



# APPROVAL SHEET

## 承认书

|                                                               |                                                                                                     |                                  |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------|
| CUSTOMER NAME<br>Customer's name                              | The same is digital                                                                                 |                                  |
| CUSTOMER P/N<br>Customer material<br>number                   |                                                                                                     |                                  |
| PART NAME<br>Article<br>Name                                  | .433MHzSpring built-in antenna                                                                      |                                  |
| P/N<br>Expect Howl                                            | YJC-6N000-B486.                                                                                     |                                  |
| . APPROVAL REV.<br>Printing<br>block Come<br>next in<br>order | A0.                                                                                                 |                                  |
| DELIVERY DATE<br>Sample delivery<br>date                      | 2023Year12Moon08Sun                                                                                 |                                  |
| PREPARED BY<br>Bear Do                                        | Yin Feijie                                                                                          |                                  |
| . CHECKED BY<br>Examine<br>Stone                              | <br>Fang Wenfeng |                                  |
| APPROVED BY<br>Stone<br>Standard                              | Be like Milky Way                                                                                   |                                  |
| Customer Approved<br>Visitor Door Bear<br>Recognize           |                                                                                                     |                                  |
| Prepared By<br>Bear Do                                        | Checked By<br>Examine<br>Stone                                                                      | Approved by<br>Stone<br>Standard |

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

Headquarters Address: Youmagang Road, Matian Street, Guangming District, Shenzhen11No. Hongyu Guangming Valley.CentigradeBuilding Dongguan  
Branch: Yinhe Third Road, Shishuikou, Qiaotou Town, Dongguan  
City2Hangzhou Office of Yingjiachuang Industrial Park: Internet of Things Street, Binjiang District, Hangzhou369No. Dahua Jianghong International Innovation ParkB.Ridge pole212 Mianyang Office: Mianxing East Road, High-tech Zone, Mianyang City, Sichuan Province35No. Wanxian High-tech International4F-34.Howl

Telephone number:0755-27810060 Fax:0755-27810057

Website:[Http://www.szsyjc.com](http://www.szsyjc.com)



Shenzhen Yingjiachuang Electronic Technology Co., Ltd.

[Http://www.szsyjc.com](http://www.szsyjc.com)

## Catalogue

- 1, Cover...1
- 2, Catalogue...2
- Three, Resume... Three
- 4, Antenna floor plan...4
- 5, Antenna technical parameters and environmental performance test...5
- 6, The physical map of the antenna and the location map attached to the antenna...6
- 7, 2D.3D. ( 43 3 M H z ) Test data... 7
- 8, ROHS.Material control report...8

Sequence 2 Total pages 8 Page

Resume:

| Edition | .Change content and reasons for change | Date                     | Circulate |
|---------|----------------------------------------|--------------------------|-----------|
| A0.     | The first edition is released          | 2023 Year 12 Moon 08 Sun |           |
|         |                                        |                          |           |
|         |                                        |                          |           |
|         |                                        |                          |           |



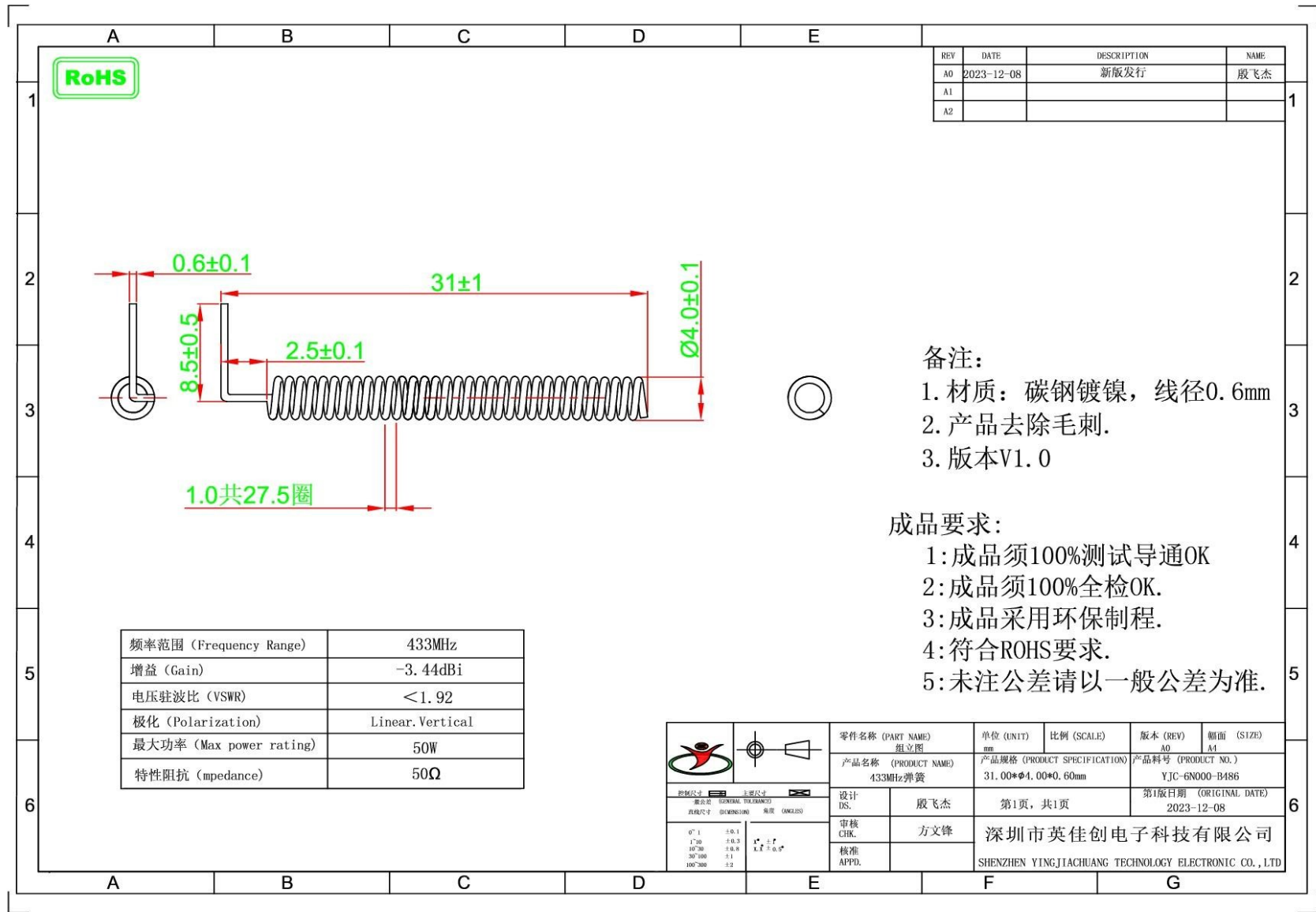
Shenzhen Yingjiachuang Electronic Technology Co., Ltd.

<http://www.szsyjc.com>

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



Antenna floor





| Project                                    | Test conditions                                                                                                                                                                                                                                                                                | Specifications                                                                           |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Storage environment                        | The test temperature, humidity and air pressure without specifying are as follows:<br>1. The temperature is $-20^{\circ}\text{C}\sim+70^{\circ}\text{C}$<br>Two. The relative humidity is 45% to 85%<br>3. The air pressure is 86kpa-106kpa                                                    | The electrical and mechanical properties are normal.                                     |
| High and low temperature test              | At $70^{\circ}\text{C}$ Give $-20^{\circ}\text{C}$ Carry out between 5 Sub-cycle, and then under normal conditions 1-2 hours, check the appearance quality.                                                                                                                                    | The size should meet the requirements and meet the mechanical and electrical properties. |
| Constant humidity and heat resistance test | Relative humidity $95\pm 3\%$ , test temperature: $40^{\circ}\text{C}$ . Last 2 hours. After the action, after the test product is taken out 5 minutes The electrical performance is measured inside, and the test product is under normal conditions. 1-2 hours, check the appearance quality | The size should meet the requirements and meet the mechanical and electrical properties. |



|                |                                                                                                                                                          |                                                      |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Vibration test | Vibration frequency range 10-55HZ, displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, the number of sweep cycles: 30. Come next in order | The electrical and mechanical properties are normal. |
| Drop test      | 1M The high altitude falls freely in the direction of the axes perpendicular to each other. Three Come next in order                                     | The electrical and mechanical properties are normal. |

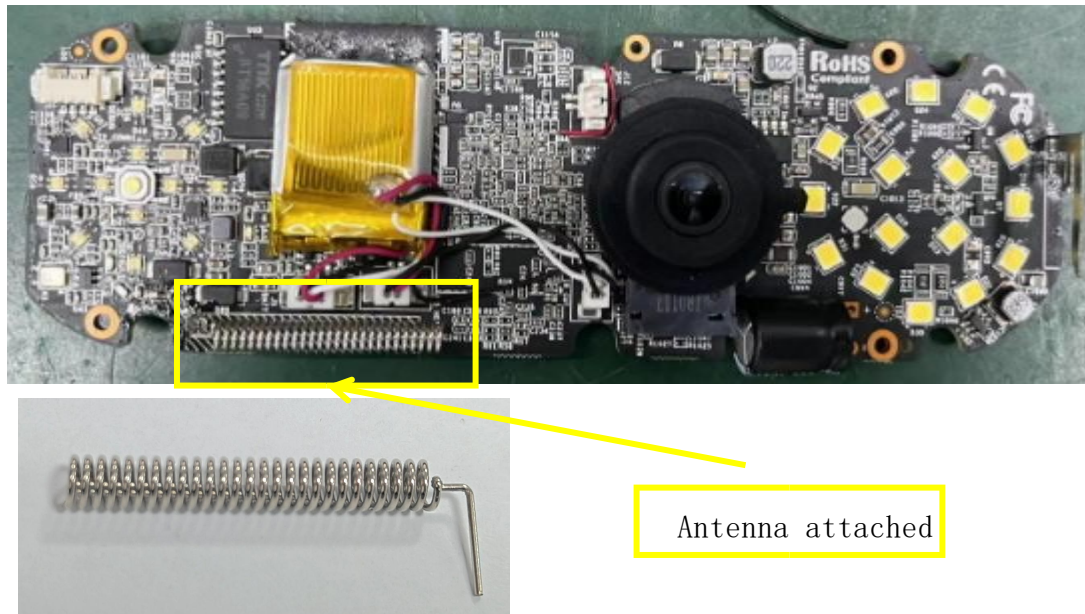
### Antenna technical parameters and environmental test:

| Electrical technical parameters                 |                             |                           |                             |
|-------------------------------------------------|-----------------------------|---------------------------|-----------------------------|
| Lightning Nature Nai Finger Treetop             |                             | Electrical specifications |                             |
| Frequency range                                 | . 433MHz                    | Frequency Range           | . 433MHz                    |
| Voltage standing wave ratio                     | <1.92                       | VSWR.                     | <1.92                       |
| Input impedance                                 | 50 Ω                        | . Input Impedance         | 50 Ω                        |
| Directions                                      | Omni-oriented               | Direction.                | All                         |
| Increase                                        | -3.44dBi                    | Gain                      | -3.44dBi                    |
| Trigger mechanism<br>Shackles<br>Finger Treetop |                             | Mechanical Specifications |                             |
| Wire material                                   | Carbon steel nickel plating | Wire material.            | Carbon steel nickel plating |
| Interface form                                  | OP.                         | Input connector.          | OP.                         |
| Working temperature                             | -20℃~+70℃                   | Working temperature       | -20℃~+70℃                   |
| Working humidity                                | 20~80 percent               | Working humidity          | 20~80 percent               |

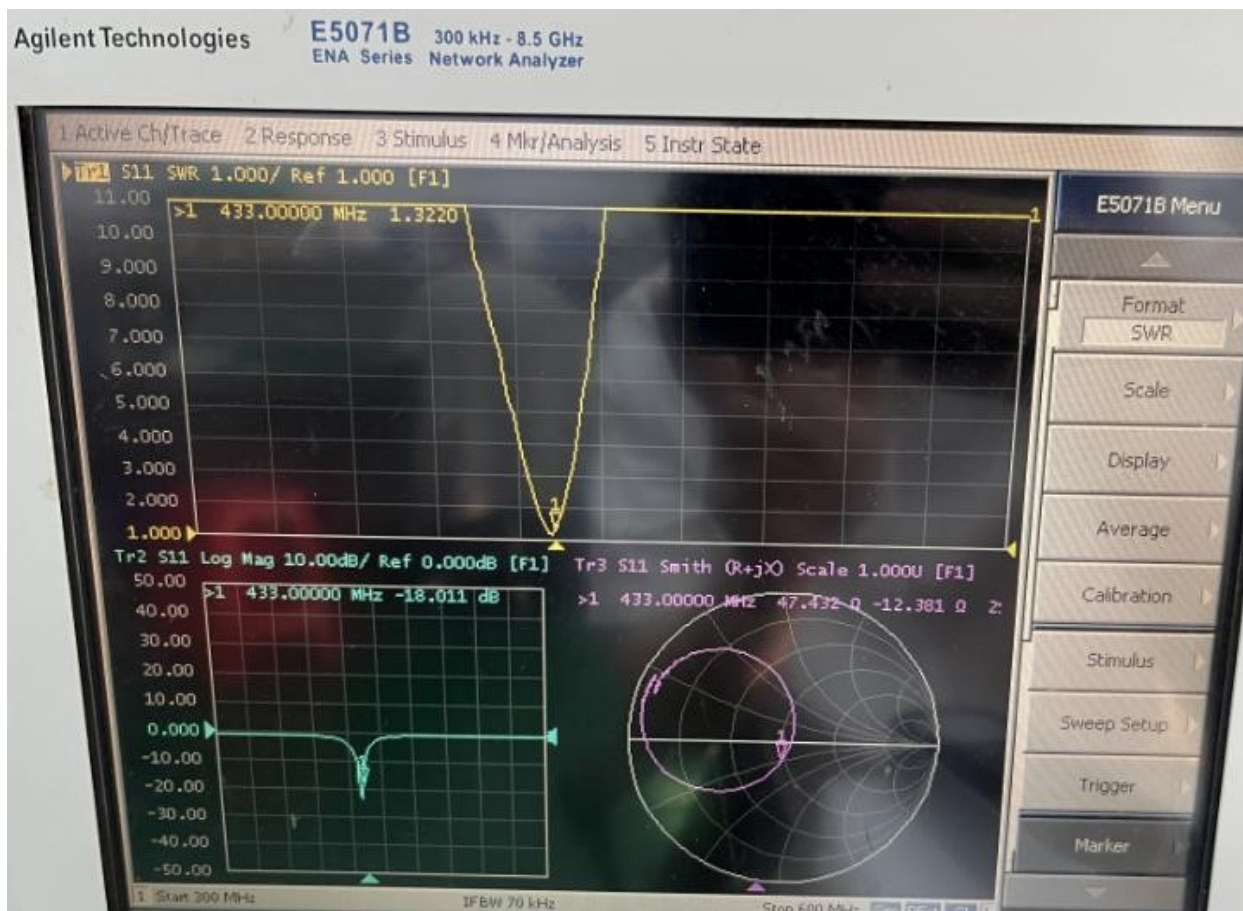


Environmental performance test:

Physical picture of the antenna and attached location map:



Antenna performance test chart:

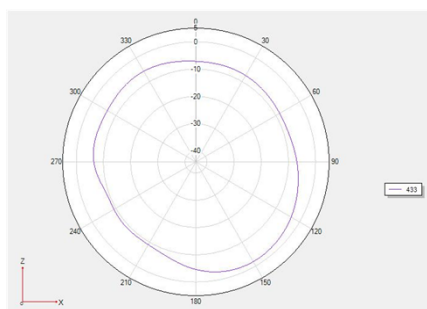




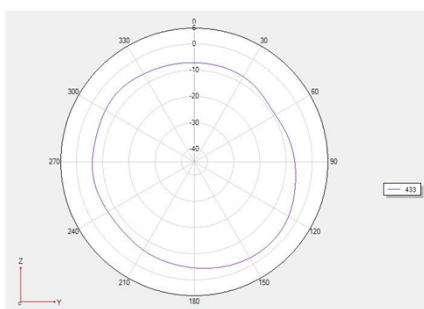
## 2D., 3D. . Test data(433MHz):

| Frequency    | Efficiency (%) | Gain. (dBi) |
|--------------|----------------|-------------|
| 430 MHz      | 10.85          | -3.35       |
| 431MHz       | 10.47          | -3.72       |
| 432 MHz      | 10.35          | -3.72       |
| . 433MHz     | 10.43          | -3.44       |
| 434Megahertz | 10.59          | -3.15       |
| 435 MHz      | 10.65          | -3.19       |

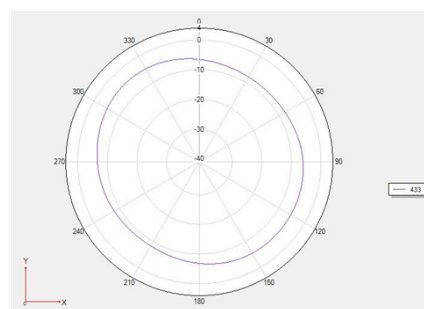
Phi 0 2D Picture



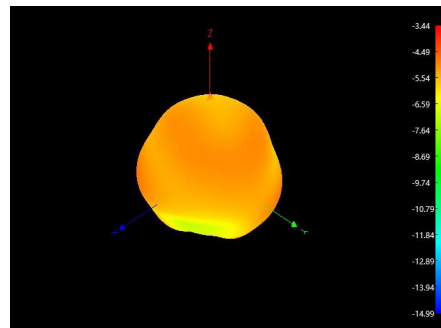
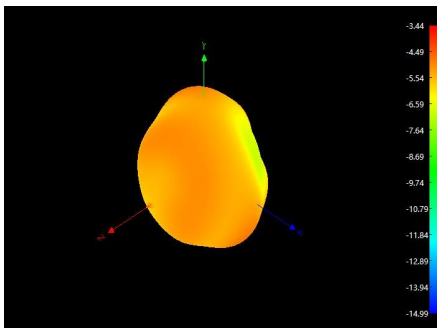
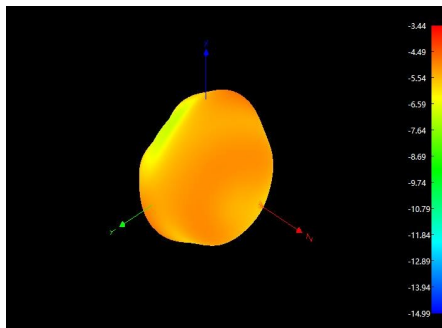
Phi 90 2D. Picture



Theta 90 2D. Picture



## .3D 433





Shenzhen Yingjiachuang Electronic Technology Co., Ltd.

[Http://www.szsyjc.com](http://www.szsyjc.com)

| ROHS.Material control report                                                                                                                                                                                                                                                                                                   |                                          |                                                            |                                      |                        |                                                          |       |       |        |       |        |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------|--------------------------------------|------------------------|----------------------------------------------------------|-------|-------|--------|-------|--------|-----------------------------|
| I hereby certify that the zero components delivered to your company, the raw materials used in auxiliary materials, and the additives in the production project are all in accordance with RoHS.Environmental protection requirements of the Directive on Restricting the Use of Hazardous Substances (RoHS..Order 2011/65/EC) |                                          |                                                            |                                      |                        |                                                          |       |       |        |       |        |                             |
| The report on the components of raw materials used in components, auxiliary materials, packaging materials and additives used in the production process is as follows:                                                                                                                                                         |                                          |                                                            |                                      |                        |                                                          |       |       |        |       |        |                             |
| Name of constituent materials<br>Component /Part Name                                                                                                                                                                                                                                                                          | Component s<br>Material.<br>Composition. | Internet content provider<br>Report number<br>ICP report # | .Testing institut ion<br>Test Organ. | Test time<br>Test date | Have Harm Thing Nature Hold in the mouth<br>Measure(Ppm) |       |       |        |       |        | Is it qualified ??<br>PASS? |
|                                                                                                                                                                                                                                                                                                                                |                                          |                                                            |                                      |                        | . Comp act disc                                          | Pb.   | Hg.   | Cr. 6+ | PBB.  | PBDE . | PASS                        |
| Spring                                                                                                                                                                                                                                                                                                                         | Carbon steel                             | CANEC2301795601.                                           | SGS.                                 | 02/23/21               | . ND.                                                    | . ND. | . ND. | . ND.  | . ND. | . ND.  | PASS                        |