



## Antenna data sheet

客户名称 千睿领航科 (Qianrui Navigation Technology )

(Customer Name)

产品名称 SK30(BT antenna )

(Specification)

客户料号

(Customer P/N)

产品料号

(O/I)

送样日期 2026-6-4

(Date)

|                                  |                        |               |  |
|----------------------------------|------------------------|---------------|--|
| 频段<br>frequency<br>band          | 2.4G BT                |               |  |
| 版本(version)                      | A                      |               |  |
| 射频(radio<br>frequency)           | 陈 增 艺 (Chen<br>Zengyi) | 确认<br>confirm |  |
| 结构<br>(structure)                | 阳国军(Yangguo<br>Army)   |               |  |
| 客户确认<br>Customer<br>confirmation |                        |               |  |
| 日期(date)                         |                        |               |  |

## Catalogue

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## 1. Project images (for reference only)



BT antenna (0.6mm\*20mm)

### 2.4G BT antenna

#### 2. Passive testing

**Purpose:** To test the passive parameters of the antenna as accurately as possible.

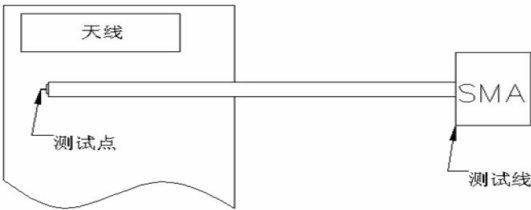
**Method:** This fixture uses a 50 ohm coaxial cable, with one end connected to the testing point at the back end (front section of the RF test hole) of the matching circuit on the mobile phone motherboard, and the other end connected to the SMA connector. Specifically, as shown in the following figure

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Dosking MicroElectronics Co.,Ltd

Address: Room 403, West Block, Building 2, Private Enterprise Science and Technology Park, Xili University City,  
Nanshan District, Shenzhen

TEL:0755-88602767 FAX:0755-82793883



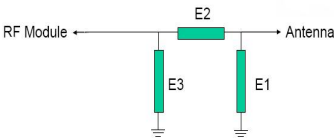
The following table shows the performance test indicators for SK30 frequency mass-produced antennas

:

| 2.4G -BT antenna        |                            |      |                      |      |
|-------------------------|----------------------------|------|----------------------|------|
|                         | 频率 (MHz)                   | VSWR | 频率 (MHz)             | VSWR |
| 频段<br>frequency<br>band | 发射端<br>transmitting<br>end |      | 接收端<br>receiving end |      |
| 2.4G BT                 | 2400-2550                  | ≤3.0 | 2400-2550            | ≤3.0 |

3.Matching circuit

Element matching value



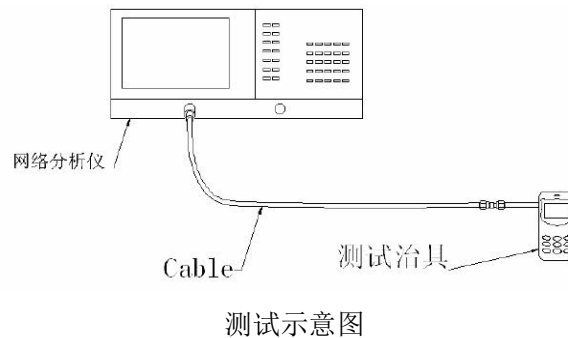
| Element  | 匹配值<br>matching value |
|----------|-----------------------|
| E1(0201) |                       |
| E2(0201) |                       |
| E3(0201) |                       |

#### 4. S11 test

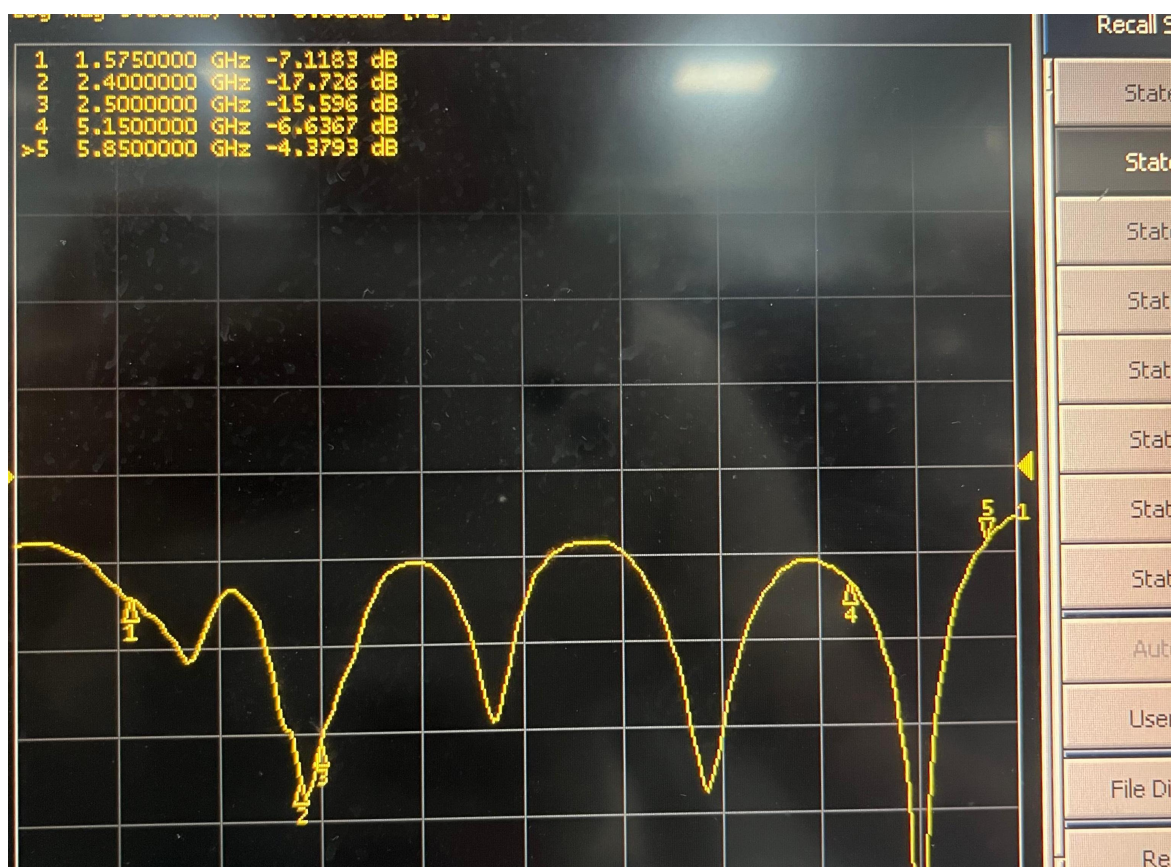
##### 4.1 S11 Test Method Description Specification Standards

The VSWR testing device is sequentially connected as follows:  
HDD10K753ES network analyzer → 50 ohm coaxial cable →  
120mm long copper tube → testing fixture.

Processing of test fixture: Use a hard cable to lead out the **SMA-J connector from the 50 ohm test point of the antenna on the mobile phone PCB, connect it to a copper tube with a choke coil, and then connect other devices in sequence**



4.2 S11



## Power and sensitivity testing

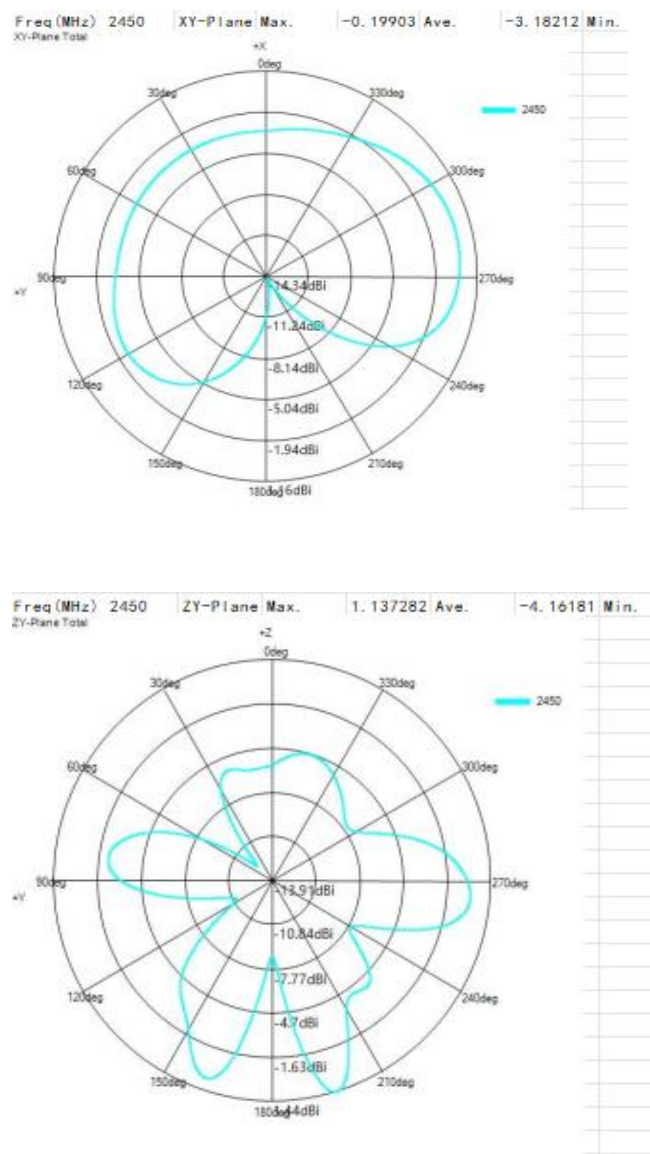
### 3.1 OTA Test Data

| Model: 2.4G-WIFI |          |        |        |
|------------------|----------|--------|--------|
| 2.4G             | 11B(11M) |        |        |
|                  | CH1      | CH6    | CH11   |
| TRP              | 14.34    | 14.42  | 14.12  |
| TIS              | -81.32   | -81.46 | -81.27 |

### 3.2 Passive test data

| Freq (MHz) | Gain (dBi) | Efficiency (dB) | Efficiency (%) |
|------------|------------|-----------------|----------------|
| 2400       | 1.066077   | -4.766285492    | 33.37117       |
| 2410       | 1.095977   | -4.800106785    | 33.25293       |
| 2420       | 1.104703   | -4.699848325    | 33.86728       |
| 2430       | 1.116297   | -4.726452782    | 33.67865       |
| 2440       | 1.065531   | -4.712610302    | 33.78623       |
| 2450       | 1.137282   | -4.619310075    | 34.51993       |
| 2460       | 1.262156   | -4.537785799    | 35.17397       |
| 2470       | 1.112367   | -4.576590244    | 34.86109       |
| 2480       | 1.006588   | -4.706270227    | 33.83553       |
| 2490       | 0.880428   | -4.756559813    | 33.44599       |

3.3passive2Dradiation pattern2.45MHZ



6. Structural drawings

