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WRITTEN APPROVAL OF BEL FUSE INC.

LED1 POLARITY			LED2 POLARITY		
PIN 27	PIN 28	COLOR	PIN 29	PIN 30	COLOR
-	+	GREEN	+	-	YELLOW
			-	+	GREEN

ELECTRICAL CHARACTERISTICS @ 25°C

## TURNS RATIO

TP1	1CT : 1CT $\pm 2\%$
TP2	1CT : 1CT $\pm 2\%$
TP3	1CT : 1CT $\pm 2\%$
TP4	1CT : 1CT $\pm 2\%$

DCL @ 100kHz,100mVRMS  
8mA DC BIASINS. LOSS  
100KHz TO 100MHz

RET. LOSS (MIN)

1MHz-30MHz	-18 dB
30MHz-60MHz	-16 dB
60MHz-80MHz	-14 dB
80MHz-100MHz	-12 dB

CM TO CM REJ  
100kHz - 100MHzCROSS TALK  
1MHz - 60MHz

60MHz - 100MHz	-35 dB TYP
	-25 dB TYP

HIPOT (Isolation Voltage):  
100% OF PRODUCT TESTED TO COMPLY

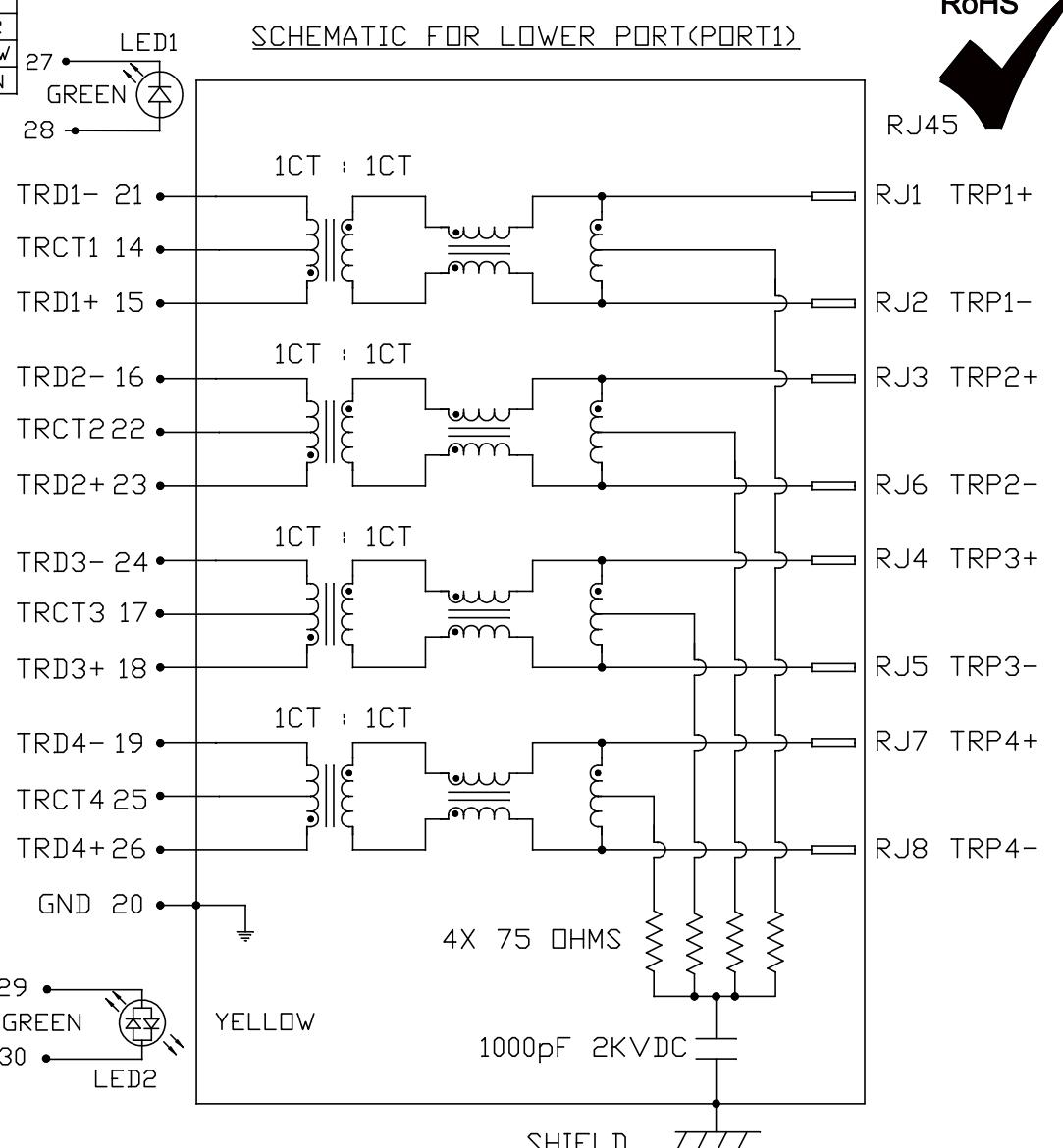
WITH IEEE 802.3 ISOLATION REQUIREMENTS

## LEAKAGE INDUCTANCE

PRIMARY W/ SECONDARY SHORTED  
0.3 $\mu$ H Max. @ 1MHzINTERWINDING CAPACITANCE  
PER CHANNEL (PRI. TO SEC.)  
50pF Max @ 1MHzDC RESISTANCE  
(21-15)=(16-23)=(24-18)=(19-26)  
(RJ1-RJ2)=(RJ3-RJ6)=(RJ4-RJ5)=(RJ7-RJ8) 1.2 ohms Max

OPERATING TEMPERATURE: -40 TO +85°C

## LED 1

VF (FORWARD VOLTAGE)  
λD (DOMINANT WAVELENGTH)  
IF=20mA GREEN 2.2V TYP.  
IF=20mA GREEN 570nm TYP.LED 2  
VF (FORWARD VOLTAGE)  
λD (DOMINANT WAVELENGTH)  
IF=20mA GREEN 2.2V TYP.  
IF=20mA GREEN 570nm TYP.  
IF=20mA YELLOW 2.1V TYP.  
IF=20mA YELLOW 590nm TYP.

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ORIGINATED BY  
CHOW WAN CHUNG  
DATE 2018-12-19DRAWN BY  
XIE YIMING  
DATE 2018-12-19TITLE  
2X1 gigabit MagJack®  
(with LED)  
PATENTED  
(Extend Temperature of -E4)PART NO. / DRAWING NO.  
0845-2R1T-DYFILE NAME  
0845-2R1T-DY\_B.DWG

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

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LED3 POLARITY			LED4 POLARITY		
PIN 31	PIN 32	COLOR	PIN 33	PIN 34	COLOR
-	+	GREEN	+	-	YELLOW

#### ELECTRICAL CHARACTERISTICS @ 25°C

##### TURNS RATIO

TP1	1CT : 1CT	±2%
TP2	1CT : 1CT	±2%
TP3	1CT : 1CT	±2%
TP4	1CT : 1CT	±2%

ΔCL @ 100kHz,100mVRMS  
8mA DC BIAS

INS. LOSS  
100KHz TO 100MHz

RET. LOSS (MIN)	-1.1 dB MAX
1MHz-30MHz	-18 dB
30MHz-60MHz	-16 dB
60MHz-80MHz	-14 dB
80MHz-100MHz	-12 dB

CM TO CM REJ  
100KHz - 100MHz

CROSS TALK	-25 dB TYP
1MHz - 60MHz	-35 dB TYP
60MHz - 100MHz	-25 dB TYP

HIPOT (Isolation Voltage):

100% OF PRODUCT TESTED TO COMPLY  
WITH IEEE 802.3 ISOLATION REQUIREMENTS

##### LEAKAGE INDUCTANCE

PRIMARY W/ SECONDARY SHORTED 0.3μH Max. @ 1MHz

INTERWINDING CAPACITANCE  
PER CHANNEL (PRI. TO SEC.) 50pF Max @ 1MHz

DC RESISTANCE  
(13-6)=(5-11)=(10-3)=(2-8) 1.2 ohms Max  
(RJ1-RJ2)=(RJ3-RJ6)=(RJ4-RJ5)=(RJ7-RJ8) 1.2 ohms Max

OPERATING TEMPERATURE: -40 TO +85°C

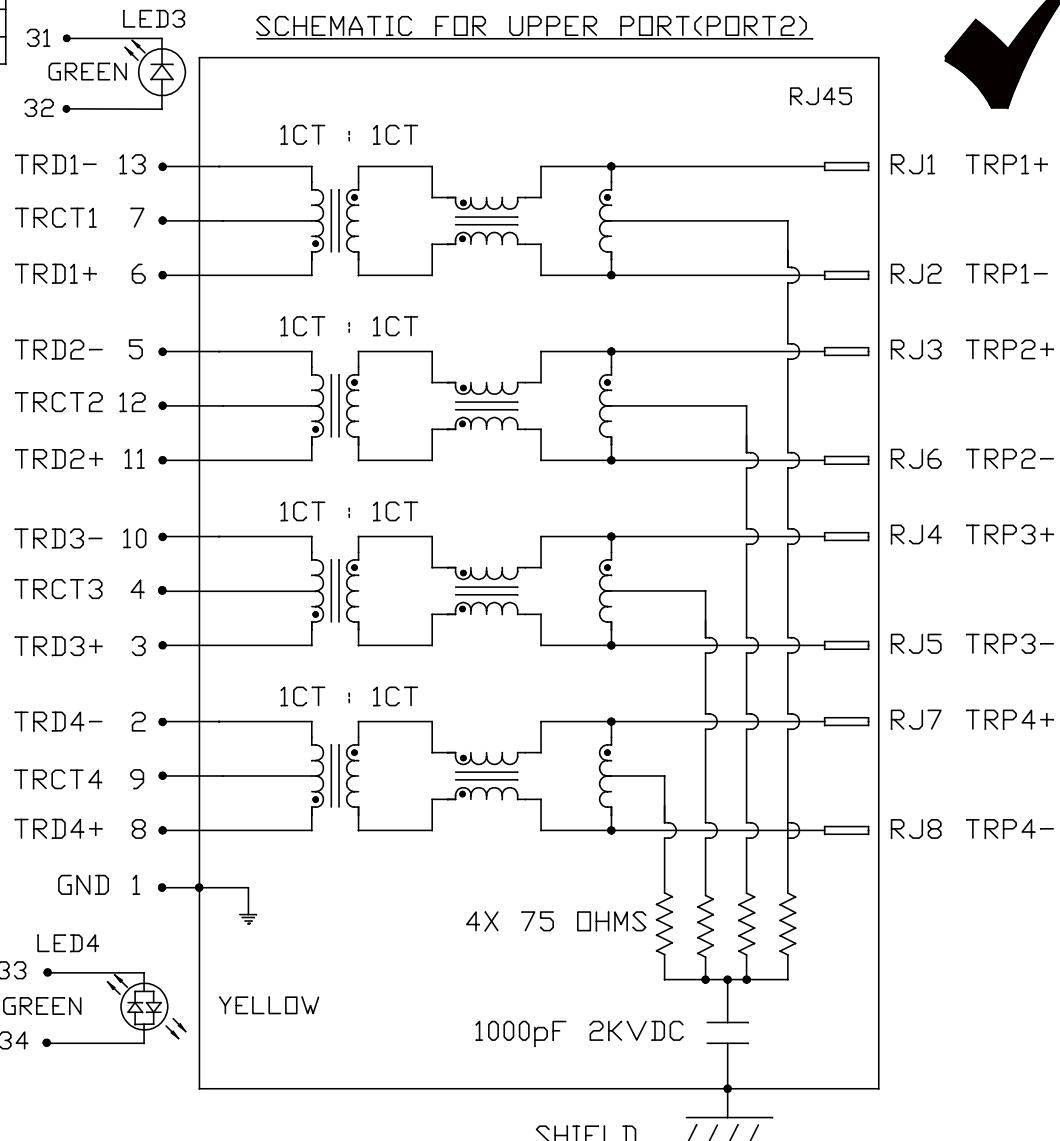
##### LED 3 (Super bright)

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

LED 4 (Super bright)  
VF (FORWARD VOLTAGE)  
IF=20mA GREEN 2.2V TYP.

λD (DOMINANT WAVELENGTH)  
IF=20mA GREEN 570nm TYP.  
IF=20mA GREEN 2.1V TYP.  
IF=20mA YELLOW 590nm TYP.

#### SCHEMATIC FOR UPPER PORT(PORT2)



REV. : B PAGE : 3



ORIGINATED BY  
CHOW WANCHUNG  
DATE 2018-12-19

DRAWN BY  
XIE YIMING  
DATE 2018-12-19

TITLE  
2X1 gigabit MagJack®  
(with LED)  
PATENTED  
(Extend Temperature of -E4)

PART NO. / DRAWING NO.  
0845-2R1T-DY

STANDARD DIM.  
TOL. IN INCH

FILE NAME  
0845-2R1T-DY\_B.DWG

[ ] METRIC DIM.  
AS REF.

.X

.XX

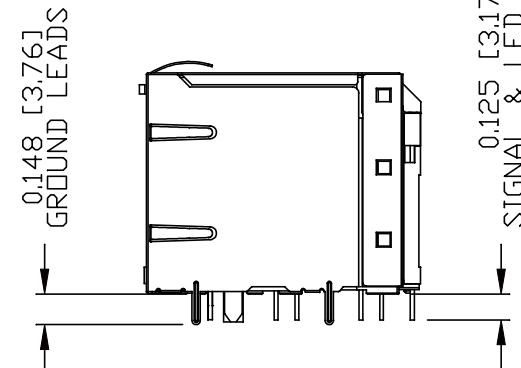
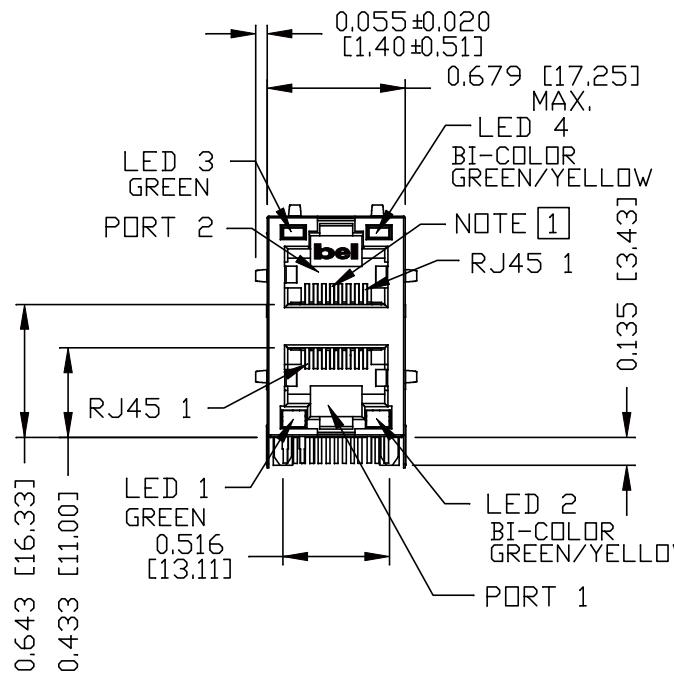
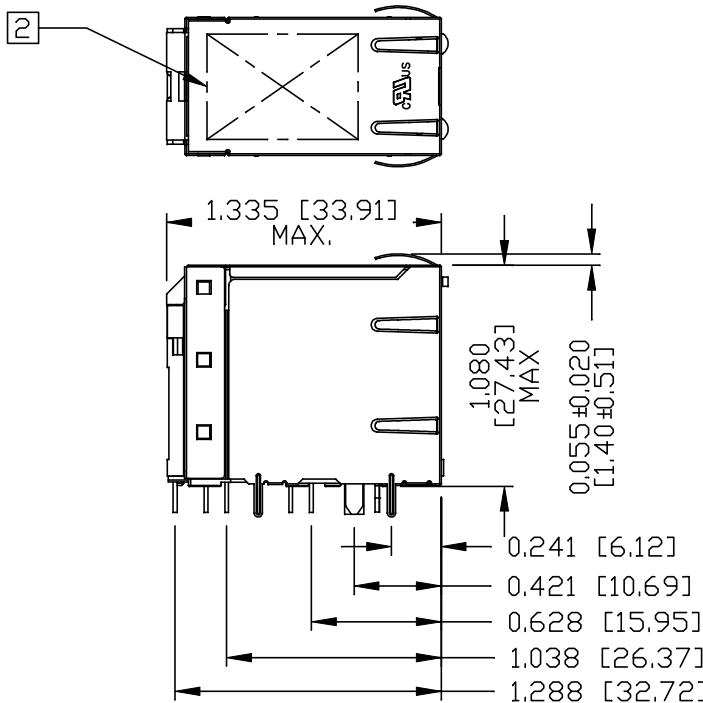
.XXX

UNIT : INCH [mm]

SCALE : N/A

SIZE : A4

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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)

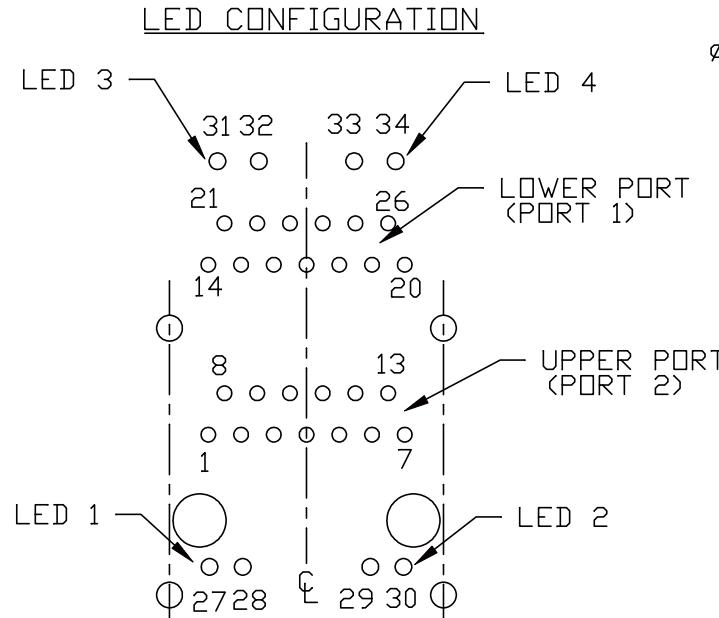
1. JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.

2. MARK PART WITH MFG LOGO, MFG NAME, PART NUMBER, DATE CODE, AND PATENTED.

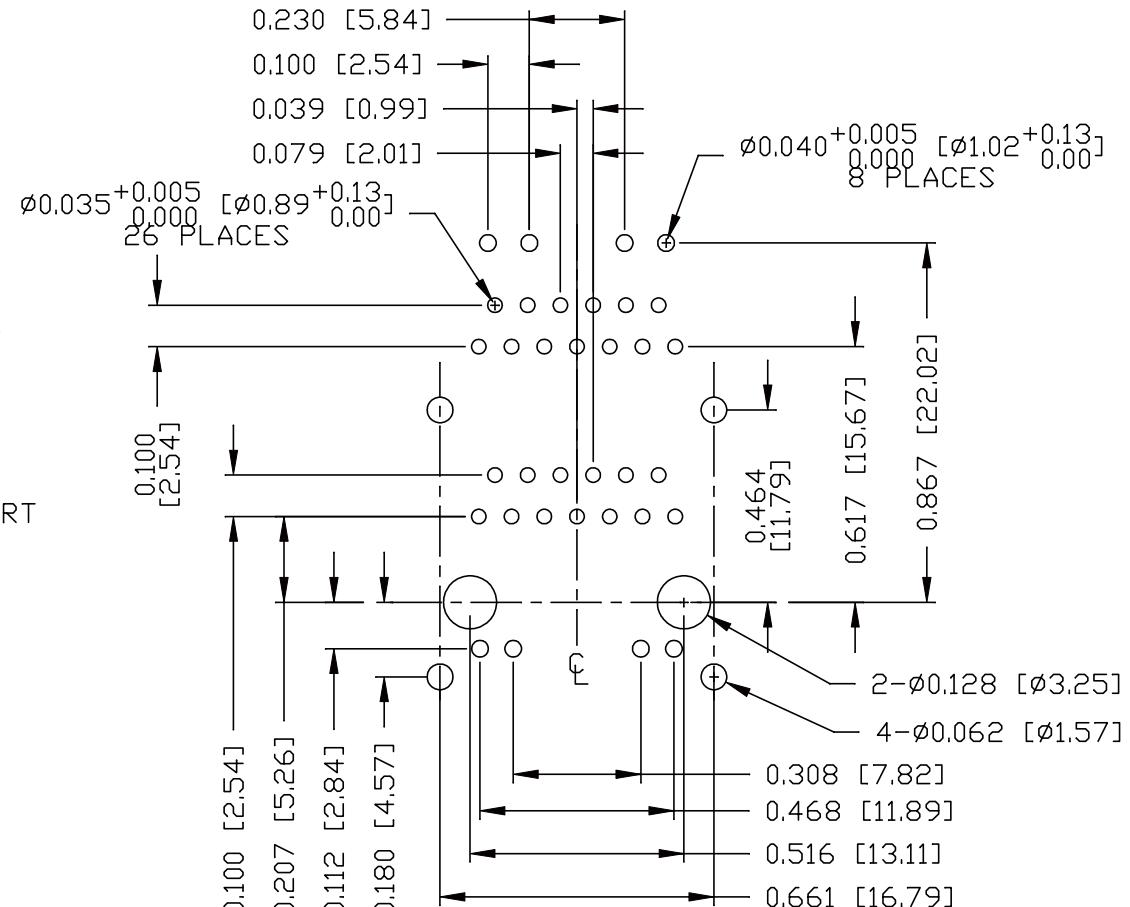
3. THE PRODUCT IS RoHS COMPLIANCE.  
 cULUS RECOGNIZED - FILE #E196366 AND E169987.
4. THE PRODUCT IS PATENTED. THE PATENT NUMBER IS U.S. PAT. 6,840,817.
5. THE PART IS RECOMMENDED FOR WAVE SOLDERING.  
THE SUGGESTED PEAK WAVE SOLDERING CONDITION IS 260°C MAX AND 10 SECONDS MAX.

REV. :	B	PAGE :	4
ORIGINATED BY SANDY LIN DATE 2018-12-19	TITLE 2X1 gigabit MagJack® (with LED) PATENTED (Extend Temperature of -E4)	PART NO. / DRAWING NO. 0845-2R1T-DY FILE NAME 0845-2R1T-DY_B.DWG	STANDARD DIM. TOL. IN INCH .X .XX .XXX
			[ ] METRIC DIM. AS REF. UNIT : INCH [mm] SCALE : N/A SIZE : A4
DRAWN BY OLIVER ZHANG DATE 2018-12-19			<b>bel</b> MAGNETIC SOLUTIONS a bel group

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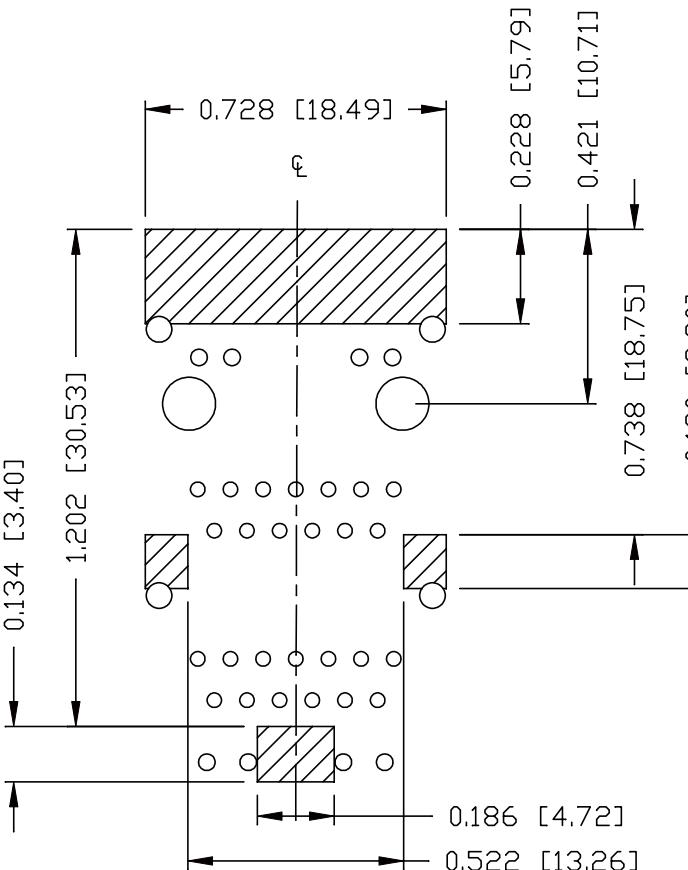
PIN-OUT INFORMATION  
(COMPONENT SIDE VIEW)  
(SCALE 2:1)



SUGGESTED FOOTPRINT  
(COMPONENT SIDE VIEW)  
(SCALE 2:1)

REV. :	B	PAGE :	5
ORIGINATED BY SANDY LIN DATE 2018-12-19	TITLE 2X1 gigabit MagJack® (with LED) PATENTED (Extend Temperature of -E4)	PART NO. / DRAWING NO. 0845-2R1T-DY	STANDARD DIM. TOL. IN INCH
DRAWN BY OLIVER ZHANG DATE 2018-12-19		FILE NAME 0845-2R1T-DY_B.DWG	[ ] METRIC DIM. AS REF.
			.X
			.XX
			.XXX
			UNIT : INCH [mm]
			SCALE : N/A
			SIZE : A4

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#### NOTES

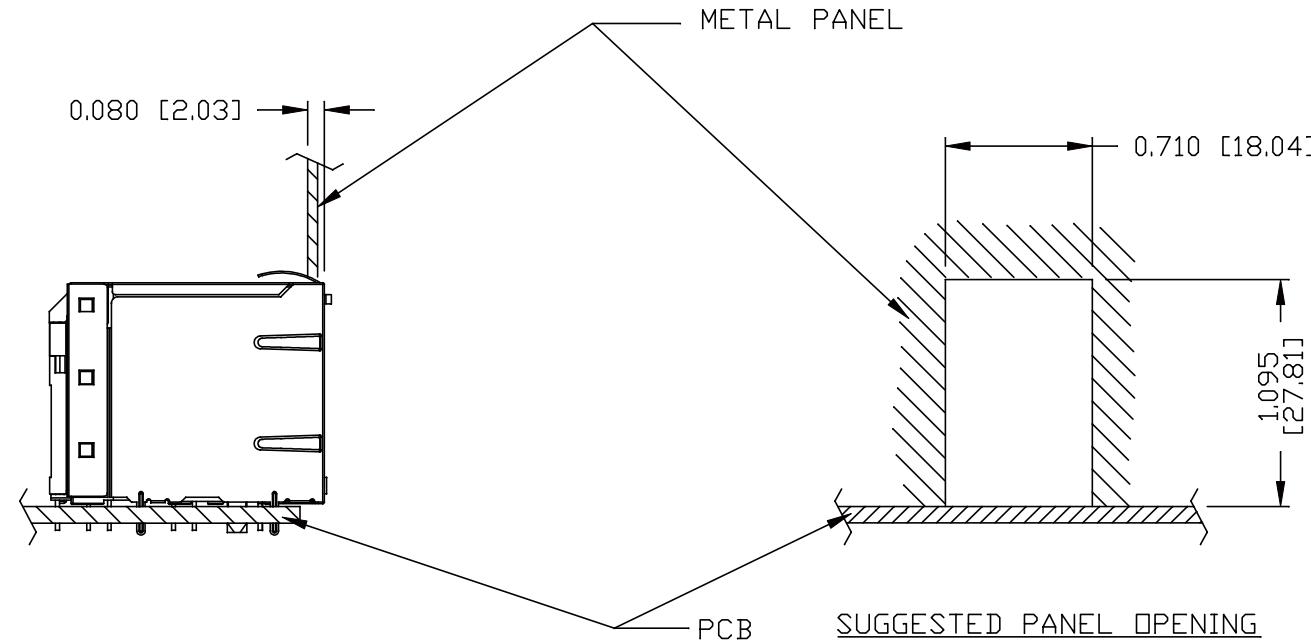
THE SHADED AREA ON THE CUSTOMER BOARD ARE  
RECOMMENDED TO BE CLEAR OFF ANY VIA HOLE OR  
COMPONENT PAD.

REV. : B PAGE : 6

ORIGINATED BY SANDY LIN DATE 2018-12-19	TITLE 2X1 gigabit MagJack® (with LED) PATENTED (Extend Temperature of -E4)	PART NO. / DRAWING NO. 0845-2R1T-DY FILE NAME 0845-2R1T-DY_B.DWG	STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REF.
			.X	UNIT : INCH [mm]
			.XX	SCALE : N/A

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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: 0200-9999-H5 (TOP)  
0200-9999-H6 (BOTTOM)

PACKING QUANTITY: 40 PCS FINISHED GOODS PER TRAY  
6 TRAYS (240 PCS FINISHED GOODS) PER CARTON BOX.

NOTE: CARDBOARD ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE CARTON BOX.  
(INCLUDE THE UPPERMOST AND LOWEREST TRAY)

REV. :	B	PAGE :	7
ORIGINATED BY SANDY LIN DATE 2018-12-19	TITLE 2X1 gigabit MagJack® (with LED) PATENTED (Extend Temperature of -E4)	PART NO. / DRAWING NO. 0845-2R1T-DY	STANDARD DIM. TOL. IN INCH
		FILE NAME 0845-2R1T-DY_B.DWG	[ ] METRIC DIM. AS REF.
		.X	UNIT : INCH [mm]
		.XX	SCALE : N/A
		.XXX	±0.005
			SIZE : A4

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