

Antenna Testing Report

Customer : langdao

Project Name : X60C2

Report version: Sept. 19th, 2025 A3

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Version	Report date	Remark
A0	2025.09.09	Preliminary Commissioning Report
A1	2025.09.11	Add main antenna gain data
A2	2025.09.19	Add main antenna gain data
A3	2025.10.30	Add main antenna gain data
A4		
A5		
A6		
A7		
A8		
A9		

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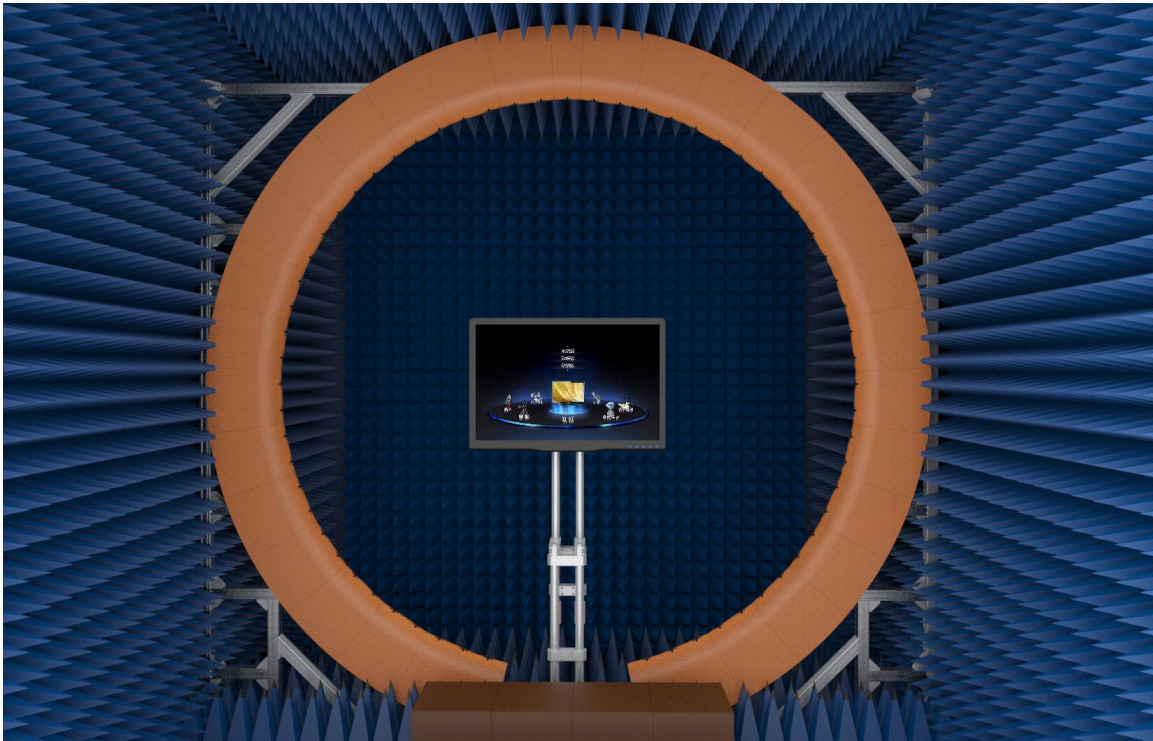
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Prototype status	Debugging machine
Device type	POS
Number of antennas	Main antenna, Diversity antenna, WiFi antenna, BT antenna
Frequency band	WIFI 2.4+5.8+6E+bt
	GSM:B2/3/5/8 3G:B1/2/4/5/6/8/19
	4G:B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66/34/38/39/40/41
Structural style	FPC+cable
Environment adjustment	No change
Matching modification	No change



The industry's top 64 sensors OTA chamber

Frequency range: 400MHz-11GHz

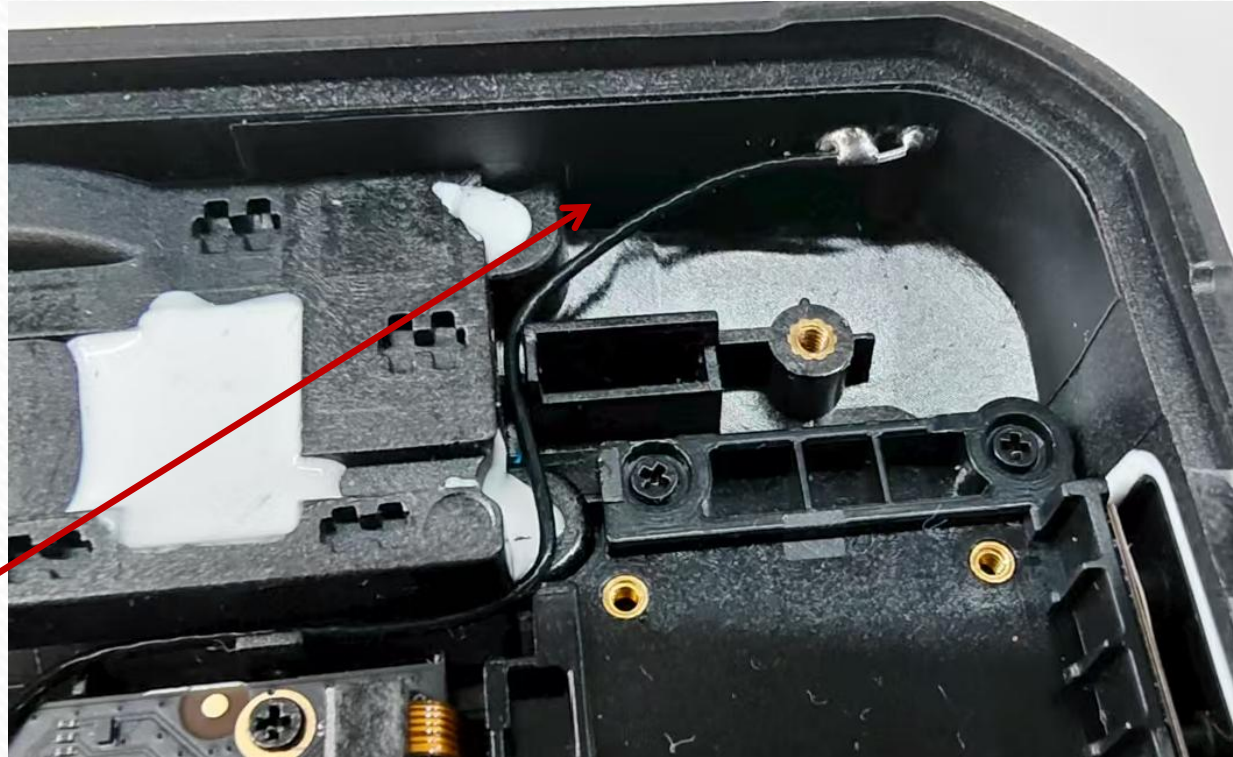
Device Llimitation: 2M

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



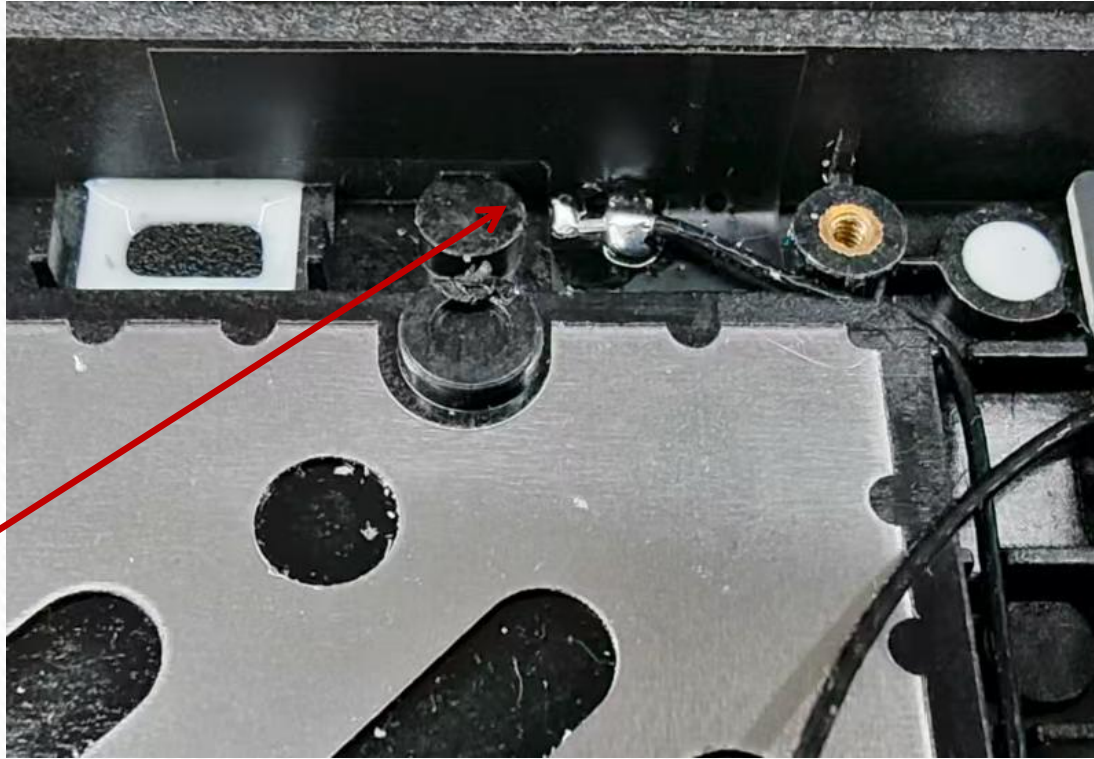
WiFi0 Antenna



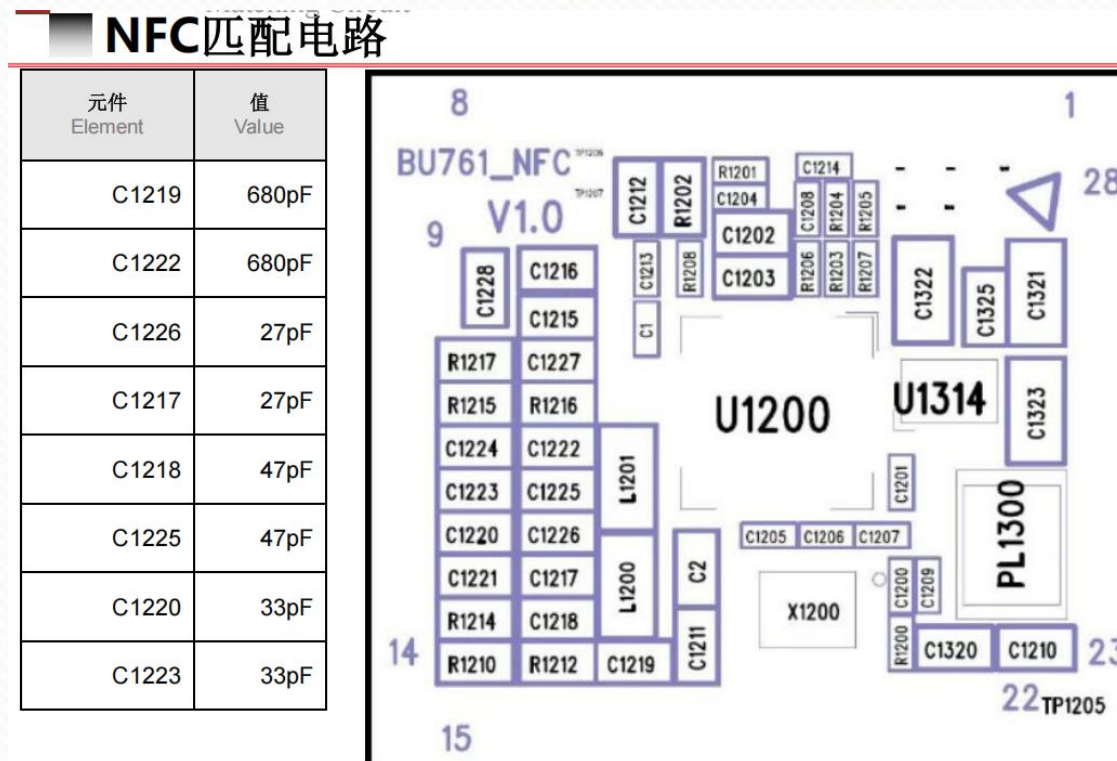
WiFi1 Antenna



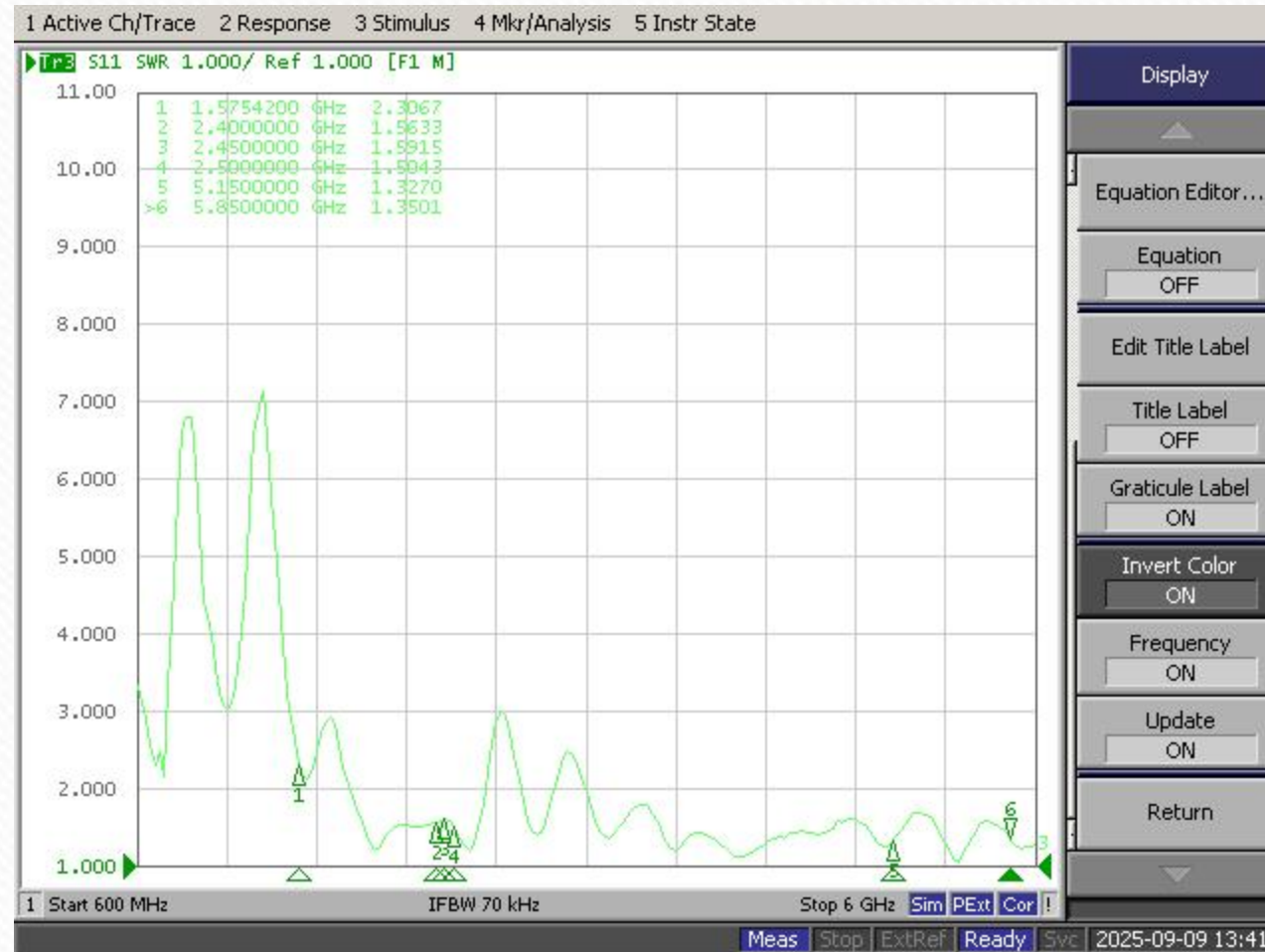
BT Antenna



NFC Antenna



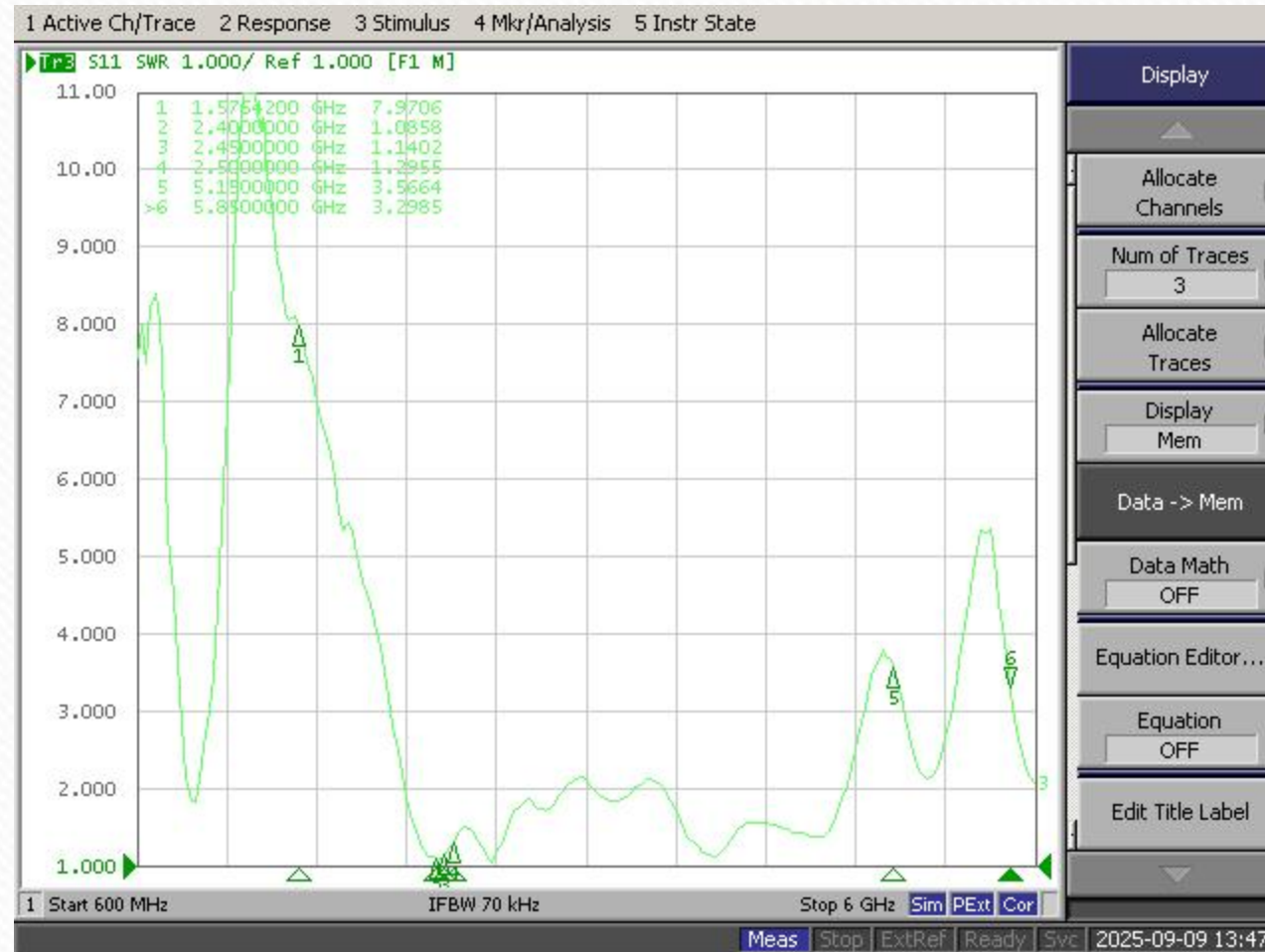
wifi0 Antenna



wifi1 Antenna



BT Antenna



WiFi0 Antenna Passive efficiency and Gain

Freq	Effi	Gain
(MHz)	(%)	(dB)
2400	57.94	2.28
2410	57.15	2.43
2420	49.43	1.47
2430	48.64	1.74
2440	50.7	1.84
2450	55.98	2.82
2460	55.72	2.72
2470	54.58	3
2480	56.49	2.9
2490	56.23	3.39
2500	56.89	3.24

Freq	Effi	Gain
(MHz)	(%)	(dB)
5150	47.64	5
5200	46.56	4.89
5250	46.45	4.81
5300	44.87	4.52
5350	44.16	4.35
5400	43.95	4.4
5450	45.39	4.54
5500	45.5	4.64
5550	46.13	4.56
5600	46.56	4.86
5650	47.53	4.67
5700	46.67	4.78
5750	45.92	4.95
5800	46.88	4.91
5850	45.39	4.52

WiFi1 Antenna Passive efficiency and Gain

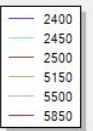
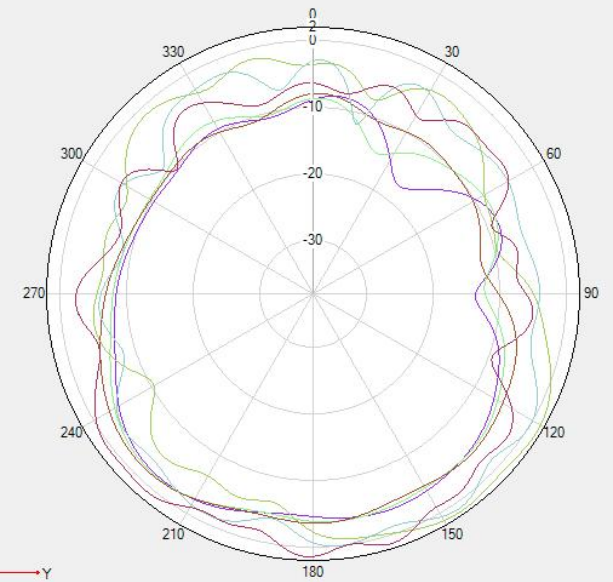
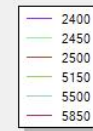
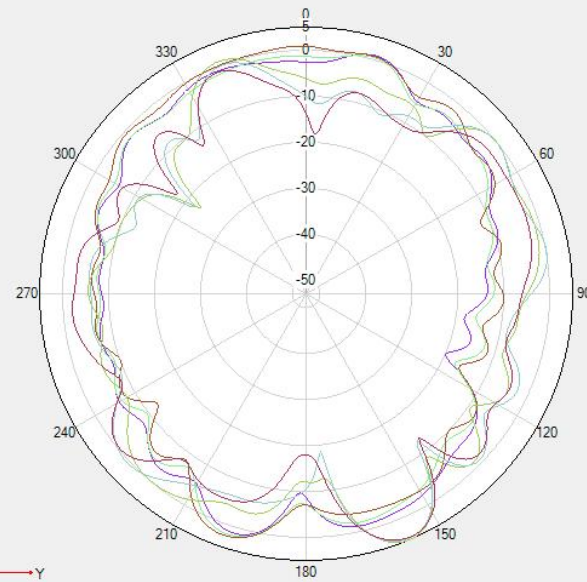
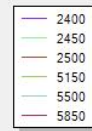
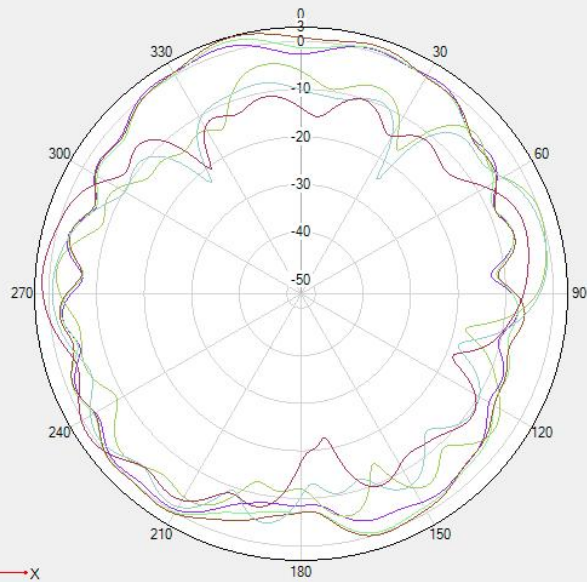
Freq	Effi	Gain
(MHz)	(%)	(dB)
2400	26.75	-3.57
2410	28.07	-3.22
2420	26.33	-3.99
2430	25.28	-3.84
2440	27.62	-3.63
2450	30.18	-2.62
2460	29.23	-3.14
2470	30.23	-2.51
2480	32.03	-2.38
2490	30.65	-2.21
2500	32.8	-1.98

Freq	Effi	Gain
(MHz)	(%)	(dB)
5150	35.97	1.37
5200	38.37	1.59
5250	41.21	1.88
5300	42.36	2.24
5350	45.6	3.15
5400	46.56	3.44
5450	46.77	3.49
5500	49.43	3.67
5550	47.32	3.31
5600	49.09	3.41
5650	48.64	3.14
5700	47.75	2.7
5750	47.64	2.63
5800	47.42	2.65
5850	45.92	2.84

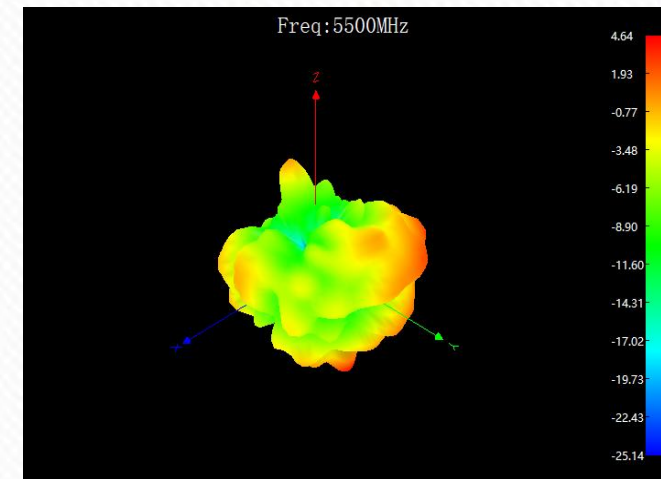
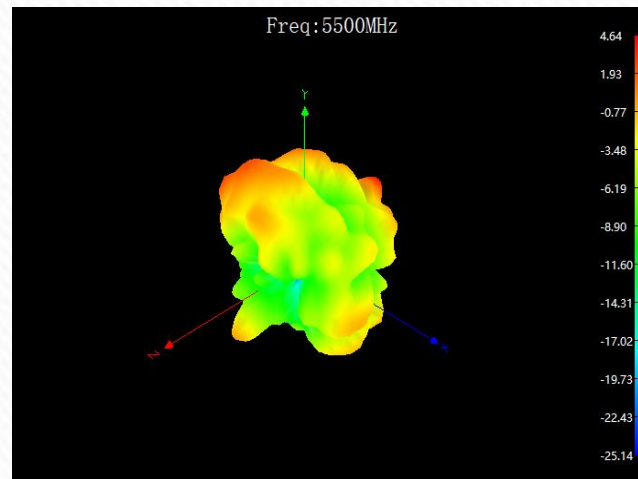
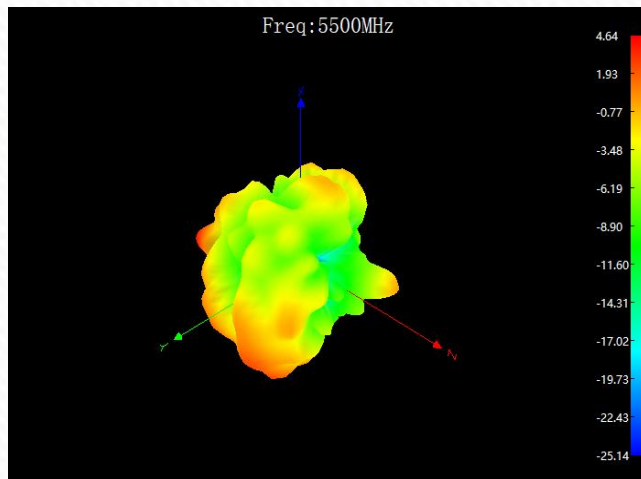
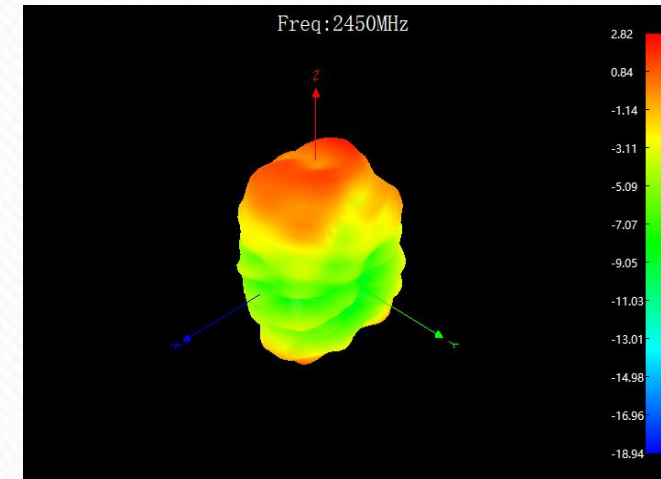
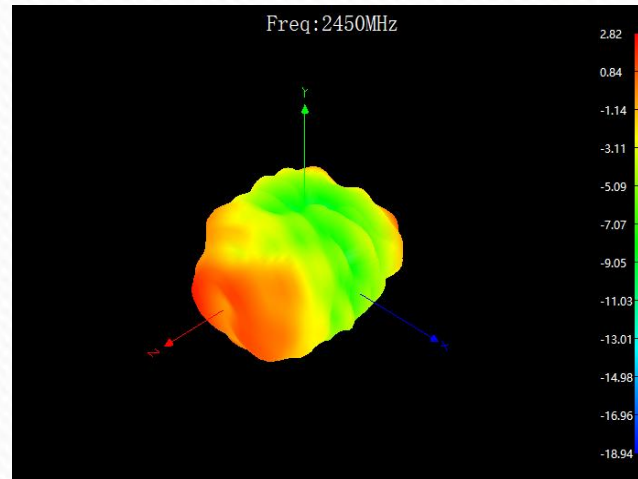
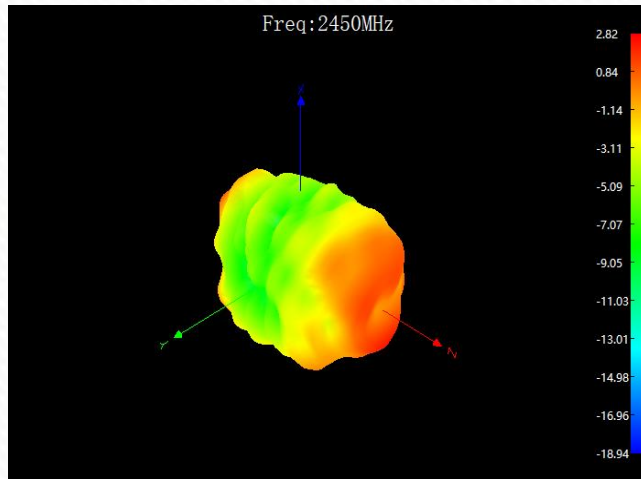
BT Antenna Passive efficiency and Gain

Freq	Effi	Gain
(MHz)	(%)	(dB)
2400	24.58	-0.29
2410	25.24	-0.18
2420	29.05	0.3
2430	24.63	0.64
2440	28.19	0.93
2450	27.54	1.62
2460	31.7	1.85
2470	31.73	1.67
2480	33.82	1.75
2490	31.25	1.55
2500	28.54	1.45

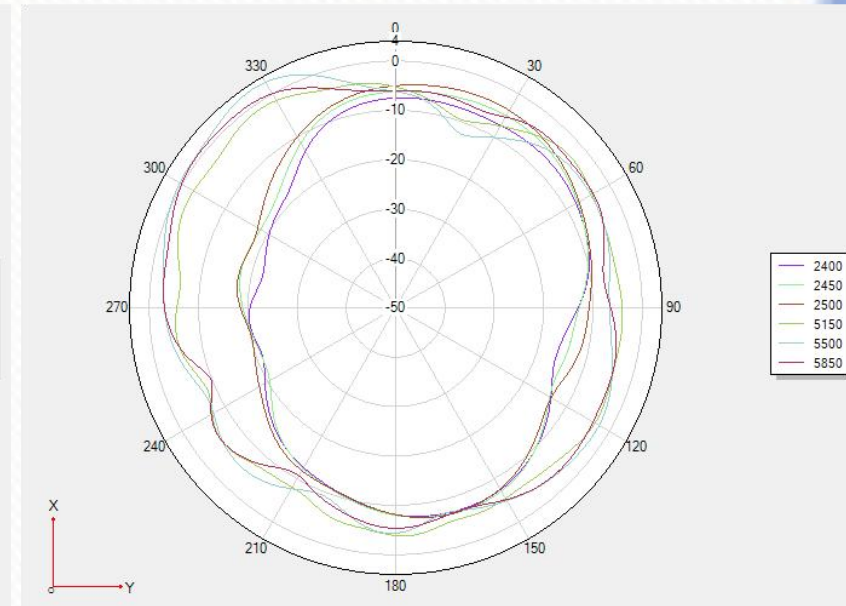
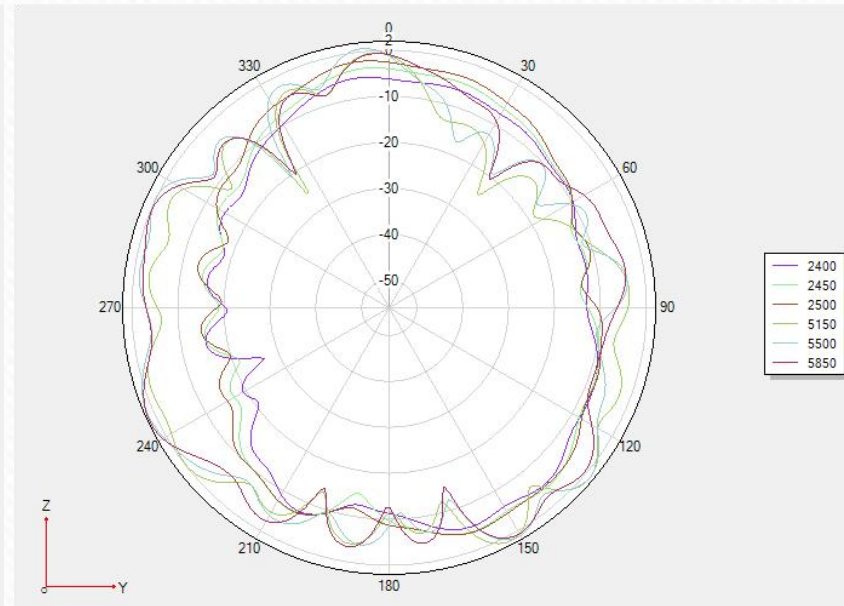
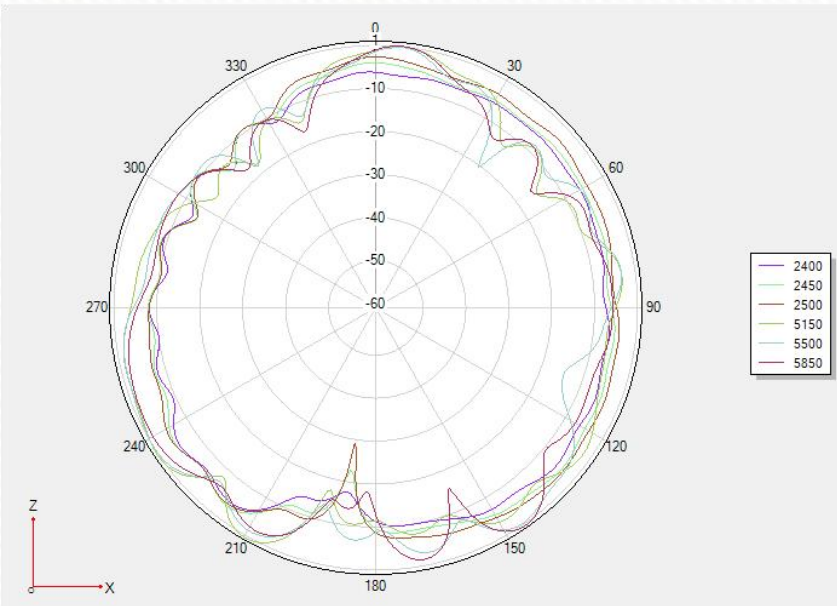
WiFi0 Antenna



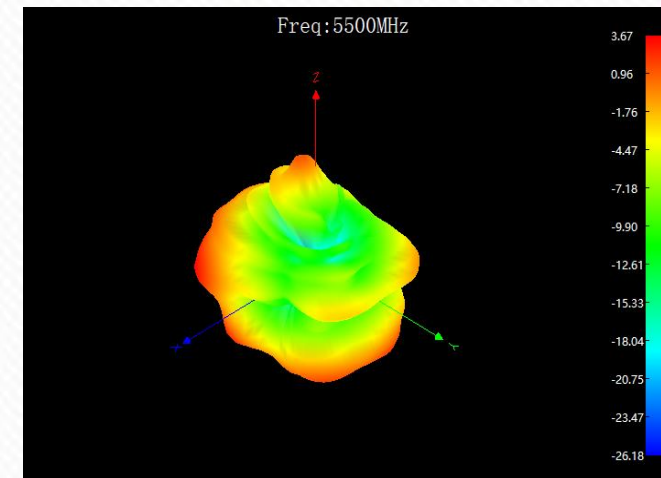
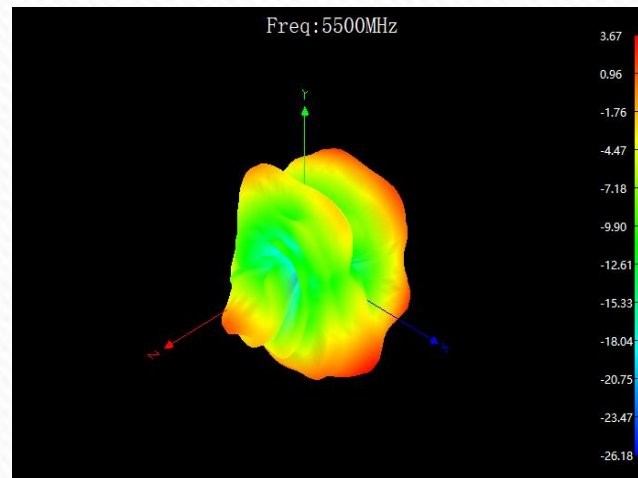
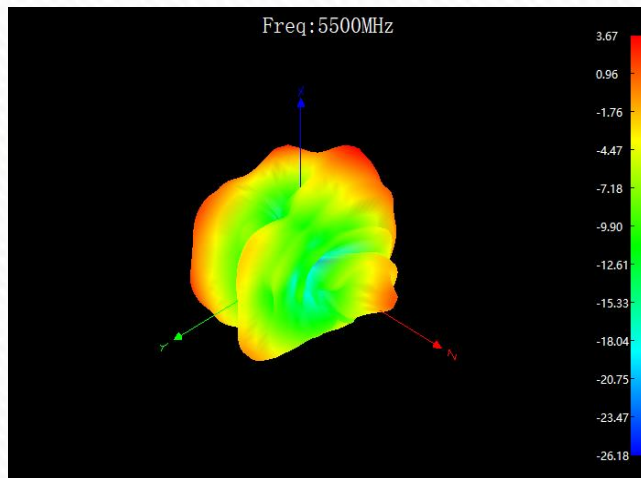
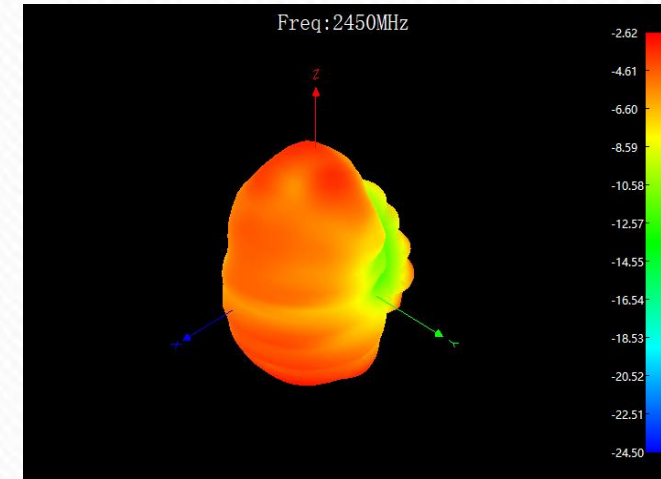
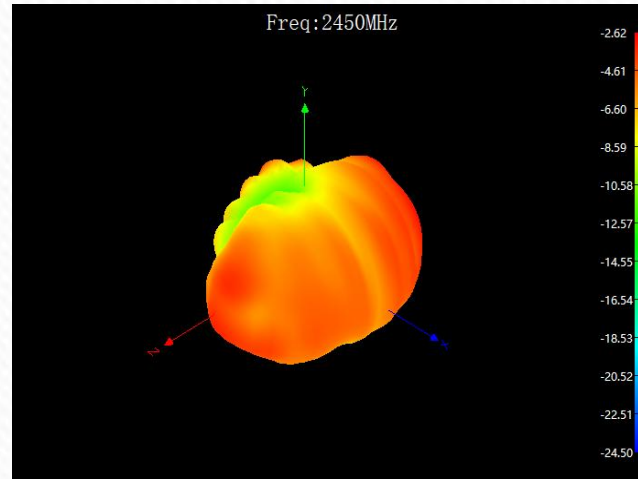
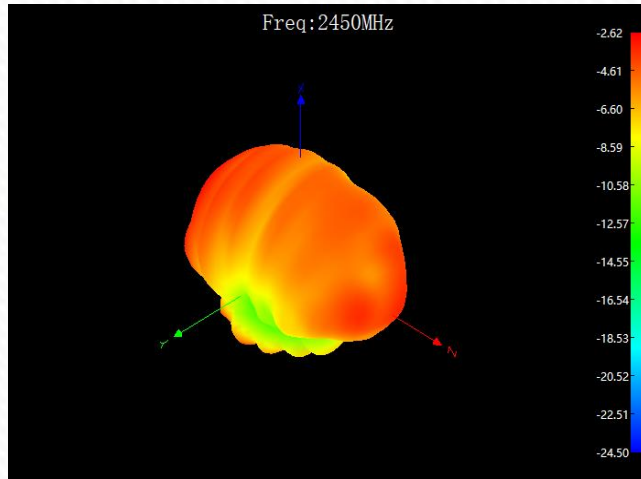
WiFi0 Antenna



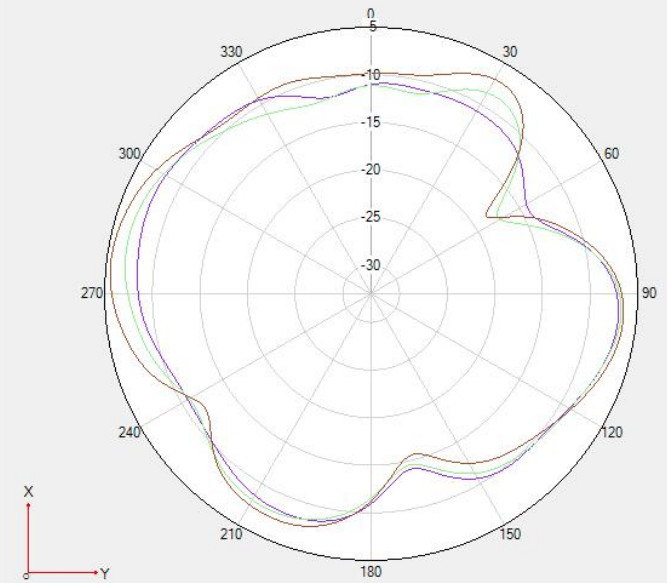
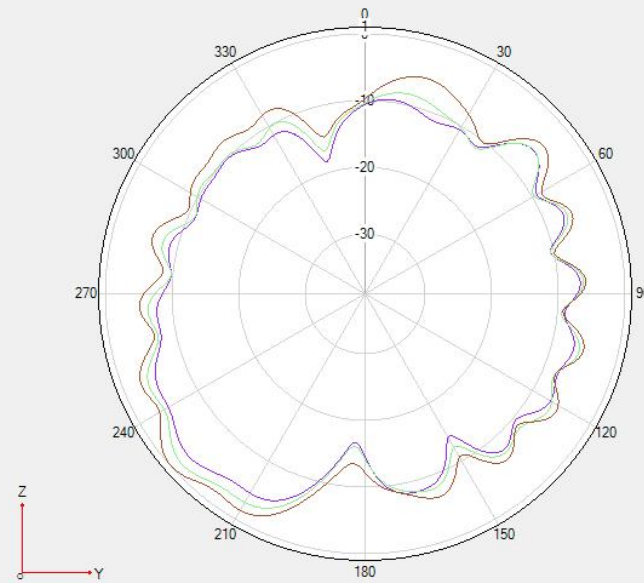
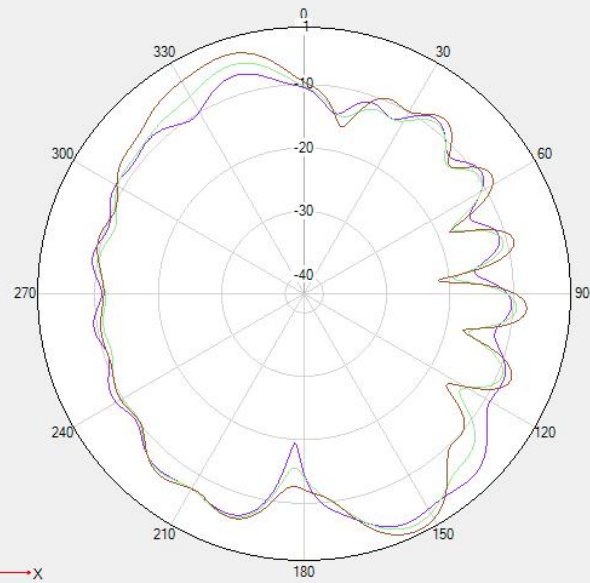
WiFi1 Antenna



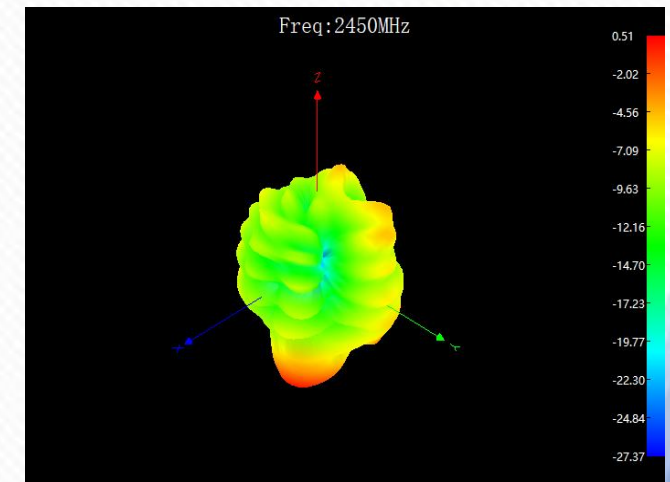
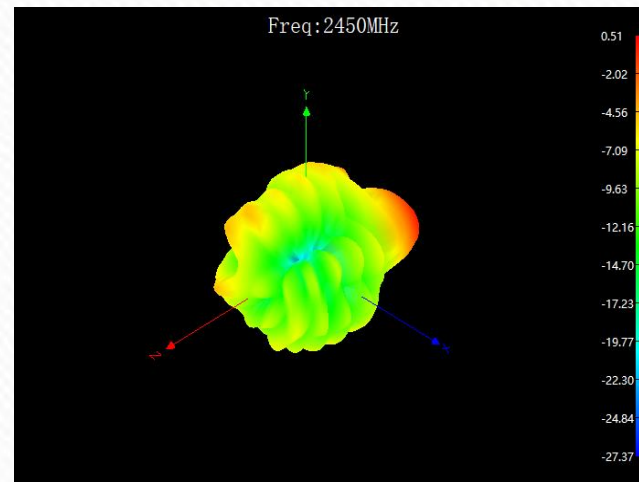
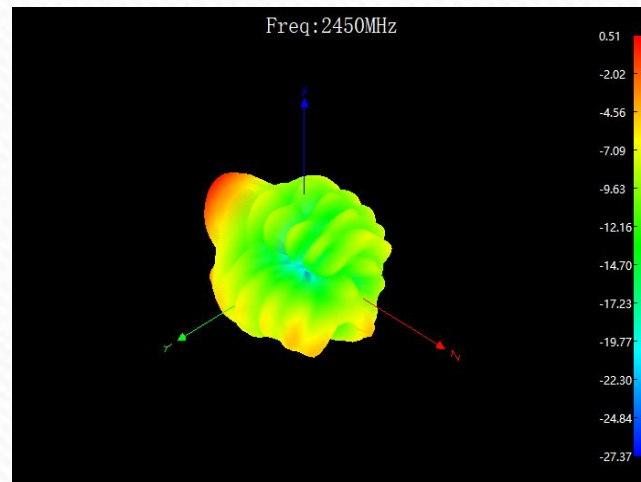
WiFi1 Antenna



BT Antenna



WiFi0 Antenna



3#

2.4G	信道	TRP	TIS
802.11b 11mbps	1	14.68	-78.93
	6	14.17	-80.57
	11	13.55	-80.16
802.11g 54mbps	1	13.68	-67.21
	6	13.47	-65.44
	11	13.19	-73.3
802.11n MCS7	1	12.96	-64.24
	6	13.74	-69
	11	12.69	-64.57

5G	信道	TRP	TIS
802.11a 54mbps	36	13.88	-73.32
	149	12.18	-73.2
	165	11.1	-71.94
802.11n MCS7	36	10.48	-63.12
	149	10.88	-65.72
	165	7.74	-66.4

5#

2.4G	信道	TRP	TIS
802.11b 11mbps	1	13.93	-75.68
	6	14.65	-79.59
	11	14.42	-80.23
802.11g 54mbps	1	14.1	-71.16
	6	13.37	-69.87
	11	13.68	-70.76
802.11n MCS7	1	14.02	-67.88
	6	14.01	-67.99
	11	14.3	-68.64

5G	信道	TRP	TIS
802.11a 54mbps	36	13.23	-73.03
	149	13.47	-73.17
	165	12.77	-70.25
802.11n MCS7	36	9.52	-63.66
	149	10.72	-67.18
	165	9.44	-66.02

3#

2.4G	信道	TRP	TIS
BT	0	5.45	-76.87
	39	5.49	-83.49
	78	6.58	-83.88

5#

2.4G	信道	TRP	TIS
BT	0	8.48	-80.15
	39	8.79	-85.24
	78	8.95	-86.11

- 1: The environmental treatment remains unchanged as before.
2. The antenna matching remains unchanged as before.

Thank You

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