

Project :Y220927099

Date.2023.10.31

REV: A1

# Antenna SPEC

Customer name: 珠海蔚科

Customer project: B-8 无线系列

Customer P/N: \_\_\_\_\_

B&T P/N: 74220163

Spec.: internal antenna -2.4G-Black-1.13 wire-terminal-L=90mm-

shrapnel-48×11.1×5.1mm

Manufacturer: Zhongshan Boantong Communication Technology Co. , Ltd

Address: Floor3-4, Block A, Dong Fang Industrial park, Da che country,  
Nan Lang District ; Zhong Shan City Guang Dong, China

Sealed by corporation:

| compilation | verify   | approval |
|-------------|----------|----------|
| Huangfeihui | Liulihua | Liulihua |

Sealed by customer:

| check | verify | approval |
|-------|--------|----------|
|       |        |          |

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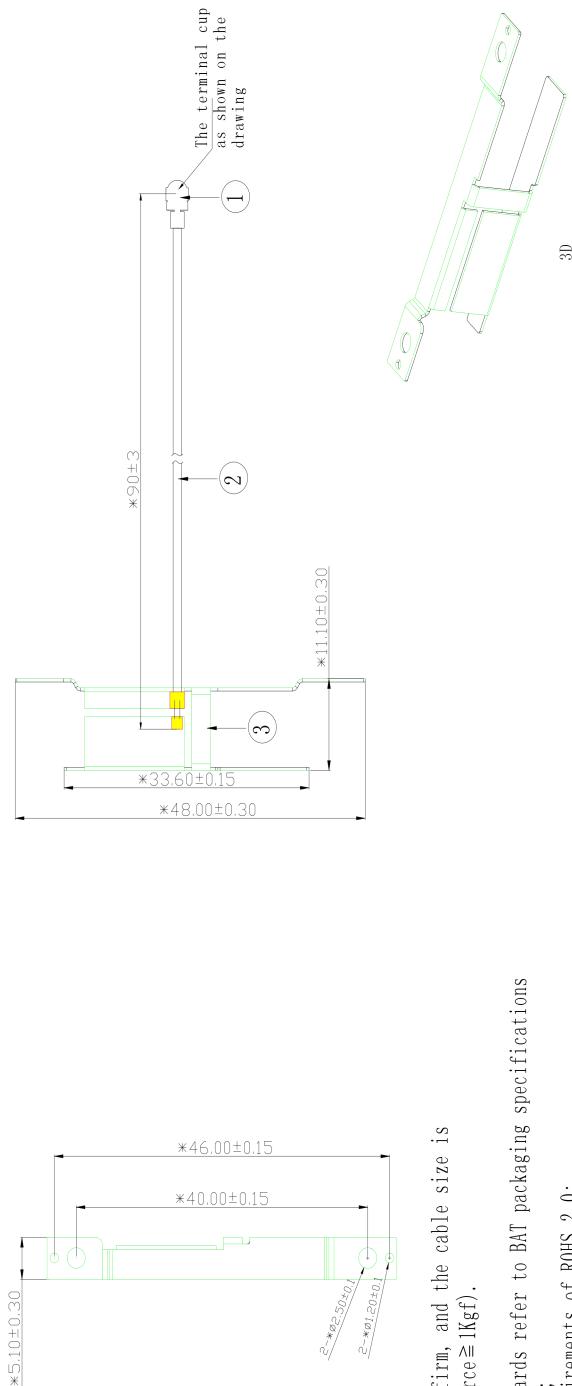
## Document making / revising / abolishing resume

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### 3、Product drawing

| REV. | Date    | Revise |
|------|---------|--------|
| A0   | 23-3-22 |        |



### The technical requirements

- 1: the antenna welding part is firm, and the cable size is accurate; (Cable maintenance force  $\geq 1\text{kgf}$ ).
- 2: “\*” important dimensions;
- 3: Packaging and quality standards refer to BAT packaging specifications quality standards respectively;
- 4: Products must meet the requirements of ROHS 2.0;
- 5: The cup of terminal orientation requirement.

| Number      | Part name                   | Note     |           |        | Name | internal antenna -2, 4G-Black-1, 13<br>wire-terminal-L=90mm-shrapnel-<br>48×11.1×5.1mm |
|-------------|-----------------------------|----------|-----------|--------|------|--|
|             |                             | Designer | Duqinling | Verify |      |  |
| 1           | Generation 1<br>RF terminal |          |           |        |      |  |
| 2           | Coaxial line                |          |           |        |      |  |
| 3           | Shrapnel                    |          |           |        |      |  |
| Approval    |                             | Weight   | Quantity  | Scale  | Unit | Project No.<br>Part No.  |
| 1           | 1>X                         | ±0.05    |           |        | mm   | Y220927099<br>74220163   |
|             | 1~9.99                      | ±0.10    |           |        |      |  |
|             | 10~19.99                    | ±0.15    |           |        |      |  |
|             | 20~39.99                    | ±0.20    |           |        |      |  |
|             | 40~                         | ±0.30    |           |        |      |  |
| Page 1 of 1 |                             |          |           |        |      | ZHONGSHAN B&T TECHNOLOGY HOLDINGS Co., Ltd   |

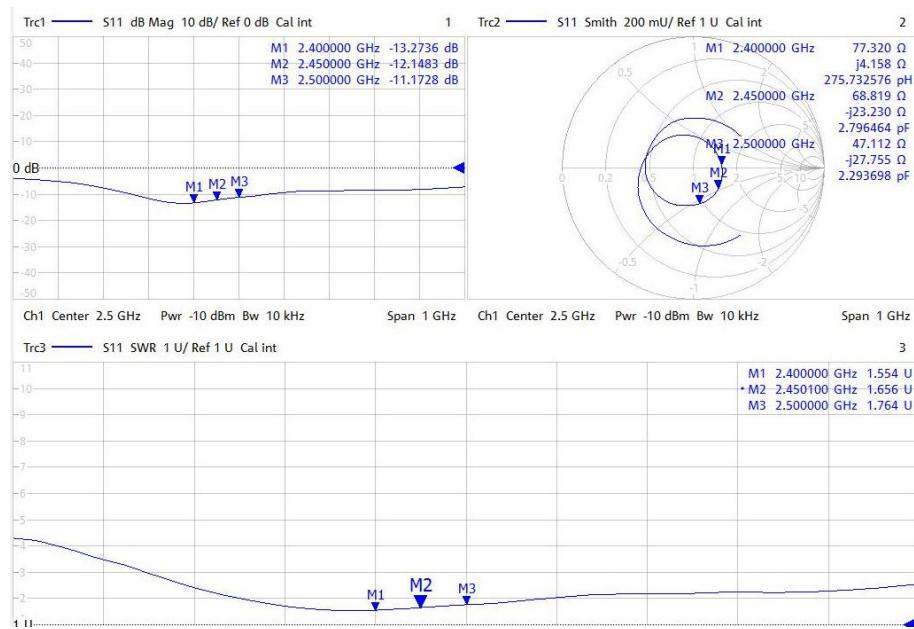
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#### 4、Properties & parameter

| Electrical Parameter     |                             |
|--------------------------|-----------------------------|
| Freq Range               | 2400~2500MHz                |
| Characteristic Impedance | 50 Ω                        |
| Used in machines VSWR    | sample of reference project |
| The Max input power      | <10w                        |
| Polarization mode        | Polar linearization         |
| Radiation mode           | Omni directional            |
| Connector style          | terminal                    |
| Mechanics Properties     |                             |
| Length                   | 90±3mm                      |
| Maintain the force       | ≥1kgf                       |
| Coaxial cable            | Black 1.13 wire             |
| Salt spray test          | 24H                         |
| Environment parameter    |                             |
| Operating Temp           | -30°C~65°C                  |

## 5、Electrical test report (Fitting machine test)

### S11 Parameter



Electrical Performance Test Parameter Table

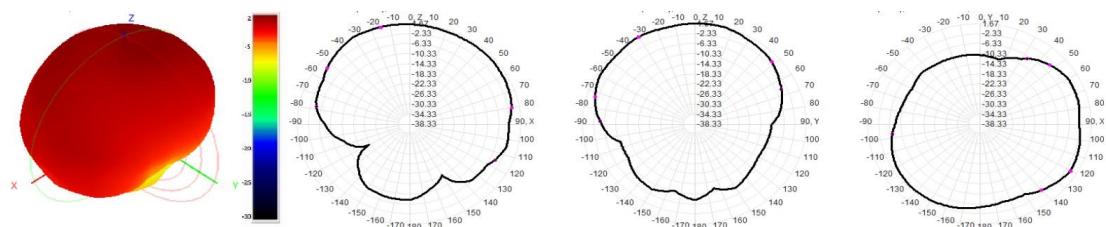
| Freq/GHz | 2.4  | 2.45 | 2.5  |
|----------|------|------|------|
| VSWR     | 1.55 | 1.65 | 1.76 |

Gain & efficiency

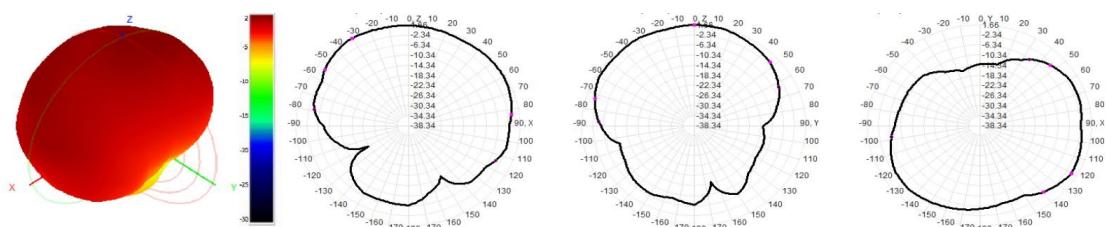
| Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|
| 2400.0          | 1.89       | 49.08          |
| 2410.0          | 1.95       | 49.97          |
| 2420.0          | 1.96       | 49.07          |
| 2430.0          | 2.01       | 50.04          |
| 2440.0          | 2.22       | 51.42          |
| 2450.0          | 2.31       | 51.72          |
| 2460.0          | 2.43       | 52.10          |
| 2470.0          | 2.31       | 52.48          |
| 2480.0          | 2.33       | 51.59          |
| 2490.0          | 2.29       | 50.98          |
| 2500.0          | 1.85       | 49.22          |

## Direction diagram

2.4G (Gain:dBi)



2.45G (Gain:dBi)



2.5G (Gain:dBi)

