

Antenna Testing Report

Customer : Shenzhen sangge'er Polytron Technologies Inc

Project Name : ML1

Antenna Manufacturer: Sunnyway Technology(CHINA)

Address: The 6th floor, Building 5, Nantaiyun Innovation Valley Center,
Guangming District, Shenzhen City

Report version: 2024/6/25 A0

Research staff: Xu Jun

Version	Report date	Remark
A0	2024.6.25	Antenna test report
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2.Project Overview ·····

3.Equipment List·····

4. Antenna mounting position·····

5.Passive parameters ·····

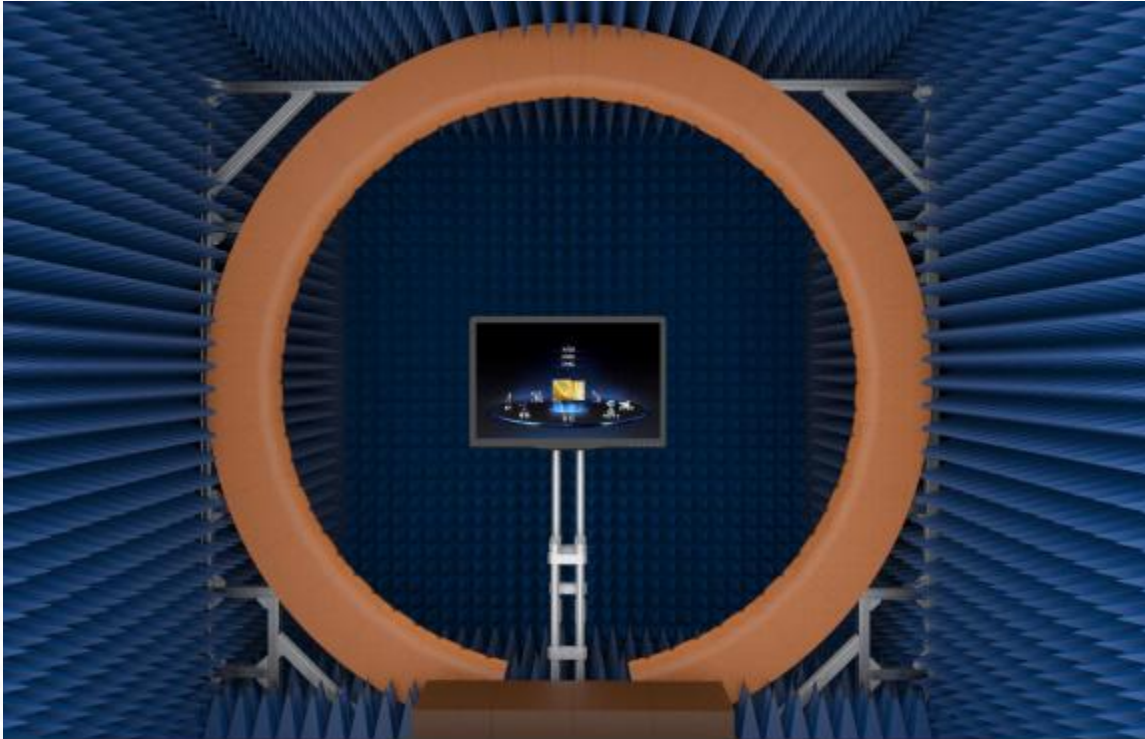
6.Passive efficiency and gain ·····

7.OTA test data ·····

8.Directiona pattern ·····

9.Summary·····

Prototype status	Debugging machine	Project pictures 
Device type		
Number of antennas	2PCS	
Frequency band		
	WIFI 2.4GHz	
Structural style	Stainless steel	
Environment adjustment	No Change made	
Matching modification	No Change made	



The industry's top 64 sensors OTA chamber

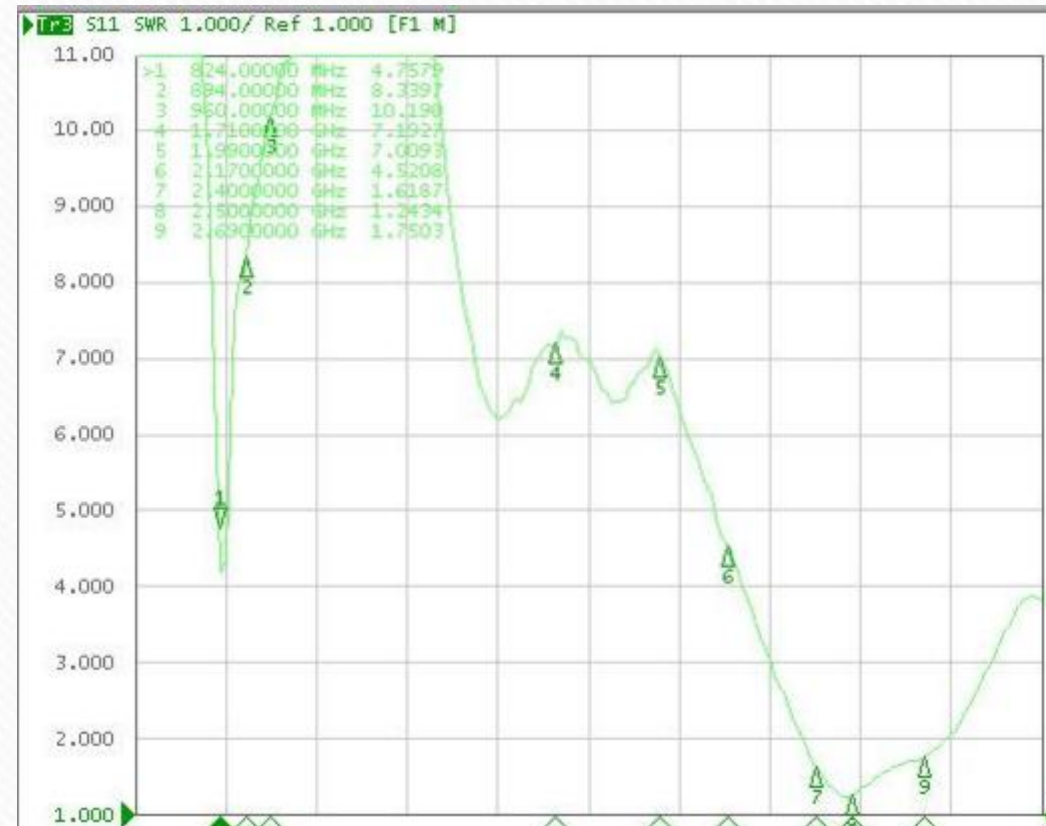
Frequency range: 400MHz-11GHz

Device Llimitation: 2M

Load-bearing limitation:100KG

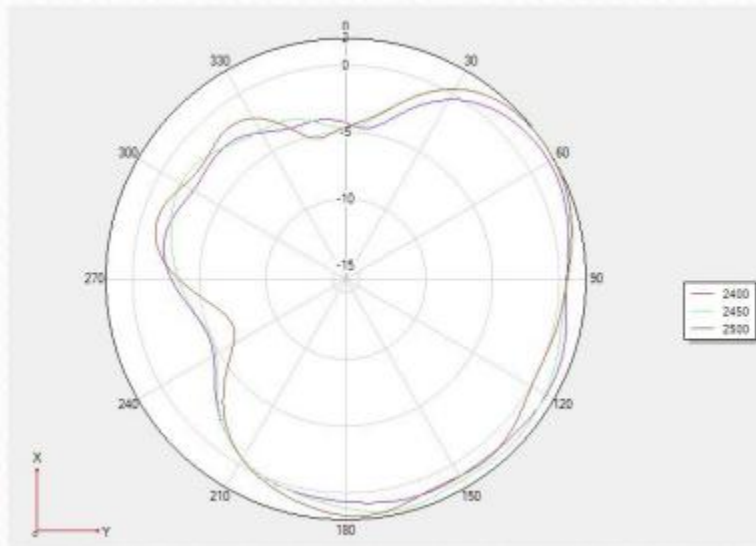
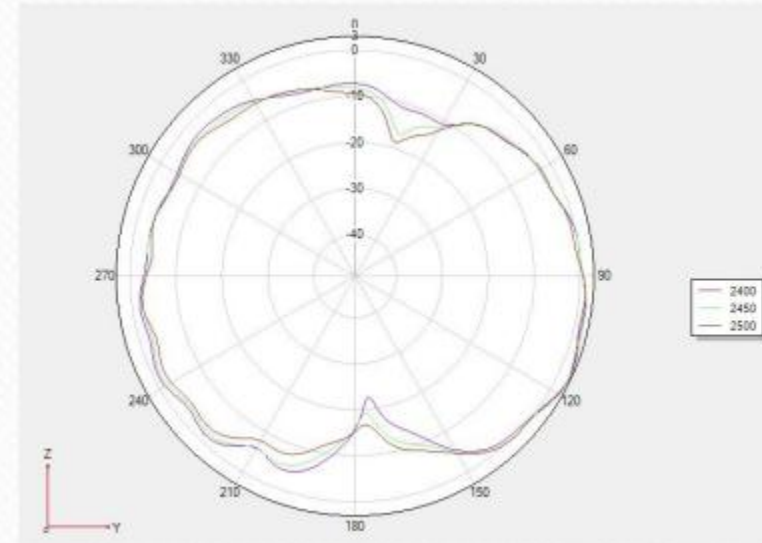
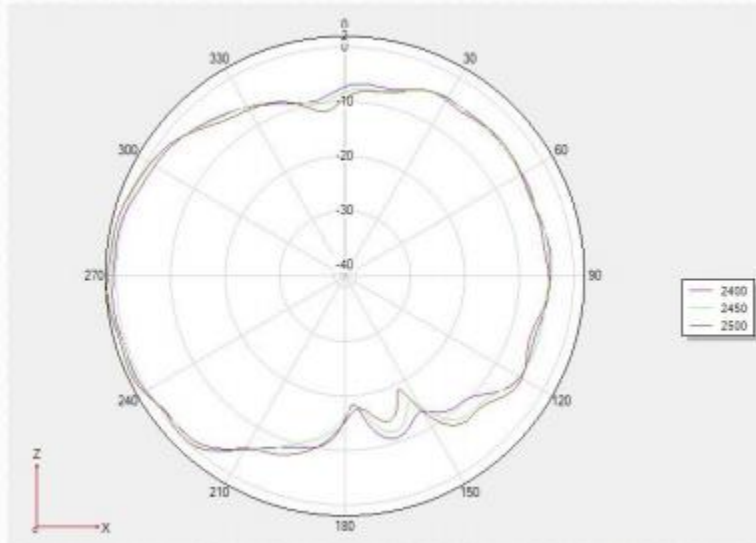
Equipments Items	Total Quantity	Quantity for Shanghai R&D	Quantity for Shenzhen R&D	Quantity for ChongQing R&D
OTA chamber	10	4	5	1
5G Tester (SP9500-CTS)	3	1	1	1
R&S Tester (high configuration CMW500)	6	3	2	1
Japan Anritsu Tester (Dual Channel 8820)	4	2	2	--
NB-IoT Tester (SP8315)	3	1	1	1
Agilent Tester (8960)	9	4	4	--
Agilent Network Analyzer (E5062A)	7	3	3	1
Agilent Network Analyzer (E5071C 8.5GHZ)	11	5	5	1
Agilent Network Analyzer (E5071B 8.5GHZ)	7	3	3	1
R & S Network Analyzer (ZND)	9	4	4	1
R & S Network Analyzer (ZVB)	3	1	1	1
OTA head hand / ear hand / arm hand	5	2	2	1
GPS/WIFI active test equipment	5	2	2	1

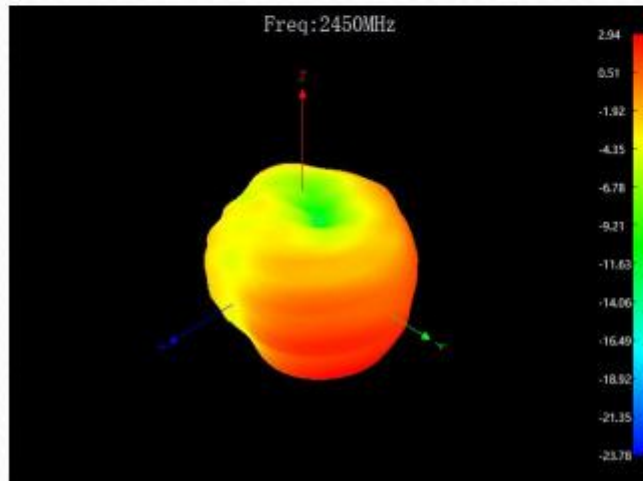
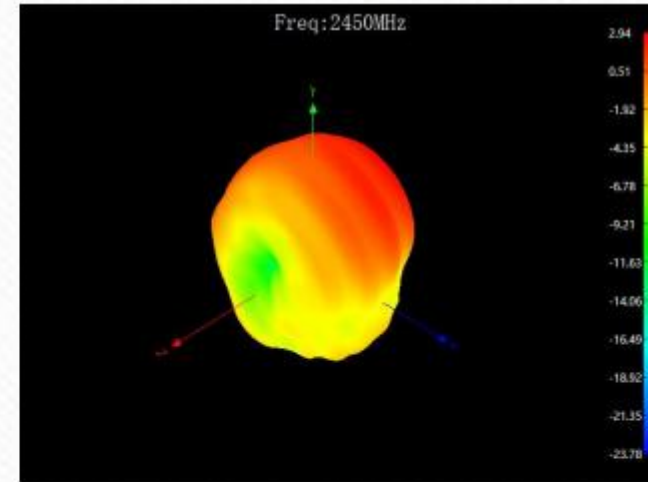
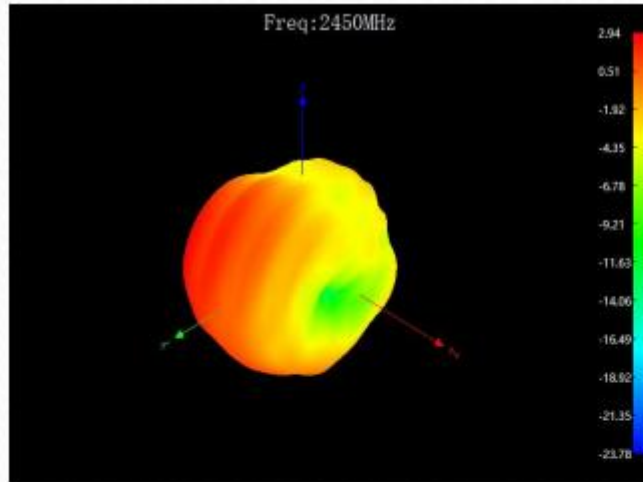
Complete machine antenna data:



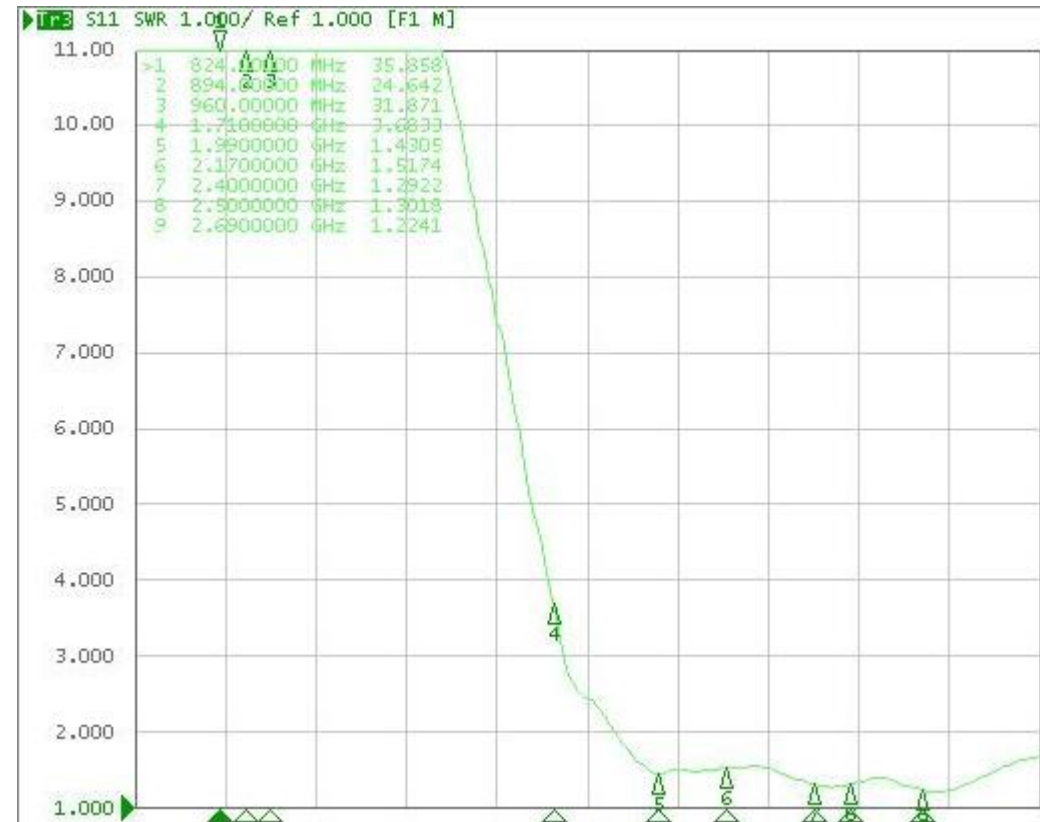
Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	63.1	2.66
2410	62.23	2.86
2420	63.97	2.72
2430	64.12	2.91
2440	64.42	2.65
2450	64.42	2.94
2460	61.94	2.61
2470	67.14	3.28
2480	66.53	3.11
2490	66.53	3.52
2500	63.1	3.12

Band	Channel	Total
WIFI_B (11M)	1	15.21
WIFI_B (11M)	6	15.87
WIFI_B (11M)	11	16.81
WIFI_B (11M)	11	-79.87
WIFI_G (54M)	1	14.84
WIFI_G (54M)	6	14.91
WIFI_G (54M)	11	15.86
WIFI_G (54M)	11	-68.64





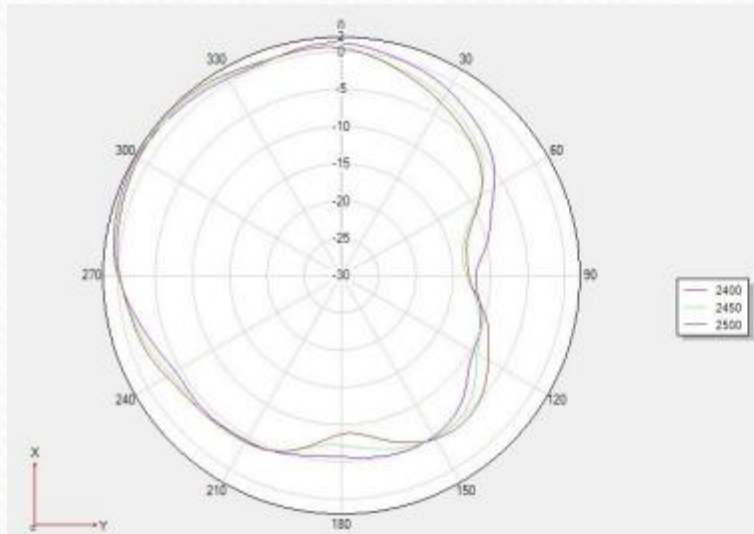
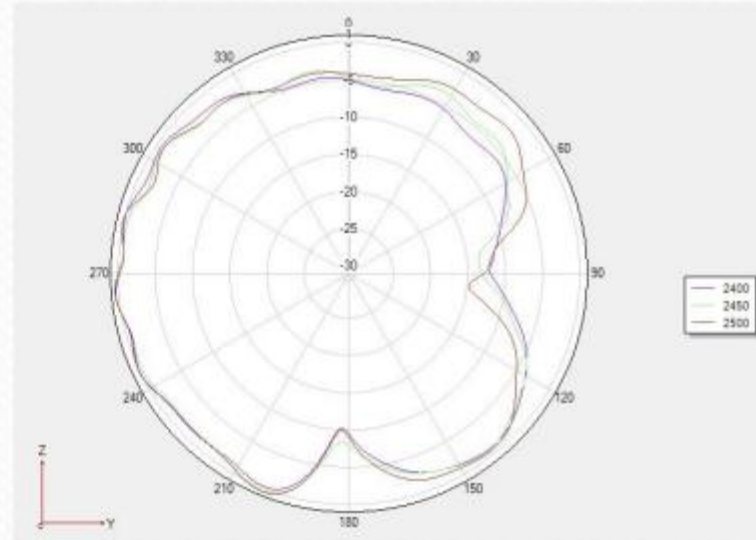
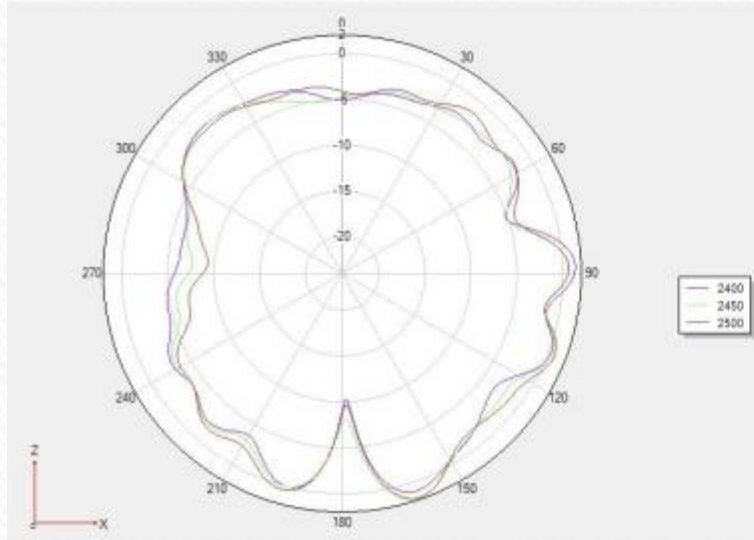
Complete machine antenna data:

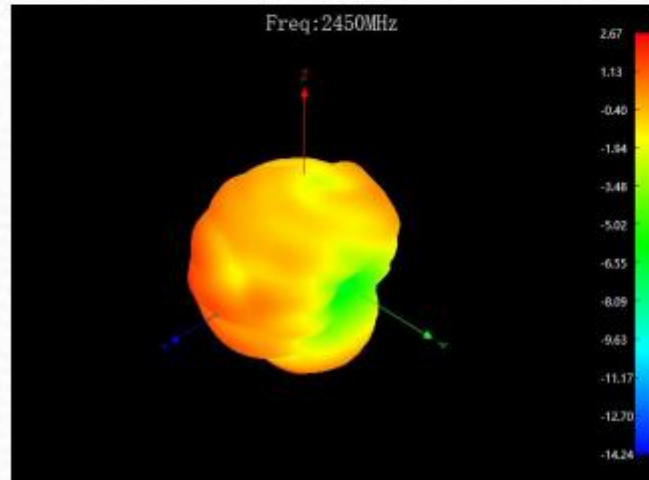
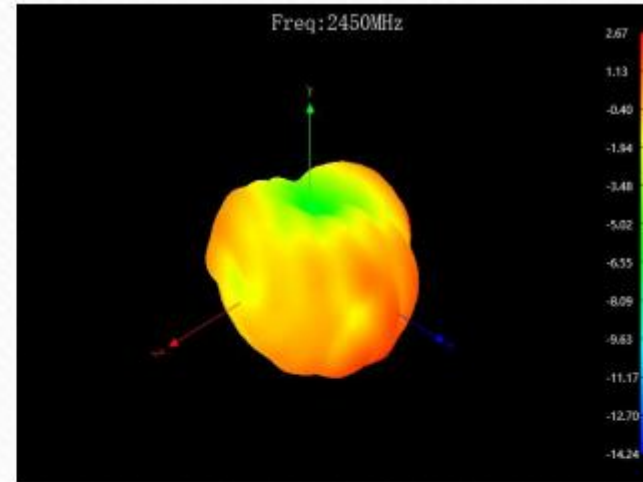
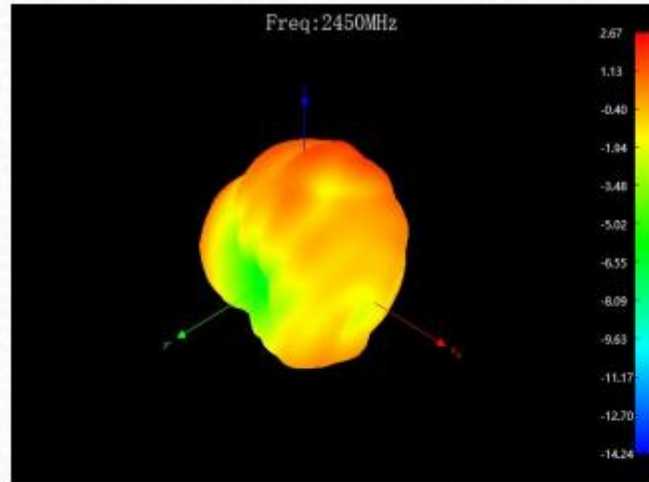


Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	58.21	2
2410	55.98	1.94
2420	57.68	2.11
2430	58.34	2.34
2440	58.75	2.46
2450	58.88	2.67
2460	57.68	2.63
2470	61.52	3.09
2480	61.38	3.08
2490	62.37	3.28
2500	61.38	3.15

Band	Channel	Total
WIFI_B (11M)	1	15.89
WIFI_B (11M)	6	16.13
WIFI_B (11M)	11	17.15
WIFI_B (11M)	11	-80.28
WIFI_G (54M)	1	15.13
WIFI_G (54M)	6	14.94
WIFI_G (54M)	11	16.01
WIFI_G (54M)	11	-68.53

Main antenna Directional pattern







WIFI天线位置

1. Latest machine test data.
2. There are changes to the match.

Thank You

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