

## 天线规格书

### Antenna Sample Confirmation From

|                                      |                                       |                  |           |               |                   |
|--------------------------------------|---------------------------------------|------------------|-----------|---------------|-------------------|
| Vendor Name                          | ShenZhen Aihui Technology Co., Ltd    |                  |           |               |                   |
| Customer Name                        | Shenzhen Kejinming Electronic Co.,Ltd |                  |           |               |                   |
| Sample Name                          | 2218                                  |                  |           |               |                   |
| Part Number                          | FPC                                   |                  |           |               |                   |
| Specification                        | /                                     |                  |           |               |                   |
| Inspection Item                      | Performance                           | Total Appearance | structure | Others        | Inspection Result |
|                                      |                                       |                  |           |               |                   |
| Remark                               |                                       |                  |           |               |                   |
| QA Audit                             |                                       | Engineer Audit   |           | Sales Confirm |                   |
| The following are filled by Customer |                                       |                  |           |               |                   |
| Customer Evaluation                  |                                       |                  |           |               |                   |
| Signation/<br>Chapter<br>by Customer | date:                                 |                  |           |               |                   |

## Antenna Test Report

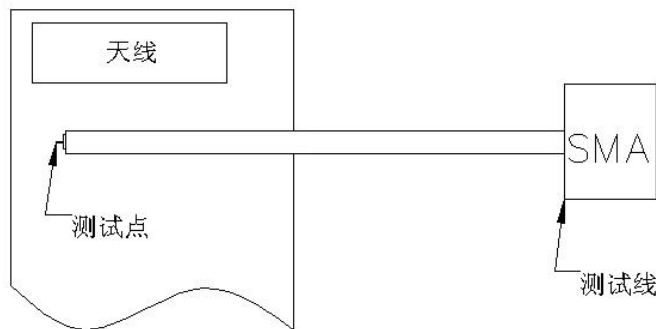
# ShenZhen Aihui Technology Co., Ltd

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                |                          |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------|--------|
| <b>Test by:</b> ShenZhen Aihui Technology Co., Ltd                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                |                          |        |
| <b>Material</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FPC+Line                                       |                          |        |
| <b>Antenna Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FPC                                            | <b>Polarization mode</b> | Linear |
| <b>Application</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                |                          |        |
| <b>Band</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2400Mhz-2500Mhz                                | <b>VSWR</b>              | ≤2     |
| <b>Power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Max: 2W                                        | <b>Impedance</b>         | 50Ω    |
| <b>dBi</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.31dBi Max                                    |                          |        |
| <b>Test Equipment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HPE5071C、Shielding Room、3D automatic turntable |                          |        |
| <br><b>Antenna Description::</b><br><b>1. Grounding processing and picture description: no</b><br><b>2. Need to change the motherboard to match: no</b> <ul style="list-style-type: none"><li>● Test voltage: 3.6V, check the antenna contact is good before testing.</li><li>● The RF cable of the integrated tester is kept in a natural state and can not be curled.</li></ul> Specification:test the specified power level, all indicators must conform to the specifications. |                                                |                          |        |

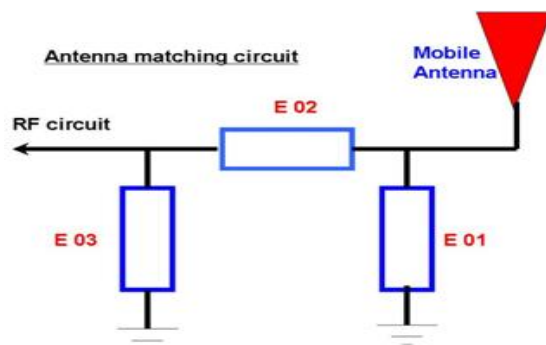
## 1、Tool of test

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

How to make it: A 50 ohm coaxial cable is used to connect one end to the test point at the back end of the matching circuit (front end of the RF test hole) of the mobile phone motherboard, and the other end is connected to the SMA connector. The diagram is as follows:



## 2、Antenna matching circuit



### Point of modification/Modify

| E01 | E02 | E03 |
|-----|-----|-----|
| No  | No  | No  |

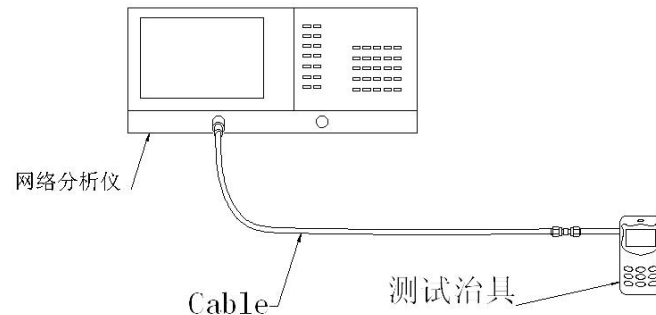
## 3. S11 Test

### 3.0 S11 Description of Test method

Test equipment: Network analyzer (E5071C)

Test method: A 50 ohm CABLE is exported from the instrument test port. After calibration, the SMA connector of the hand mechanism is connected with the calibration piece. The return loss and standing wave ratio corresponding to the relevant frequency points are recorded.

test diagram is as follows:



## 4、Darkroom test equipment and data

est equipment

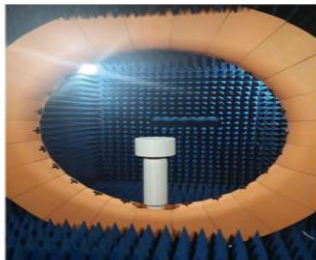
Test system: Shielded dark room

Test Environment: temperature  $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ ,  
humidity  $50\% \pm 15\%$

Test equipment: When testing passive data, use a network analyzer

AgilentE5071C

When testing active data, use the synthesizer CMW500



## 5. Antenna active test data

| Frequency Band | WIFI 2.4G/B |      |       | WIFI 2.4G/G |      |       |
|----------------|-------------|------|-------|-------------|------|-------|
| channel        | L           | M    | H     | L           | M    | H     |
| TRP            | 11.4        | 12.9 | 11.2  | 10.5        | 10.6 | 10.8  |
| TIS            |             |      | -78.2 |             |      | -66.3 |

| Frequency Band | WIFI 2.4G/N |      |       |  |  |  |
|----------------|-------------|------|-------|--|--|--|
| channel        | L           | M    | H     |  |  |  |
| TRP            | 10.5        | 10.5 | 10.3  |  |  |  |
| TIS            |             |      | -62.5 |  |  |  |

| Test data: |                |            |
|------------|----------------|------------|
| WIFI 2.4G  |                |            |
| Freq(MHz)  | Efficiency (%) | Gain (dBi) |
| 2400       | 58.4           | 1.12       |
| 2410       | 59.5           | 1.05       |
| 2420       | 60.2           | 1.31       |
| 2430       | 51.5           | 0.98       |
| 2440       | 53.5           | 0.88       |
| 2450       | 51.5           | 0.74       |
| 2460       | 59.6           | 0.95       |
| 2470       | 58.7           | 1.04       |
| 2480       | 59.3           | 1.21       |
| 2490       | 60.2           | 1.30       |
| 2500       | 61.4           | 1.25       |

6.Antenna environment treatment

7、Antenna mass production index

| Frequency         | Mass production standard |
|-------------------|--------------------------|
| 2400 MHZ -2500MHZ | VSWR<VSWR+0.5            |

8.Size

