



# YONGCHENG

## SPECIFICATION FOR APPROVAL

DATE: APR12, 2009

SAMPLE Q'TY 6 PCS

CUSTOMER : ACUWA

CUSTOMER P/N: AM-001A

YONGCHENG P/N : YL-1S038H-36

DESCRIPTION : 1 PORT RJ-45 JACK With 10/100 Base-T Magnetics Module

| APPROVED SIGNATURES           |                              |
|-------------------------------|------------------------------|
| YONGCHENG APPROVED SIGNATURES | CUSTOMER APPROVED SIGNATURES |
|                               |                              |
| APPROVED BY: LiaoZongCheng    | APPROVED BY:                 |
| DATE: 2009/04/12              | DATE:                        |
| APPROVED No. :                | APPROVED No. :               |

**(ZUNYI)YONGCHENG ENTERPRISE INC.**

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Tel: 0852-3162322 13087896733 Fax: 0852-3162322 E-mail<lzc0818@163.com>

# 1 PORT RJ-45 JACK WITH 10/100BASE-T MAGNETICS MODULE

P/N: YL-1S038H-36 DATA SHEET(REFERENCE ACUWA AM-001A)



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ELECTRONIC CORP.

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## Feature

- ◆ RJ-45 connector integrated with X'FMR/impedance resistor/high voltage capacitor.
- ◆ Size same as RJ-45 connector to save PCB board space
- ◆ Reduce EMI radiation, improve EMI performance.
- ◆ Pb free Soldering Heat Withstanding
- ◆ Design for 100 BASE transmission over UTP-5 cable.
- ◆ Operating temperature range : 0°C to +70°C.
- ◆ Storage temperature range: 0°C to +85°C.

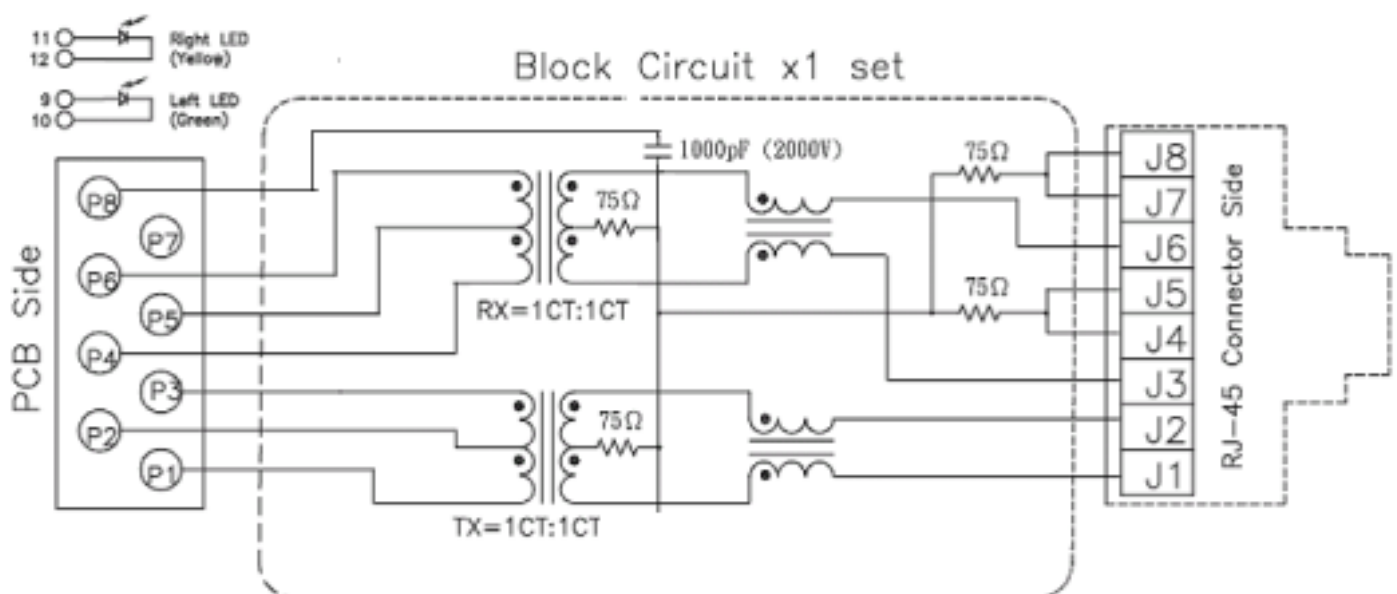
## Electrical Specifications @ 25°C

| Part Number  | Turns Ratio<br>TX/RX(+/-3%) | OCL(uH Min)<br>100KHz/0.1V with<br>8Ma DC BIAS | DCR (OHM MAX) |             | HI-POT<br>(Vrms) |
|--------------|-----------------------------|------------------------------------------------|---------------|-------------|------------------|
|              |                             |                                                | P1-P3/P4-P6   | J1-J2/J3-J6 |                  |
| YL-1S038H-36 | 1CT:1CT                     | 350                                            | 1.0           | 1.2         | 1500             |

## Continue

| Part Number  | Insertion Loss<br>(dB Max) | Return Loss (dB MIN) |          |          | Cross talk<br>(dB TYP) | CMRR<br>(dB TYP) |
|--------------|----------------------------|----------------------|----------|----------|------------------------|------------------|
|              | 0.3-100MHz                 | 1-30MHz              | 30-60MHz | 60-80MHz | 1-100MHz               | 1-100MHz         |
| YL-1S038H-36 | -1.0                       | -20                  | -15      | -10      | -30                    | -30              |

## Schematic



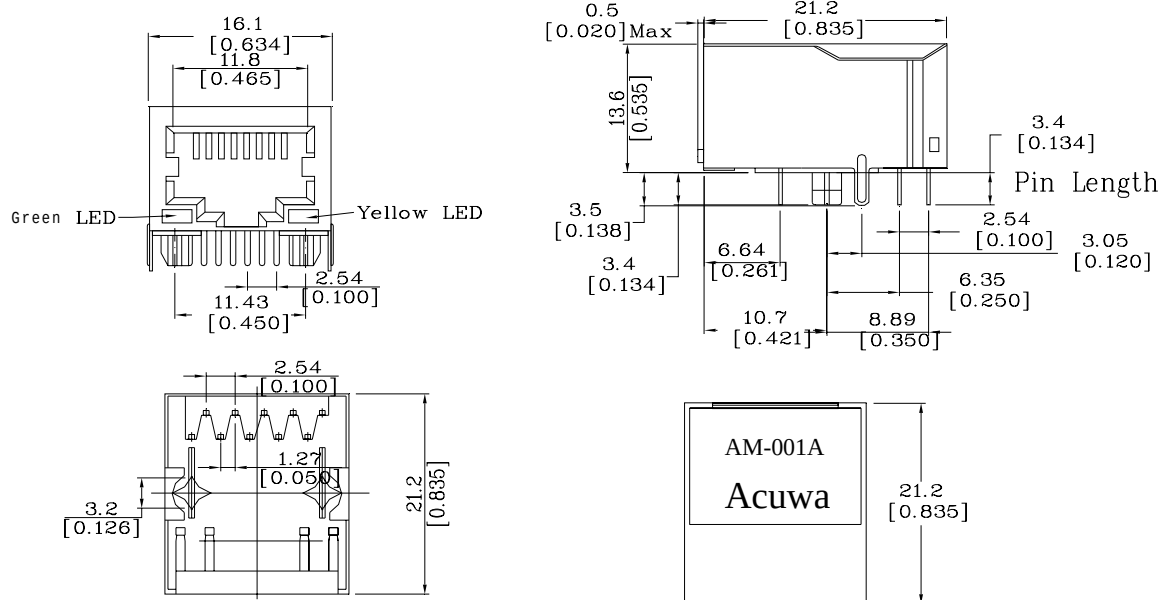
**P/N: YL-1S038H-36 DATA SHEET(REFERENCE ACUWAAM-001A)**



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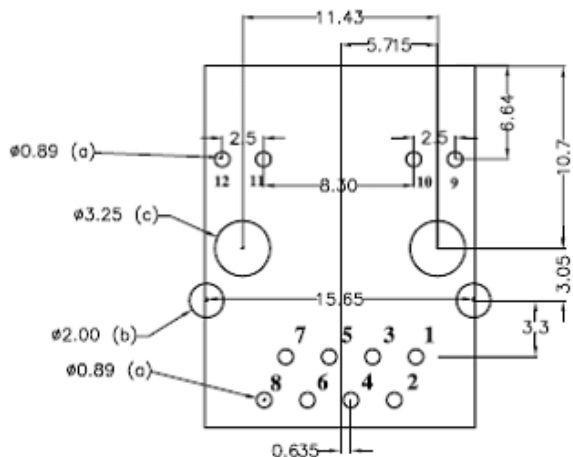
## Mechanicals



Dimensions: mm[Inches]   Tolerances:  $\pm 0.25$ [0.01]

1. Plastic Material : Thermoplastic (UL 94V-0), Black Housing
2. Metal Shield : Brass , 20u inches thick Nickel
3. Spring Wire : 0.45mm Dia. Phosphor bronze with selective gold plating
4. Solder Pin : 0.4x0.4mm, Phosphor bronze with solder Plated
5. Durability : 300 Mating cycles Min.

### PCB Layout Mounting Hole (Top View)



TOP VIEW (COMPONENT SIDE)  
RECOMMENDED P.C.B. LAYOUT

Note:

1. Holes Type(a) P1–P8 Assign EtherNet  
P9–P12 Assign LED
2. Holes Type(b) Assign Shield Cover
3. Holes Type(c) Fix Jack.
4. Holes Tolerances  $^{+0.1}_{-0} \begin{bmatrix} +0.004 \\ 0.000^* \end{bmatrix}$ .
5. Holes Pitch Tolerance  $\pm 0.08 \begin{bmatrix} +0.003^* \end{bmatrix}$ .



# SAMPLES TEST REPORT



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| PART NO.                |                 | AM-001A                                               |                         | DATE      |                |       | 2009/04/12 |       |               |       |     |  |  |
|-------------------------|-----------------|-------------------------------------------------------|-------------------------|-----------|----------------|-------|------------|-------|---------------|-------|-----|--|--|
| DESCRIPTION             |                 | 1 PORT RJ-45 JACK With 10/100 Base-T Magnetics Module |                         |           |                |       |            |       |               |       |     |  |  |
| ITEM                    | TEST EQUIPMENTS | TEST CONDITION @ 25°C                                 | SAMPLES NO.<br>TEST PIN | 1         | 2              | 3     | 4          | 5     | SPECIFICATION |       |     |  |  |
|                         |                 |                                                       |                         |           |                |       |            |       | Min           | Typ   | Max |  |  |
| Insertion Loss (dB MAX) | 8711/8712       | 0.3-100 MHz                                           | P1-P3 TO J1-J2          | -0.82     | -0.86          | -0.9  | -0.84      | -0.79 | -1.0          |       |     |  |  |
|                         |                 |                                                       | P4-P6 TO J3-J6          | -0.78     | -0.83          | -0.89 | -0.84      | -0.85 |               |       |     |  |  |
| Return Loss(dB MIN)     | 8711/8712       | 1-30 MHz                                              | P1-P3 TO J1-J2          | -24.5     | -23.9          | -25.1 | -23.6      | -24.1 | -20           |       |     |  |  |
|                         |                 |                                                       | P4-P6 TO J3-J6          | -25.3     | -24.6          | -23.5 | -23.9      | -24.3 |               |       |     |  |  |
|                         |                 | 30-60 MHz                                             | P1-P3 TO J1-J2          | -20.6     | -19.8          | -20.2 | -19.1      | -19.5 | -15           |       |     |  |  |
|                         |                 |                                                       | P4-P6 TO J3-J6          | -19.3     | -20.4          | -19.0 | -19.6      | -20.0 |               |       |     |  |  |
|                         |                 | 60-80MHz                                              | P1-P3 TO J1-J2          | -16.1     | -15.6          | -15.9 | -14.8      | -15.5 | -10           |       |     |  |  |
|                         |                 |                                                       | P4-P6 TO J3-J6          | -15.3     | -15.7          | -14.6 | -15.9      | -16.2 |               |       |     |  |  |
|                         |                 | CMRR (dB TYP)                                         | 8711/8712               | 1-100 MHz | P1-P3 TO J1-J2 | -51.2 | -52.6      | -52.1 | -51.6         | -52.9 | -30 |  |  |
|                         |                 |                                                       |                         |           | P4-P6 TO J3-J6 | -50.8 | -51.5      | -51.3 | -52.7         | -52.1 |     |  |  |
| Cross Talk (dB TYP)     | 8711/8712       | 1-100 MHz                                             | TX TO RX                | -51.5     | -50.5          | -49.8 | -50.8      | -51.2 | -30           |       |     |  |  |
|                         |                 |                                                       |                         |           |                |       |            |       |               |       |     |  |  |

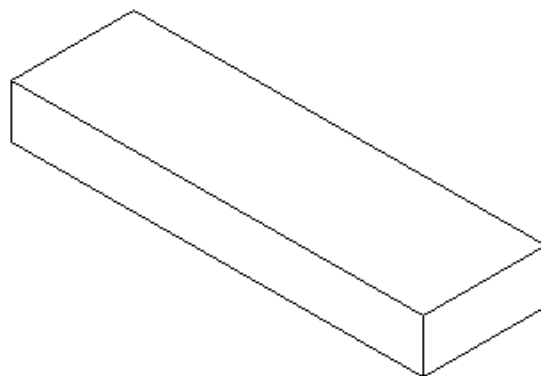
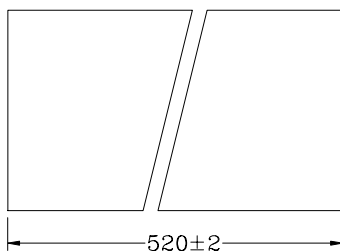
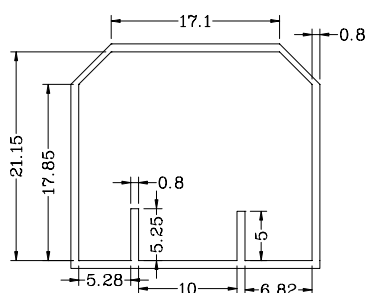


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## SAMPLES PACK SPECIFICATIONS

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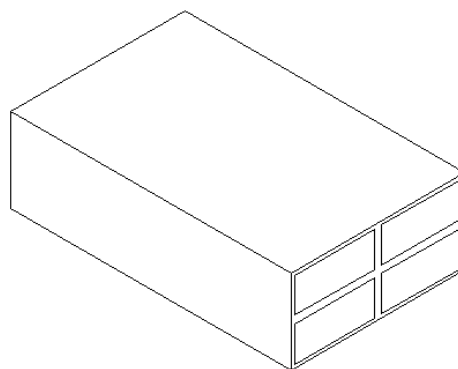
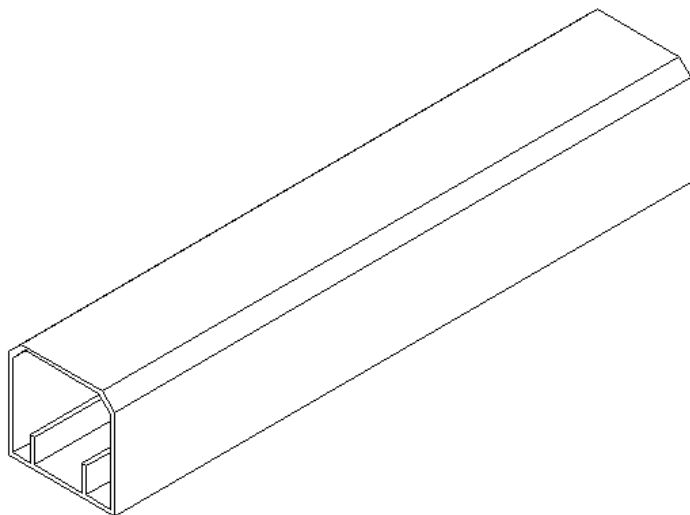
|          |             |             |              |
|----------|-------------|-------------|--------------|
| CUSTOMER | ACUWA       | CUST P/N.   | AM-001A      |
| ITEM     | TRANSFORMER | DESCRIPTION | YL-1S038H-36 |
| PART NO. | 868-00380   | DATE        | 2009/04/12   |



Units:mm Tolerances: xx.xx0±0.25  
x.x0±0.25

TUBE MECHANICAL DIMENSION

INNER CARTON :540\*160\*70



TUBE =30 PCS

INNER CARTON=18 TUBE=18\*30=540 PCS

EXPORT CAPTON : 560\*340\*160

EXPORT CARTON=4INNER CARON=4\*540=2160 PCS

|         |               |         |             |
|---------|---------------|---------|-------------|
| REMARK: | APPROVAL      | CHECKED | DRAWN BY    |
|         | LiaoZongCheng |         | Qingxiaobin |