Beijing Maxfatel Technology Co.Ltd

Seal of approval

☐ **Standard sea**

☐ **Limit seal** **Time：**_____

Project name: T6 **Part Number:** _____

Name of Supplier： Beijing Maxfatel Technology

Material description： _____

Edition： _____

Supplier		
Manufacture	Check	Approved

MD	ID	HW	PM	QA

remark：

Catalogue

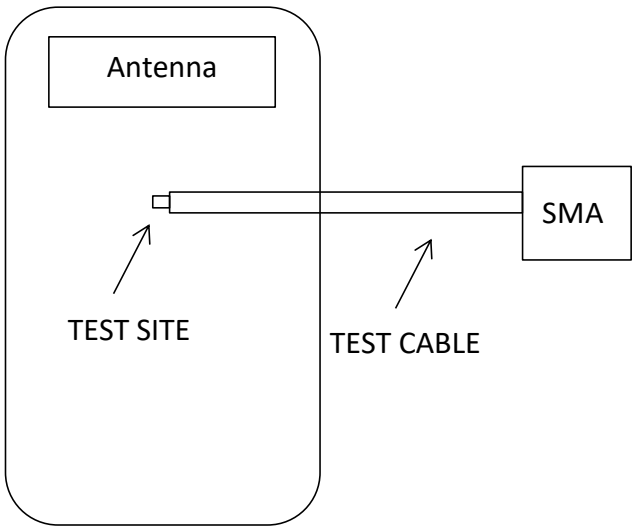
1. Antenna part number

Antenna name	Model Name	Part Number
T6-WIFI	T6-WIFI-V0.23	
T6-BT	T6-BT-V0.23	

2.Test Fixture

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

Method: With the 50 ohm coaxial cable, one end is connected to the test point of the matching circuit back end of the motherboard to be tested (RF test hole front end), and the other end is connected to the SMA connector. The diagram is as follows：



3. Matching circuit

The antennas default to existing on-board matching circuits.

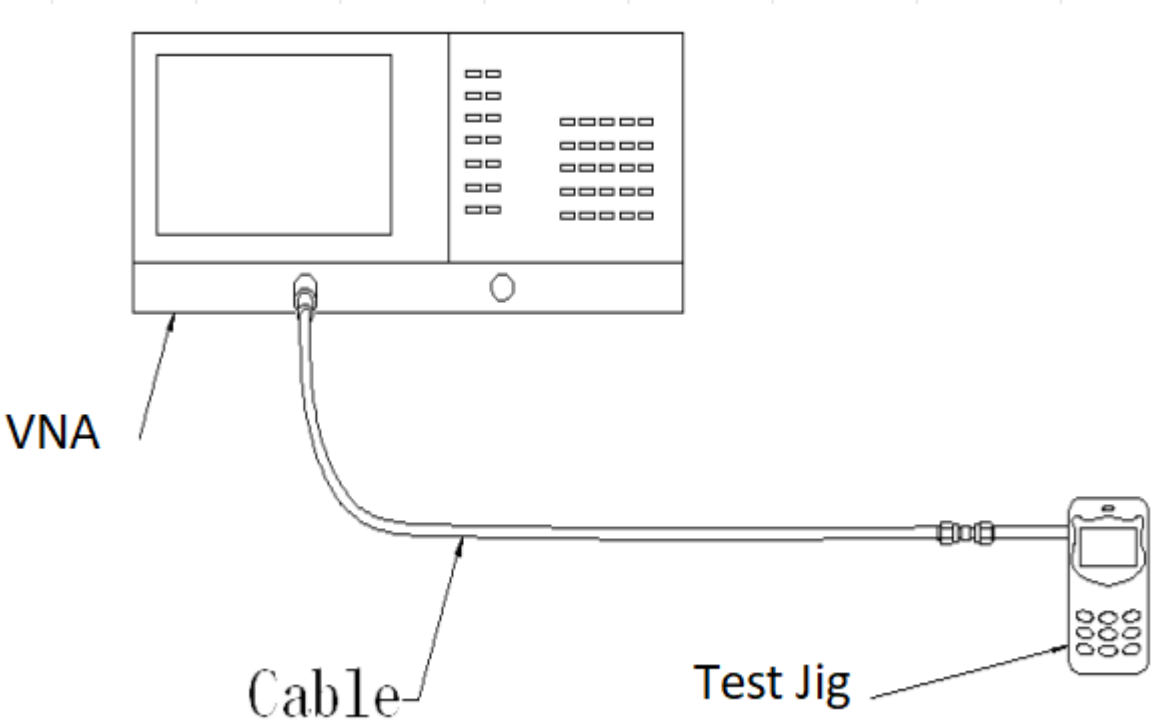
4.S11 test

4. 1 Test method description of S11

Test Equipment: Network Analyzer (HP 5071E)

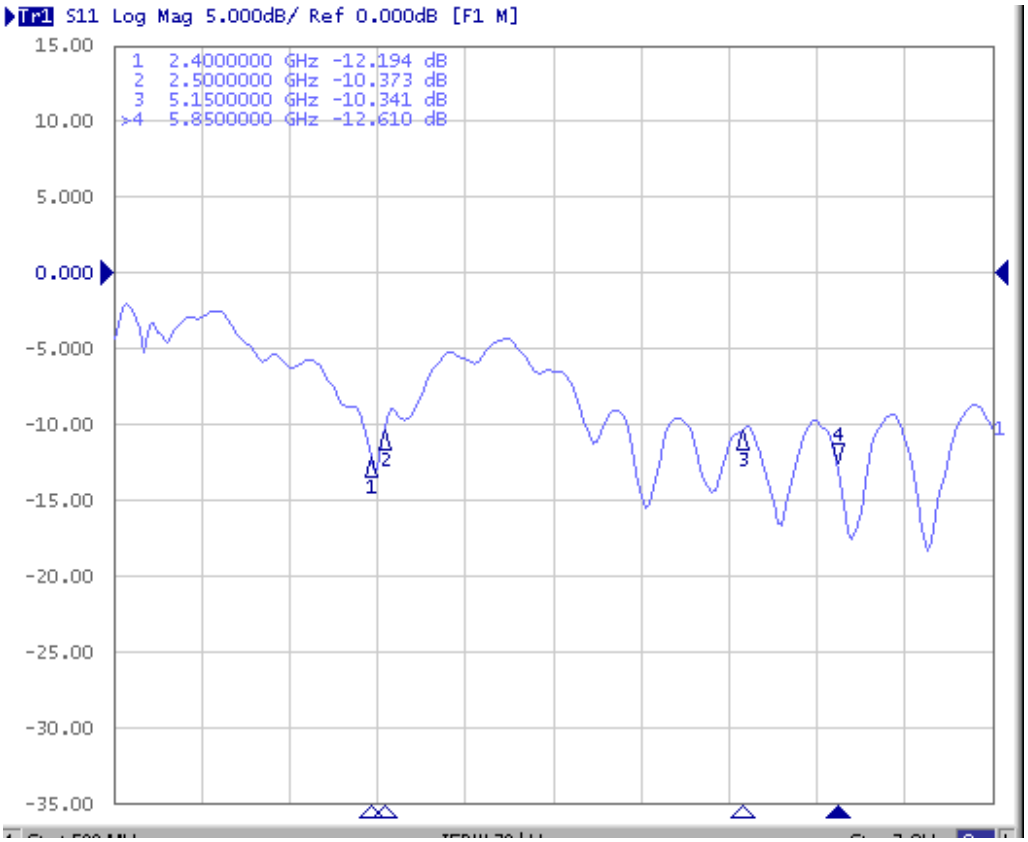
Test method: A 50 ohm CABLE is exported from the instrument test port, and the SMA connector of the test device is connected after calibration with the calibration piece. The return loss and standing wave ratio corresponding to the relevant frequency points are recorded.

The test diagram is as follows:

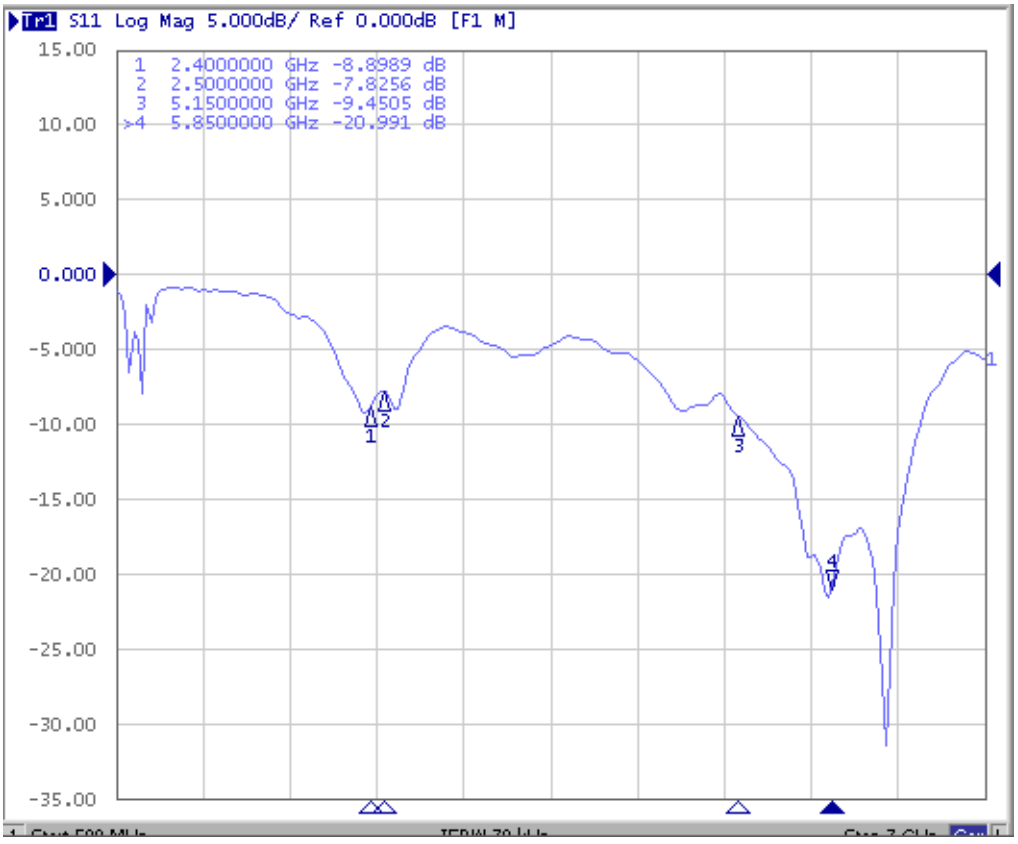


4.2 Return Loss

WIFI



BT



5. Data Of OTA

5.1 Test Equipment

Test system: microwave chamber

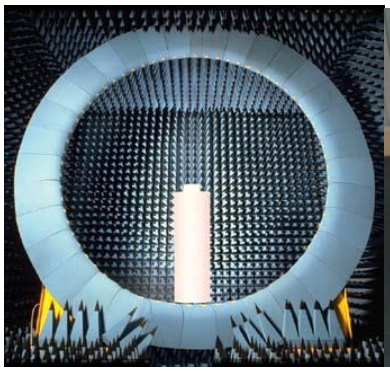
Test environment: Temperature 22℃±3℃, humidity 50%±15%

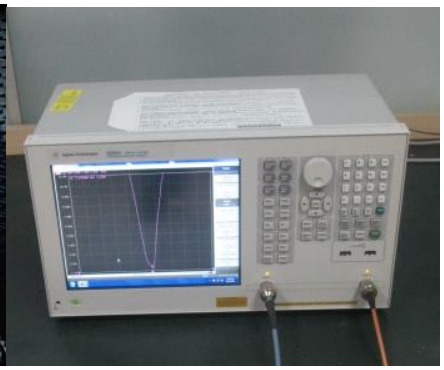
Test equipment: Agilent E5071C is used for passive data testing and Amway 8820C instrument is used for OTA testing.

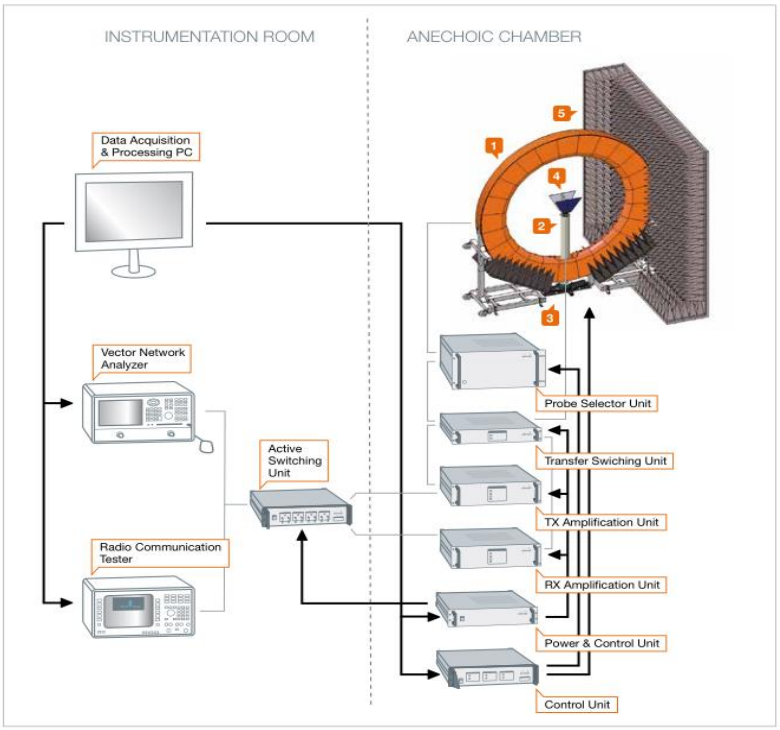
test equipment

SATIMO SG24

- Antenna Measurement
- OTA Testing
- CTIA Certifiable Measurement
- Linear Array Antenna Measurement







Note: The experimental equipment used for testing is owned by the company, not the third-party certification laboratory, and the test data is for reference only.

5.2 Passive test data

WIFI：

WIFI ANT			
Freq (MHz)	Eff (dB)	Gain (dBi)	Eff (%)
2400	-3.86	2.55	41.11
2410	-3.87	2.67	41.01
2420	-4.08	2.42	39.05
2430	-4.05	2.43	39.36
2440	-3.97	2.47	40.06
2450	-3.93	2.57	40.48
2460	-3.99	2.34	39.92
2470	-4.08	2.18	39.06
2480	-4.17	2.06	38.32
2490	-4.24	2	37.68
2500	-4.26	1.79	37.46
AVG	-4.05	2.32	39.41
5150	-4.4	1.61	36.27
5200	-4.43	1.37	36.08
5250	-4.27	1.28	37.39
5300	-4.47	0.97	35.69
5350	-4.52	0.93	35.33
5400	-4.14	1.46	38.54
5450	-4.21	1.56	37.97
5500	-4.24	1.86	37.69
5550	-4.24	1.88	37.7
5600	-4.34	1.48	36.83
5650	-4.38	1.25	36.47
5700	-4.54	1.03	35.12
5750	-4.38	0.95	36.44
5800	-4.46	0.65	35.77
5850	-4.42	0.56	36.14
AVG	-4.36	1.26	36.63

BT：

BT ANT			
Freq (MHz)	Eff (dB)	Gain (dBi)	Eff (%)
2400	-3.89	2.82	40.82
2410	-3.89	2.96	40.82
2420	-4.06	2.78	39.23
2430	-3.97	2.93	40.13
2440	-3.93	3	40.47
2450	-3.93	3.07	40.45
2460	-3.97	2.68	40.06
2470	-4.11	2.85	38.8
2480	-4.17	2.82	38.31
2490	-4.28	2.75	37.33
2500	-4.34	2.63	36.77
AVG	-4.05	2.84	39.38

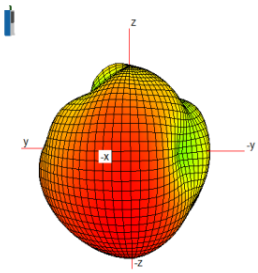
5.3 Peak antenna gain

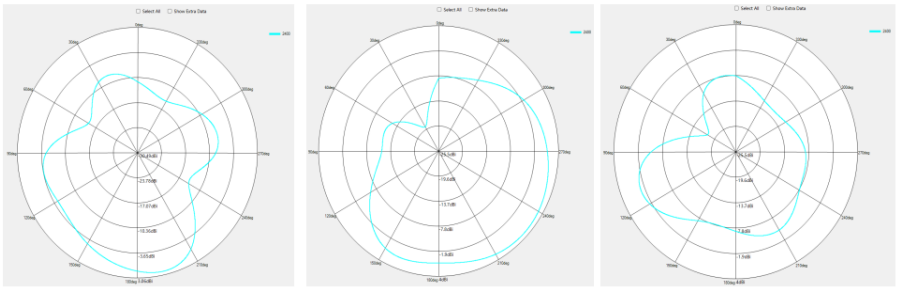
	2.4GHZ	5GHz
WIF	2.67dBi	1.88dBi
BT	3.07dBi	

5.4 Antenna pattern

BT ANT Pattern：

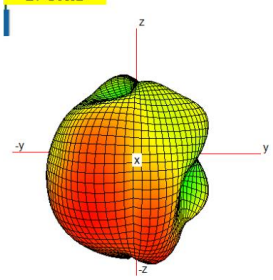
2. 4GHZ

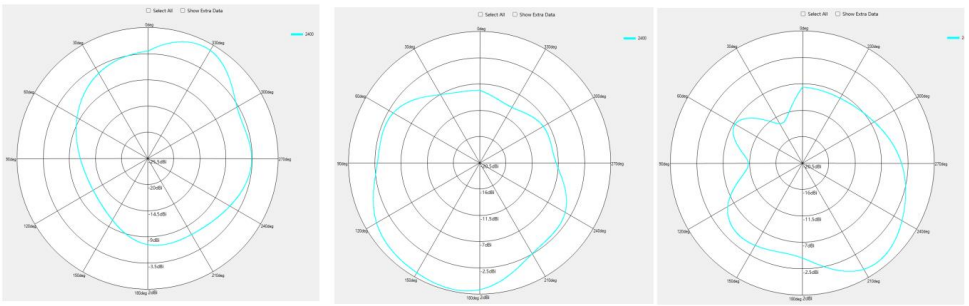




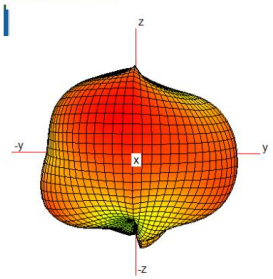
WIFI ANT Pattern：

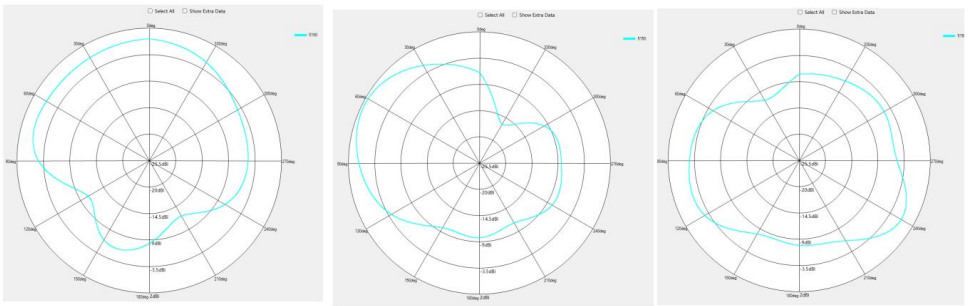
2. 4GHz



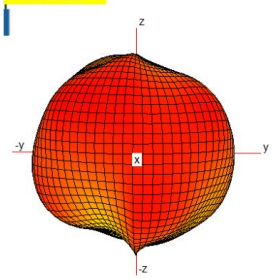


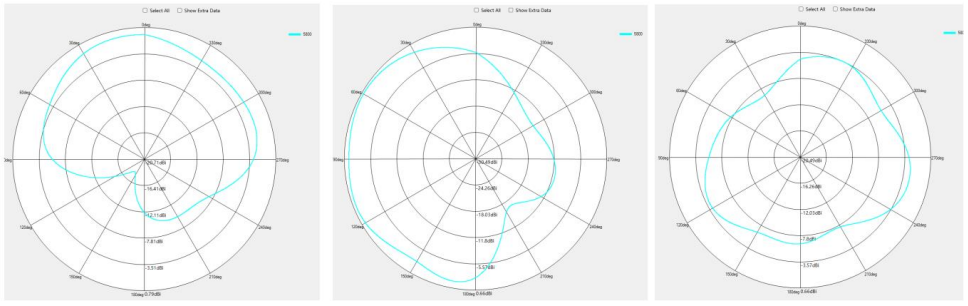
5. 1GHz





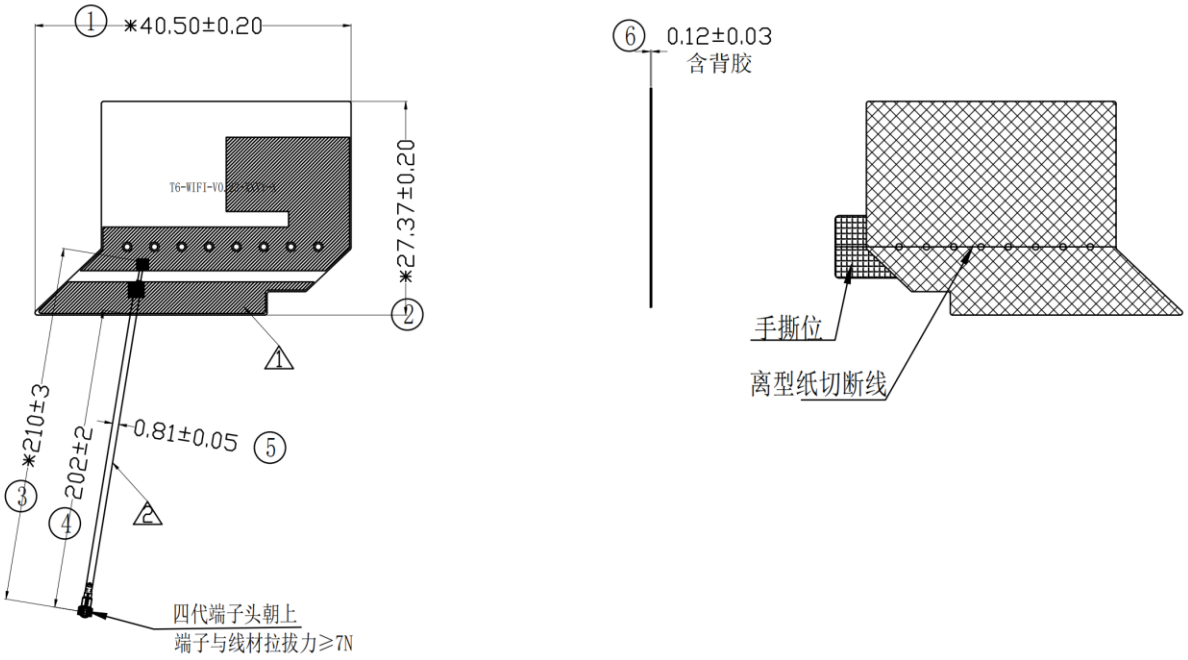
5. 8GHz





6. Antenna picture

T6- WIFI：



T6- BT：