

## Shenzhen Heyixun Technology Co., LTD

## SPECIFICATION FOR APPROVAL

|                       |                                     |                      |                      |
|-----------------------|-------------------------------------|----------------------|----------------------|
| customer Name         | Guangzhou Youwo Technology Co., Ltd |                      |                      |
| Customer project Name | BO807Z3K                            | Heyixun project Name | BO807Z3K             |
| customer P/N          |                                     | Heyixun P/N          | HYX008-BO807Z3K-R-V8 |
| Band                  | 2400-2500MHz                        |                      |                      |
| vers ion              | A1                                  |                      |                      |
| Designer Information  |                                     |                      |                      |
| RF Engineer           | Xu Liang                            | EE Engineer          | Shi Zhenhao          |
| ME Engineer           | Xu Liang                            |                      |                      |

| Heyixun Approval |              |            |             | customer Approval |             |
|------------------|--------------|------------|-------------|-------------------|-------------|
|                  | prepared     | checked BY | Approval BY | checked BY        | Approval BY |
| signature        | Zhu Zengyuan |            |             |                   |             |
| Date             | 2024-12-24   |            |             |                   |             |

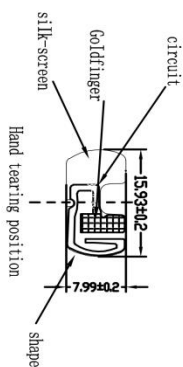
| change Log |                    |                  |             |      |
|------------|--------------------|------------------|-------------|------|
| vers ion   | change Description | person in charge | Approval BY | Date |
|            |                    |                  |             |      |
|            |                    |                  |             |      |
|            |                    |                  |             |      |

## catalogue

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Drawing or Product Image

Silk screen white, antenna black



Concentrate:

1, 1. The adhesive is made of 3M 9471 3000SL, the viscosity is more than 30MP, the shape of the adhesive is consistent with the substrate, covered on the back of the substrate, and the adhesive is cut in half;

2, single-sided version of the material, one-to-one base material, good flexibility;

3. There is no crack on the surface of the product after being bent at  $180^\circ$  after being oiled, and the flexibility should be good;

4. The surface of the gold finger is plated with gold  $0.5\text{ }\mu\text{m}$ , no oxidation, and there is no crack or conduction phenomenon after  $180^\circ$  bending at the junction of copper foil.

5. The precise tolerance range of wiring and holes:  $\pm 0.03\text{mm}$ , and the tolerance of external dimensions is controlled within  $0.1\text{mm}$ ;

6. The ★ size is strictly controlled, marked with \* as the key size, and the unmarked size is measured according to the CAD electronic drawing file 1:1;

7. Printing on the surface, see the figure for the specific content and location;

8. The non-appearance needs to be cut and sent to our company after the sample is sent.

|                                                                                                                                                         |  |                                                                                     |  |                        |  |                                                                                     |  |                      |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|------------------------|--|-------------------------------------------------------------------------------------|--|----------------------|--|
| shenzhen heyixun technology co., ltd                                                                                                                    |  |                                                                                     |  |                        |  |                                                                                     |  |                      |  |
| 6.the ★ size is strictly controlled, marked with * as the key size, and the unmarked size is measured according to the CAD electronic drawing file 1:1; |  |                                                                                     |  |                        |  |                                                                                     |  |                      |  |
| 7.Printing on the surface, see the figure for the specific content and location;                                                                        |  |                                                                                     |  |                        |  |                                                                                     |  |                      |  |
| 8.The non-appearance needs to be cut and sent to our company after the sample is sent.                                                                  |  |                                                                                     |  |                        |  |                                                                                     |  |                      |  |
| D                                                                                                                                                       |  |                                                                                     |  |                        |  |                                                                                     |  |                      |  |
| No.                                                                                                                                                     |  | Layer                                                                               |  | Description(Thickness) |  | Manufacturer &P/N                                                                   |  |                      |  |
| 1                                                                                                                                                       |  | Adhesive backing                                                                    |  | 3M94711LM              |  | 3M                                                                                  |  |                      |  |
| 2                                                                                                                                                       |  | Substrate                                                                           |  | KUM-800F NM3(10 μm)    |  | CAT Lungetti                                                                        |  |                      |  |
| 3                                                                                                                                                       |  | Ink                                                                                 |  | FSM-800FSM-ASM-80      |  | unital                                                                              |  |                      |  |
| 1                                                                                                                                                       |  | 2                                                                                   |  | 3                      |  | 4                                                                                   |  |                      |  |
| Do not measure the drawing                                                                                                                              |  |                                                                                     |  |                        |  |                                                                                     |  |                      |  |
|                                                                                                                                                         |  |  |  | The third corner       |  | Models                                                                              |  | date                 |  |
|                                                                                                                                                         |  | 0~10                                                                                |  | ±0.10                  |  | ○                                                                                   |  | 0.02                 |  |
|                                                                                                                                                         |  | 10~20                                                                               |  | ±0.12                  |  | ◎                                                                                   |  | 0.03                 |  |
|                                                                                                                                                         |  | 20~40                                                                               |  | ±0.15                  |  | ⊥                                                                                   |  | 0.02                 |  |
|                                                                                                                                                         |  | 40~                                                                                 |  | ±0.20                  |  |  |  | 0.04                 |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  |  |  | 0.02                 |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | Die face treatment                                                                  |  | RF                   |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | Material                                                                            |  | PPC-309471           |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | Part number                                                                         |  | HYX008-B080723K-R-V8 |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | Product name                                                                        |  | BRANT                |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | date                                                                                |  | 2024-11-19           |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | drawing                                                                             |  | zhuzhengyuan         |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | devise                                                                              |  | audit                |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | structure                                                                           |  | zhuzhengyuan         |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | unit                                                                                |  | mm                   |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | proportion 1:1                                                                      |  | version              |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | REV:A                                                                               |  | 1 of 1               |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | Approved                                                                            |  |                      |  |
|                                                                                                                                                         |  |                                                                                     |  |                        |  | page number                                                                         |  | 1 of 1               |  |

# Shenzhen Heyixun Technology Co., LTD

## sample Dimensions Test Report

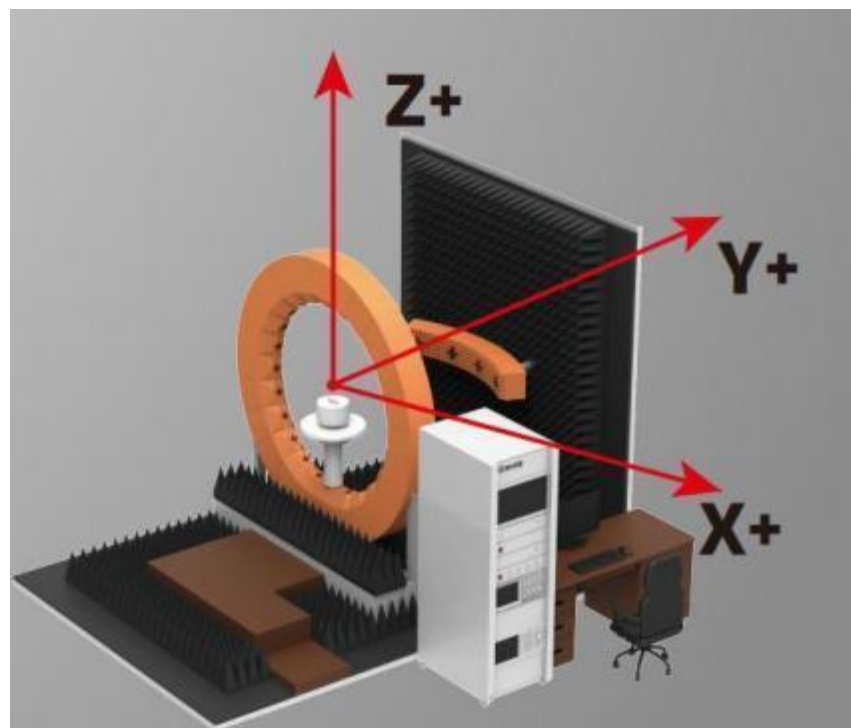
|                  |                                     |              |                |             |                      |
|------------------|-------------------------------------|--------------|----------------|-------------|----------------------|
| customer Name    | Guangzhou Youwe Technology Co., Ltd | customer P/N |                | Heyixun P/N | HYX008-BO807Z3K-R-V8 |
| Test Date        | 2024-12-24                          | samp le Qty. | 3              | Inspector   | Zhu Zengyuan         |
| Dimens ion NO.   | standard                            | samp le 1    | samp le 2      | samp le 3   | pass/NG              |
| ①length          | 15.93mm±0.2mm                       | 15.92mm      | 15.92mm        | 15.94mm     | Pass                 |
| ②width           | 7.99mm±0.2mm                        | 7.99mm       | 7.98mm         | 7.98mm      | Pass                 |
| ③thickness       | 0.2±0.05mm                          | 0.19mm       | 0.21mm         | 0.20mm      | Pass                 |
|                  |                                     |              |                |             |                      |
|                  |                                     |              |                |             |                      |
|                  |                                     |              |                |             |                      |
|                  |                                     |              |                |             |                      |
|                  |                                     |              |                |             |                      |
| Conclusion       |                                     |              |                |             | PASS                 |
| Inspector & Date | Zhu Zengyuan                        | 2024-12-24   | Approval &Date |             |                      |

## RF Performance Test Report

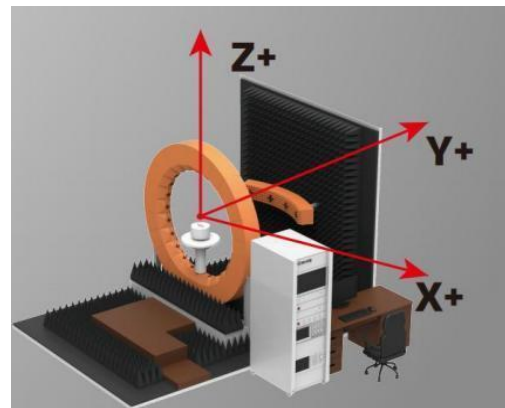
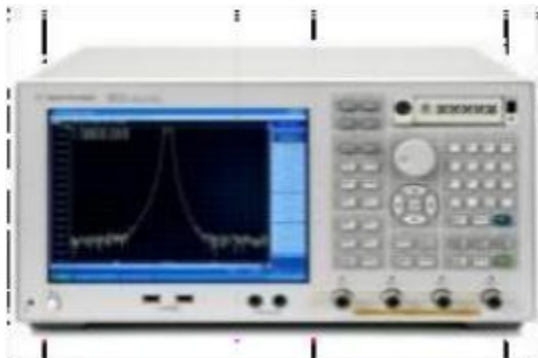
|               |                                     |              |            |             |                      |
|---------------|-------------------------------------|--------------|------------|-------------|----------------------|
| customer Name | Guangzhou Youwo Technology Co., Ltd | project Name | BO807Z3K   | Heyixun P/N | HYX008-BO807Z3K-R-V8 |
| Band          | 2400-2500MHZ                        | Test Date    | 2024-12-24 | Inspector   | Zhu Zengyuan         |

### Antenna Test Equipment Introduction

Test of antenna input characteristics using Agilent E5071c and Agilent 5071c vector network analyzer ; The radiation pattern of the antenna are tested using the ETS starlab 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:



| Sequence Number   | Test Item         | equipment                                             |
|-------------------|-------------------|-------------------------------------------------------|
| S parameter       | VSWR              | Agilent 5071C & Agilent 5062A                         |
| OTA Test          | TRP&TIS           | Agilent 8960 E5515C & Agilent 4438C&CMW500 ETS&SATIMO |
| Gain & Efficiency | Gain & Efficiency | ETS&SATIMO<br>Agilent 5071C                           |



## 2.Test Result VSWR&Log Mag&Smith( $\Omega$ )

R

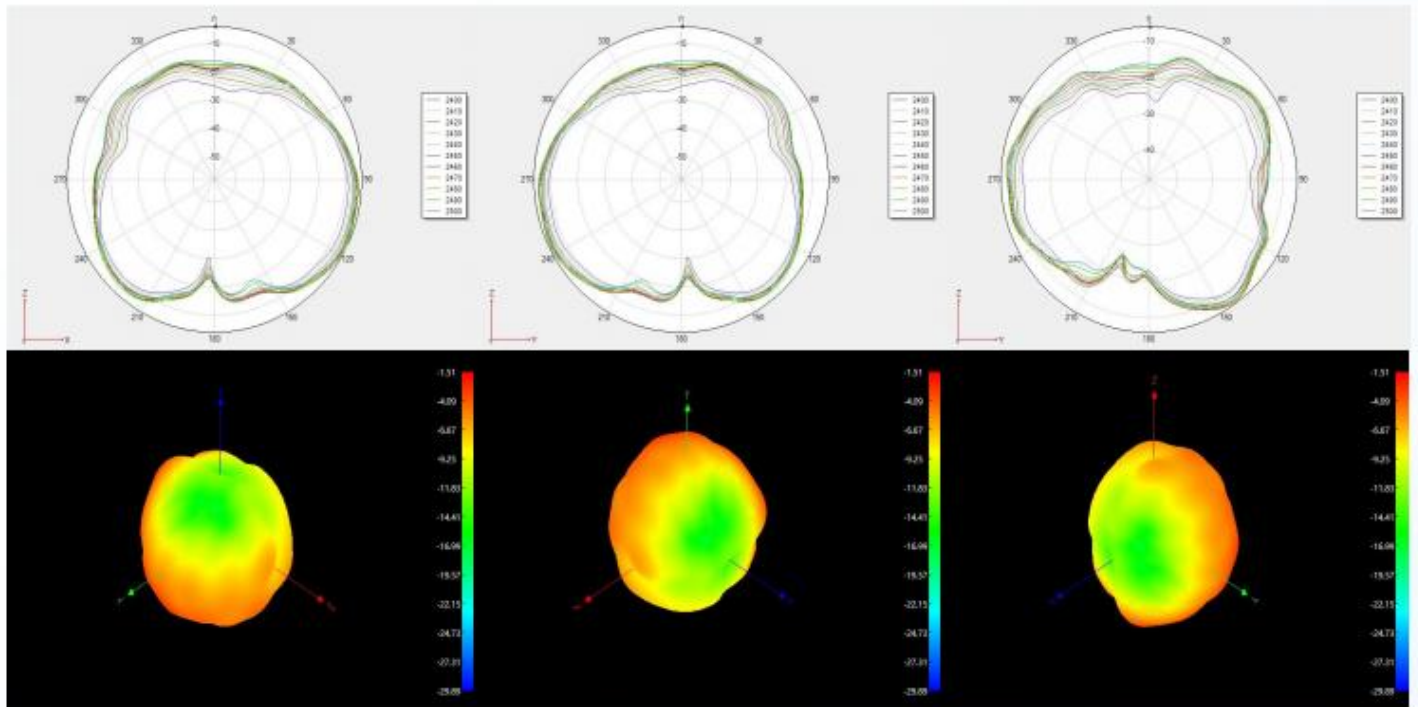


| Frequency (MHz)   | 2400  | 2450   | 2480  | 2500  |
|-------------------|-------|--------|-------|-------|
| Log Mag           | -7.21 | -25.32 | -9.39 | -6.20 |
| Smith( $\Omega$ ) | 25.14 | 45.88  | 25.93 | 17.40 |
| VSWR              | 2.54  | 1.11   | 2.02  | 2.91  |

### 3. Test Result

| Frequency (MHz) | Efficiency (%) | Max GAIN (dBi) |
|-----------------|----------------|----------------|
| 2400            | 26.33          | -1.25          |
| 2410            | 26.74          | -1.58          |
| 2420            | 26.86          | -1.47          |
| 2430            | 27.59          | -1.31          |
| 2440            | 28.61          | -1.51          |
| 2450            | 29.28          | -1.60          |
| 2460            | 28.65          | -1.48          |
| 2470            | 27.58          | -1.29          |
| 2480            | 26.88          | -1.37          |
| 2490            | 26.34          | -1.22          |
| 2500            | 25.89          | -1.49          |

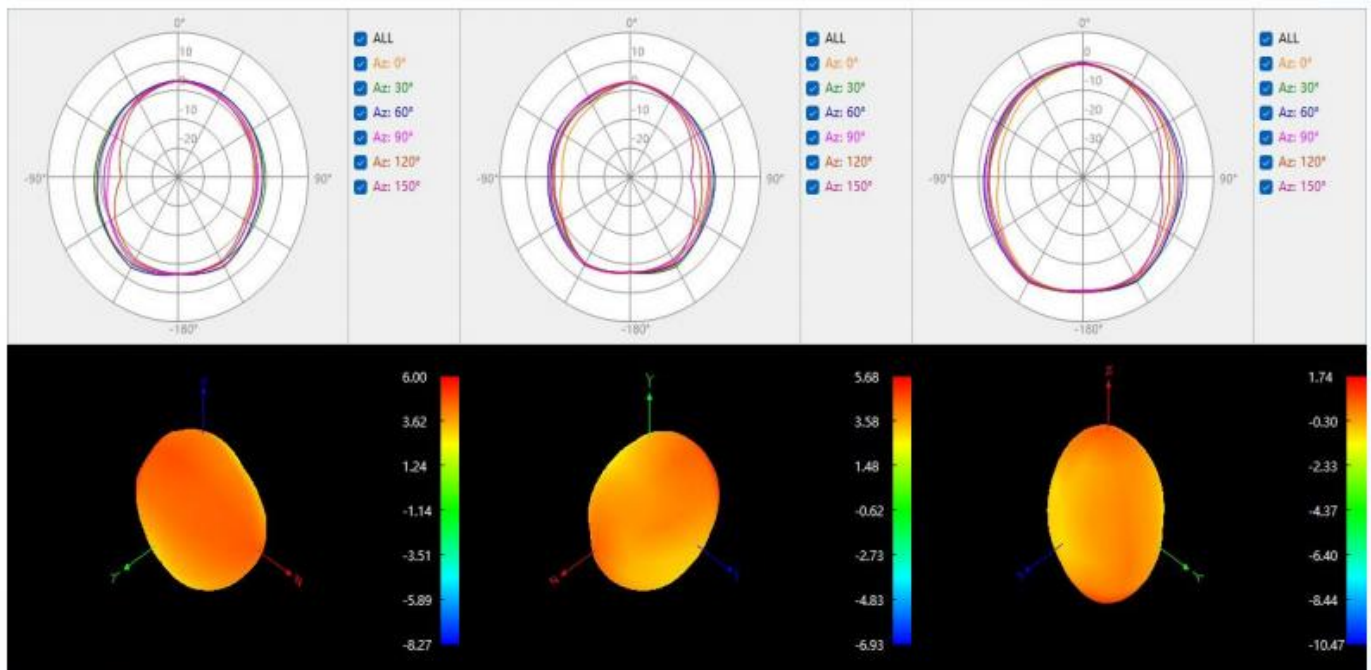
#### 3.1 2D Pattern——BTANT



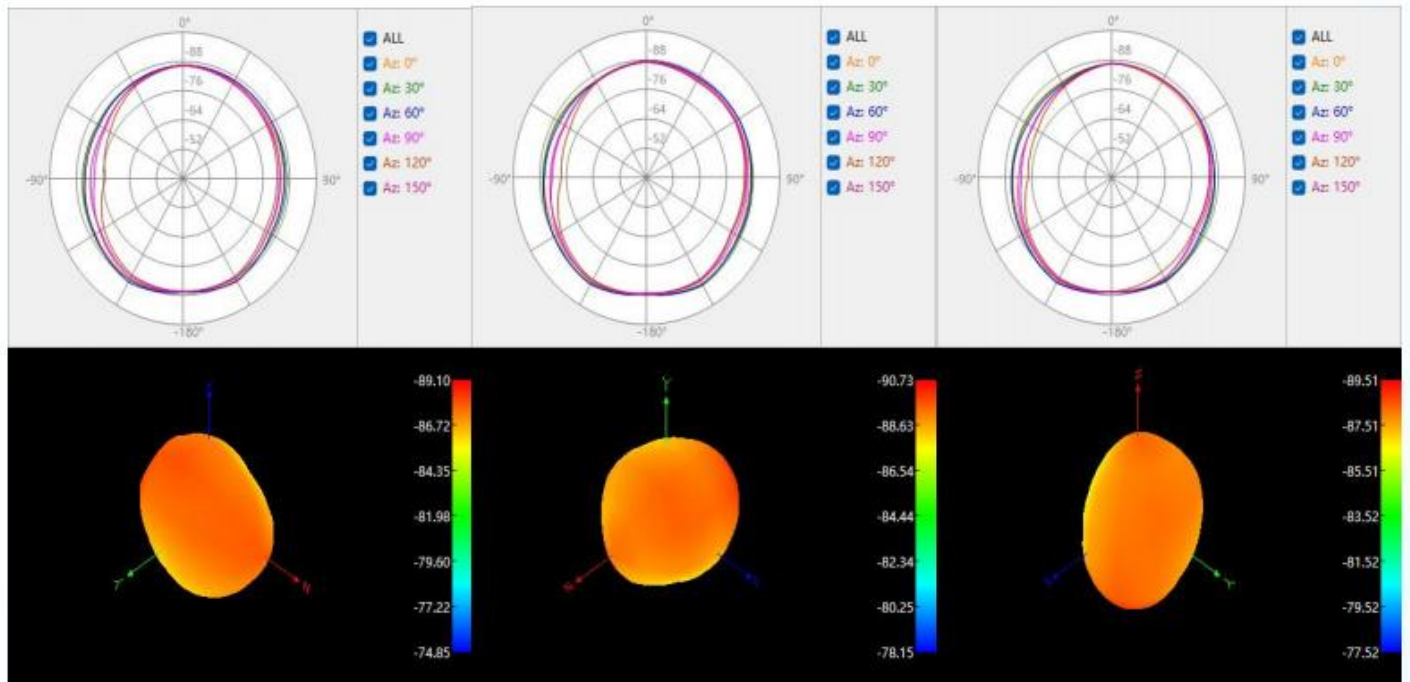
### 3.OTA Data

|                 |            |         |          |          |
|-----------------|------------|---------|----------|----------|
| Test Equipment: | R&S CMW500 |         |          |          |
| Test Condition: | 3D chamber |         |          |          |
| Band            |            | Channel | TRP(dBm) | TIS(dBm) |
| BT              | L          | 0       | 1.03     | -83.49   |
|                 |            | 39      | 1.57     | -86.48   |
|                 |            | 78      | -0.65    | -87.23   |
|                 | R          | 0       | 2.53     | -85.64   |
|                 |            | 39      | 2.05     | -87.26   |
|                 |            | 78      | -1.81    | -86.01   |

#### 3.1.Test Result R-TRP



### 3.1. Test Result R-TIS

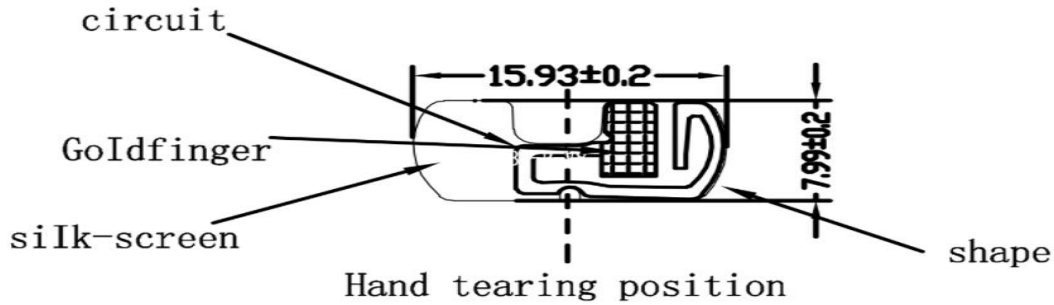


## Reliability Test Report

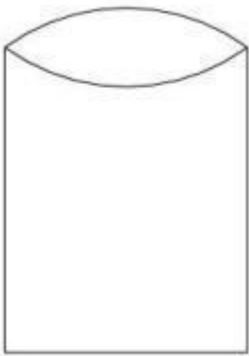
|                                   |                                                                                                                                                                                         |                                           |           |             |                      |         |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------|-------------|----------------------|---------|
| customer Name                     | Guangzhou Youwo Technology Co., Ltd                                                                                                                                                     | customer P/N                              |           | Heyixun P/N | HYX008-BO807Z3K-R-V8 |         |
| Test Date                         | 2024-12-24                                                                                                                                                                              | samp le Qty.                              | 3         | Inspector   | Zhu Zengyuan         |         |
| Test Item                         | Requireme                                                                                                                                                                               | testing equipment                         | samp le 1 | samp le 2   | samp le 3            | PASS/NG |
| High temperature storage          | The test was performed after 24 hours of exposure at +85° C and 2 hours of recovery                                                                                                     | Constant temperature and humidity chamber | OK        | OK          | OK                   | Pass    |
| Cryogenic storage                 | The test was performed after 24 hours of exposure at -40° C and 2 hours of recovery                                                                                                     | Constant temperature and humidity chamber | OK        | OK          | OK                   | Pass    |
| High temperature operation        | Operates at +60° C for 24 hours                                                                                                                                                         | Constant temperature and humidity chamber | OK        | OK          | OK                   | Pass    |
| Operates at low temperatures      | It works on power for 24H at -20° C                                                                                                                                                     | Constant temperature and humidity chamber | OK        | OK          | OK                   | Pass    |
| Salt spray test                   | (5 Shi 0.5)*Sodium chloride, pH value is 6.5~7.2, and the temperature of the experimental chamber is (35 ±2)° C<br><input checked="" type="checkbox"/> 24H <input type="checkbox"/> 48H | Salt spray testing machine                | OK        | OK          | OK                   | Pass    |
| Connector riveting pull-out force | 1.13 Wire size ≥10N<br>0.81 Wire size ≥8N<br>RG174 ≥60N<br>RG178 ≥50N                                                                                                                   | Push-pull force gauge                     | /         | /           | /                    | /       |
| Conclusion                        |                                                                                                                                                                                         |                                           |           |             |                      | Pass    |
| Inspector & Date                  | Zhu Zengyuan 2024-12-24                                                                                                                                                                 | Approval & Date                           |           |             |                      |         |

PACKING CRITERION

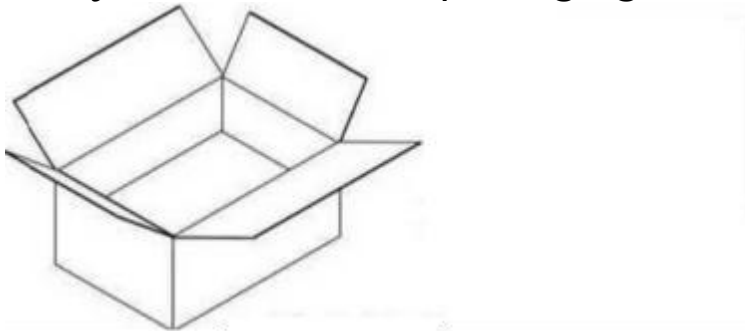
1、Individual products (Subject to the actual packaging)



2、Big PE bag packing (full sheet/single 90pcs) (Subject to the actual packaging)



3、Sealed, the outer box is affixed with our production label and ROHS label. (Subject to the actual packaging)



## Environmental requirements

|                                                                       |                                                                                                                                                                      |                                        |                              |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|
| MSDS (Material Safety Data Sheet)                                     | <input checked="" type="checkbox"/> offer                                                                                                                            | <input type="checkbox"/> Not available | <input type="checkbox"/> N/A |
| COC (Environmental Protection Agreement)                              | <input checked="" type="checkbox"/> offer                                                                                                                            | <input type="checkbox"/> Not available | <input type="checkbox"/> N/A |
| Technical standards for environmentally friendly hazardous substances | <input checked="" type="checkbox"/> offer                                                                                                                            | <input type="checkbox"/> Not available | <input type="checkbox"/> N/A |
| Specific environmental requirements                                   | <input checked="" type="checkbox"/> ROHS2.0 COMPLIANT<br><input checked="" type="checkbox"/> Halogen-free<br><input checked="" type="checkbox"/> Meets California 65 |                                        |                              |

## Install Wizard or Other

### Installation Process:

Take the 1PCS product, tear off the release paper on the back of the FPC by hand, and then align the position of the FPC positioning hole with the positioning hole position of the shell (positioning rib or positioning line), and attach it to the shell flatly, the specific position is shown in the following figure:

### Precautions during the installation process:

- ☒After attaching the antenna, ensure that the FPC is fully attached to the housing;
- ☒The positioning hole is aligned with the positioning post position of the housing;
- ☒The edge of the FPC is against the edge of the case;
- ☐Antenna with TerminalsWhen snapping the terminals to the PCBA end of the motherboard, first snap the terminals and then vertically;
- ☐When disassembling the antenna terminals, it is necessary to use a tool (such as a special crowbar) to the terminals vertically, and do not directly pull the wire to disassemble them.

