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LED1 POLARITY			LED2 POLARITY		
PIN 17	PIN 18	COLOR	PIN 19	PIN 20	COLOR
-	+	YELLOW	-	+	GREEN

#### ELECTRICAL CHARACTERISTICS @ 25°C

##### URNS RATIO

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

##### DCL @ 100kHz/100mVRMS

##### FOR CHANNEL 1, CHANNEL 2

8mA DC BIAS 350µH MIN.

19mA DC BIAS 120µH MIN.

##### FOR CHANNEL 3, CHANNEL 4

8mA DC BIAS 350µH MIN.

##### INS. LOSS

0.1MHz TO 1MHz -1.1 dB MAX

1MHz TO 65MHz -0.8 dB MAX

65MHz TO 100MHz -1.0 dB MAX

100MHz TO 125MHz -1.2 dB MAX

##### RET. LOSS (MIN)

0.5MHz-40MHz -18 dB

40MHz-100MHz -12+20LOG(f/80MHz) dB

##### CM TO CM REJ

100kHz - 100MHz -30 dB MIN

##### CM TO DM REJ

100kHz - 100MHz -35 dB MIN

##### HIPOT (Isolation Voltage): 2250 VDC

100% OF PRODUCTION TESTED TO COMPLY WITH

IEEE 802.3 ISOLATION REQUIREMENTS.

##### LED 1

VF (FORWARD VOLTAGE) IF=20mA YELLOW 2.1V TYP.

AD (DOMINANT WAVELENGTH) IF=20mA YELLOW 590nm TYP.

##### LED 2

VF (FORWARD VOLTAGE) IF=20mA GREEN 2.2V TYP.

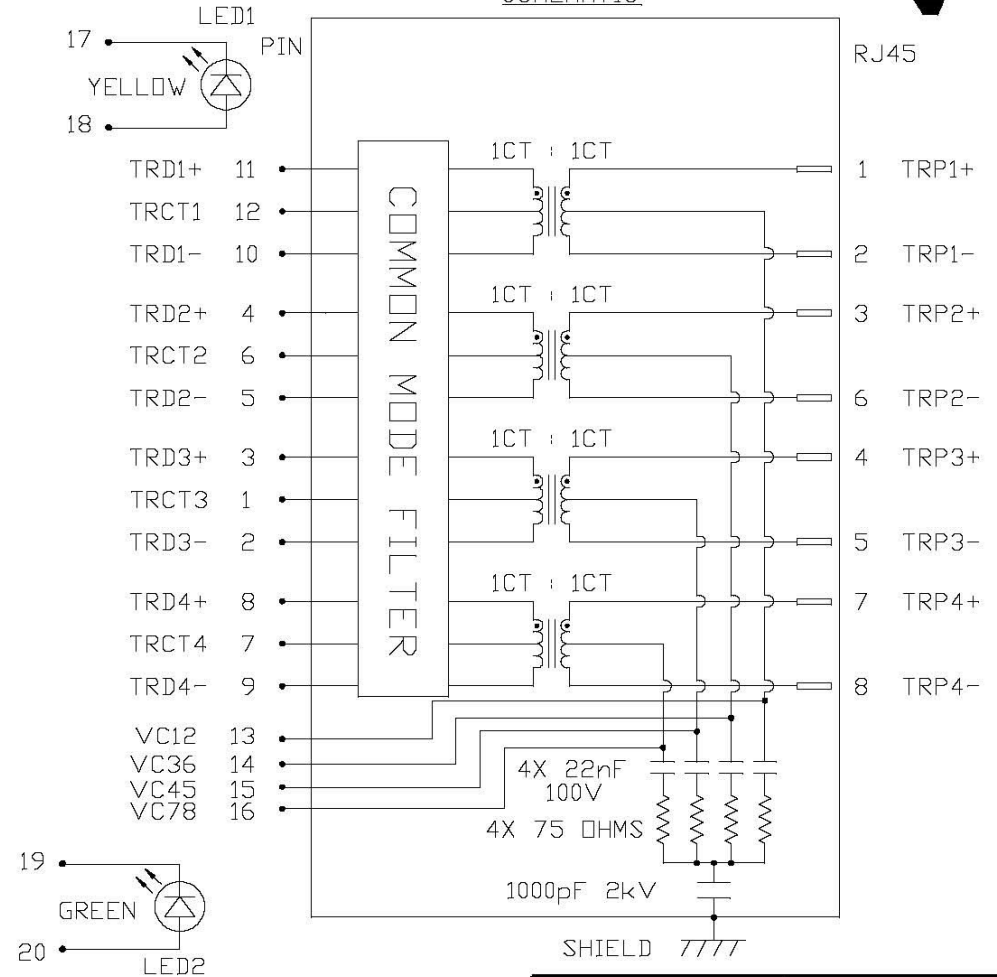
AD (DOMINANT WAVELENGTH) IF=20mA GREEN 570nm TYP.

##### BALANCED DC LINE CURRENT 600mA MAX CONTINUOUS

1.2A MAX. FOR 200 MILLISECONDS

##### OPERATING TEMPERATURE: -40°C TO 85°C

#### SCHEMATIC



ORIGINATED BY  
CHOW WANCHUNG  
DATE 2020-08-07

DRAWN BY  
XIE YIMING  
DATE 2020-08-07

TITLE  
gigabit MagJack®  
Vertical, 4PPoE  
PATENTED

PART NO. / DRAWING NO.  
V8BR-1AX1-GH

FILE NAME  
V8BR-1AX1-GH\_PC.DWG

STANDARD DIM.  
TOL. IN INCH

.X  
.XX  
.XXX

[ ] METRIC DIM.  
AS REF.

UNIT : INCH [mm]  
SCALE : N/A  
SIZE : A4

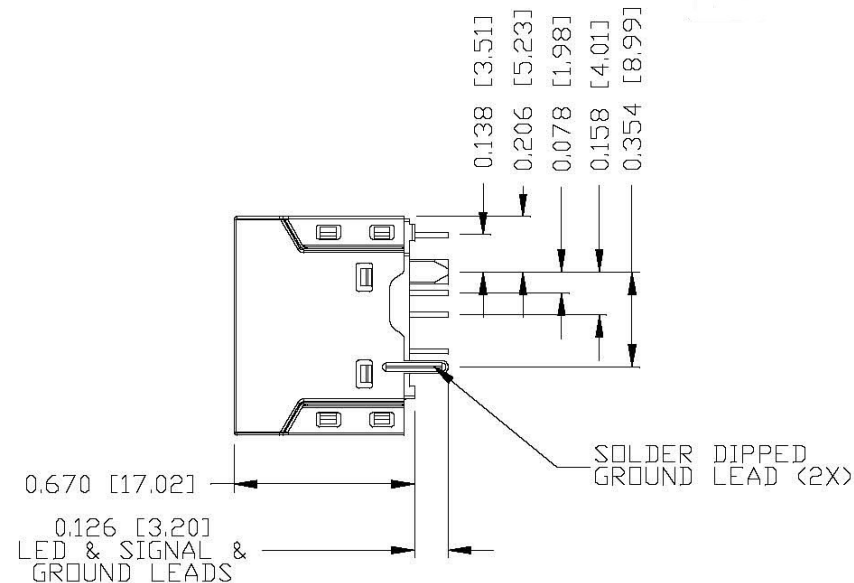
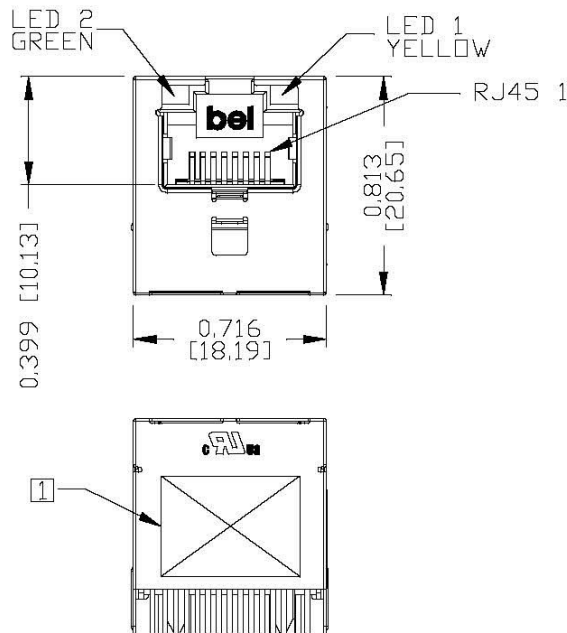
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## MECHANICAL SPECIFICATION

RoHS



## NOTES:

PLASTIC HOUSING: THERMOPLASTIC PBT, BLACK  
FLAMMABILITY RATING UL 94V-0  
CONTACT PLATING: 30 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: STAINLESS STEEL  
(ALL GROUND LEADS ARE SOLDER DIPPED)

JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS.

① MARK PART WITH MFG LOGO, MFG NAME, PART NUMBER, DATE CODE AND PATENTED.

2. THE PRODUCT IS ROHS COMPLIANT.

 UL RECOGNIZED - FILE #E196366 AND E169987.

3. THE PRODUCT IS PATENTED, THE PATENT NUMBER ARE U.S. PAT 6,840,817 & U.S. PAT. 7,123,117.

4. THE PART IS RECOMMENDED FOR WAVE SOLDERING. THE SUGGESTED PEAK WAVE SOLDERING CONDITION IS 260°C MAX. AND 10 SECONDS MAX..

ORIGINATED BY  
LI QUANKUN  
DATE 2020-08-07

DRAWN BY  
OLIVER ZHANG  
DATE 2020-08-07

TITLE  
glgabit MagJack®  
Vertical, 4PPoE  
PATENTED

PART NO. / DRAWING NO.  
V8BR-1AX1-GH

FILE NAME  
V8BR-1AX1-GH\_PC.DWG

STANDARD DIM.  
TOL. IN INCH

.X  
.XX  
.XXX  
±0.010

[ ] METRIC DIM.  
AS REF.

UNIT : INCH [mm]  
SCALE : N/A  
SIZE : A4

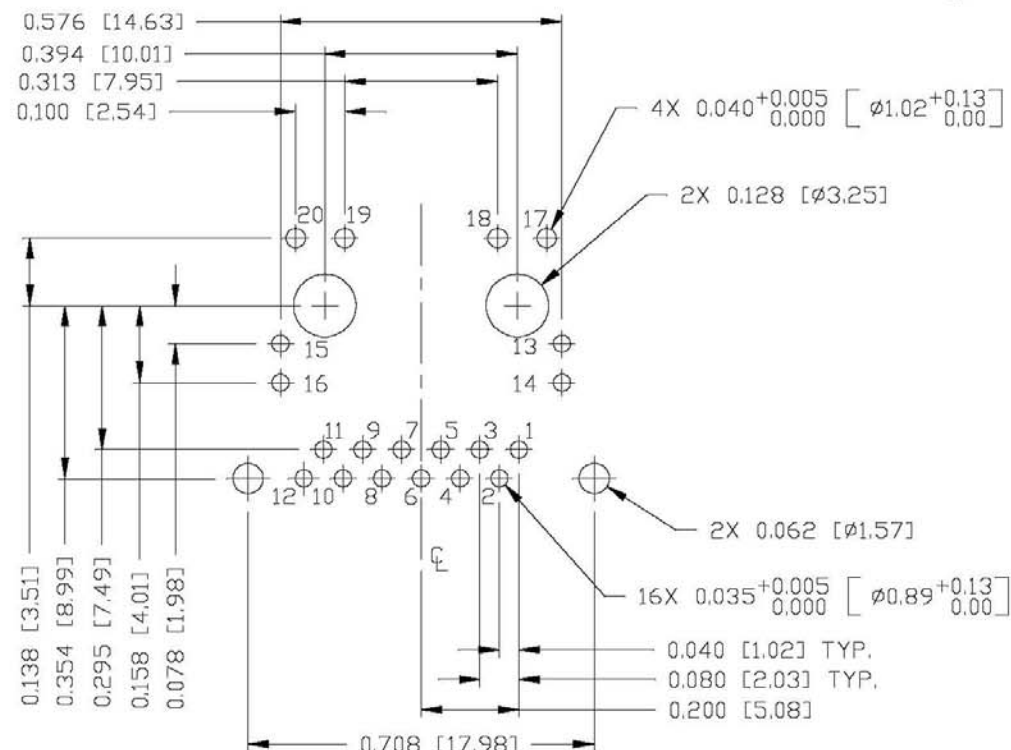
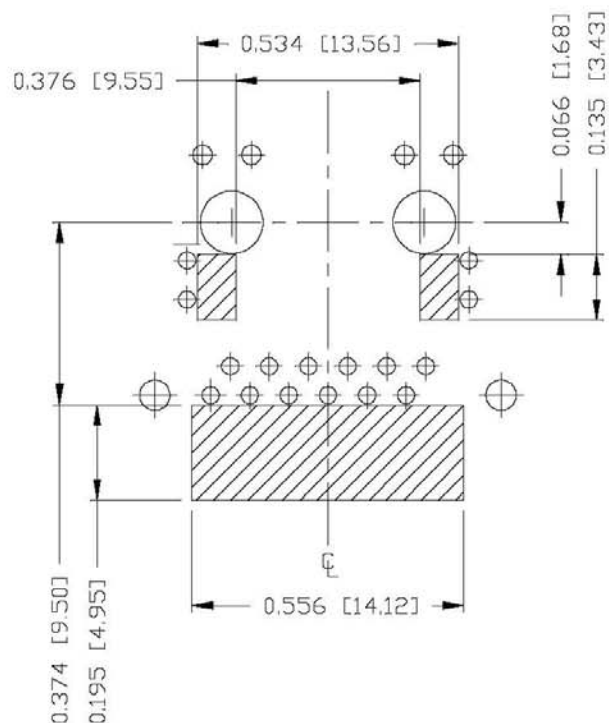
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RoHS



RECOMMENDED PCB FOOTPRINT  
COMPONENT SIDE VIEW

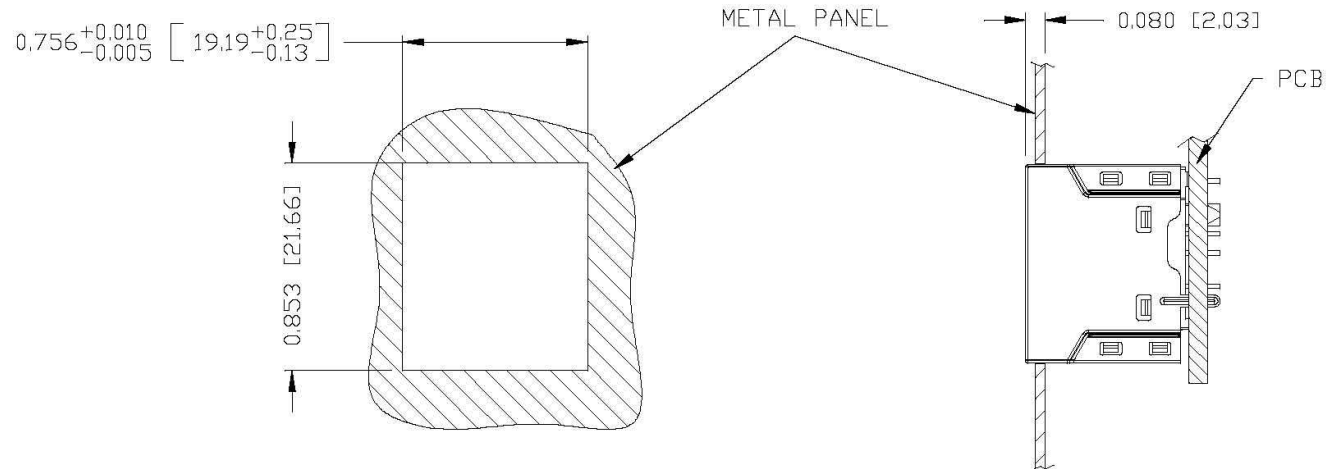
NOTES  
THE SHADED AREA ON THE CUSTOMER BOARD ARE  
RECOMMENDED TO BE CLEAR OFF ANY VIA HOLE OR  
COMPONENT PAD.

ORIGINATED BY LI QUANKUN DATE 2020-08-07	TITLE  gigabit MagJack® Vertical, 4PPoE PATENTED	PART NO. / DRAWING NO.  V8BR-1AX1-GH	STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REF.		 <b>bel</b> <b>MAGNETIC SOLUTIONS</b> a bel group
DRAWN BY OLIVER ZHANG DATE 2020-08-07		FILE NAME  V8BR-1AX1-GH_PC.DWG	.X		UNIT : INCH [mm]	
			.XX		SCALE : N/A	
			.XXX	±0.004	 SIZE : A4	

DC002(2)120214

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**RoHS**SUGGESTED PANEL OPENING

## NOTES:

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-T1(TOP)

0200M9999-T0(BOTTOM)

PACKING QUANTITY : 50 PCS FINISHED GOODS PER TRAY  
9 TRAYS (450 PCS FINISHED GOODS) PER CARTON BOX

NOTES: CARDBOARDS ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE CARTON BOX  
(INCLUDE THE UPPERMOST AND LOWERMOST TRAY)

REV. : PC

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PATENTED

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V8BR-1AX1-GH

FILE NAME  
V8BR-1AX1-GH\_PC.DWG

STANDARD DIM.  
TOL. IN INCH

[ ] METRIC DIM.  
AS REF.

.X

.XX

.XXX

/

/

/

UNIT : INCH [mm]

SCALE : N/A

SIZE : A4

