Sunnyway Technology (China) Co., Ltd.

WIFI Antenna SPEC

Customer: Eques		Project Name: : S31
Working Band: 2.4-2.5GHz		
Sunnyway BOM:		
SPEC-Type	Sunnyway P/N	Eques P/N
WiFi	SH20282IB77	

R&D	ME:	PM:	Confirm:
	RF:		

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ITEM

1. **PROJECT PICTURES**

2. **TEST FIXTURE**

3. **MATCHING CIRCUIT**

4. **S11 TEST**

4.0 S11 test method

4. 1 S11 parameter

4.2 parameter images

4.2. 1 Return loss

4.2.2 V.S.W.R

5. CHAMBER TEST DATA

5.0 test equipment

5. 1 active data

6. **Ground handling**

7. **MASS PRODUCTION ANTENNA SPEC**

8. **Radiation Pattern:**

1. PROJECT PICTURES

project pictures shown below:

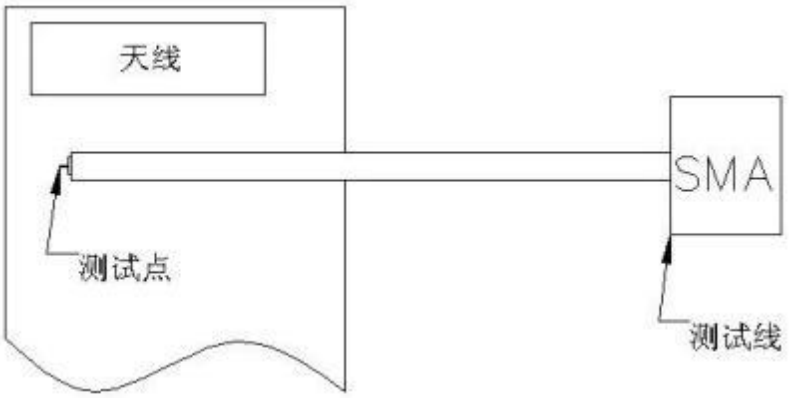
PS:

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,

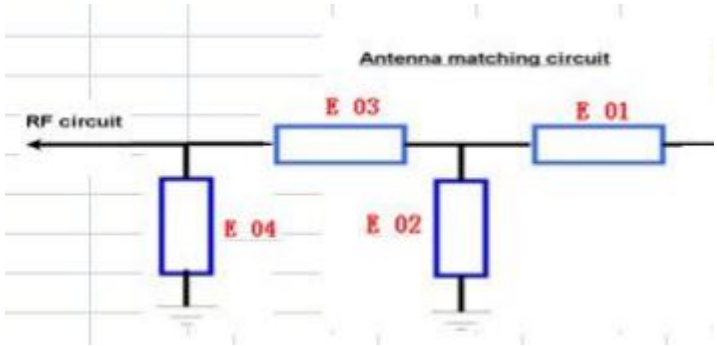
2. TEST FIXTURE

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 Ω
E3	N/A

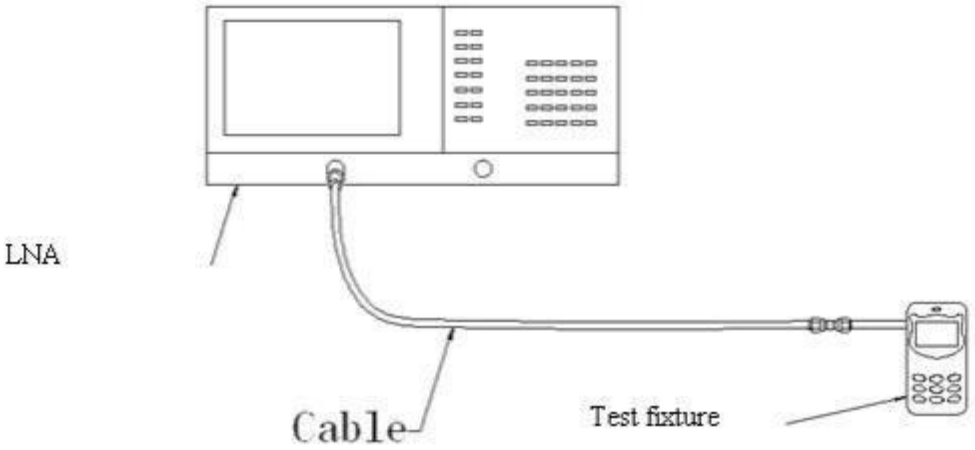
4. S11 test

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

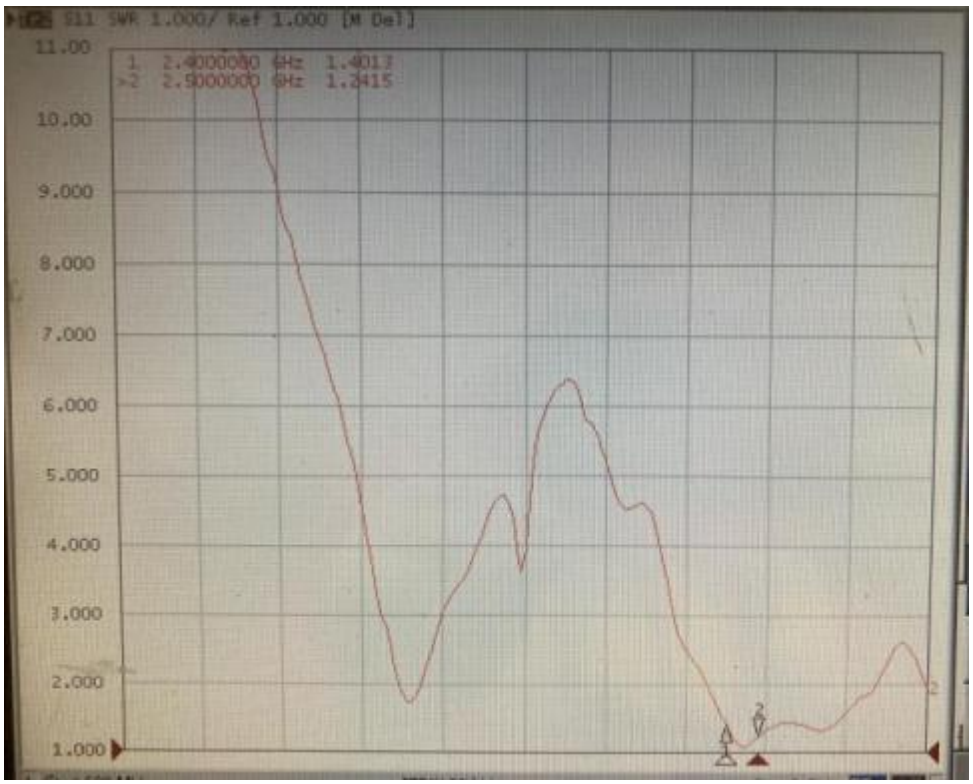
4. 1 S11 parameter

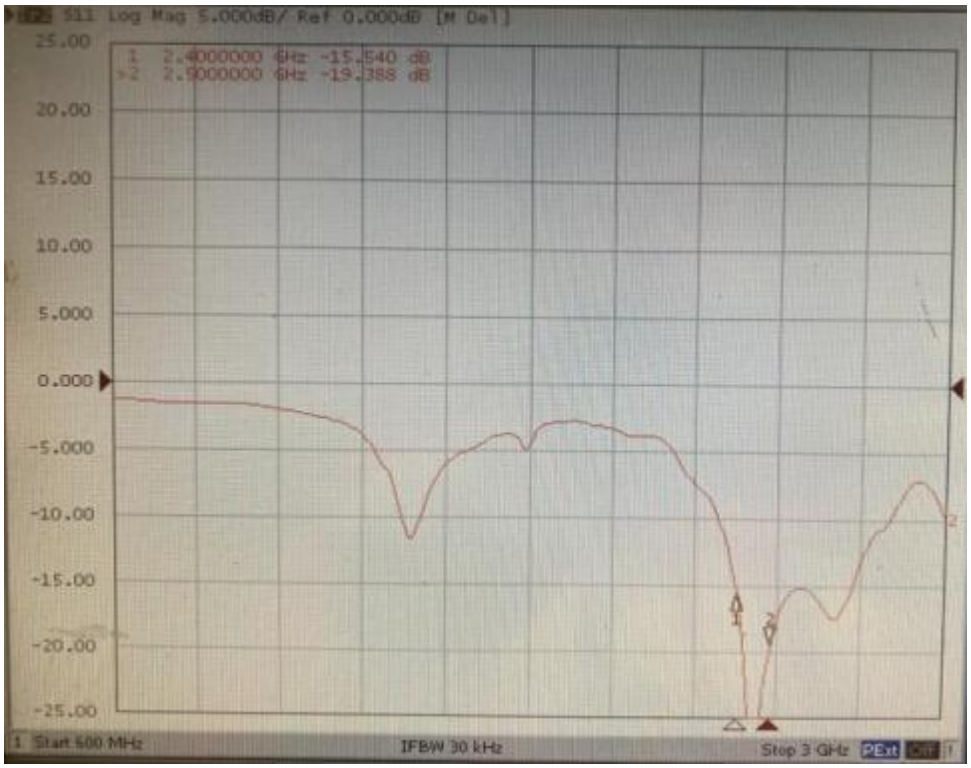
FRq (MHZ)	2400	2500
Return loss	1.4	1.24

4.2Main antenna S11:

5 ACTIVE OTA TEST DATA

Test equipment





Test system: chamber

Test environment: the temperature of 22 C + 3 C, 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	50.63	-2.96
2410	50.31	-2.98
2420	51.32	-2.90
2430	53.7	-2.70
2440	54.92	-2.60
2450	55.03	-2.59
2460	53.6	-2.71
2470	51.38	-2.89
2480	52.91	-2.76
2490	52.93	-2.76
2500	54.62	-2.63

Directional and apple map :

Band	Channel	TRP	TIS
802.11b (11Mbps)	1	16.24	
	6	17.33	
	13	16.51	-85.22
802.11g (54Mbps)	1	13.69	
	6	14.11	
	13	13.47	-72.88
802.11n (MCS7-65Mbps)	1	13.29	
	6	14.61	
	13	13.73	-72.27

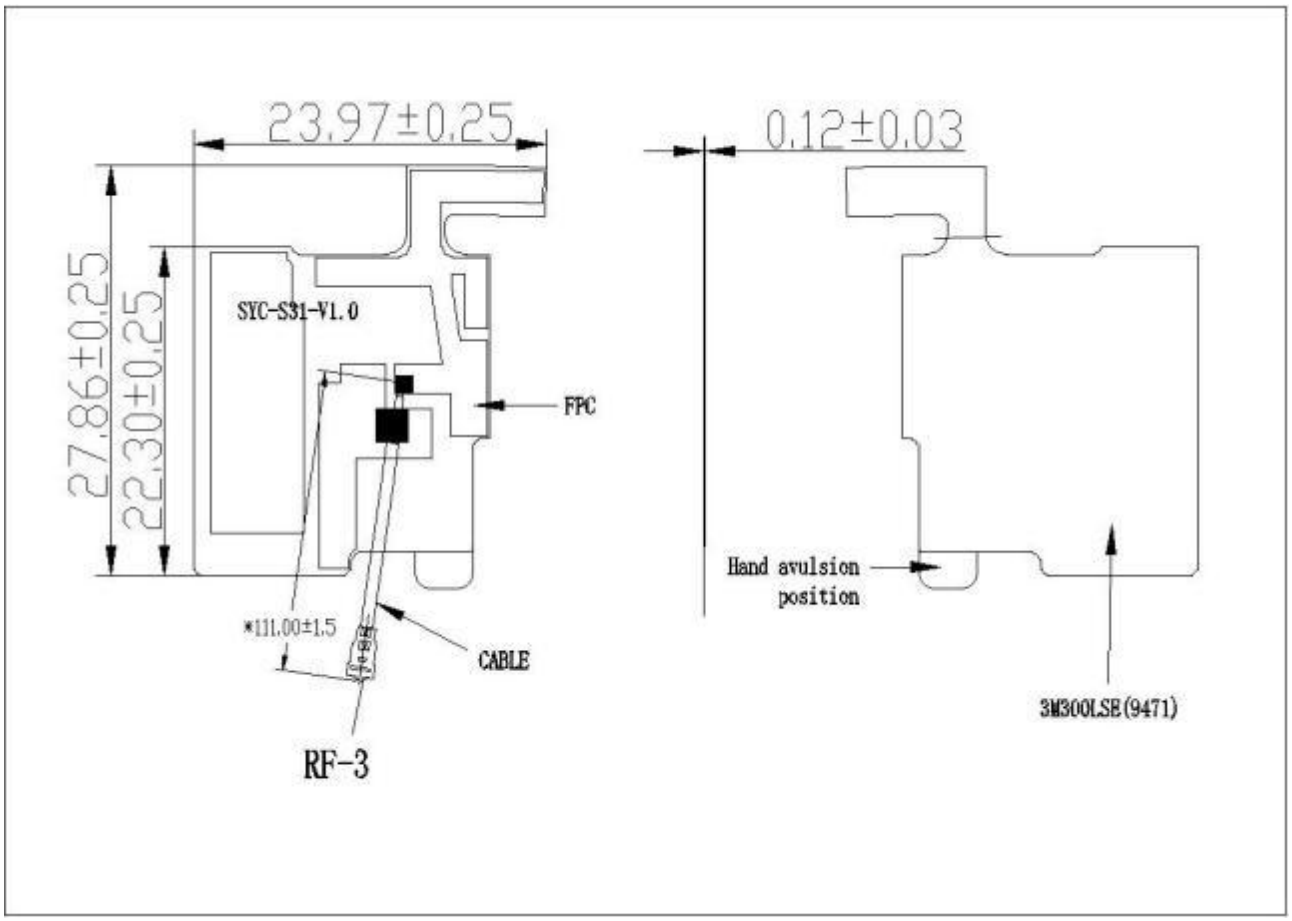
6. Ground handling

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)+0.3



8.Radiation Pattern: