

Antenna information

Record for version modification

Date	Revision	Modify Content	Author
2022-03-15	V1.0	1 st Version	YINGJUN WEI

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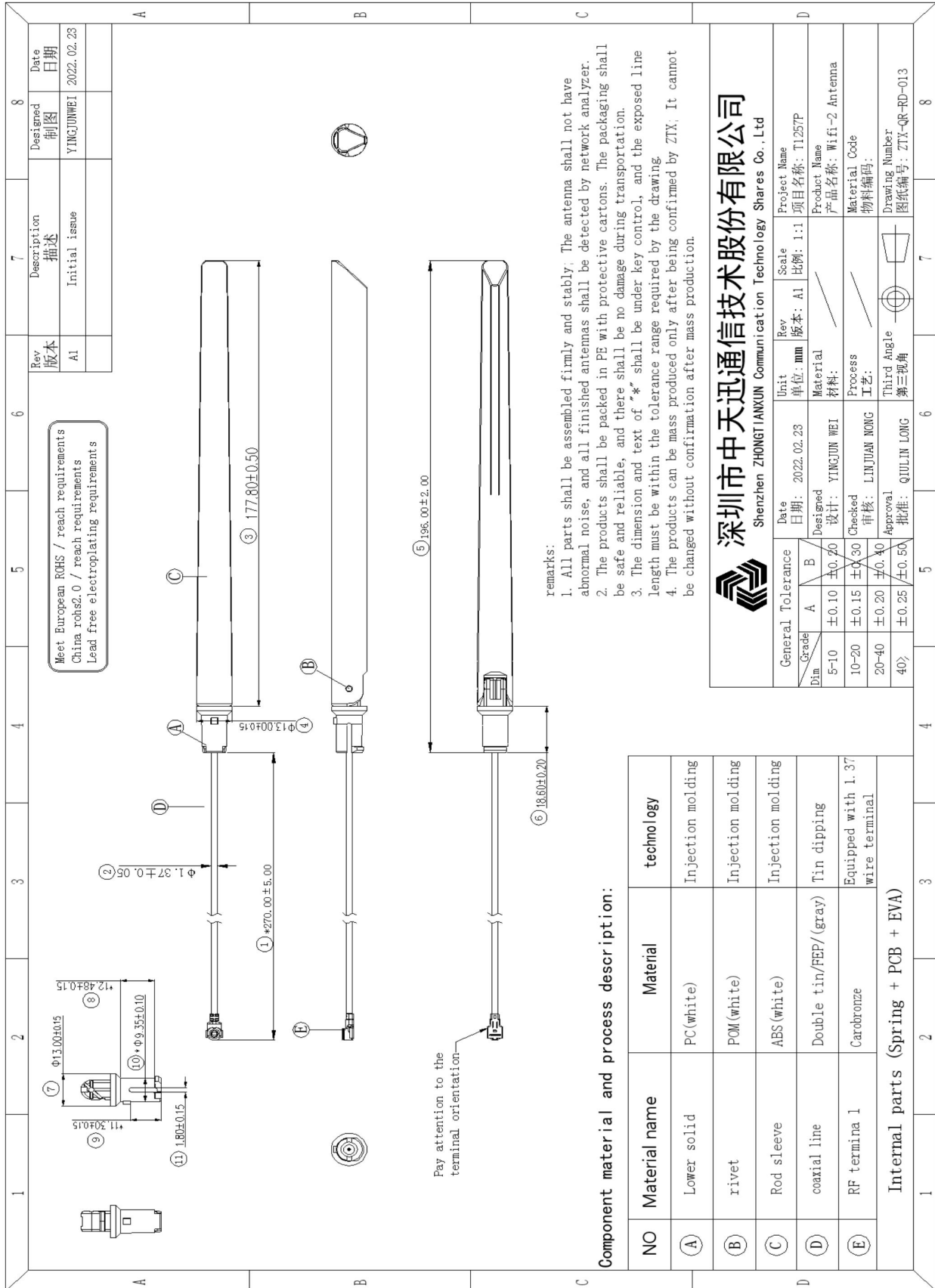
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1. Project information

红色部分根据项目情况自行填写，软硬件信息找对接工程师核对

Model No.	NP1257G
HW Version	
SW Version	
Antenna type	
Installation mode	
WIFI Model	
Antenna supplier	Shenzhen ZhongTianXun Communication Technology CO.,LTD
Tester	
Acceptance	
Reviewer	
Date	

2.Appearance and specification



3.Performance parameter

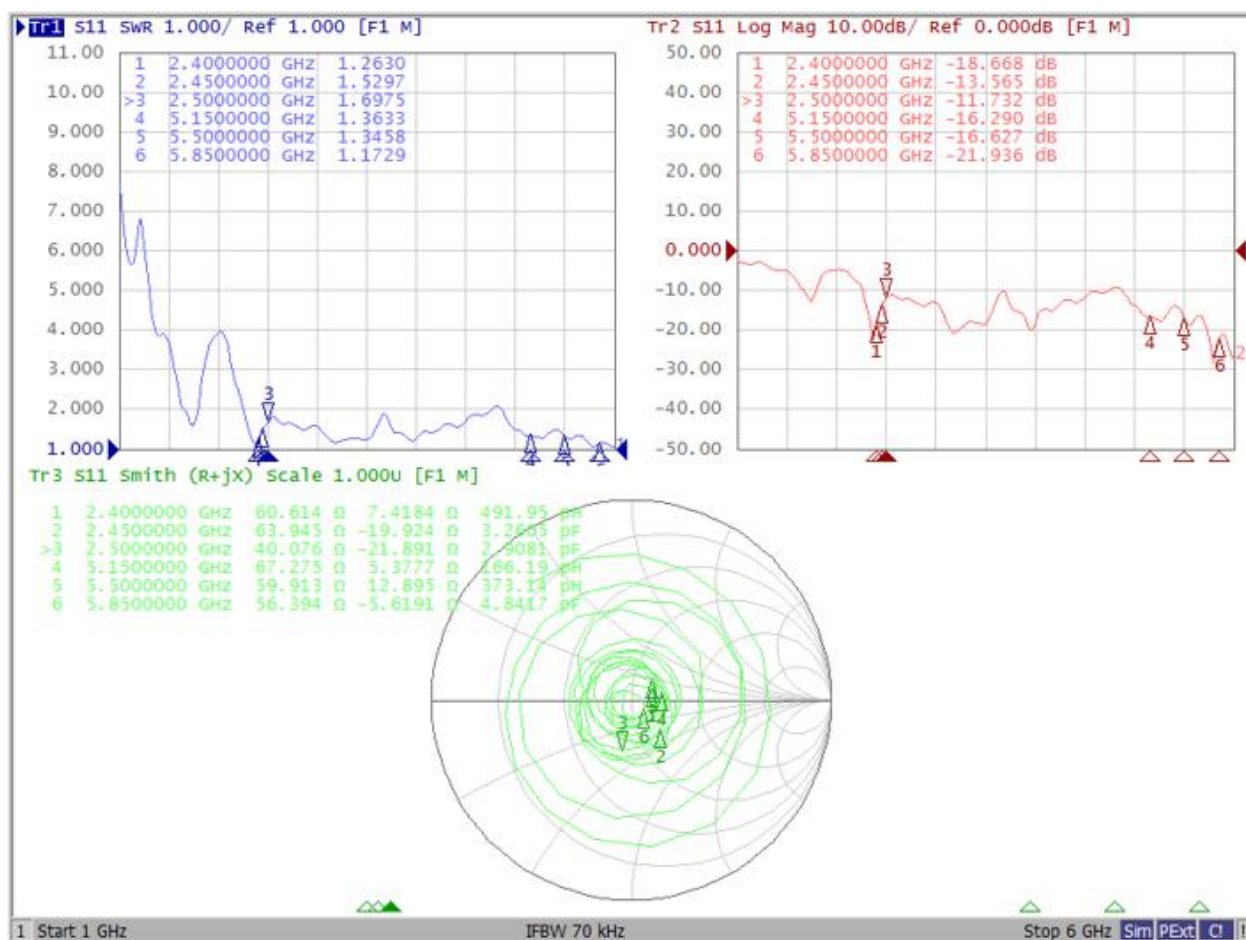
3.1 Antenna passive test

Frequency	2400Mhz~2483.5Mhz/5150Mhz~5850Mhz
Impedance	50Ω
Antenna Gain	2.4GAntenna A: 4.61dBi; Antenna B: 2.82dBi
	5GAntenna A: 3.65dBi; Antenna B: 4.36dBi
Power capacity	<10w
Radiation	Omni-directional

3.1.1 Reflection loss&V.S.W.R

Test tools: 5071C(标注网分型号)

Standard: Reflection loss≤-10db V.S.W.R≤2



V.S.W.R

Freq/GHz	2.4	2.45	2.5	5.15	5.5	5.85
VSWR	1.26	1.52	1.69	1.35	1.34	1.17

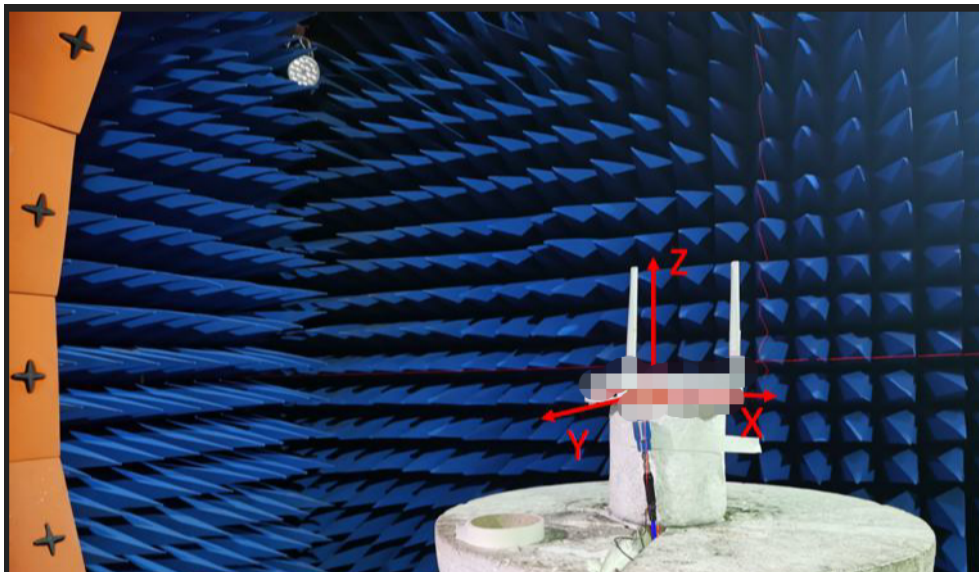
3.1.2 Gain & Efficiency

Test tools: Microwave Anechoic Chamber+Agiilent Technologies E5071C

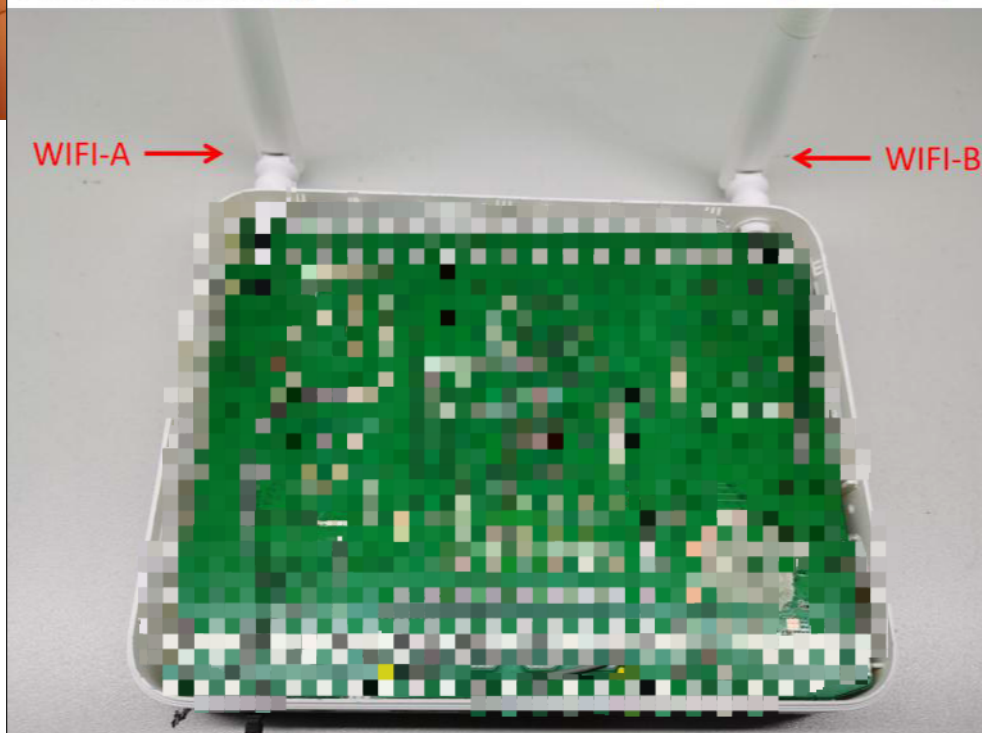
Standard: 2.4G $1.5\text{dBi} \leq \text{Gain} \leq 6\text{dBi}$ Efficiency $\geq 55\%$

5G $1.7\text{dBi} \leq \text{Gain} \leq 6\text{dBi}$ Efficiency $\geq 50\%$

Testing Environment: As shown in the figure

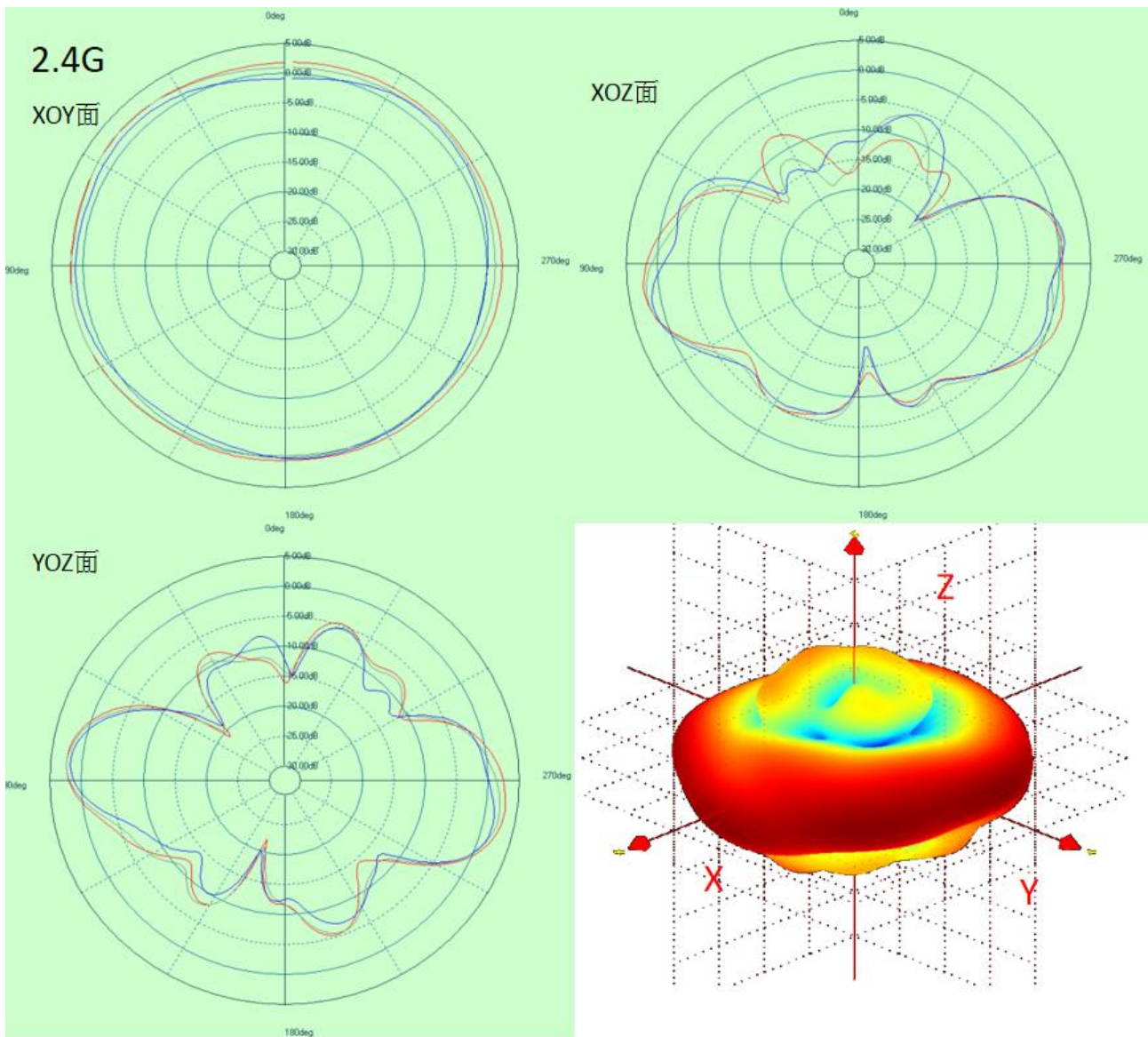


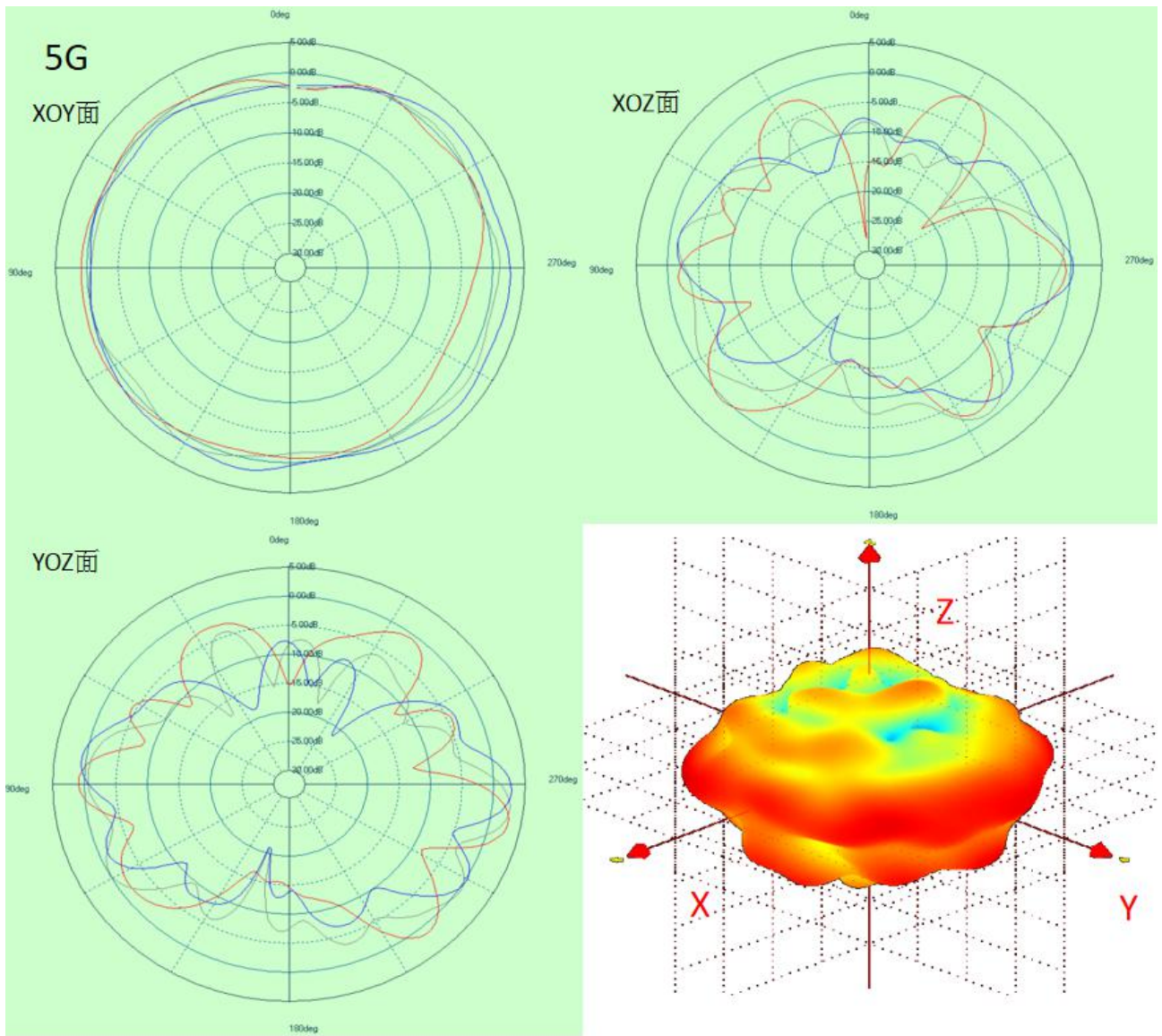
天线位置摆放说明(Explanation of antenna position placement)



Antenna test data

Frequency	Efficiency	Efficiency . dB	Gain . dB
2400000000	57%	-2.42	3.03
2410000000	55%	-2.56	2.89
2420000000	58%	-2.36	3.04
2430000000	61%	-2.15	3.18
2440000000	56%	-2.51	2.91
2450000000	52%	-2.85	2.52
2460000000	54%	-2.71	2.00
2470000000	55%	-2.60	2.11
2480000000	51%	-2.90	2.17
2490000000	50%	-2.98	2.70
2500000000	51%	-2.93	2.83
5150000000	54%	-2.65	2.92
5200000000	55%	-2.60	3.19
5250000000	54%	-2.65	3.22
5300000000	52%	-2.80	3.23
5350000000	51%	-2.94	3.09
5400000000	47%	-3.29	2.61
5450000000	51%	-2.93	3.26
5500000000	52%	-2.80	3.18
5550000000	52%	-2.82	3.11
5600000000	50%	-3.01	2.94
5650000000	52%	-2.84	2.61
5700000000	51%	-2.93	3.24
5750000000	54%	-2.70	3.28
5800000000	53%	-2.78	3.01
5850000000	53%	-2.72	3.04





3.1.3 Antenna isolation

Test tools: 5071C(标注网分型号)

Standard: Isolation \leq -20dB

吞吐量测试数据(Throughput Test Data)

2.4G 40M CH6			
衰减(dB)	角度(°)	TX (Mbits/sec)	RX (Mbits/sec)
0	0	198	216
	90	198	218
	180	196	229
	270	199	213
10	0	200	237
	90	204	232
	180	207	225
	270	192	213
20	0	203	205
	90	204	203
	180	209	204
	270	207	202
30	0	194	164
	90	188	160
	180	192	167
	270	184	163
40	0	178	147
	90	175	120
	180	177	144
	270	173	128
50	0	166	134
	90	161	115
	180	168	135
	270	164	112

吞吐量测试数据(Throughput Test Data)

5G 80M CH36			
衰减(dB)	角度(°)	TX (Mbits/sec)	RX (Mbits/sec)
0	0	559	647
	90	564	632
	180	572	645
	270	545	629
10	0	543	613
	90	541	625
	180	550	615
	270	543	617
20	0	544	601
	90	529	593
	180	530	603
	270	533	599
30	0	485	508
	90	473	496
	180	475	509
	270	471	495
40	0	470	460
	90	478	451
	180	474	456
	270	475	450
50	0	467	439
	90	460	432
	180	468	436
	270	450	428

吞吐量测试数据(Throughput Test Data)

5G 80M CH149			
衰减(dB)	角度(°)	TX (Mbits/sec)	RX (Mbits/sec)
0	0	543	622
	90	550	650
	180	555	652
	270	546	624
10	0	539	644
	90	544	506
	180	546	658
	270	546	655
20	0	527	627
	90	529	601
	180	543	621
	270	530	594
30	0	480	505
	90	468	506
	180	474	506
	270	476	498
40	0	475	455
	90	479	451
	180	478	457
	270	482	452
50	0	471	441
	90	476	434
	180	502	438
	270	455	433

4. Test Report

N/A