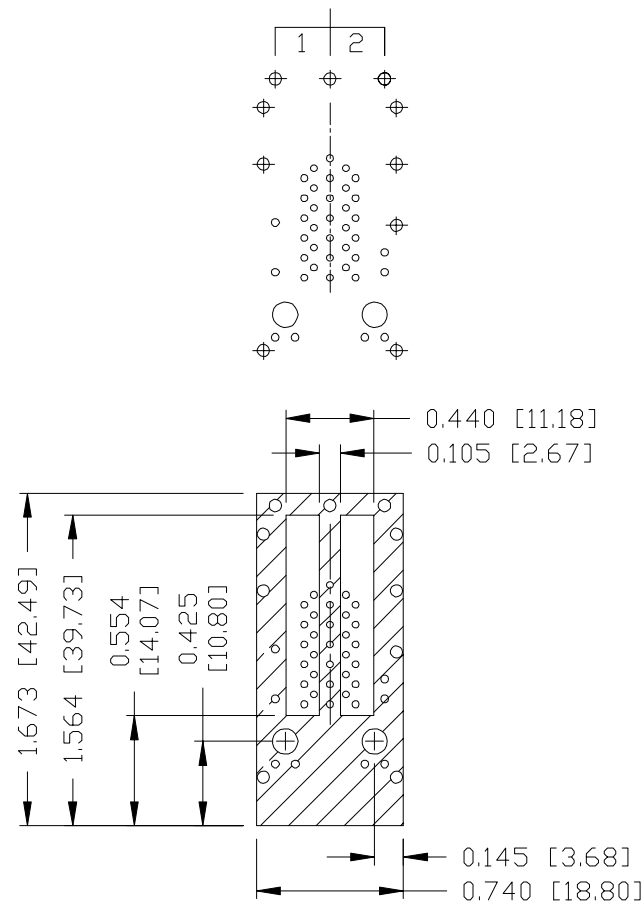
RoHS



PIN-OUT INFORMATION  
(COMPONENT SIDE VIEW)

10	TRD4+		
9	TRCT3		
8	TRD3-		
7	TRD3+		
6	TRCT2	16	ORANGE(+)/GREEN(-)
5	TRD2-	15	ORANGE(-)/GREEN(+)
4	TRD2+	14	YELLOW (-)
3	TRCT1	13	YELLOW (+)
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.

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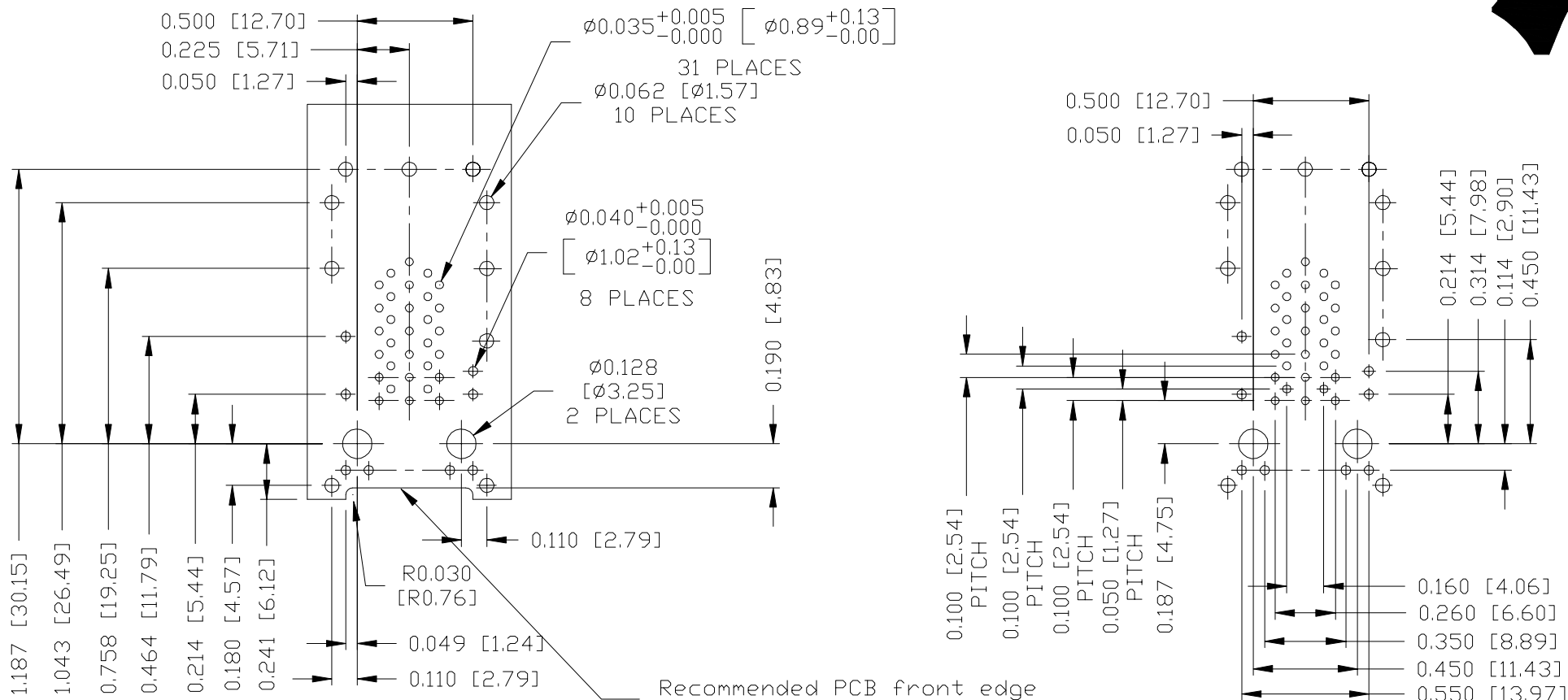
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TOL. IN INCH AS REF.

.X		UNIT : INCH [mm]
.XX		SCALE : N/A
.XXX	±0.004	SIZE : A4



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Recommended PCB front edge cutout. The bottom shield ground tabs (front) should not be seated on the top of the PCB.

SUGGESTED FOOTPRINT  
(COMPONENT SIDE VIEW)

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.X	UNIT : INCH [mm]
.XX	SCALE : N/A
.XXX ±0.004	SIZE : A4

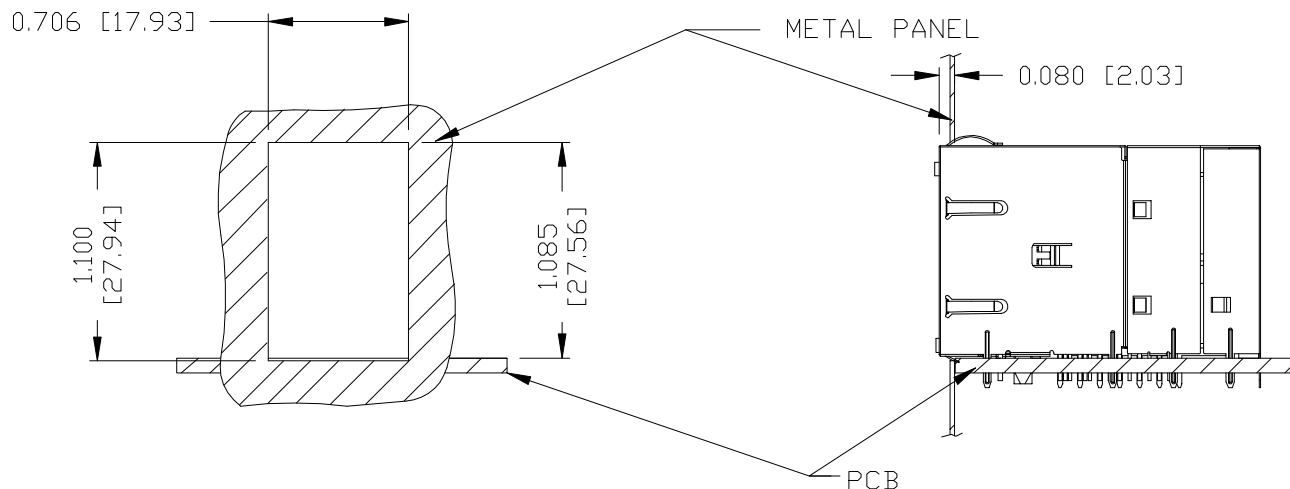
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SUGGESTED PANEL OPENING

RoHS



NOTE:



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.

PACKING INFORMATION

PACKING TRAY : 0200M9999-P3 (TOP)  
0200M9999-P2 (BOTTOM)


PACKING QUANTITY : 18 PCS FINISHED GOODS PER TRAY.  
9 TRAYS (162 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. :	1	PAGE :	6
		STANDARD DIM. [ ] METRIC DIM. AS REF.	
		TOL. IN INCH	
		.X	UNIT : INCH [mm]
		.XX	SCALE : N/A
.XXX	±0.005		SIZE : A4

ORIGINATED BY TONY YUAN DATE 2024-07-22	TITLE 2X1 10 Gigabit MagJack® PATENTED
DRAWN BY CLOUD ZENG DATE 2024-07-22	

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TOL. IN INCH
.X
.XX
.XXX
±0.005

SIZE : A4