# Sunnyway Technology (China) Co., Ltd.

# WIFI Antenna SPEC

| Customer: Eques | | Project Name: : A30 |
|---|---|---|
| Working Band: 2.4-2.5GHz | | |
| Sunnyway BOM: | | |
| SPEC-Type | Sunnyway P/N | Eques P/N |
| WiFi | SH19367IA67 | |
| | | |
| | | |

| | | | |
|---|---|---|---|
| R&D | ME: | PM: | Confirm: |
| | RF: | | |

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# ITEM

## 1. PROJECT PICTURES

project pictures shown below:



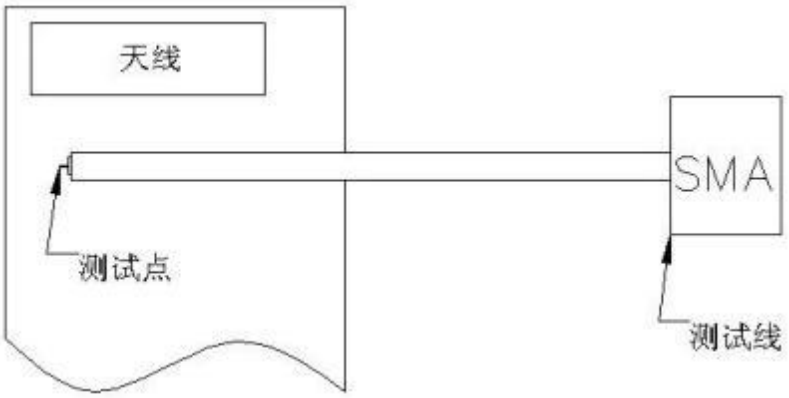
PS:

To ensure that the antenna shipment quality, the final mobile phone Clients validated the antenna's performance, should be kept in our company for at least a year time, facilitate solving antenna amount during abnormal situation,

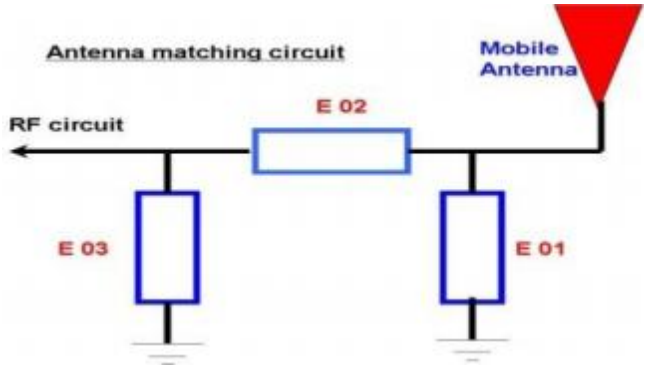
## 2. TEST FIXTURE

Purpose: To test antenna passive parameters as accurately as possible。

methods: the fixture is to use a 50 ohm coaxial cable, one end is connected to the pad after the antenna's matching circuit (the front of the antenna switch), and the other end is connected to the SMA connector.




## 3. MATCHING CIRCUIT




| | Main antenna |
|---|---|
| **Element** | Value |
| **E1** | N/A |
| **E2** | 0 欧姆 |
| **E3** | N/A |

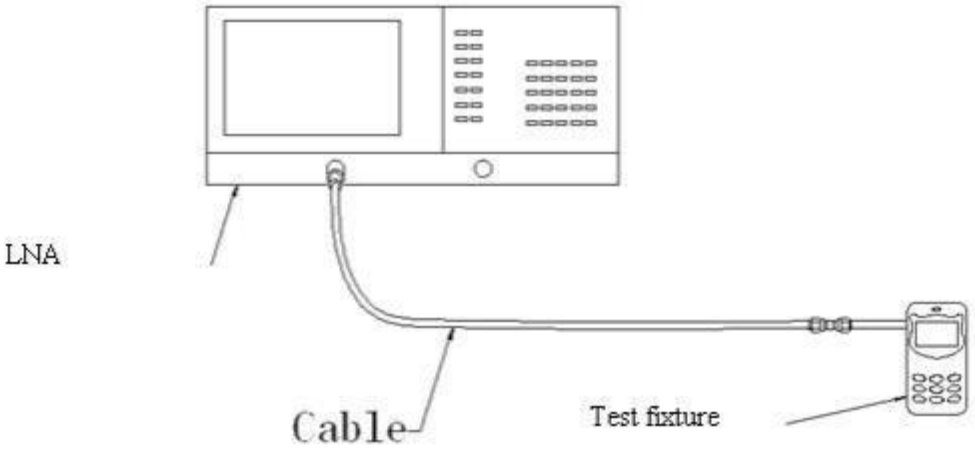
## 4. S11 test

4.0 S11 test method instructions

Test equipment: LNA(E5062A)

Test method: With a 50 ohm CABLE ,CABLE export from instrument testing port , After the calibration with calibration Key, connected to the SMA connector , Records the return loss and VSWR of the related frequency points.

Test schematic diagram is as follows:

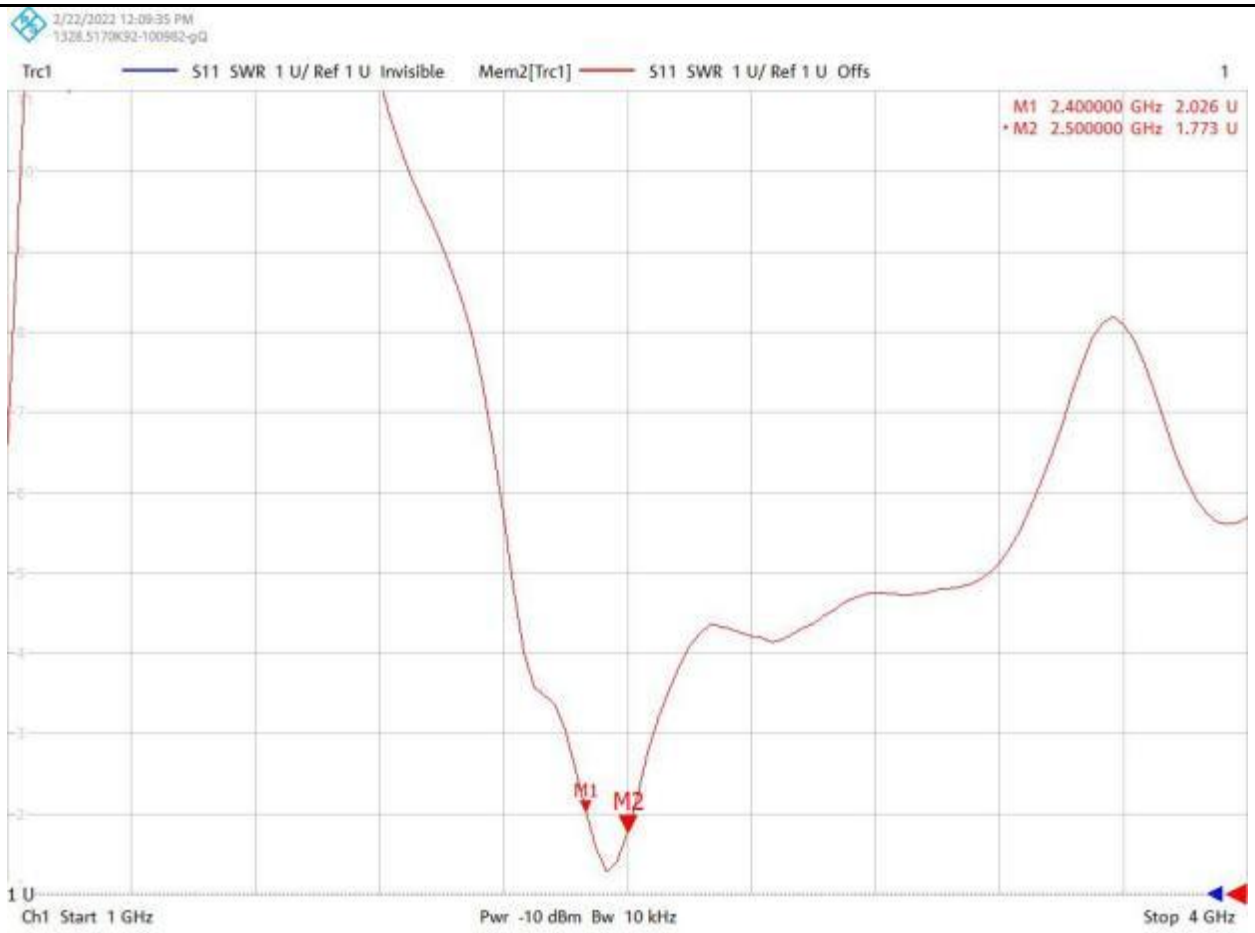



Test schematic diagram

4. 1 S11 parameter

| FRq (MHZ) | 2.4 | 2.5 |
|---|---|---|
| Return loss | 2.03 | 1.77 |

4.2Main antenna S11:




## 5 ACTIVE OTA TEST DATA

Test equipment

Test system: chamber

Test environment: the temperature of 22 ℃ + 3 ℃, humidity of 50% plus or minus 15%

Test equipment: to test passive status , use LNA Agilent E5062C to test active status, use

CMW500

**Passive efficiency is as follows:**

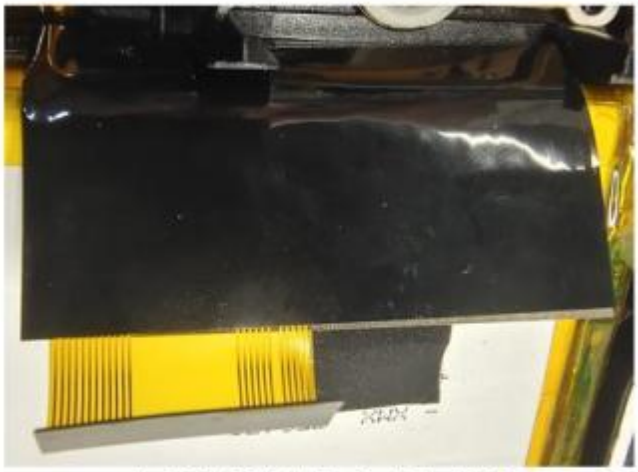
| Freq (MHz) | Effi (%) | Effi (dB) |
|---|---|---|
| 2400 | 48.97 | -3.1 |
| 2410 | 49.03 | -3.1 |

| | | |
|---|---|---|
| 2420 | 49.41 | -3.06 |
| 2430 | 49.72 | -3.03 |
| 2440 | 50.01 | -3.01 |
| 2450 | 50.28 | -2.99 |
| 2460 | 51 22 | -2 91 |
| 2470 | 50.49 | -2.97 |
| 2480 | 50.43 | -2.97 |
| 2490 | 49.42 | -3.06 |
| 2500 | 49.04 | -3.09 |

**Directional and apple map :**

| Band | Channel | TRP(dB) | TIS(dB) |
|---|---|---|---|
| 802.11b (11Mbps) | 1 | 16.58 | |
| | 6 | 16.43 | |
| | 11 | 16.77 | -78.59 |

## 6. Ground handling



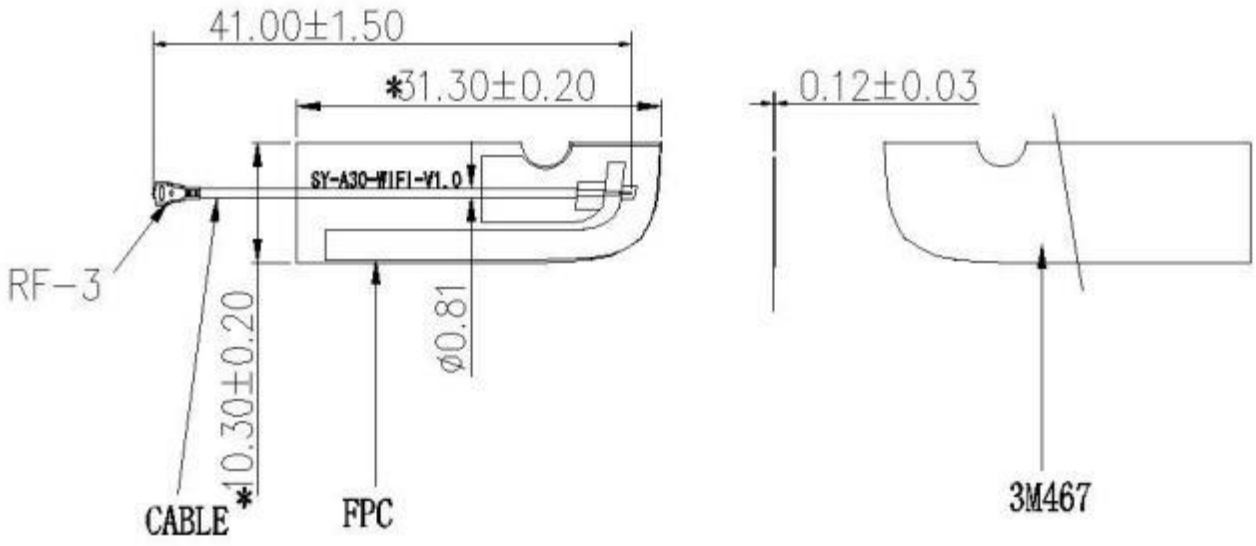
屏排线用导电布屏蔽

## 7. Mass production antenna Spec

During Mass production, to test VSWR as production test standard

According to the difference of the project itself, the following specification:

| Frequence | SPEC ,Mass Production |
|---|---|
| **2.4-2.5GHz** | VSWR (MP performance ) <VSWR(Verify performance)+0.5 |



## 8.Radiation Pattern: