

Shanghai Shangyuan Communication Technology Co., LTD

Antenna admission book

customer name : yuanding	project name : TIPRO	
Work frequency band: 2400-2500Mhz		
Hardware version :		
Shangyuan material specifications		
specifications and models	Shang Yuan material number	Customer material number
WIFI Antenna	SZ24592IB77-2	A011402.0008

Change the resume

Preparation / change date	Change the content	Change the person	edition
2024.11.27	A new release	Linlimin	A

尚远会签栏

research and development	structure :	examine and verify :	Quality engineer :	ratify :
	radio frequency :	examine and verify :		

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catalogue

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一、 item information

1.1 The prototype diagram



二、 Antenna matching circuit

Original complete machine state, with no matching change.

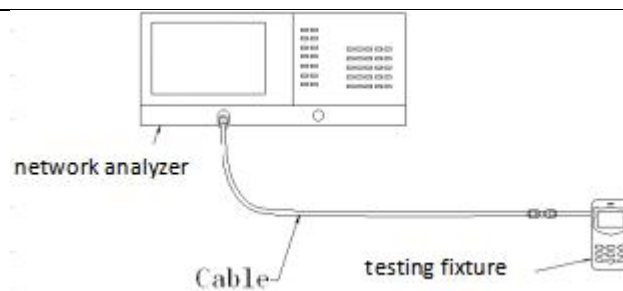
三、 Antenna S11 parameters

3.1 S11 Description of test method

Test Equipment: Network Analyzer (Agilent E5071C)

Test method: Export a 50 Ohm CABLE cable from the instrument test port, connect the SMA connector of the test device after the calibrator, and record the echo loss and standing wave ratio corresponding to the relevant frequency point.

The test schematic diagram is as follows:



Schematic diagram of the test

3.2 S11 Test parameters

WIFI antenna passive wave graph :



四、Antenna OTA test data

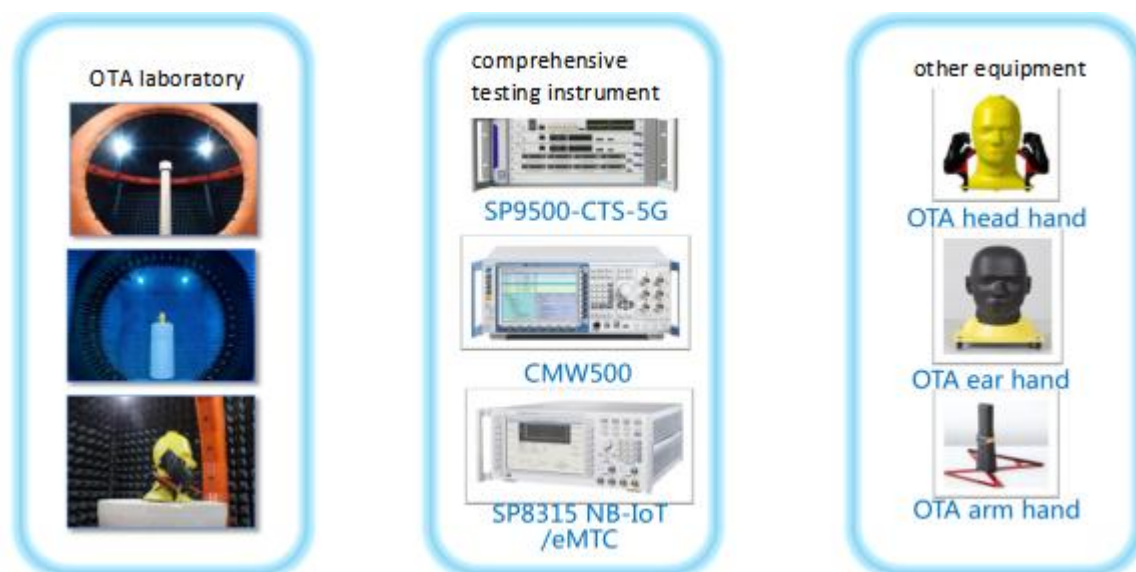
4.1 Test environment

Test System: MPS 6450 Multi-sensor OTA Measurement System (XH-IoT)

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

Test equipment: Use the network analyzer R & S ZND / Agilent E5071C when testing the passive data

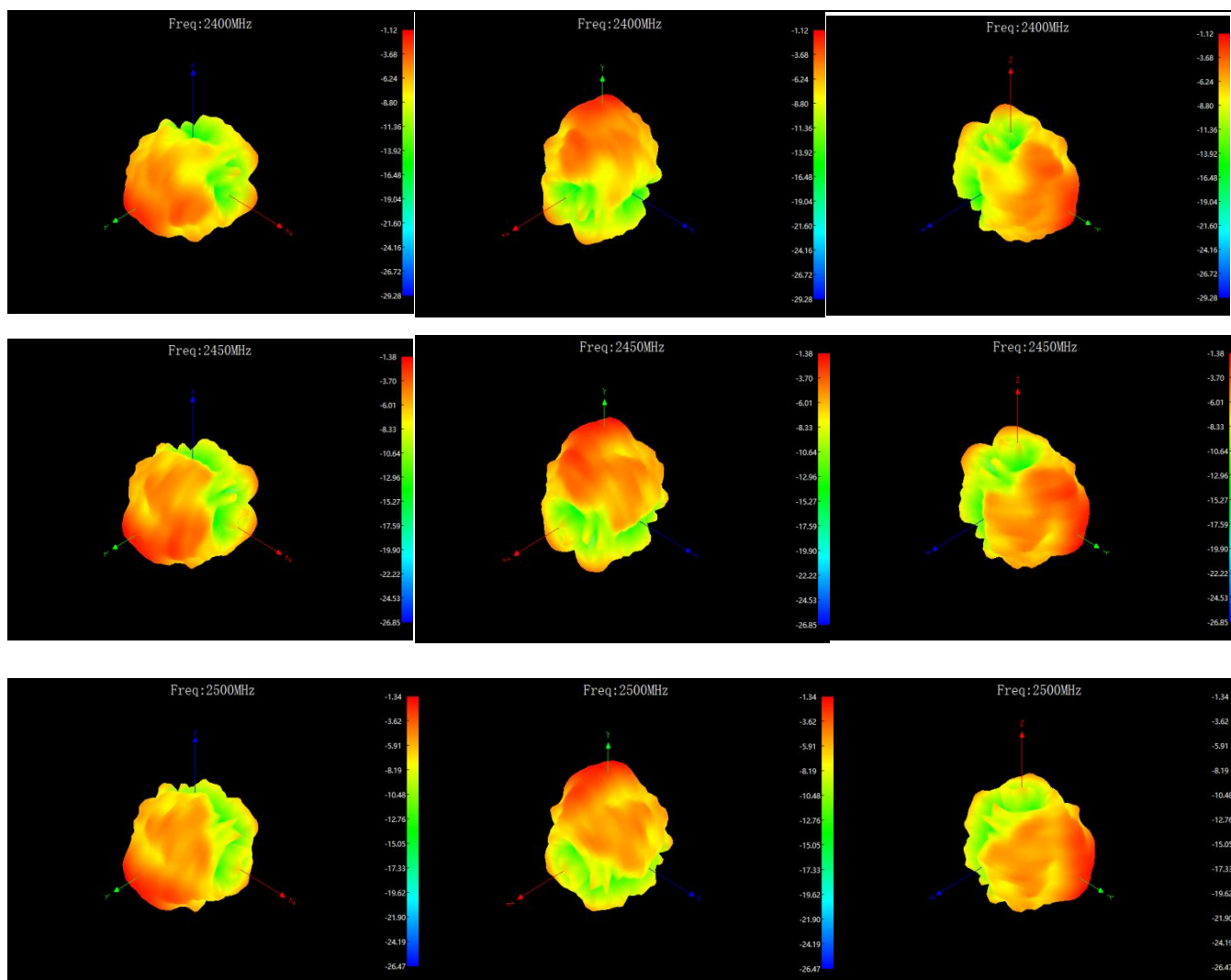
When testing active data, use the comprehensive meter Agilent 8960 / CMW500 / S P9500E / SP 8315



4.2 Antenna efficiency and gain

Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	35.24	-1.12
2410	35.24	-1.88
2420	37.33	-1.15
2430	35.32	-1.83
2440	36.39	-1.75
2450	36.81	-1.38
2460	35.08	-1.94
2470	36.48	-1.47
2480	33.5	-1.86
2490	33.81	-1.84
2500	34.12	-1.34

4.3 Antenna apple diagram



4.4 Active data

Measurement	Band	Channel	Total
TRP	WIFI_B (1M)	1	14.71
TRP	WIFI_B (1M)	6	14.3
TRP	WIFI_B (1M)	11	14
TIS(EIRP)	WIFI_B (11M)	11	-87.13
TRP	WIFI_G (6M)	1	12.34
TRP	WIFI_G (6M)	6	13.51
TRP	WIFI_G (6M)	11	13.19
TIS(EIRP)	WIFI_G (54M)	11	-74.86
TRP	WIFI_N ISM (6.5M)	1	11.87
TRP	WIFI_N ISM (6.5M)	6	12.35
TRP	WIFI_N ISM (6.5M)	11	11.96
TIS(EIRP)	WIFI_N ISM (65M)	11	-72.26

五、 *Complete machine environment treatment*

No environmental treatment.

六、 *Mass production antenna index*

When the antenna is in mass production, the standing wave ratio is used as the test standard for mass production.

Based on the differences of the project itself, the following criteria are given:

Frequency (MHz)	Mass production standards
2400-2500MHZ	VSWR (mass production performance) <VSWR (recognized performance) ± 0.5

七、 schedule drawing

