

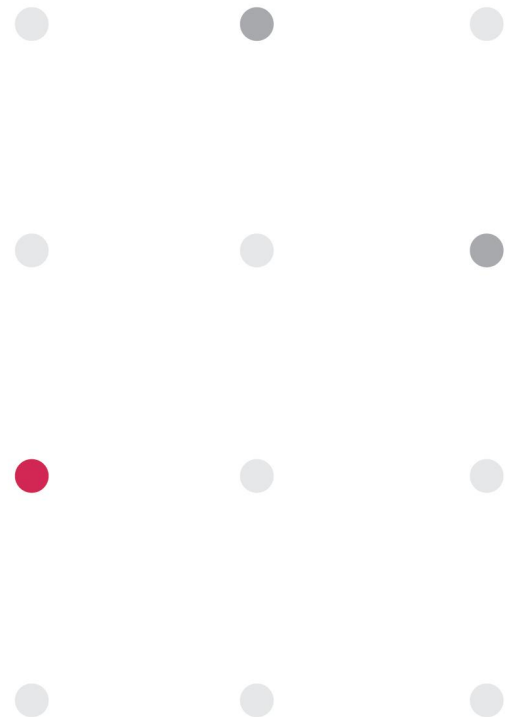
佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.

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PSA

PASSIVE SYSTEM ALLIANCE
INPAQ TECHNOLOGY CO., LTD.



6HVA

作者：

冯立翔

2025/ 07/ 16



版本	日期	描述	作者
V01	2025/01/15	新项目调试	郑冲
V02	2025/07/15	新样机复测	冯立翔
V03	2025/07/16	新样机调试	冯立翔

catalogue

1. metrical information

1.1 Darkroom placement coordinates

1.2 Antenna Solution Details

2. antenna performance

2.1 S-Parameters

2.2 Antenna efficiency and peak gain

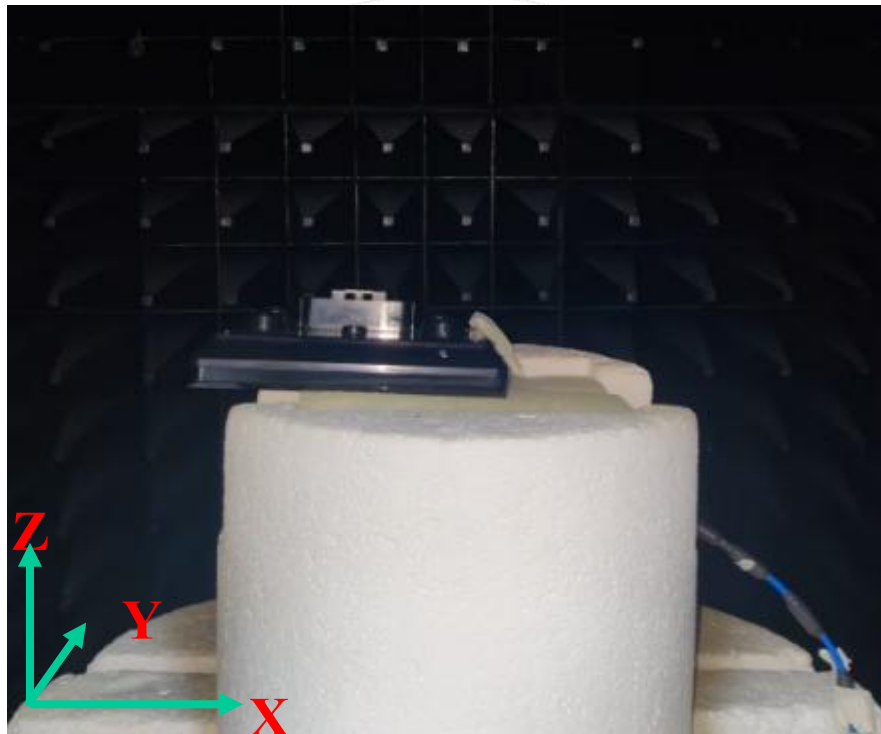
2.3 Antenna three-view drawing & 2D radiation pattern

2.4 3D radiation map

3. sum up

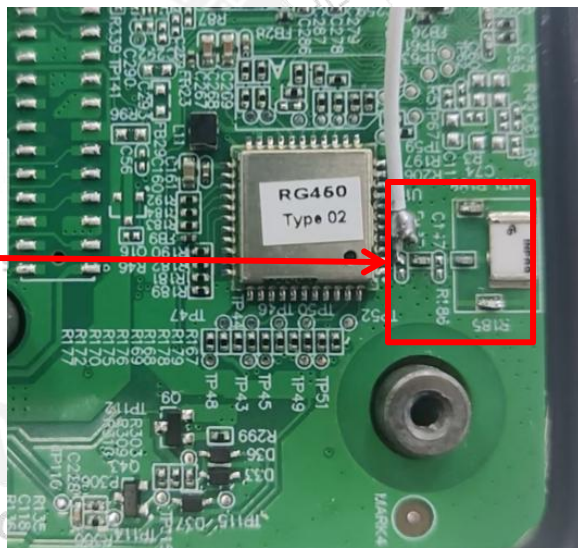
1. metrical information

1.1 Darkroom placement coordinates



1. metrical information

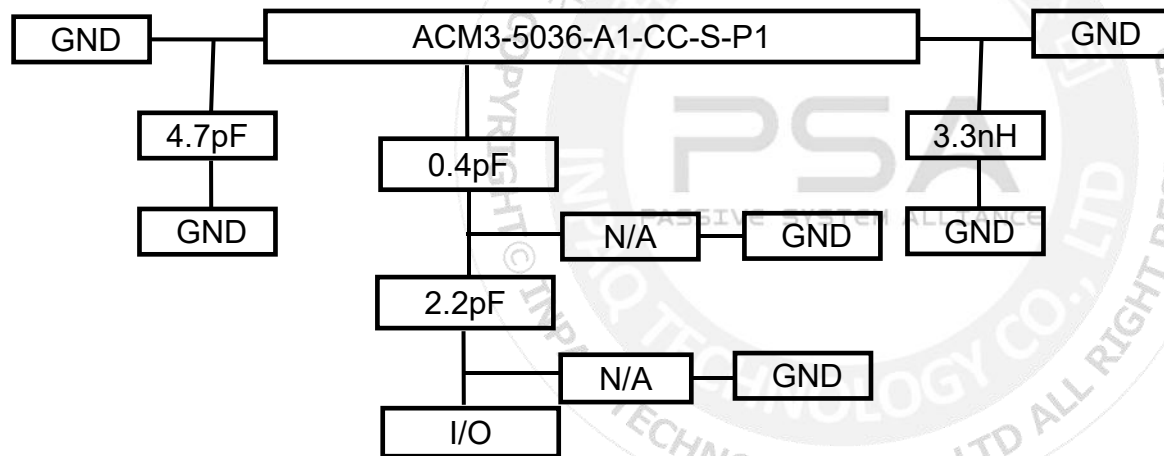
1.2 Antenna Solution Details



1. metrical information

1.2 Antenna Solution Details

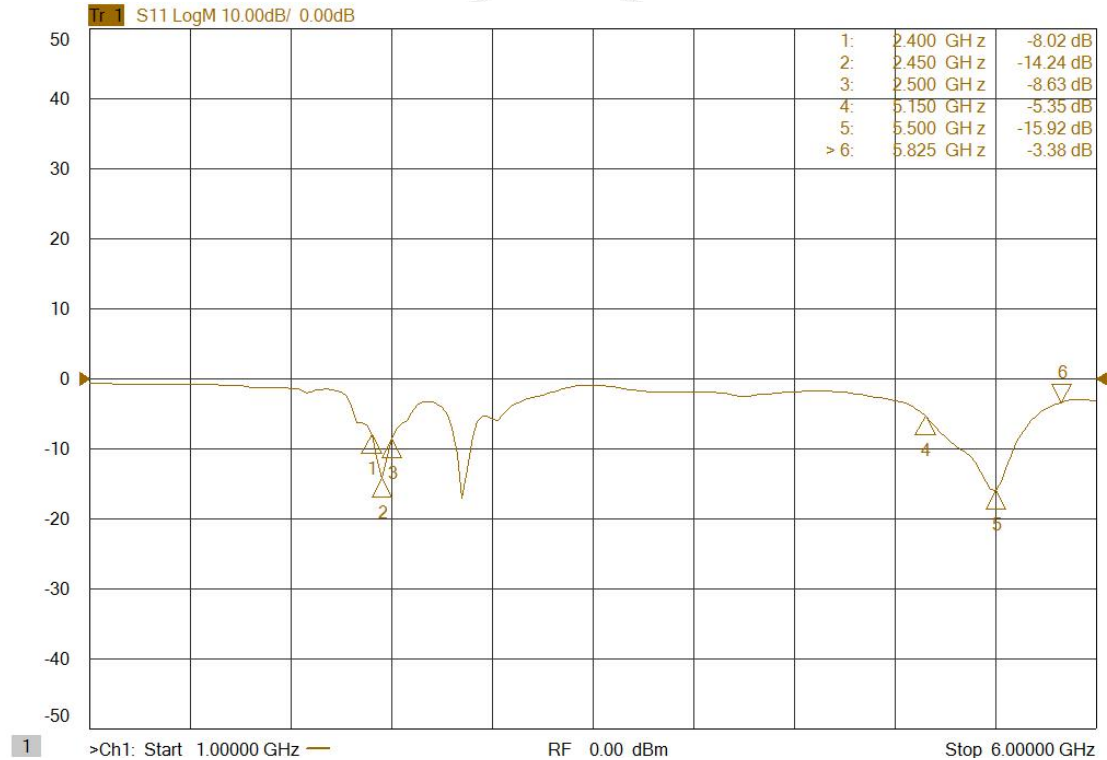
matching parameter



	Corresponding part number
0. 4pF	RF15N0R4A500CTNA
2. 2pF	RF15N2R2A500CTNA
4. 7pF	RF15N4R7A500CTNA
3. 3nH	WLCM1005Z0B3N3TB

2. antenna performance

2.1 Sparameter

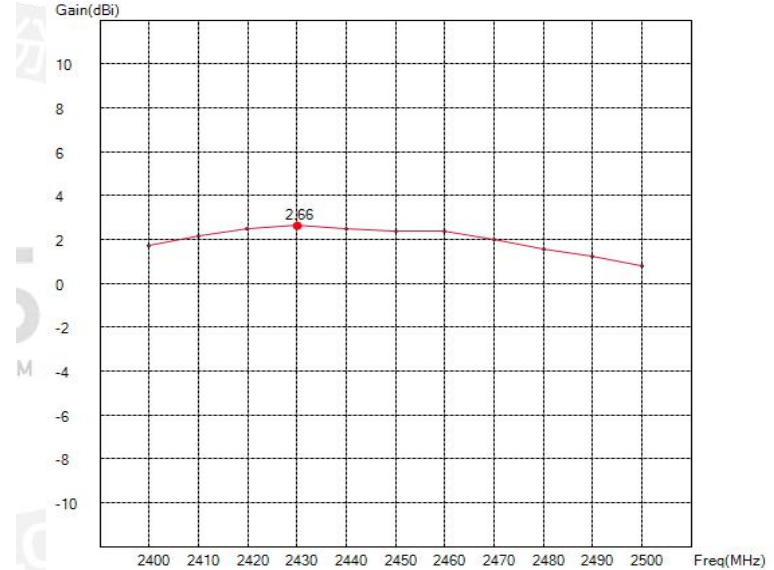


2. antenna performance

2.2 Antenna efficiency and peak gain



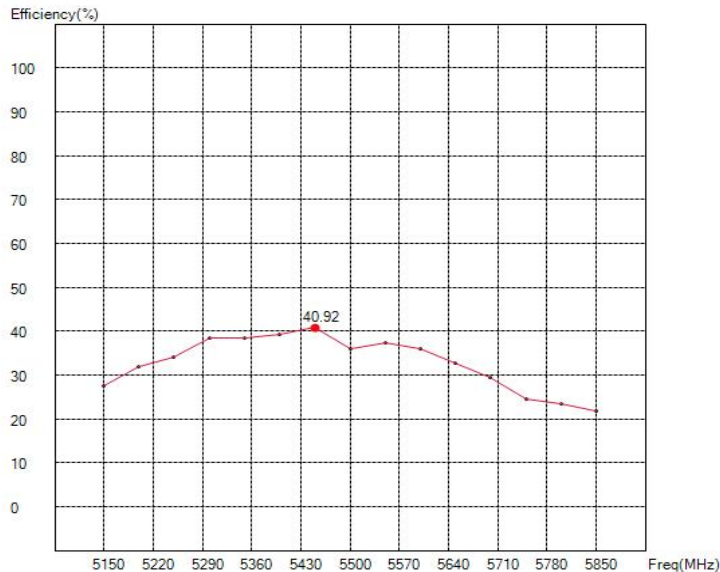
The maximum efficiency is at 2430MHz :43.75%



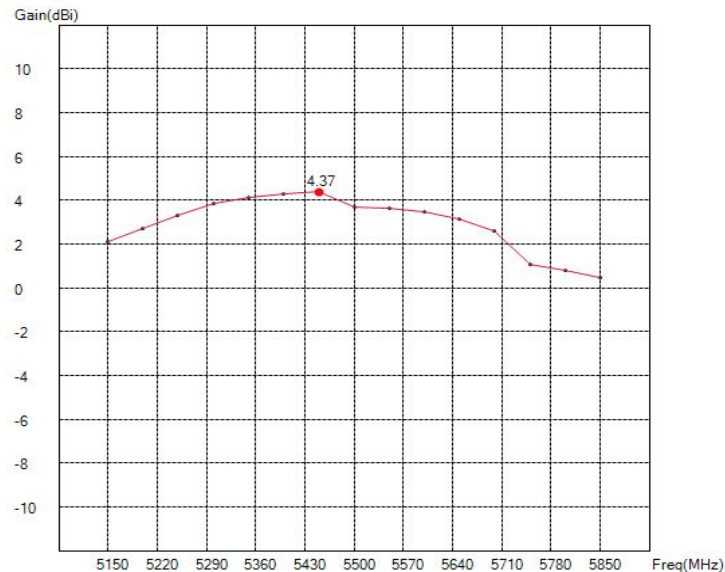
The maximum gain is at 2430MHz : 2.66dBi

2. antenna performance

2.2 Antenna efficiency and peak gain



The maximum efficiency is at 5450MHz : 40.92%



The maximum gain is at 5450MHz : 4.37dBi

2. antenna performance

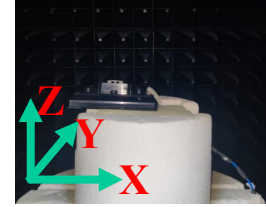
2.2 Antenna efficiency and peak gain

	Antenna (2.4G)	
frequency (MHz)	efficiency (%)	Peak gain (dBi)
2400	36.85	1.73
2410	40.25	2.18
2420	42.44	2.47
2430	43.75	2.66
2440	42.87	2.50
2450	41.31	2.35
2460	41.65	2.37
2470	40.76	1.97
2480	39.41	1.56
2490	37.57	1.24
2500	36.04	0.77

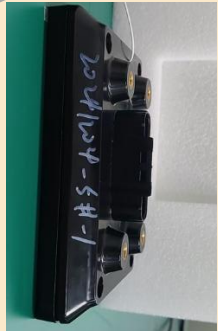
	Antenna (5G)	
frequency (MHz)	efficiency (%)	Peak gain (dBi)
5150	27.65	2.09
5200	31.79	2.72
5250	34.02	3.27
5300	38.36	3.84
5350	38.33	4.12
5400	39.31	4.28
5450	40.92	4.37
5500	36.02	3.68
5550	37.25	3.63
5600	35.90	3.48
5650	32.75	3.14
5700	29.55	2.58
5750	24.60	1.06
5800	23.38	0.78
5850	21.87	0.45

2. antenna performance

2.3 Antenna three-view drawing



X-Z



Y-Z

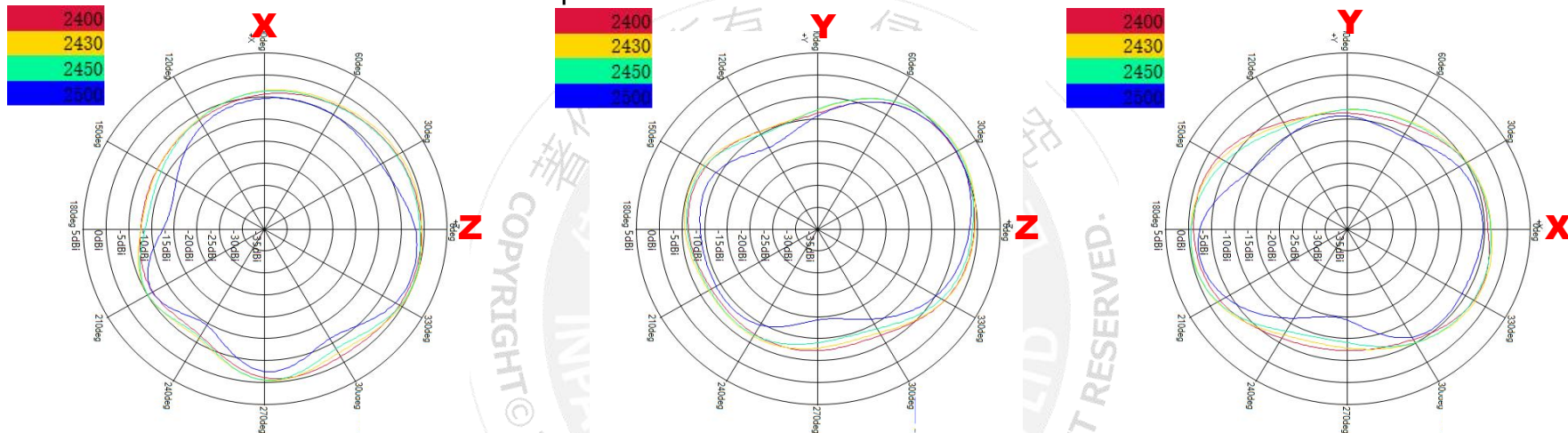


X-Y



2. antenna performance

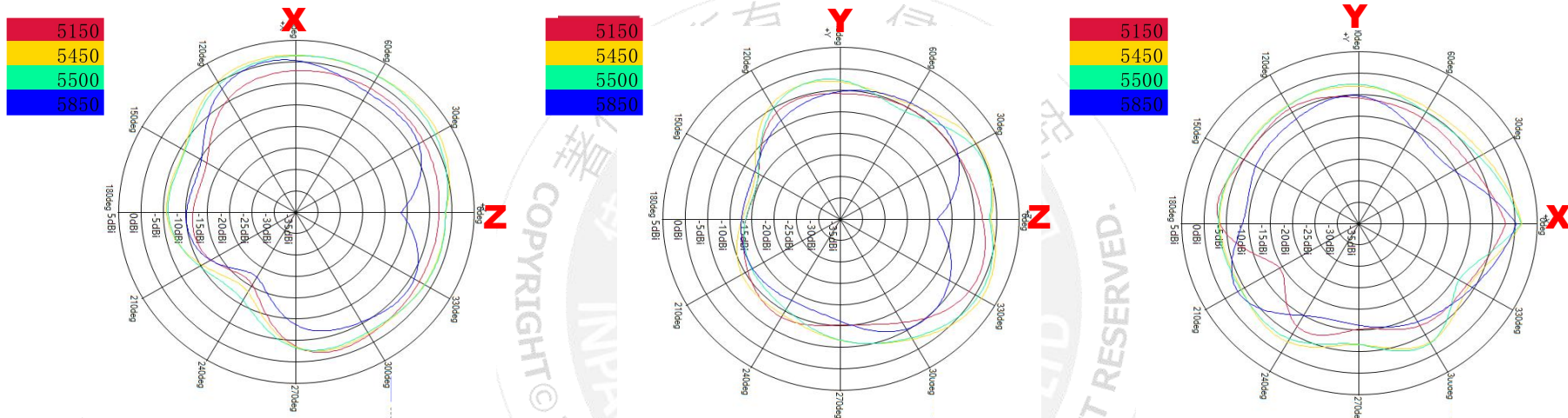
2.3 Two-dimensional radiation pattern



	ZX 平面		ZY 平面		XY 平面	
频率 [MHz]	maximum [dBi]	average value [dBi]	maximum [dBi]	average value [dBi]	maximum [dBi]	average value [dBi]
2400	-0.45	-2.35	0.16	-3.48	-1.30	-4.51
2430	-0.20	-2.06	0.92	-3.16	-0.67	-4.19
2450	-0.44	-2.44	0.71	-3.56	-0.73	-4.55
2500	-1.68	-4.17	0.29	-4.52	-2.68	-6.94

2. antenna performance

2.3 Two-dimensional radiation pattern

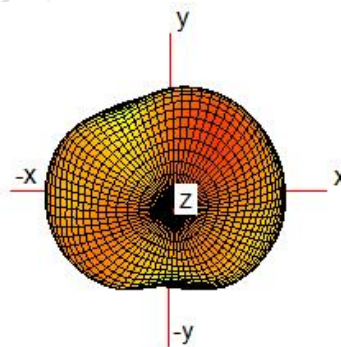
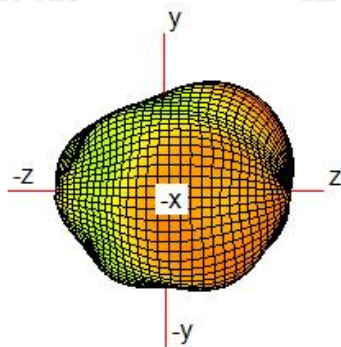
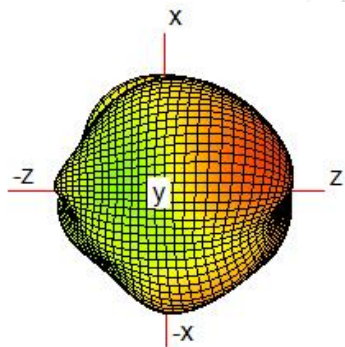
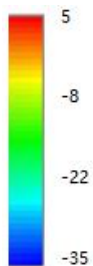


	ZX		ZY		XY	
频率 [MHz]	maximum [dBi]	average value [dBi]	maximum [dBi]	average value [dBi]	maximum [dBi]	average value [dBi]
5150	-1.52	-3.38	-1.52	-5.14	-1.93	-5.76
5450	2.00	-0.89	1.62	-2.41	1.73	-2.98
5500	1.80	-1.12	0.84	-3.05	1.53	-3.25
5850	0.45	-4.59	-3.58	-7.37	0.45	-5.82

2. antenna performance

2.4 3D radiation map

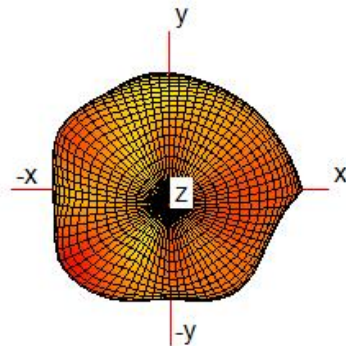
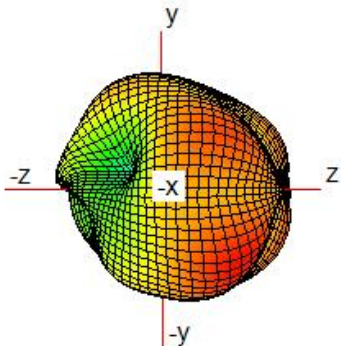
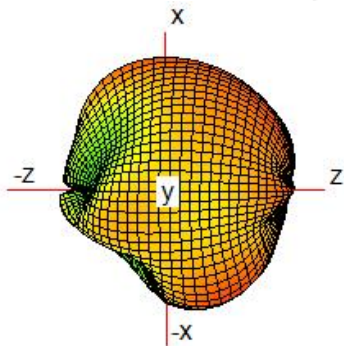
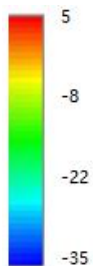
2430MHz



2. antenna performance

2.4 3D radiation map

5450MHz



3. sum up

- The antenna performance is as shown in the table below.

	ANT (2.4G)	ANT (5G)
maximum efficiency (%)	43.75	40.92
maximum gain (dBi)	2.66	4.37

Thank you

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