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RoHS



**ELECTRICAL CHARACTERISTICS @ 25°C**

**TURNS RATIO**  
 TP1 1CT : 1CT ±2%  
 TP2 1CT : 1CT ±2%  
 TP3 1CT : 1CT ±2%  
 TP4 1CT : 1CT ±2%

**DCL @ 100kHz/100mVRMS (4CHANNEL)**  
 8mA DC BIAS 350µH MIN.  
 23mA DC BIAS 120µH 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

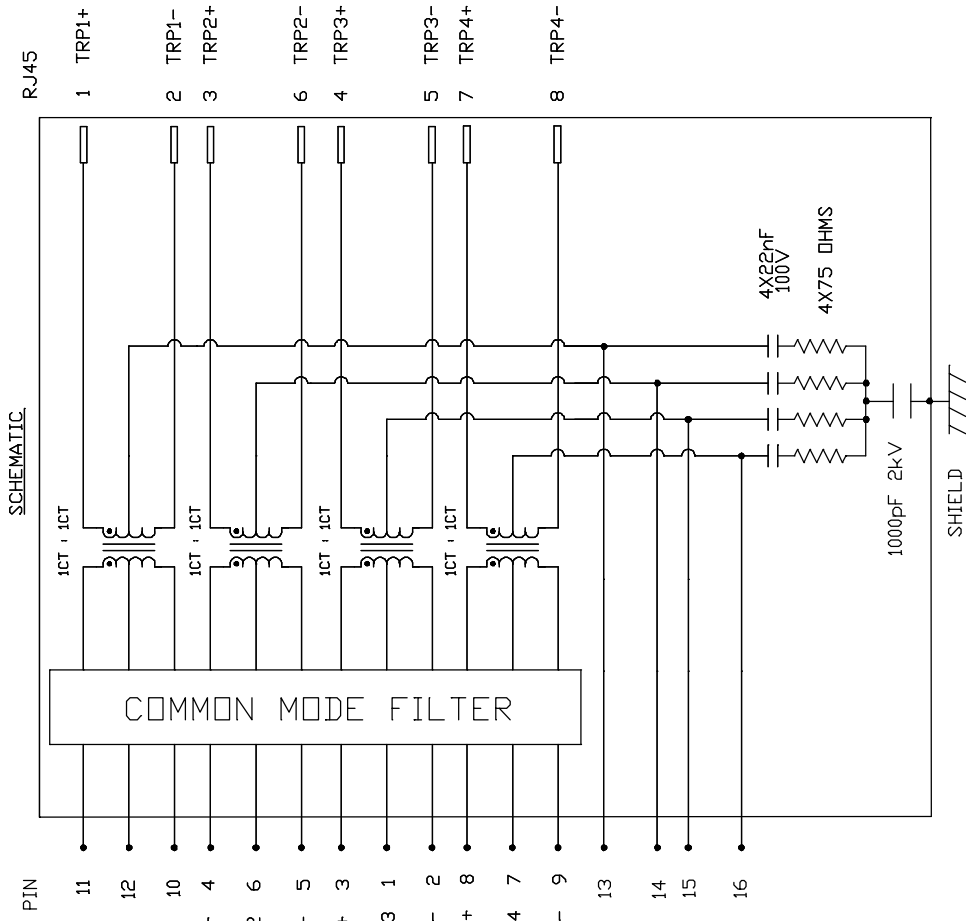
**CM TO CM REJ**  
 100kHz - 100MHz -30 dB MIN

**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

**BALANCED DC LINE CURRENT 1A MAX CONTINUOUS**  
 1.2A MAX, FOR 200 MILLISECONDS  
 -40°C TO 100°C

**OPERATING TEMPERATURE:**



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**MAGNETIC SOLUTIONS**

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

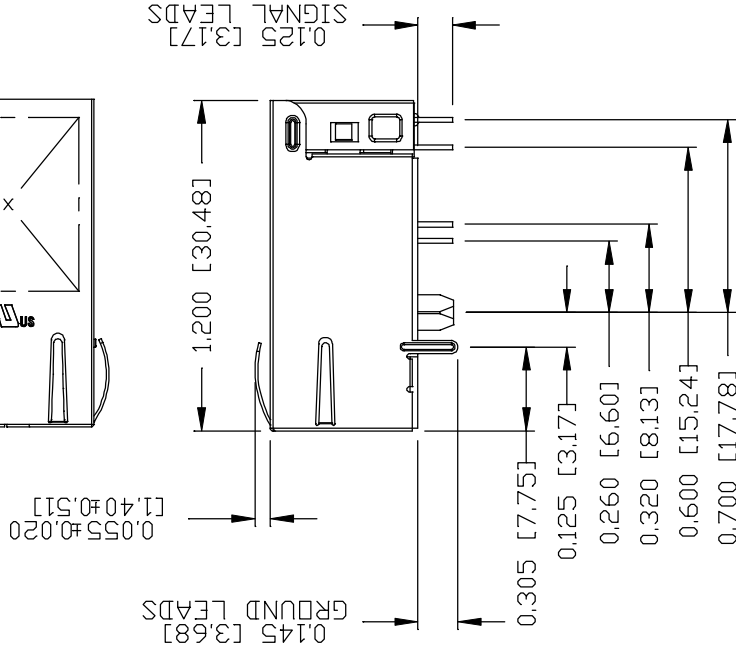
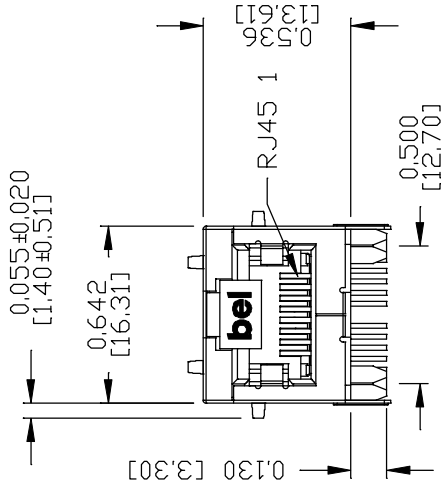
|                        |                      |
|------------------------|----------------------|
| PART NO. / DRAWING NO. | 0816-1X1T-HS-F       |
| FILE NAME              | 0816-1X1T-HS-F_A.DWG |

|               |                               |
|---------------|-------------------------------|
| ORIGINATED BY | gigabit MagJack®              |
| CHOW WANCHUNG |                               |
| DATE          | <4PPoE, 100W, Extended Temp.> |
| 2022-10-10    | PATENTED                      |
| DRAWN BY      |                               |
| TANG YUAN     |                               |
| DATE          |                               |
| 2022-10-10    |                               |

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MECHANICAL SPECIFICATION



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.

METAL SHIELD: 100 MICRO-INCH MIN MATTE TIN. PINS ARE SOLDER DIPPED, NICKEL PLATED ON COPPER ALLOY.

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

2. THE PRODUCT IS RoHS COMPLIANT.

3. JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS.

4. THE PRODUCT IS PATENTED, THE PATENT NUMBER IS U.S. PAT. 7,123,117.

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

UL RECOGNIZED - FILE #E196366 AND E169987.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| ORIGINATED BY<br>LI QUANKUN | TITLE<br>gigabit MagJack®<br>(4PPoE, 100W, Extended Temp.)<br>PATENTED |
| DATE<br>2022-10-10          |                                                                        |
| DRAWN BY<br>OLIVER ZHANG    |                                                                        |
| DATE<br>2022-10-10          |                                                                        |

|                                          |                                                   |                            |
|------------------------------------------|---------------------------------------------------|----------------------------|
| PART NO. / DRAWING NO.<br>0816-1X1T-HS-F | STANDARD DIM.<br>TOL. IN INCH<br>X<br>.XX<br>.XXX | [ ] METRIC DIM.<br>AS REF. |
| FILE NAME<br>0816-1X1T-HS-F_A.DWG        | UNIT : INCH [mm]<br>SCALE : N/A                   |                            |
|                                          | ±0.010                                            | SIZE : A4                  |

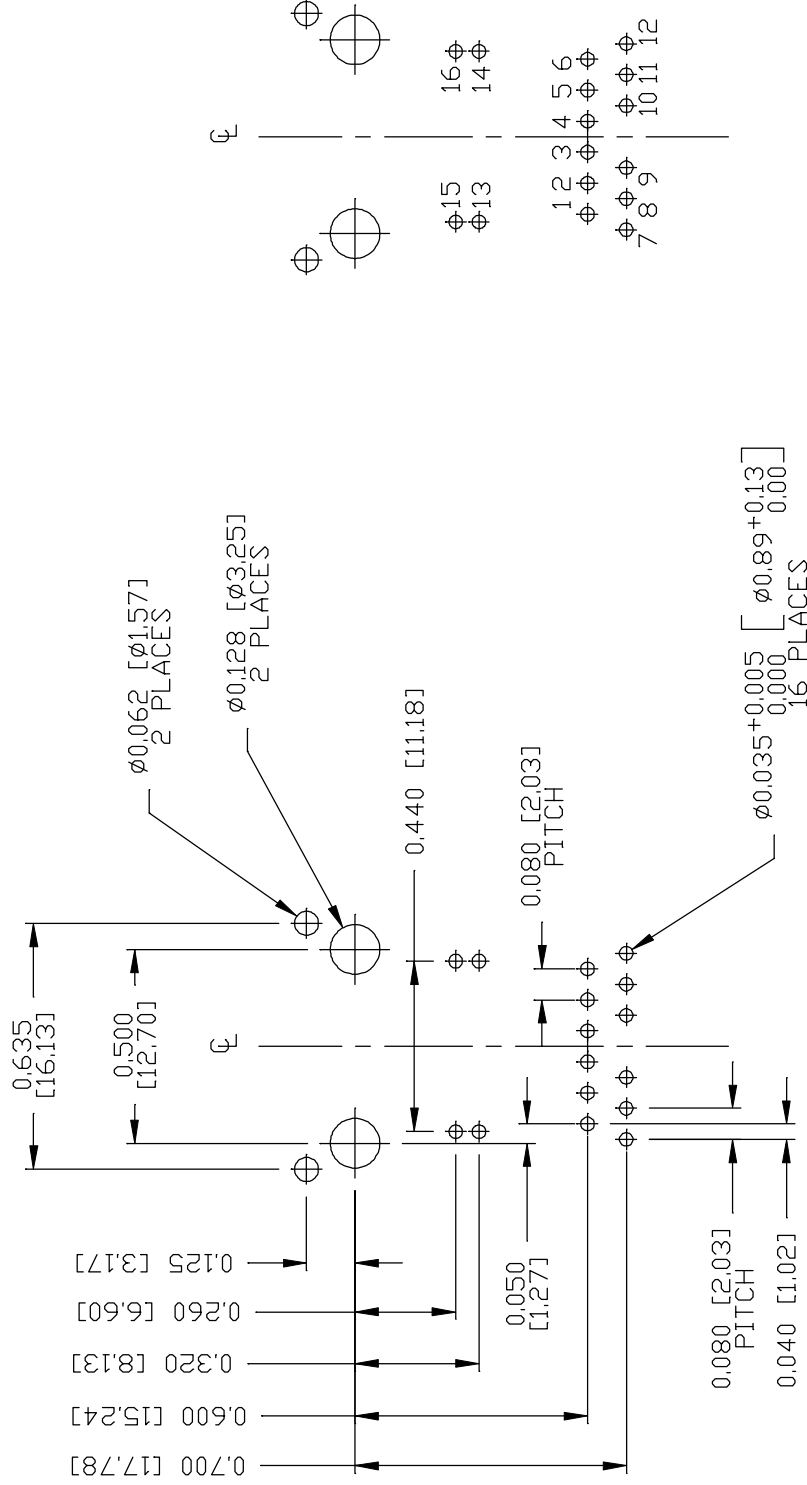
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RECOMMENDED PCB FOOTPRINT  
COMPONENT SIDE VIEW

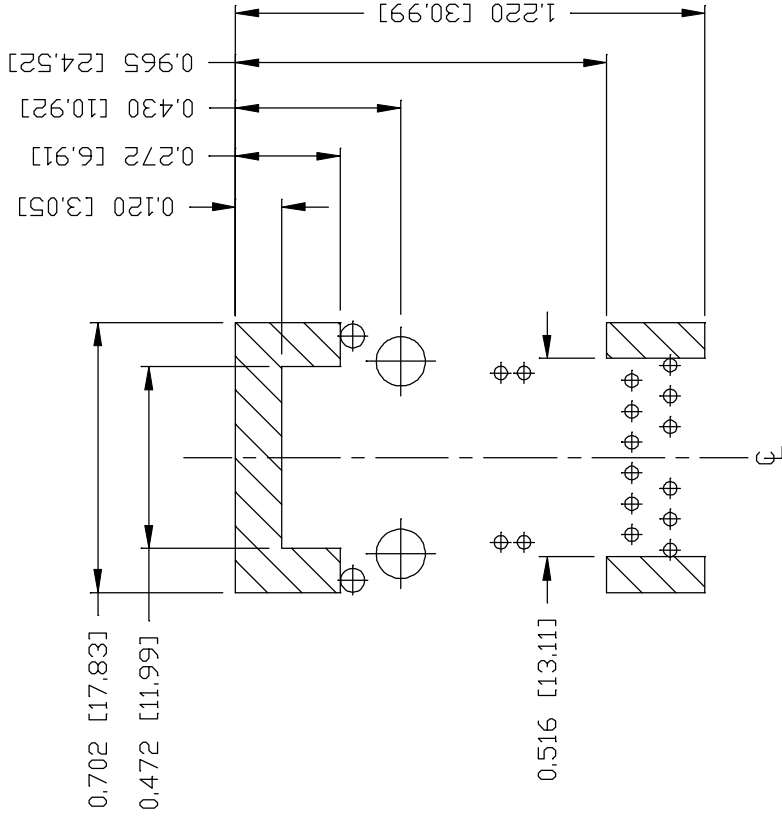


|                                                                                                                           |  |                                                                               |  |                                                                                             |  |                                                                  |  |                                                                                   |  |                   |
|---------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-------------------|
| <b>ORIGINATED BY</b><br>LI QUANKUN<br><b>DATE</b> 2022-10-10<br><b>DRAWN BY</b><br>OLIVER ZHANG<br><b>DATE</b> 2022-10-10 |  | <b>TITLE</b><br>gigabit MagJack®<br>(4PPoE, 100W, Extended Temp.)<br>PATENTED |  | <b>PART NO. / DRAWING NO.</b><br>0816-1X1T-HS-F<br><b>FILE NAME</b><br>0816-1X1T-HS-F_A.DWG |  | <b>STANDARD DIM.</b><br>TOL. IN INCH<br>.X<br>.XX<br>.XXX ±0.004 |  | <b>[ ] METRIC DIM.</b><br>AS REF.<br>UNIT : INCH [mm]<br>SCALE : N/A<br>SIZE : A4 |  | REV. : A PAGE : 4 |
|---------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-------------------|

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NOTES:

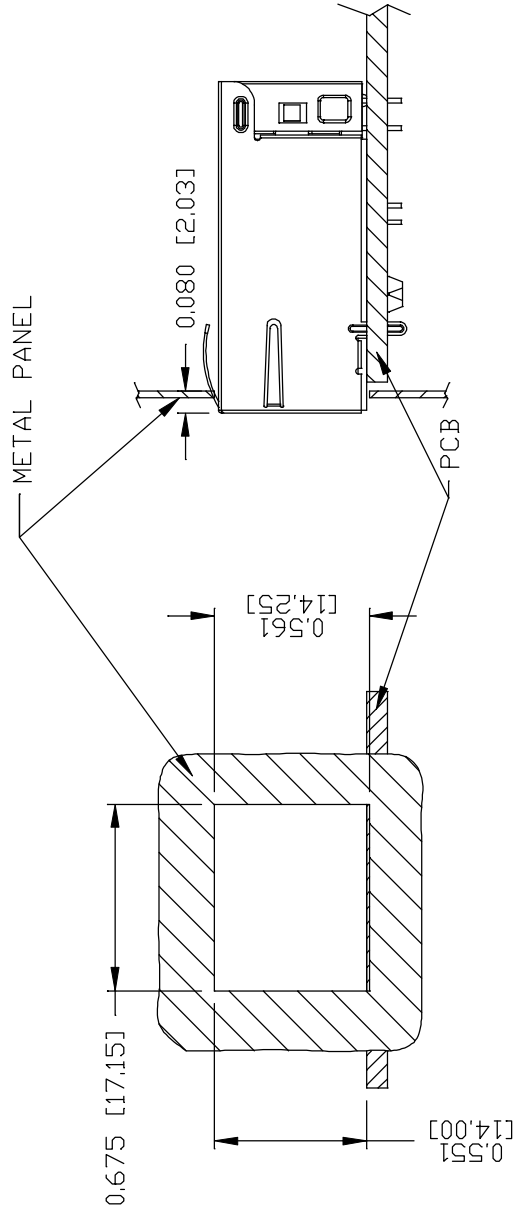
THE SHADED AREA ON THE CUSTOMER BOARD ARE RECOMMENDED TO BE CLEAR OFF ANY VIA HOLE OR COMPONENT PAD.

|                                                                        |                                   |                                                                                          |                                          |
|------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------|------------------------------------------|
| REV. : A                                                               |                                   | PAGE : 5                                                                                 |                                          |
| <br>a bel group                                                        |                                   | [ ] METRIC DIM.<br>AS REF.                                                               |                                          |
| STANDARD DIM.<br>TOL. IN INCH<br>.X<br>.XX<br>.XXX                     | TOL. IN INCH<br>.X<br>.XX<br>.XXX | UNIT : INCH [mm]<br>SCALE : N/A<br>±0.004<br>SIZE : A4                                   | PART NO. / DRAWING NO.<br>0816-1X1T-HS-F |
| TITLE<br>glgabit MagJack®<br><4PPoE, 100W, Extended Temp.><br>PATENTED |                                   | FILE NAME<br>0816-1X1T-HS-F_A.DWG                                                        |                                          |
| ORIGINATED BY<br>LI QUANKUN                                            | DATE<br>2022-10-10                | This document is electronically generated. This is a controlled copy if used internally. |                                          |
| DRAWN BY<br>OLIVER ZHANG                                               | DATE<br>2022-10-10                | DC002(2)120214                                                                           |                                          |

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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.

PACKING INFORMATION

PACKING TRAY : 0200-9999-F1 (TOP)  
0200-9999-F2 (BOTTOM)

PACKING QUANTITY : 40 PCS FINISHED GOODS PER TRAY

10 TRAYS (400 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. : A                                                                                                                  |  | PAGE : 6                                                                       |  |
| <b>ORIGINATED BY</b><br>LI QUANKUN<br><b>DATE</b> 2022-10-10<br><b>DRAWN BY</b><br>OLIVER ZHANG<br><b>DATE</b> 2022-10-10 |  | <b>TITLE</b><br>10gabit MagJack®<br>(<4PPoE, 100w, Extended Temp.><br>PATENTED |  |
| <b>PART NO. / DRAWING NO.</b><br>0816-1X1T-HS-F<br><b>FILE NAME</b><br>0816-1X1T-HS-F_A.DWG                               |  | <b>STANDARD DIM.</b><br>TOL. IN INCH<br>X<br>.XX<br>.XXX<br>±0.005             |  |
| <b>UNIT : INCH [mm]</b><br>SCALE : N/A<br>SIZE : A4                                                                       |  | <b>[ ] METRIC DIM.</b><br>AS REF.                                              |  |

