

# **Antenna Testing Report**

**Customer : Shenzhen Apical Technology CO.Ltd.**

**Project Name : 2560**

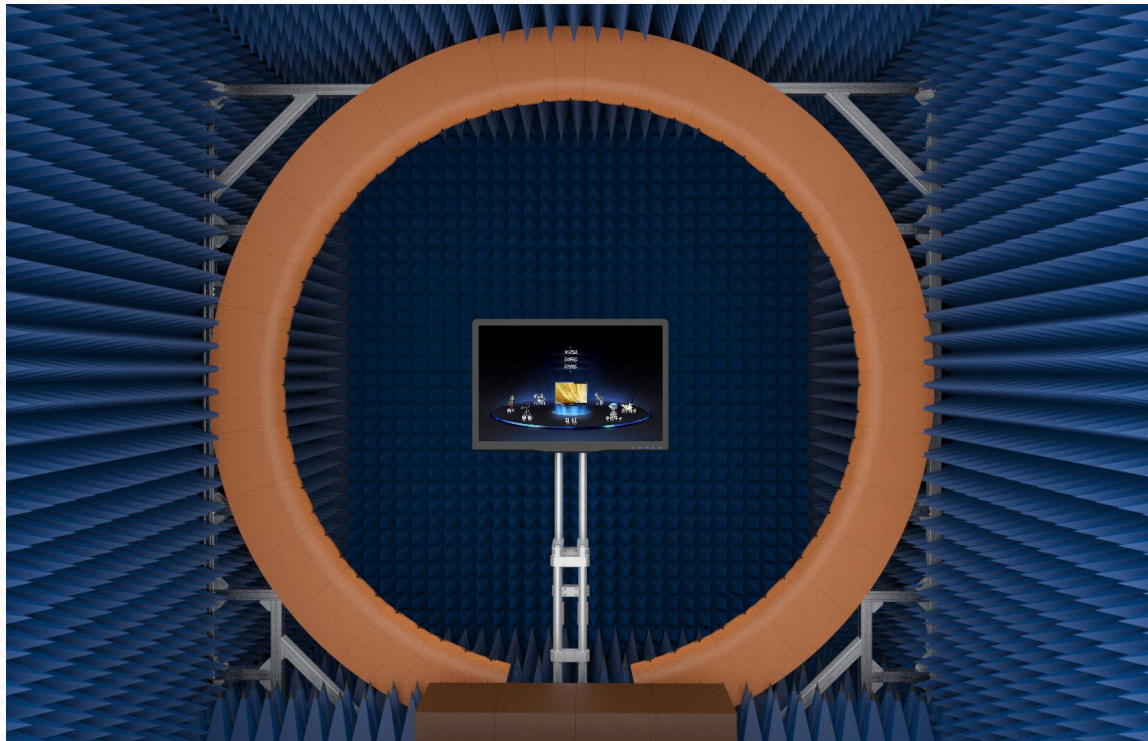
**Report version: June. 30th, 2023 A0**

**Author: Wen long sun**

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Prototype status	Debugging machine
Device type	
Number of antennas	WIFI antenna
Frequency band	2G: N/A
	3G: N/A
	4G-LTE: N/A
	5G-NR: N/A
	WIFI 802.11 a/b/g/n
Structural style	FPC+Cable
Environment adjustment	No change
Matching modification	No change



The industry's top 64 sensors OTA chamber

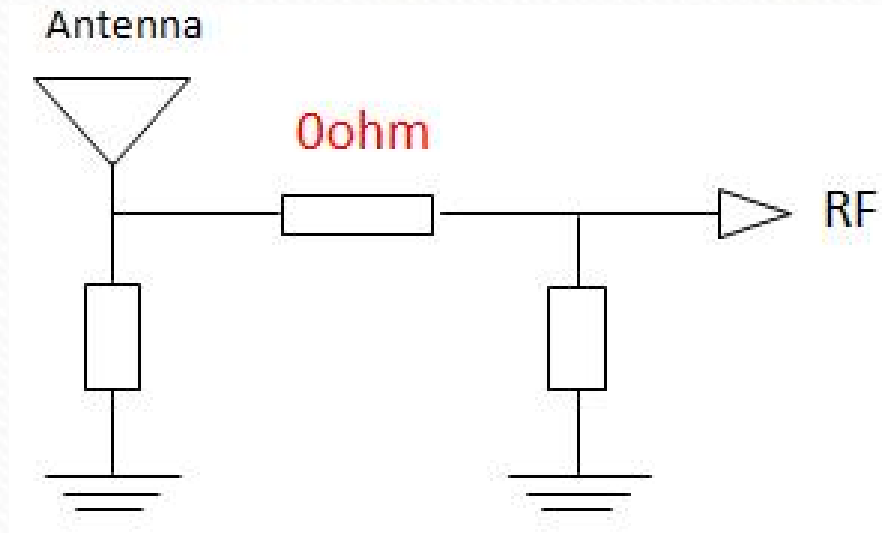
Frequency range: 400MHz-11GHz

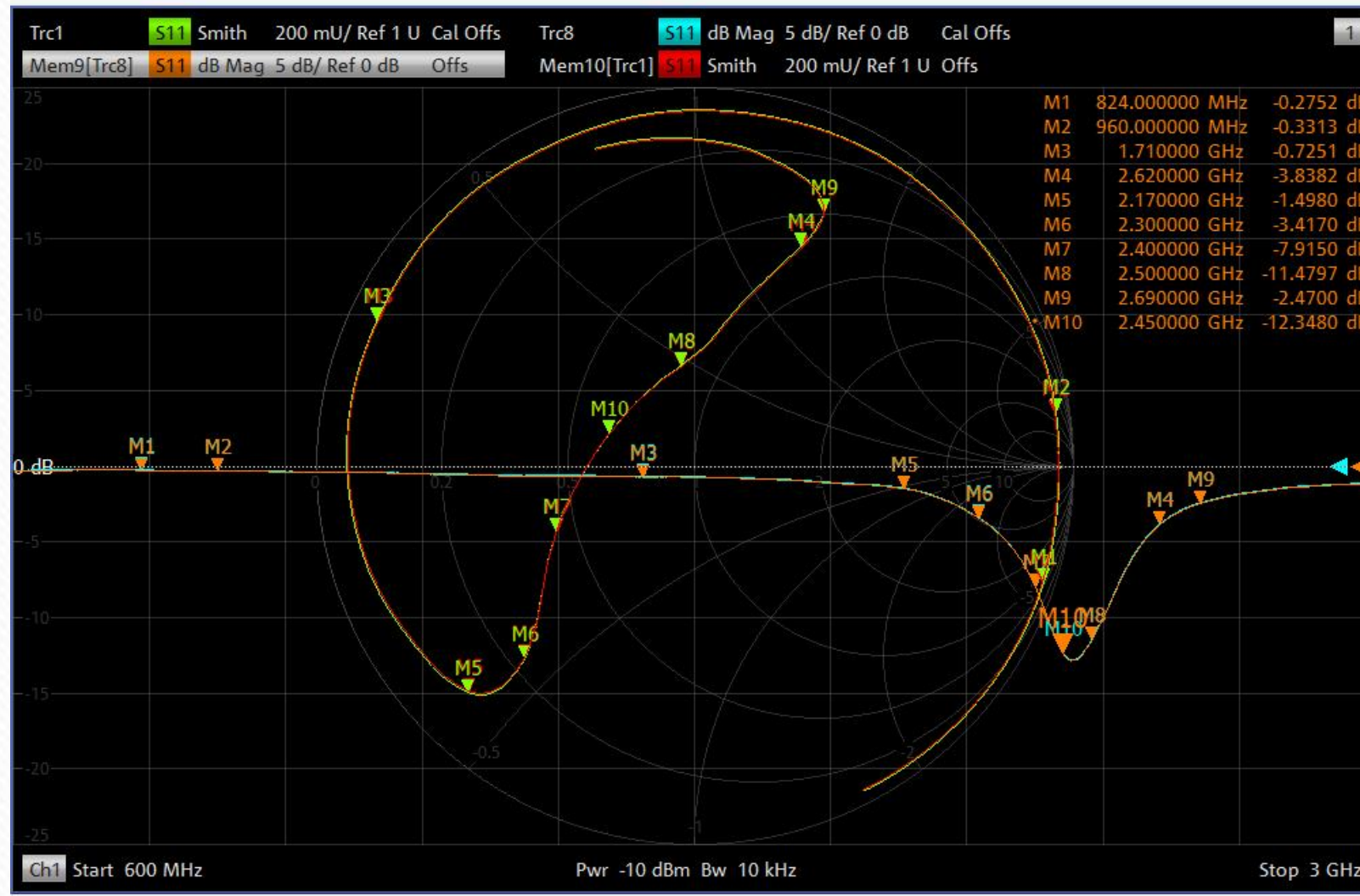
Device Llimitation: 2M

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



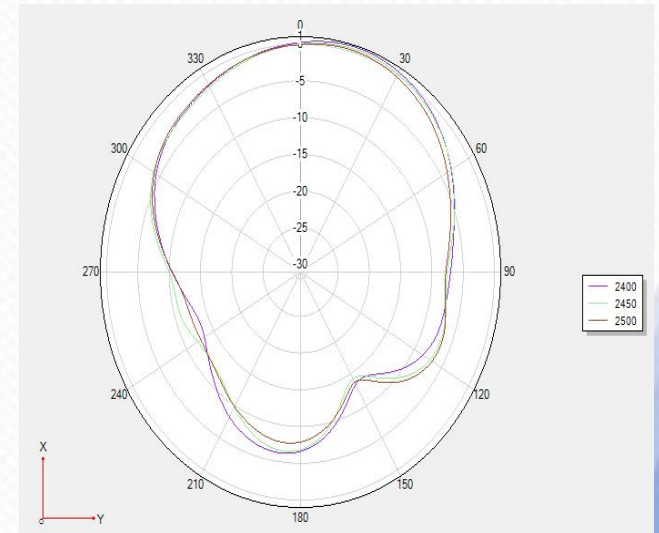
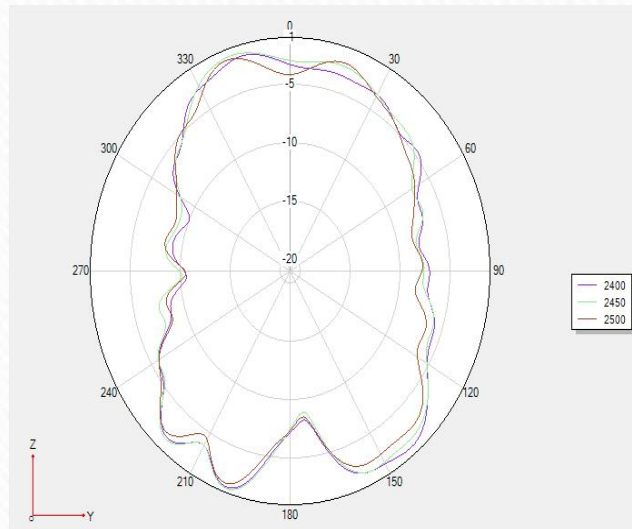
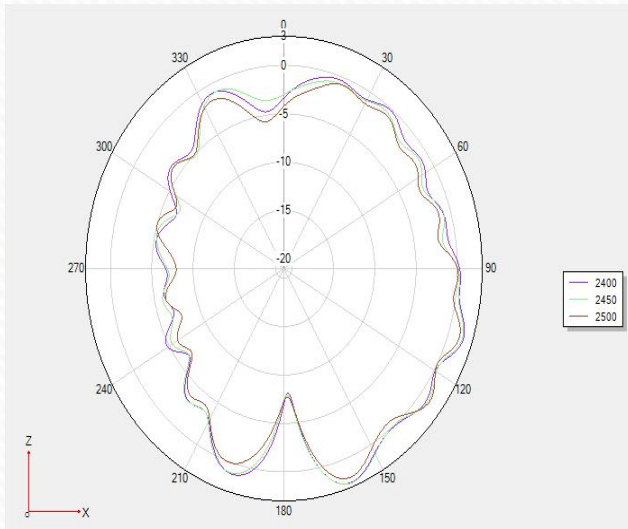




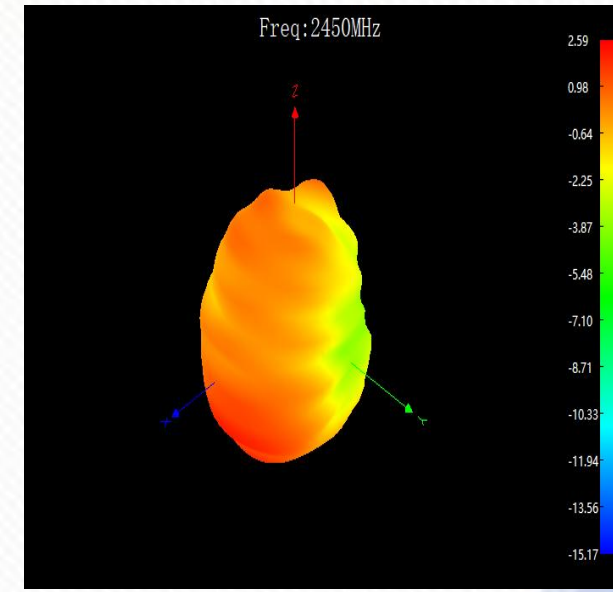
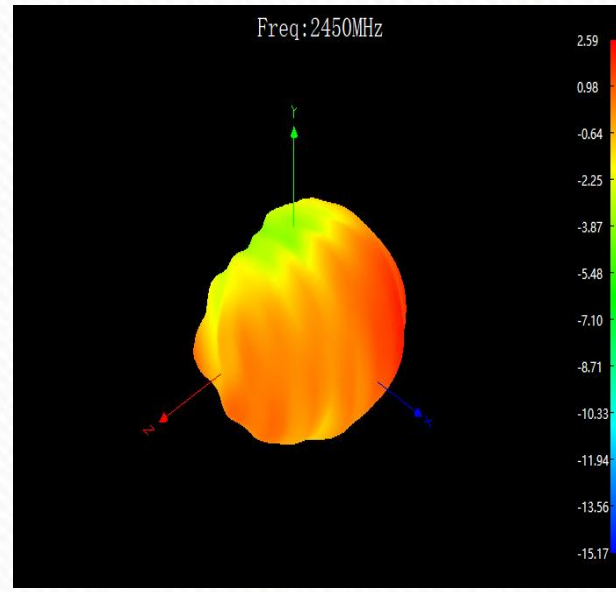
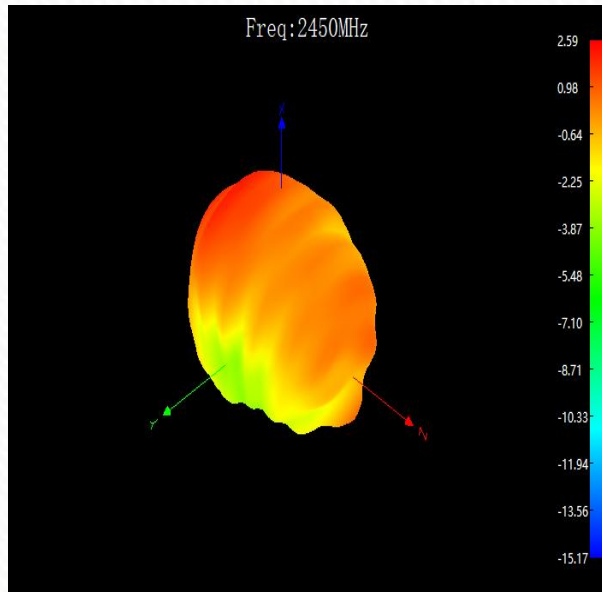


Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	2.04	45.98
2410	2.16	46.8
2420	2.47	47.88
2430	2.6	47.59
2440	2.5	48.23
2450	2.56	46.85
2460	2.11	47.49
2470	2.56	46.38
2480	2.51	44.41
2490	2.68	43.84
2500	2.58	42.54

## 2D cross-sectional view

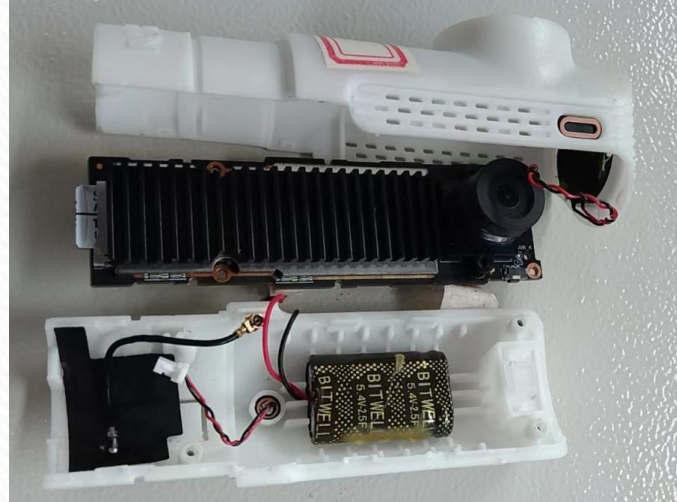


## 3D For 2450MHz



# OTA test data

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_B (11M)	1	2412	12.8
2	TRP	WIFI_B (11M)	7	2442	12.56
3	TRP	WIFI_B (11M)	13	2472	11.89
4	TIS(EIRP)	WIFI_B (11M)	13	2472	-82.06
5	TRP	WIFI_G (54M)	1	2412	13.56
6	TRP	WIFI_G (54M)	7	2442	12.22
7	TRP	WIFI_G (54M)	13	2472	11.24
8	TIS(EIRP)	WIFI_G (54M)	13	2472	-67.23
9	TRP	WIFI_N_ISM (65M)	1	2412	13.44
10	TRP	WIFI_N_ISM (65M)	7	2442	11.12
11	TRP	WIFI_N_ISM (65M)	13	2472	11.43
12	TIS(EIRP)	WIFI_N_ISM (65M)	13	2472	-62.63



**No changes have been made to the environment handling**

# Thank You

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