

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

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

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) _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 COLOR

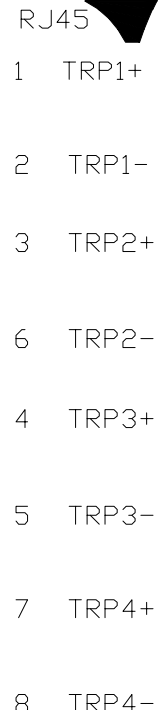
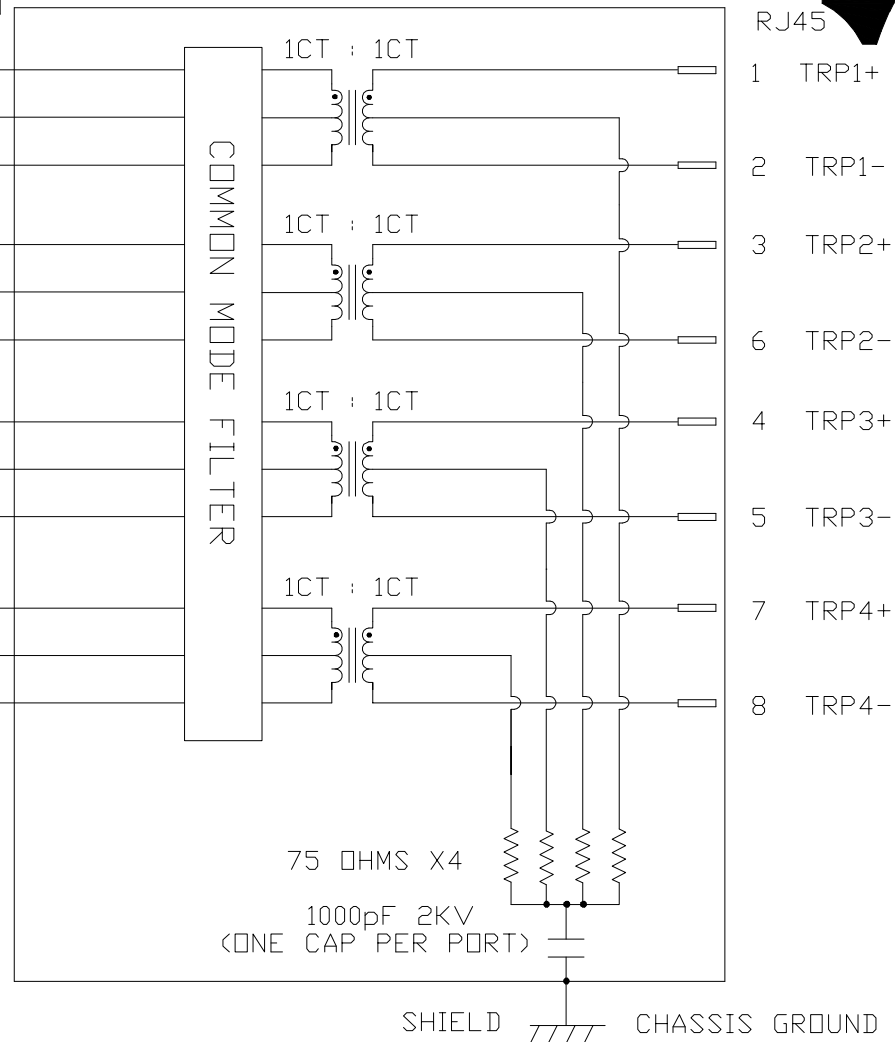
VF (FORWARD VOLTAGE)	IF=20mA	GREEN	2.2V TYP.
		ORANGE	2.0V TYP.
λD (DOMINANT WAVELENGTH)	IF=20mA	GREEN	570nm TYP.
		ORANGE	605nm TYP.

VF (FORWARD VOLTAGE)	IF=20mA	YELLOW	2.1V TYP.
λD (DOMINANT WAVELENGTH)	IF=20mA	YELLOW	590nm TYP.

OPERATING TEMPERATURE: 0°C TO +70°C.



SCHEMATIC



ORIGINATED BY
BILL LIU
DATE 2024-08-22

DRAWN BY
ZOU PEILONG
DATE 2024-08-22

TITLE
2X1 10 Gigabit MagJack®
PATENTED

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

FILE NAME
G23-21YR-112J_1.DWG

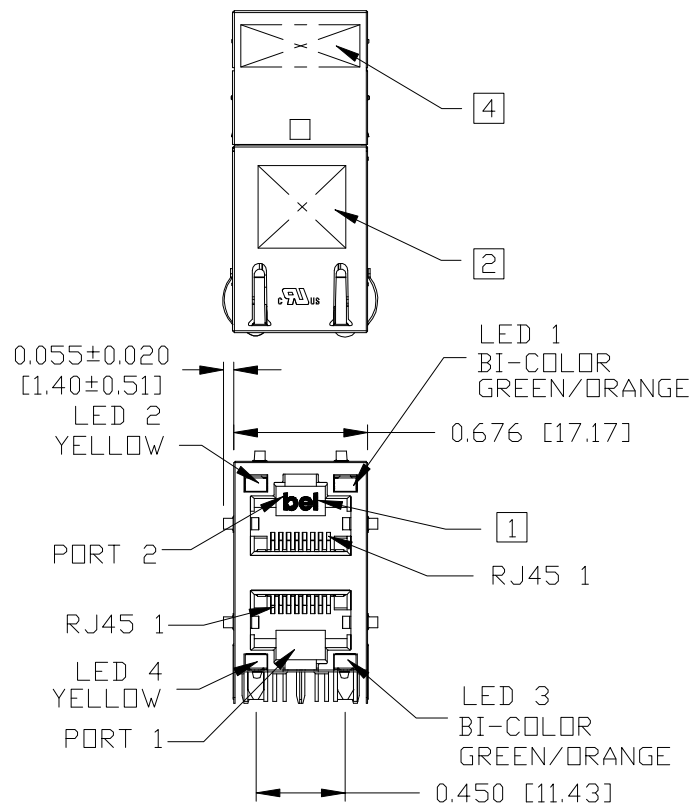
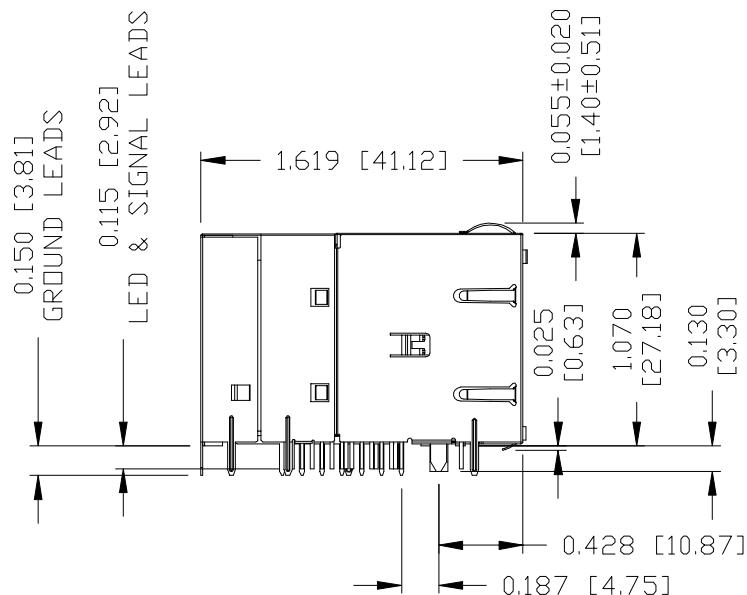
STANDARD DIM. TOL. IN INCH	[] METRIC DIM. AS REF.
.X	UNIT : INCH [mm]
.XX	SCALE : N/A
.XXX	SIZE : A4

REV. : 1	PAGE : 2
----------	----------

bel MAGNETIC SOLUTIONS
a bel group

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

RoHS



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 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 2024-08-22	DRAWN BY CLOUD ZENG DATE 2024-08-22
---	---

TITLE 2X1 10 Gigabit MagJack® PATENTED
--

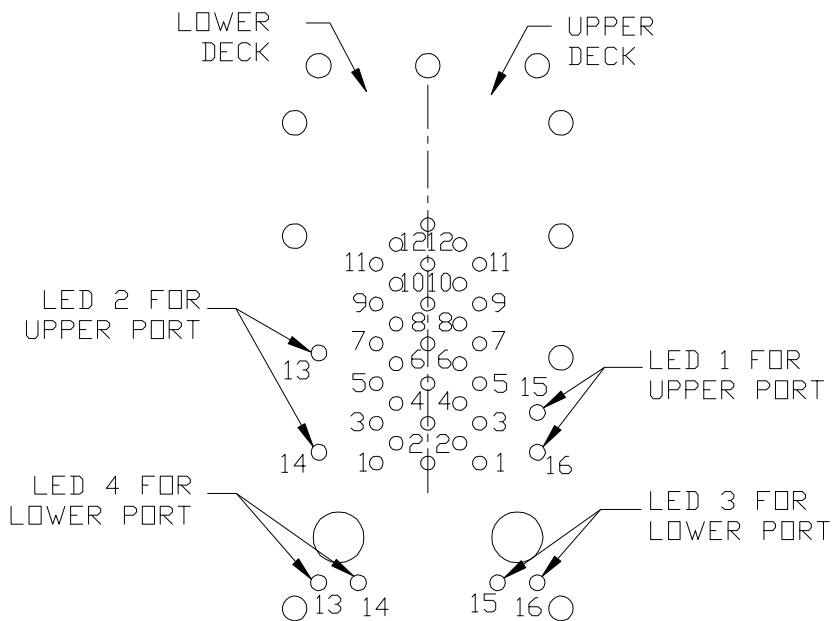
PART NO. / DRAWING NO. G23-21YR-112J	FILE NAME G23-21YR-112J_1.DWG
---	----------------------------------

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

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

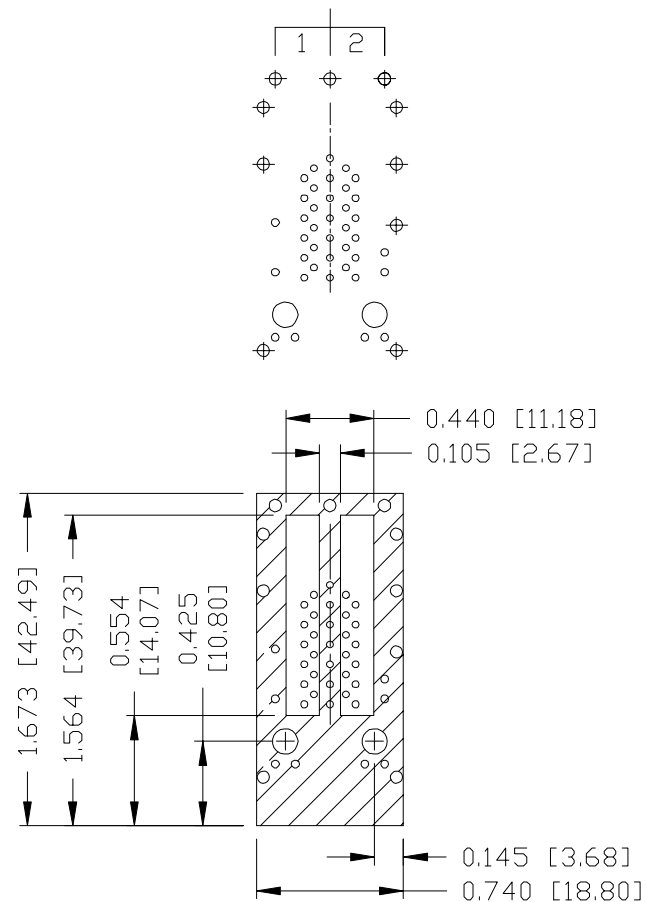
RoHS



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.

REV. : 1 PAGE : 4

ORIGINATED BY
TONY YUAN
DATE 2024-08-22

DRAWN BY
CLOUD ZENG
DATE 2024-08-22

TITLE
2X1 10 Gigabit MagJack®
PATENTED

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

FILE NAME
G23-21YR-112J_1.DWG

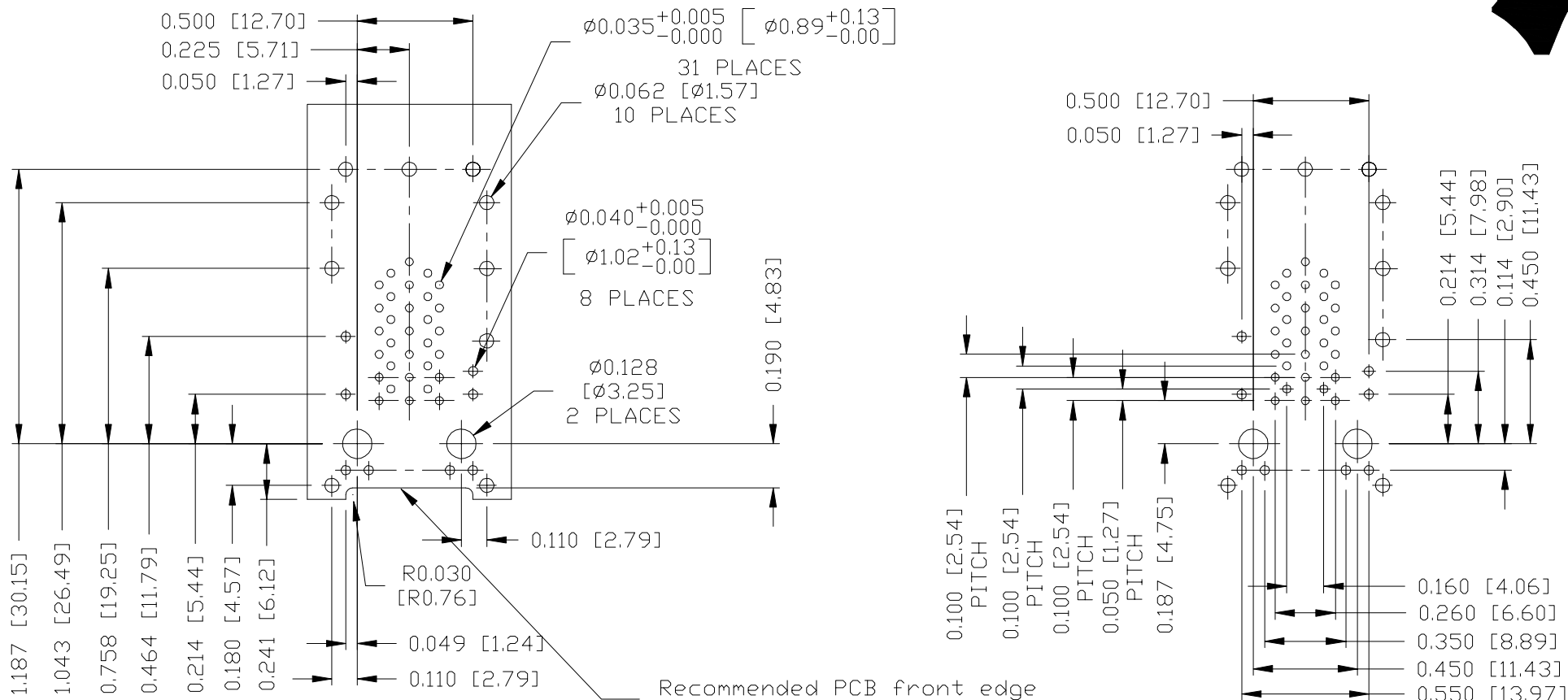
STANDARD DIM. [] METRIC DIM.
TOL. IN INCH AS REF.

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



THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

RoHS



SUGGESTED FOOTPRINT
(COMPONENT SIDE VIEW)

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

ORIGINATED BY
TONY YUAN
DATE 2024-08-22

DRAWN BY
CLOUD ZENG
DATE 2024-08-22

TITLE
2X1 10 Gigabit MagJack®
PATENTED

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

FILE NAME
G23-21YR-112J_1.DWG

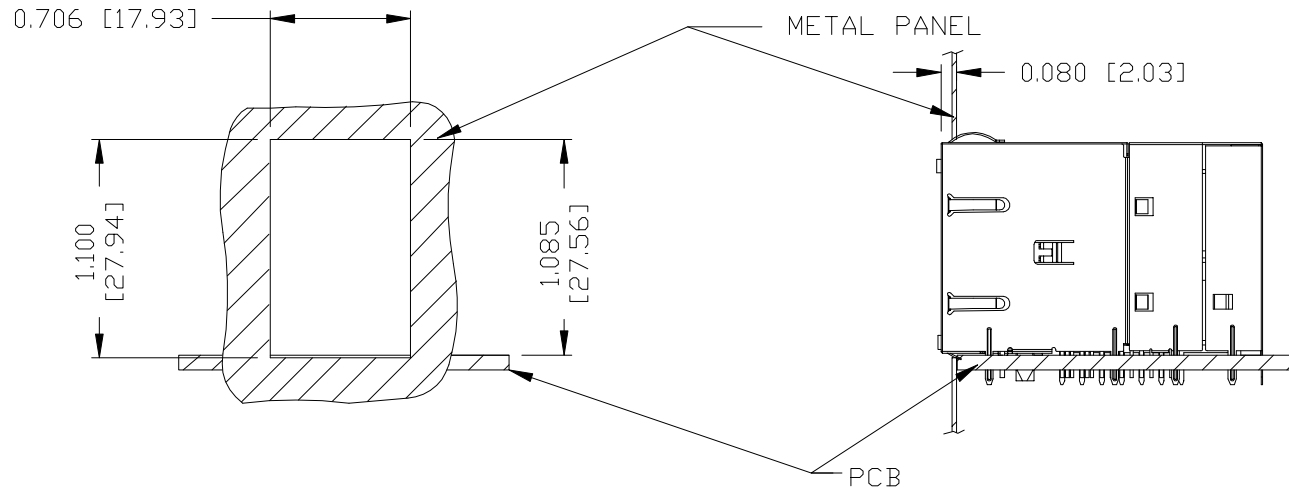
STANDARD DIM. TOL. IN INCH	[] METRIC DIM. AS REF.
.X	UNIT : INCH [mm]
.XX	SCALE : N/A
.XXX ±0.004	SIZE : A4

REV. : 1 PAGE : 5



THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

SUGGESTED PANEL OPENING



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
		[] METRIC DIM. AS REF.	
		UNIT : INCH [mm]	
		SCALE : N/A	
		SIZE : A4	

ORIGINATED BY TONY YUAN DATE 2024-08-22	TITLE 2X1 10 Gigabit MagJack® PATENTED	PART NO. / DRAWING NO. G23-21YR-112J	STANDARD DIM. TOL. IN INCH	[] METRIC DIM. AS REF.
DRAWN BY CLOUD ZENG DATE 2024-08-22		FILE NAME G23-21YR-112J_1.DWG	.X	
			.XX	
			.XXX	±0.005