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## ELECTRICAL CHARACTERISTICS @ 25°C

LED1 POLARITY			LED2 POLARITY			
PIN 13	PIN 14	COLOR	PIN 15	PIN 16	PIN 17	COLOR
-	+	GREEN	-	+	/	YELLOW
/	/	/	/	+	-	GREEN

RoHS



### 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)

1MHz - 40MHz	-16 dB
40MHz - 400 MHz	-16+10LOG (F/40) dB
400MHz - 500 MHz	-6+30LOG (F/400) dB

### CM TO CM REJ

1MHz - 500MHz	-30 dB MIN
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### CM TO DM REJ

1MHz - 500MHz	-30 dB MIN
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### HIPOT (Isolation Voltage):

2250VDC

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

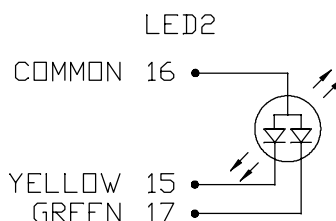
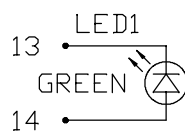
### LED 1 (REFERENCE TOLERANCE = +/-1.5nm)

VF (FORWARD VOLTAGE)	IF=20mA	GREEN	2.2V TYP.
λD (DOMINANT WAVELENGTH)	IF=20mA	GREEN	567nm TYP.

### LED 2 (REFERENCE TOLERANCE = +/-1.5nm)

VF (FORWARD VOLTAGE)	IF=20mA	GREEN	2.2V TYP.
		YELLOW	2.1V TYP.
λD (DOMINANT WAVELENGTH)	IF=20mA	GREEN	567nm TYP.
		YELLOW	590nm TYP.

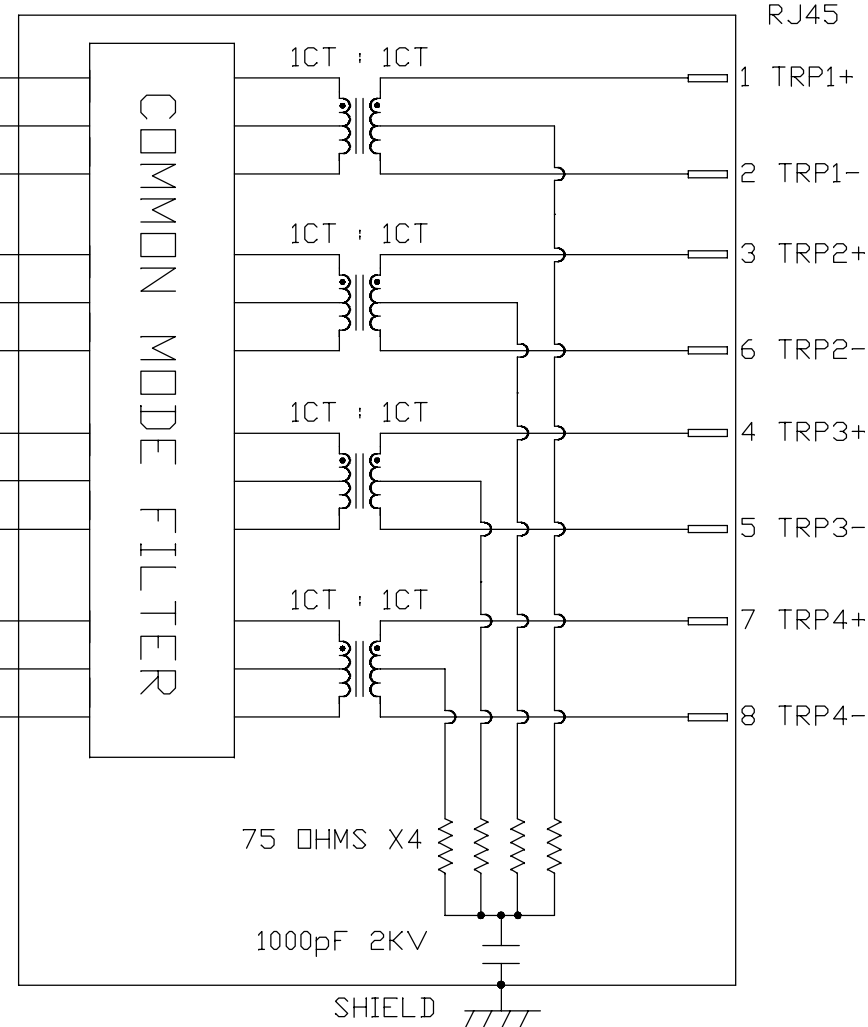
OPERATING TEMPERATURE: 0°C TO +70°C.



### PIN

TRD1+ 8  
TRCT1 7  
TRD1- 9  
  
TRD2+ 3  
TRCT2 1  
TRD2- 2  
  
TRD3+ 4  
TRCT3 6  
TRD3- 5  
  
TRD4+ 11  
TRCT4 12  
TRD4- 10

### SCHEMATIC



ORIGINATED BY  
CHOW WANCHUNG  
DATE 2017-03-15

TITLE  
10 Gigabit MagJack®  
(Ultra Low Profile)  
G10-1GHN-012E  
PATENTED

DRAWN BY  
XIE YIMING  
DATE 2017-03-15

PART NO. / DRAWING NO.  
G10-1GHN012E

FILE NAME  
G10-1GHN012E\_B.DWG

STANDARD DIM.  
TOL. IN INCH

.X  
.XX  
.XXX

[ ] METRIC DIM.  
AS REF.

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

REV. : B

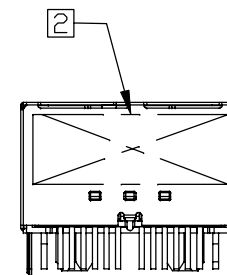
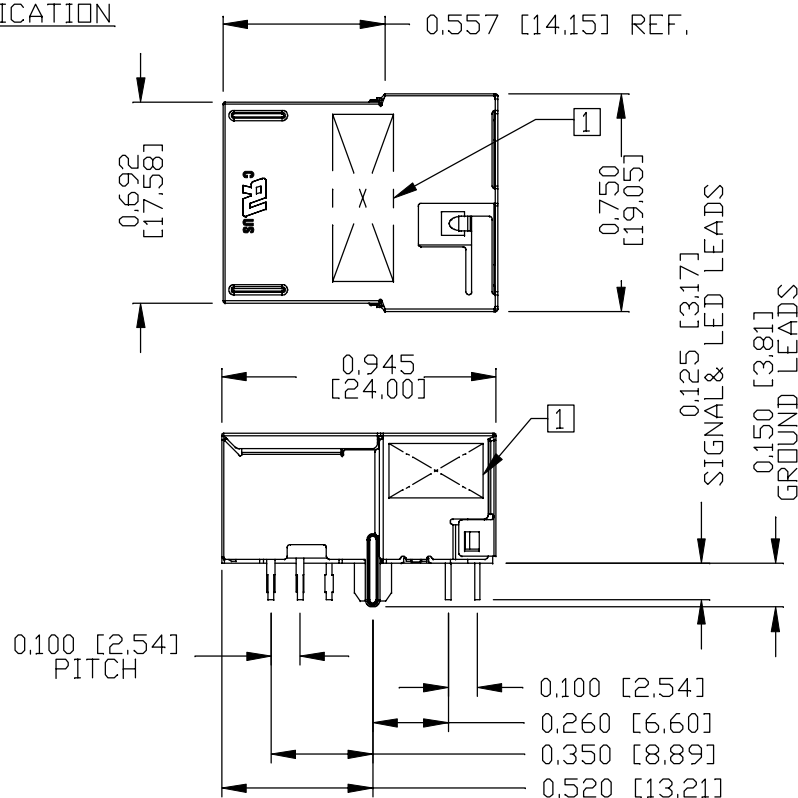
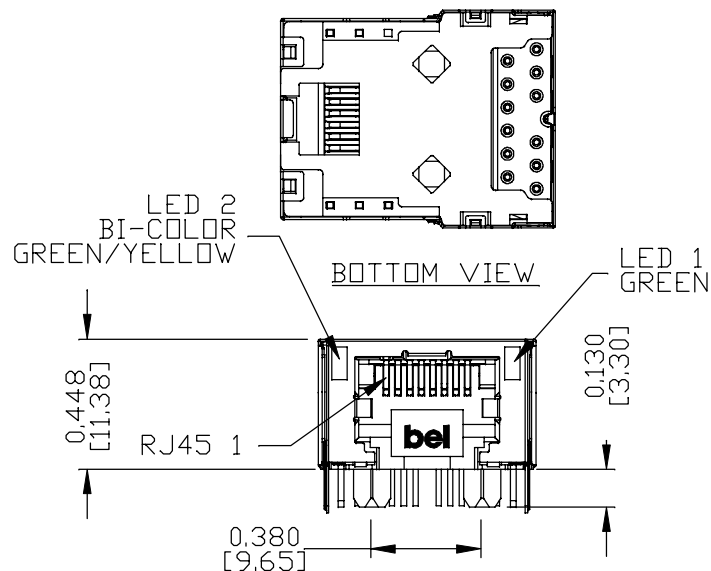
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## MECHANICAL SPECIFICATION

RoHS



### NOTES:

- PLASTIC HOUSING: THERMOPLASTIC PA, BLACK.  
FLAMMABILITY RATING UL 94V-0
- CONTACTS: 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 MARK PART WITH PART NUMBER (G10-1GHN-012E), DATE CODE AND PATENTED.
- ② MARK PART WITH MFG. LOGO, MFG. NAME ON BACK VIEW.
3. THE PRODUCT IS RoHS COMPLIANT AND HALOGEN FREE.  
JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS.

**cULus** UL RECOGNIZED - FILE #E169987.

4. THE PRODUCT IS PATENT PRODUCT. THE PATENT NUMBER ARE U.S. PAT. 7,429,195 & U.S. PAT. 7,123,117 & U.S. PAT. 6,840,817 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  
LI QUANKUN  
DATE 2017-03-15

DRAWN BY  
ZHANG XUEZHENG  
DATE 2017-03-15

TITLE  
10 Gigabit MagJack®  
(Ultra Low Profile)  
G10-1GHN-012E  
PATENTED

PART NO. / DRAWING NO.  
G10-1GHN012E

FILE NAME  
G10-1GHN012E\_B.DWG

STANDARD DIM.  
TOL. IN INCH

.X  
.XX  
.XXX

[ ] METRIC DIM.  
AS REF.

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

REV. : B

PAGE : 3

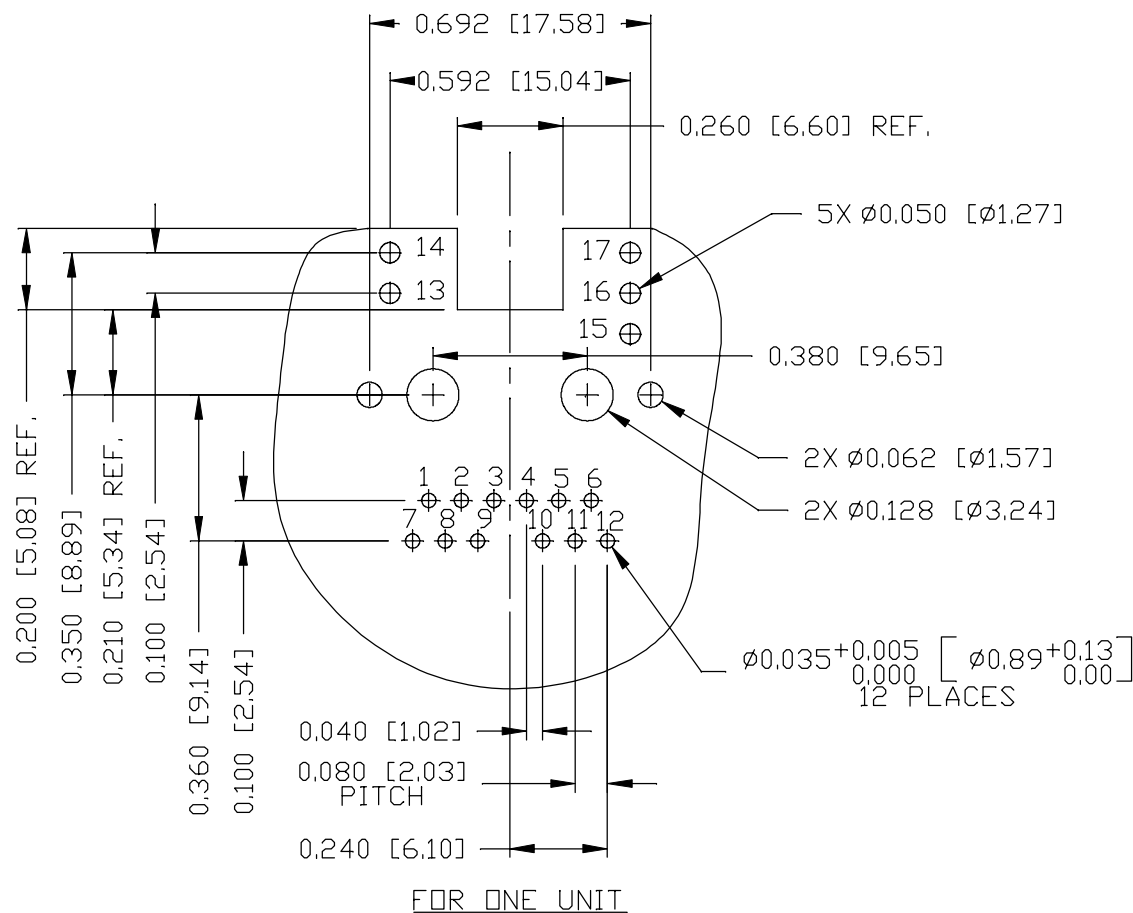


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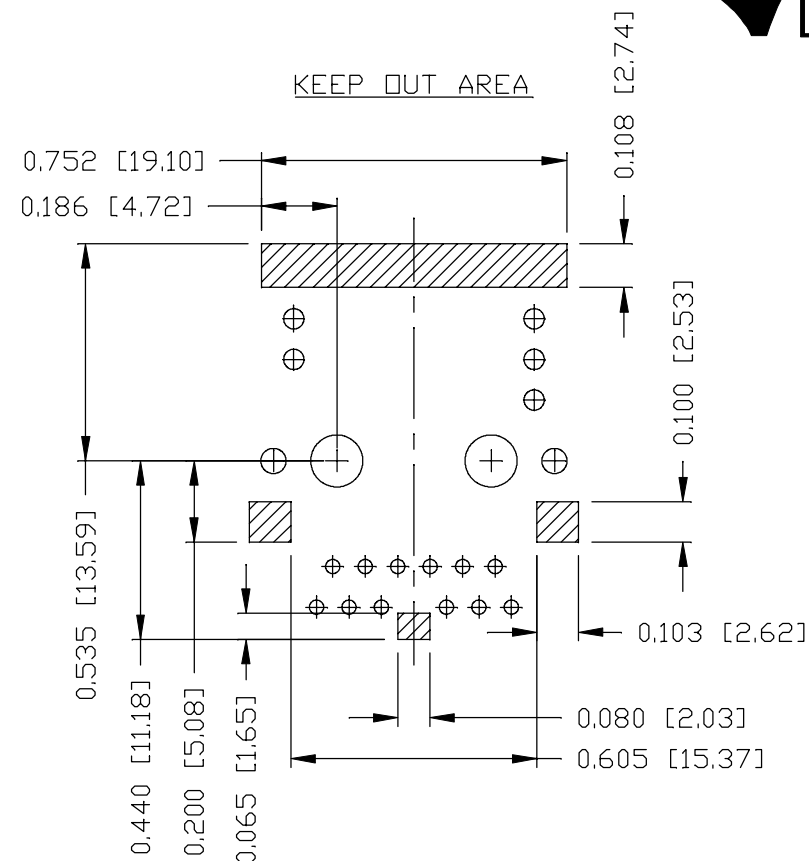


## RECOMMENDED PCB FOOTPRINT

### COMPONENT SIDE VIEW



### KEEP OUT AREA



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STANDARD DIM.  
TOL. IN INCH

.X  
.XX  
.XXX

[ ] METRIC DIM.  
AS REF.

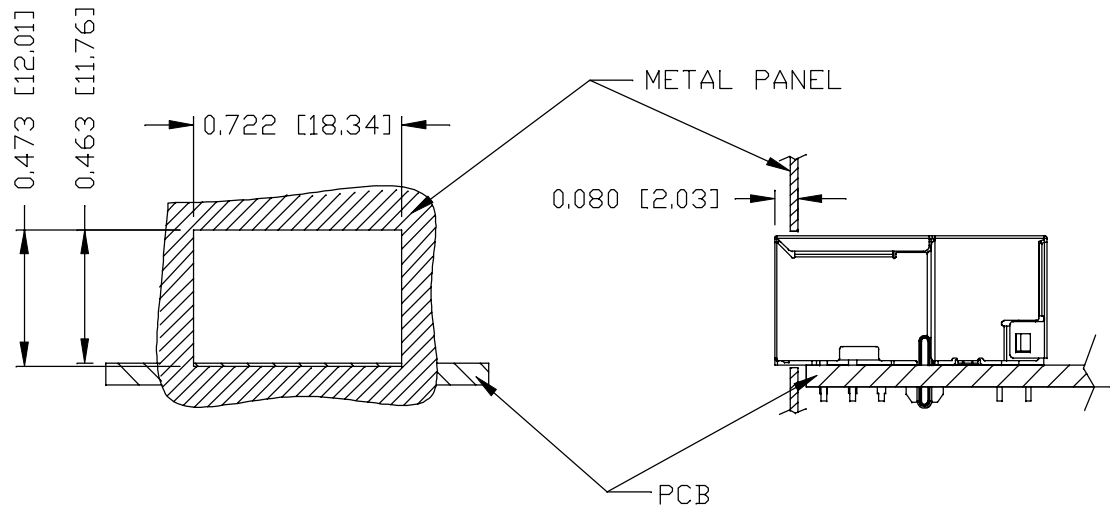
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SCALE : N/A  
SIZE : A4

REV. : B

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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.

TRAY PACKING INFORMATION

PACKING TRAY : 0200-9999-E4 (TOP)  
0200-9999-E5 (BOTTOM)  
PACKING QUANTITY : 60 PCS FINISHED GOODS PER TRAY  
11 TRAYS (660 PCS FINISHED GOODS) PER CARTON BOX  
NOTE : CARDBOARDS ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE  
CARTON BOX (INCLUDE THE UPPERMOST AND LOWERMOST TRAY)

REV. : B	PAGE : 5
 a bel group	

ORIGINATED BY LI QUANKUN DATE 2017-03-15	TITLE 10 Gigabit MagJack® (Ultra Low Profile) G10-1GHN-012E PATENTED	PART NO. / DRAWING NO. G10-1GHN012E		STANDARD DIM. TOL. IN INCH		[ ] METRIC DIM. AS REF.	
		FILE NAME G10-1GHN012E_B.DWG		.X		UNIT : INCH [mm]	
				.XX		SCALE : N/A	
				.XXX	±0.004		SIZE : A4

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bel:

[G10-1GHN-012E](#)