



NOTES:

Material:

1. Housing Material : THERMOPLASTIC UL94V-0 (BLACK COLOR )
2. Contact Mateial : Phosphor Bronze T=0.35mm (C5191)
3. Plating:: Contact Area- Selection Gold Plating 30U".
4. Shield : Copper Alloy 0.20mm Thickness Plating Ni .

Feature:

1. RJ45 10/100Base-Tx Transformer Jack With Transformer /Impedance Resistor/High Voltage Capacitor.
2. Designed To Meet IEEE 802.3u Requirement.
3. Designed For 100 Base Transmission over UTP-5 Cable.
4. Operation Temprature Range: 0° C To +70° C

Mechanical:

1. Operating Life: 1000 Cycles Min.
2. PCB Retention Pre-Solder: 1 Lb Min.

Environmental:

1. Storage:  $-40^{\circ}$  C To  $+85^{\circ}$  C.

Mates With Modular Plug Conforming To Fcc Part 68, Subpart F.

## SUGGESTED CUSTOMER BOARD LAYOUT

P01-1AA2-01


PART NUMBER

|            |           |
|------------|-----------|
| DRAWN      | 24Apr2024 |
| JARRY YE / | FRANK LIU |
| CHECKED    | 24Apr2024 |
| BILL LIU   |           |
| APPROVED   | 24Apr2024 |
| TONY YUAN  |           |

TITLE

10/100 BT MagJack<sup>®</sup>  
(WITHOUT LED)  
PATENTED

|                |
|----------------|
| DRAWING NO.    |
| P01-1AA2       |
| FILE NAME      |
| P01-1AA2_1.DWG |

|                              |       |   |         |
|------------------------------|-------|---|---------|
| UNLESS OTHERWISE NOTED, TOL: |       |  |         |
| .X.                          | ±0.38 | SIZE:   | A4      |
| .X                           | ±0.38 | UNIT:   | mm      |
| .XX                          | ±0.25 | SCALE:  | N/A     |
| .XXX                         | ±0.13 | PAGE: 1/3   | REV.: 1 |



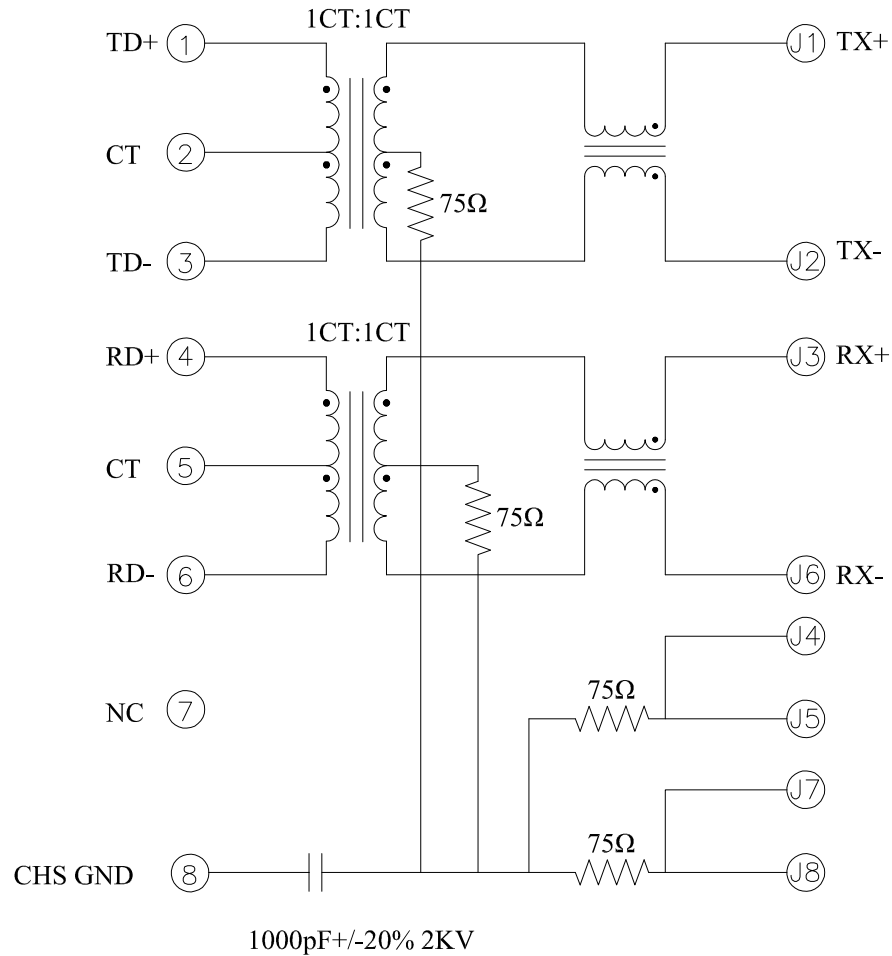
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## Electrical Specification @ 25 °C

|   |                                       |
|---|---------------------------------------|
| 1.0 TURN RATIO: (P1~P3) : (J1~J2)                     | : 1:1 ± 3%                            |
| (P4~P6) : (J3~J6)                                     | : 1:1 ± 3%                            |
| 2.0 INDUCTANCE: (P1~P3)                               | 350uH MIN @ 0.1V, 100KHZ, 8mA DC BIAS |
| (P4~P6)   | 350uH MIN @ 0.1V, 100KHZ, 8mA DC BIAS |
| 3.0 LEAKAGE INDUCTANCE: P1~P3 (WITH J1 AND J2 SHORT)  | : 0.35uH MAX @ 1 MHZ                  |
| P4~P6 (WITH J3 AND J6 SHORT)                          | : 0.35uH MAX @ 1 MHZ                  |
| 4.0 INTERWINDING CAPACITANCE: (P1~P3) : (J1~J2)       | : 35pF MAX @ 1MHZ                     |
| (P4~P6) : (J3~J6)                                     | : 35pF MAX @ 1MHZ                     |
| 5.0 DC RESISTANCE: (J1~J2) : (J3~J6)                  | : 1.2 OHMS MAX                        |
| 6.0 RETURN LOSS: 1MHZ TO 30MHZ                        | : 18dB MIN                            |
| 30MHZ TO 60MHZ  | : 15dB MIN                            |
| 60MHZ TO 80MHZ  | : 12dB MIN                            |
| 7.0 DIELECTRIC WITHSTAND: (P1~P3) : (J1~J2)           | : 1500VAC                             |
| (P4~P6) : (J3~J6)                                     | : 1500VAC                             |
| 8.0 INSERTION LOSS: RS=RL=100 OHM                     |                                       |
| 1KHZ TO 85MHZ   | : 1.1dB MAX                           |
| 9.0 CROSS TALK: 1MHZ TO 80MHZ                         | : 30dB MIN                            |
| 10.0 COMMON TO COMMON MODE ATTENUATION: 1MHZ TO 80MHZ | : 30dB MIN                            |



|                      |           |
|----------------------|-----------|
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| JARRY YE / FRANK LIU |           |
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| APPROVED             | 24Apr2024 |
| TONY YUAN            |           |

TITLE  
10/100 BT MagJack<sup>®</sup>  
(WITHOUT LED)  
PATENTED

DRAWING NO.  
P01-1AA2

FILE NAME  
P01-1AA2\_1.DWG

UNLESS OTHERWISE  
NOTED, TOL:

|      |       |           |         |
|------|-------|-----------|---------|
| X.   | ±0.38 | SIZE:     | A4      |
| .X   | ±0.38 | UNIT:     | mm      |
| .XX  | ±0.25 | SCALE:    | N/A     |
| .XXX | ±0.13 | PAGE: 2/3 | REV.: 1 |



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| CHANGE HISTORY |           |                      |                 |          |           |      |
|----------------|-----------|----------------------|-----------------|----------|-----------|------|
| ISSUE          | DATE      | DESCRIPTIN OF CHANGE | REASON          | DRAWN    | APPROVAL  | ECN# |
| 1              | 24APR2024 | —                    | INITIAL RELEASE | JARRY YE | TONY YUAN | —    |
|                |           |                      |                 |          |           |      |
|                |           |                      |                 |          |           |      |

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