

O81FCC Part 15 Antenna report

Applicant: Xiaomi Communications Co., Ltd

Product description: PAD

Test date: 2024/7/1

1. Antenna information

Antenna	ModelName	Antenna Pattern	Antenna Type	Manufacturer	Test party of Antenna gain
ANT0	AL6M13	FPC	PIFA Antenna	AAC& RUIXIANG	Xiaomi Mobile Internet Industrial Park,Beijing
ANT1	AL6M13	/	Resonant cavity antenna	AAC& RUIXIANG	Xiaomi Mobile Internet Industrial Park,Beijing
ANT2	AL6M13	/	Resonant cavity antenna	AAC& RUIXIANG	Xiaomi Mobile Internet Industrial Park,Beijing

2. Test data

EFF:

Band for Antenna0		Eff(dB)
wifi2.4G	2412MHz	-8.5
	2437MHz	-7.5
	2462MHz	-7.7
wifi5G	5.15~5.25 GHz	-7.2
	5.25~5.35 GHz	-6.8
	5.47~5.725 GHz	-6.2
	5.725~5.85 GHz	-6
WIFI 6E	B5	-6.8
	B6	-7.6
	B7	-8.1
	B8	-8.6

Band for Antenna1&2		eff(dB)
wifi2.4G	2412MHz	-7.8
	2437MHz	-8.2
	2462MHz	-8.8
wifi5G	5.15~5.25 GHz	-5.3
	5.25~5.35 GHz	-5.5
	5.47~5.725 GHz	-6.2
	5.725~5.85 GHz	-6.3
WIFI 6E	B5	-9.5
	B6	-11

	B7	-9.2
	B8	-11

Gain:

MIMO:Band for Antenna0&1&2		peak gain(dBi)
wifi2.4G MIMO	2412MHz	-3.9
	2437MHz	-4
	2462MHz	-3.9
wifi5G MIMO	5.15~5.25 GHz	-0.6
	5.25~5.35 GHz	-0.2
	5.47~5.725 GHz	-0.3
	5.725~5.85 GHz	-0.5

SISO: Band for Antenna0		peak gain(dBi)
wifi2.4G	2412MHz	-3.8
	2437MHz	-4
	2462MHz	-4.5
wifi5G	5.15~5.25 GHz	0.3
	5.25~5.35 GHz	0.5
	5.47~5.725 GHz	0.7
	5.725~5.85 GHz	0.7
wifi6E	B5	0.8
	B6	-0.35
	B7	0.48
	B8	0.54

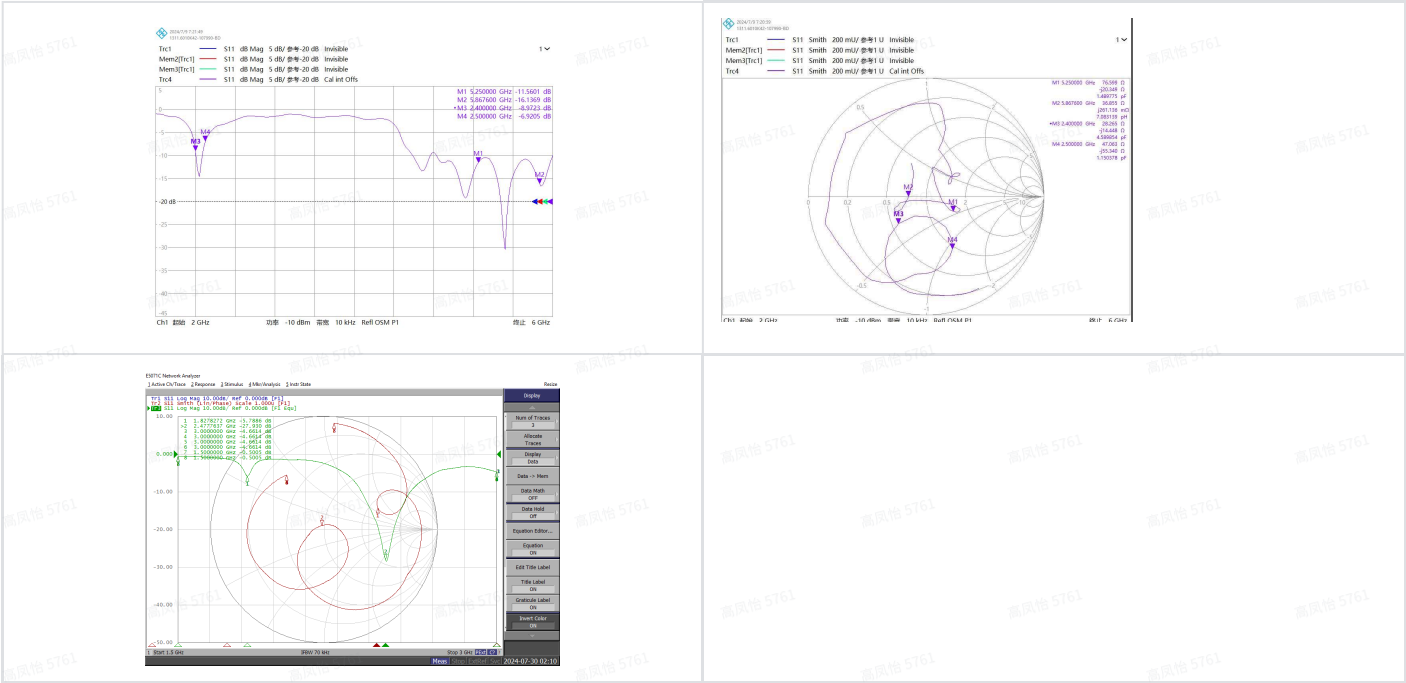
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SISO:Band for Antenna1		peak gain(dBi)
wifi5G	5.15~5.25 GHz	-0.97
	5.25~5.35 GHz	-1.02
	5.47~5.725 GHz	-1.06
	5.725~5.85 GHz	-0.66
wifi6E	B5	-1.22
	B6	-3.34
	B7	-2.24
	B8	-3.29

SISO:Band for Antenna2		peak gain(dBi)
wifi2.4G	2412MHz	-2.4
	2437MHz	-2
	2462MHz	-1.57

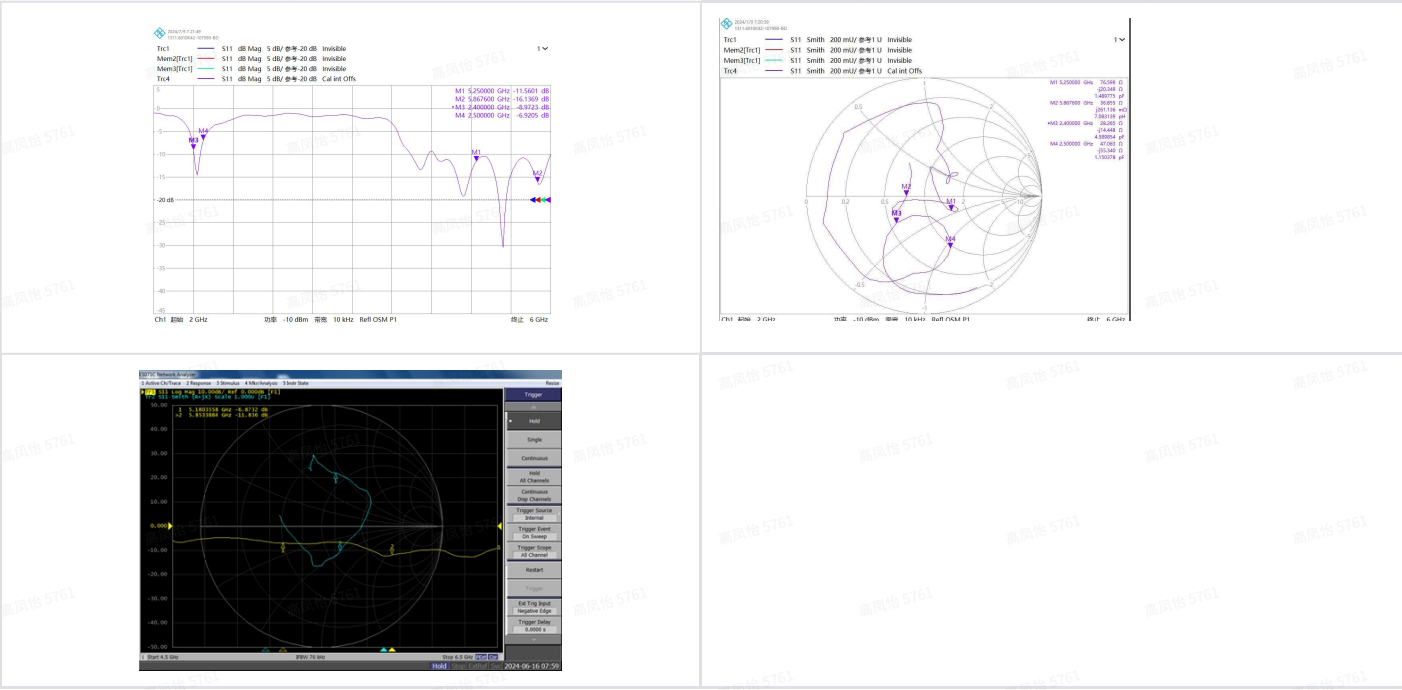
S11

2.4G MIMO ANT0 +ANT2



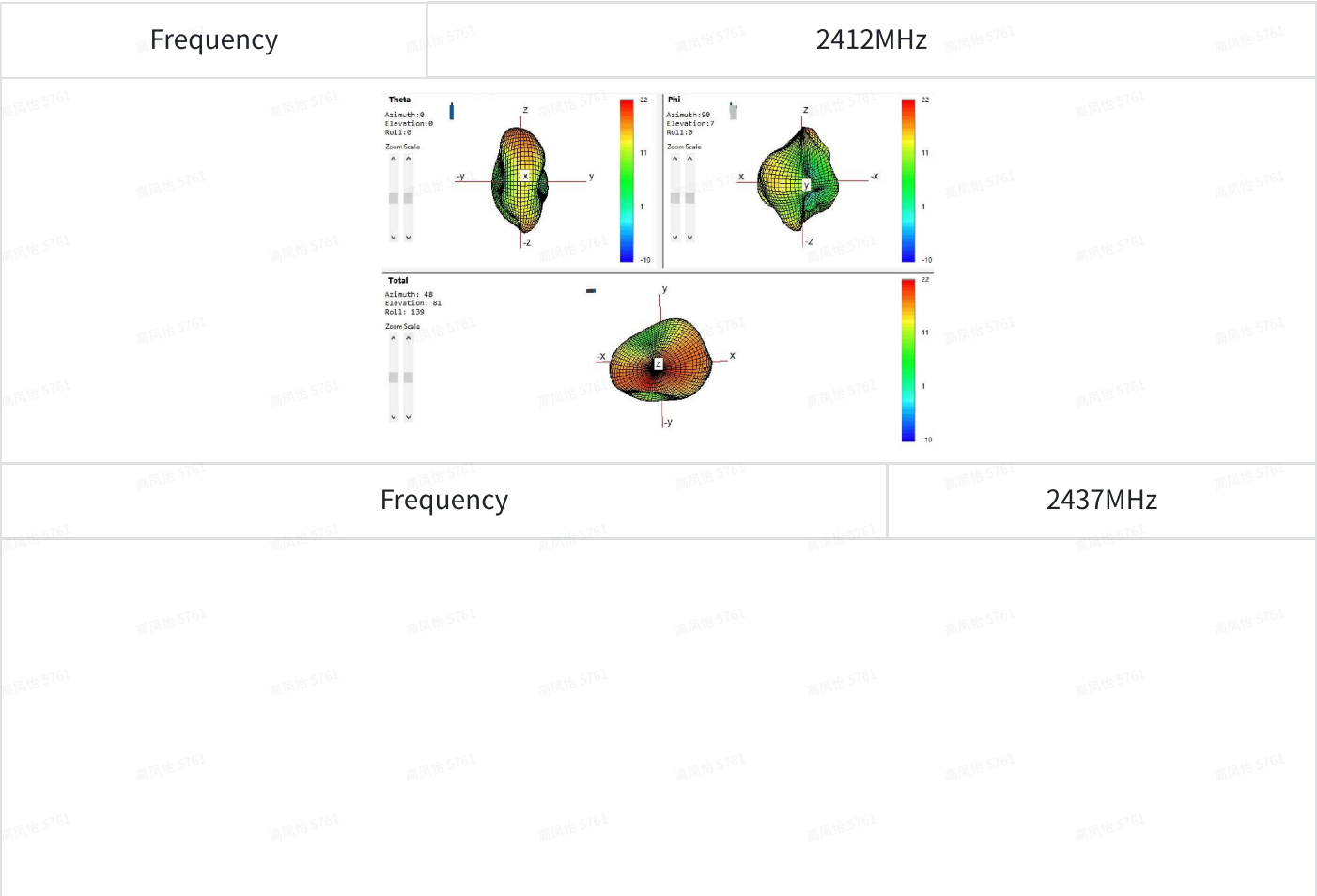
5G MIMO ANT0 +ANT1

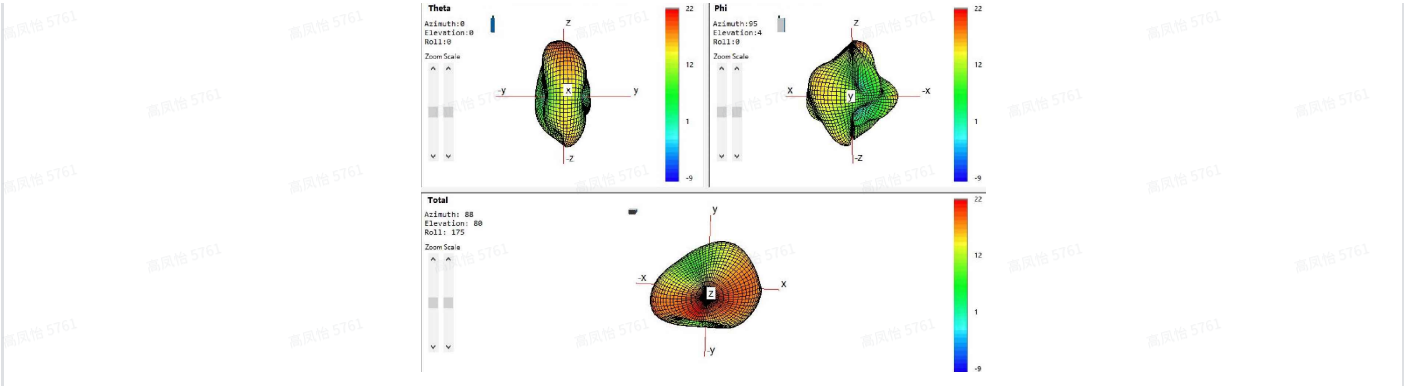
S11



方向图

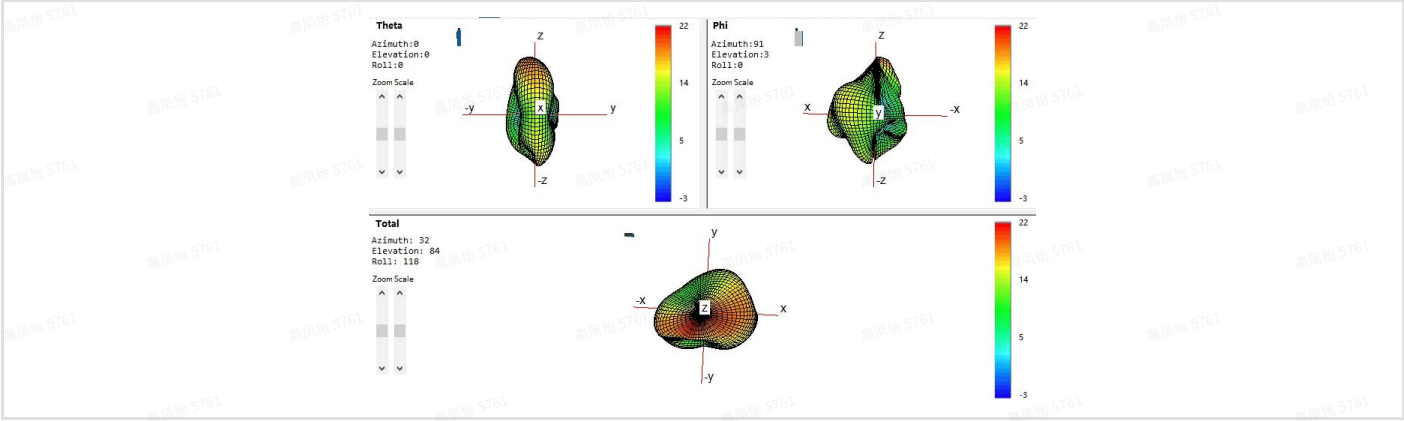
MIMO方向图





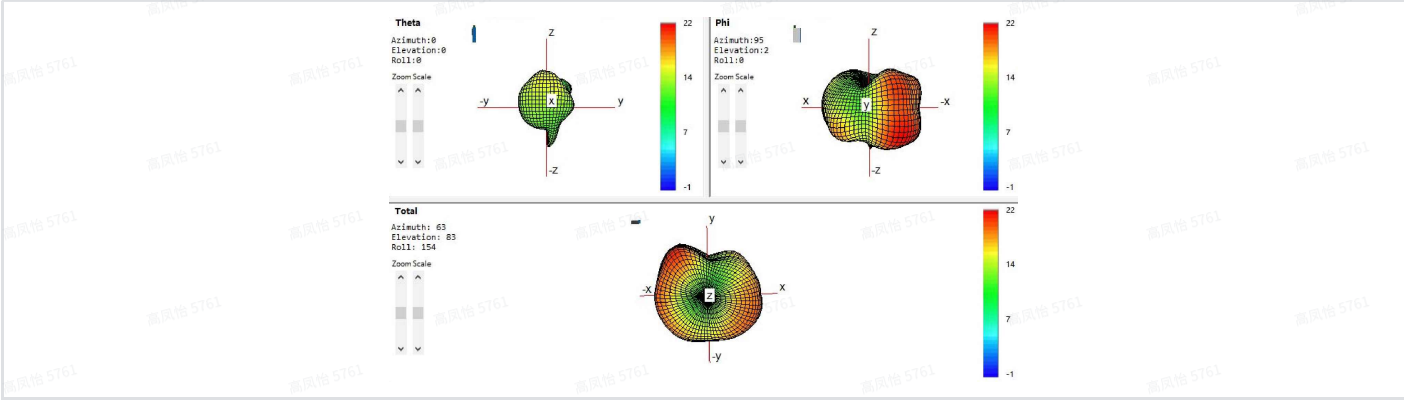
Frequency

2462MHz



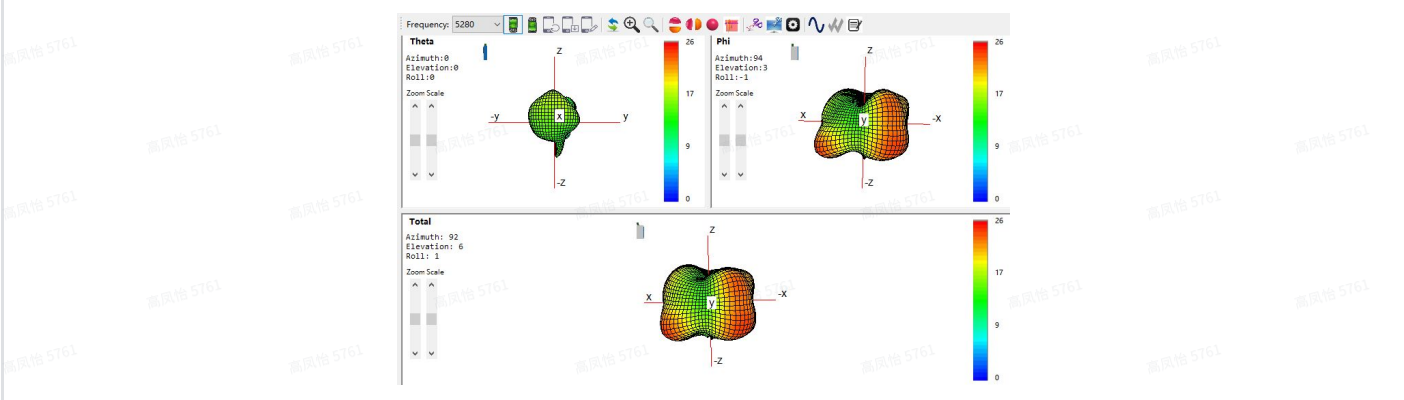
Frequency

5200MHz



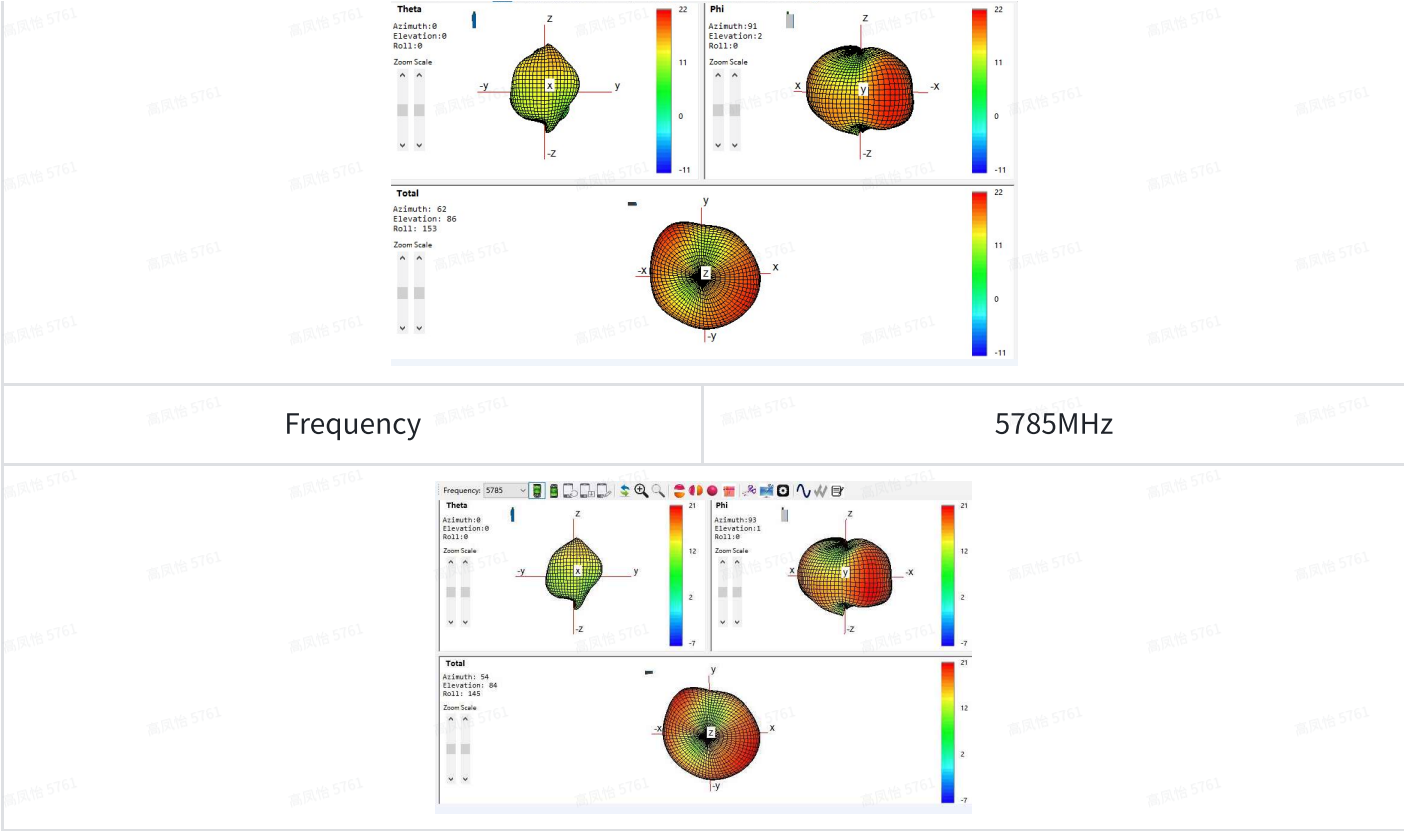
Frequency

5280MHz



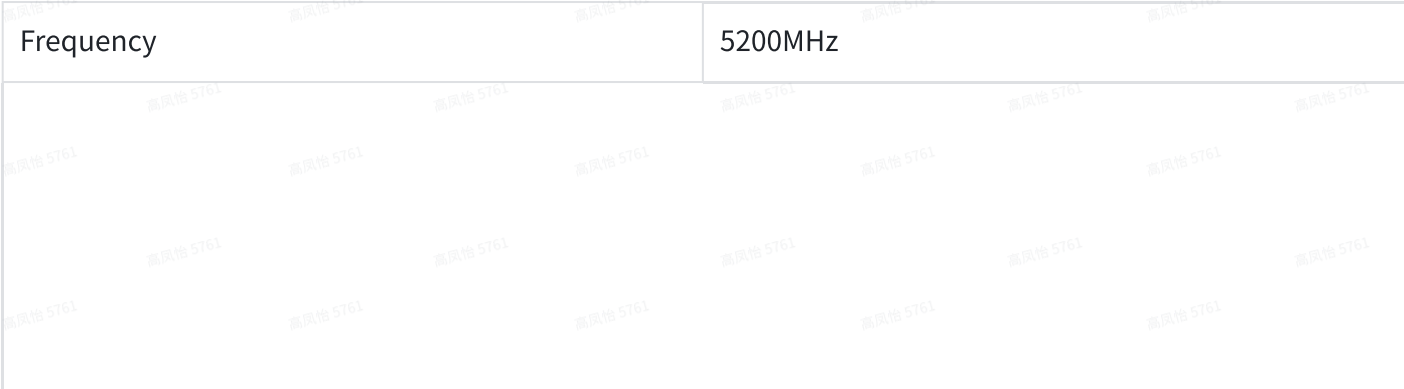
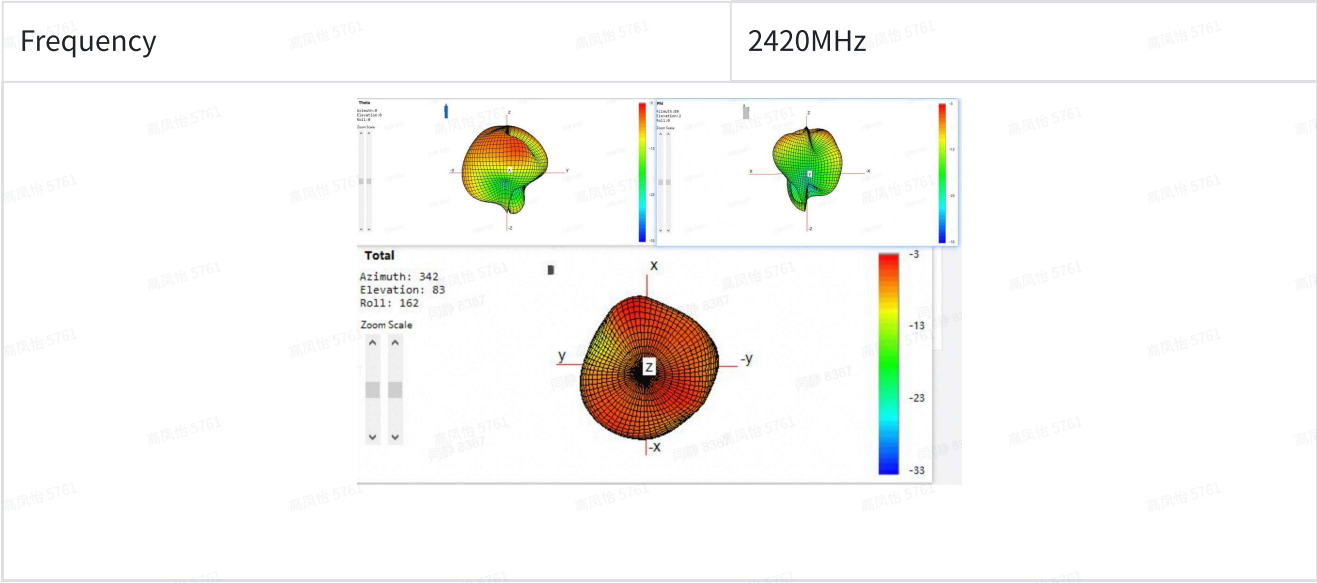
Frequency

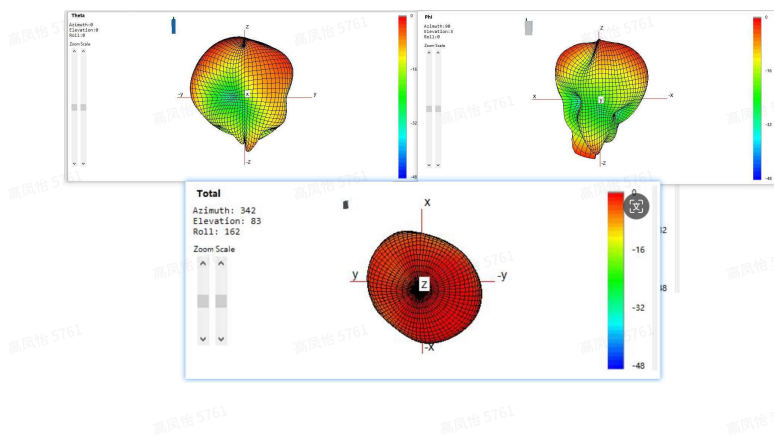
5600MHz



ANT0 SISO:2.4G+5G CHAIN0

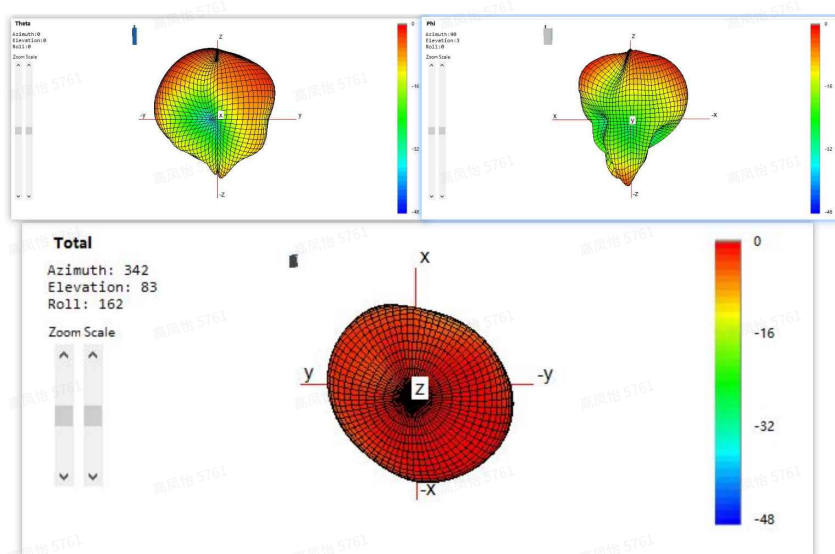
方向图





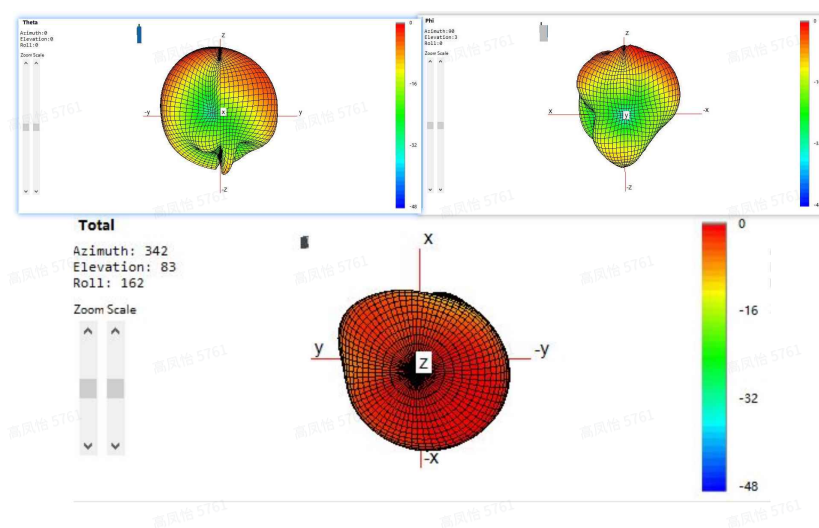
Frequency

5580MHz



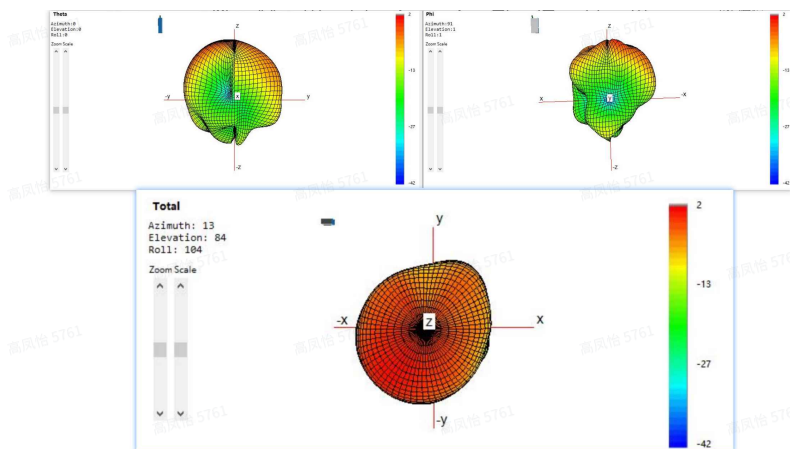
Frequency

5785MHz



Frequency

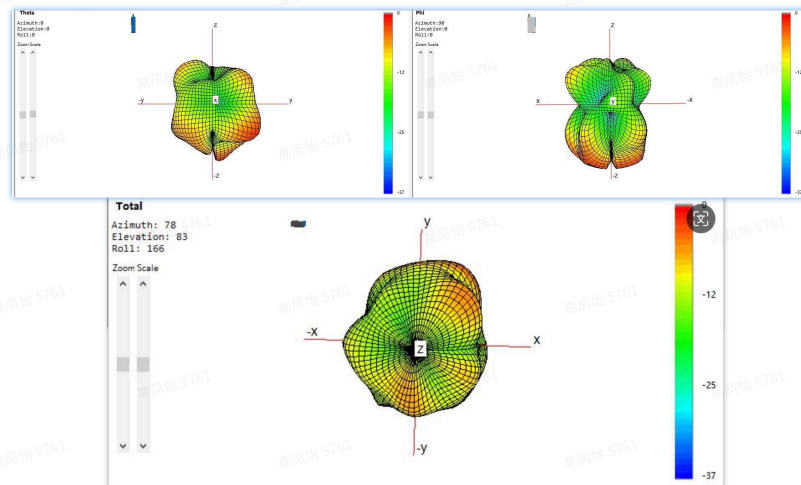
6e



ANT1 SISO:5G CHAIN1

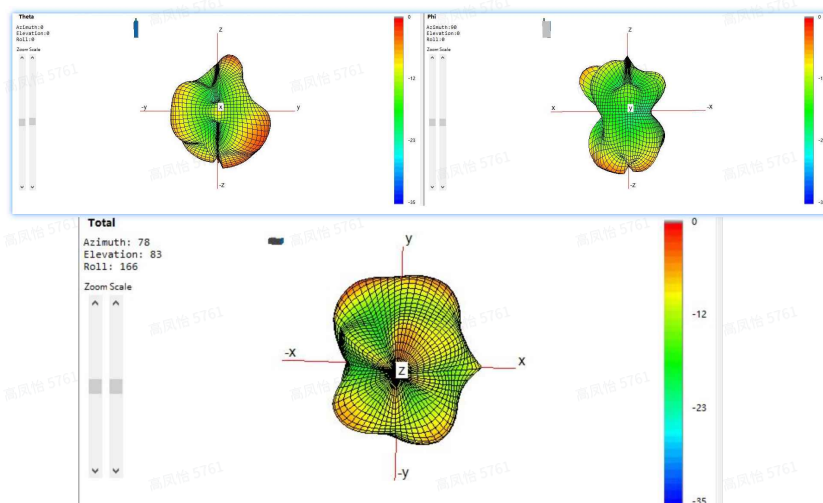
Frequency

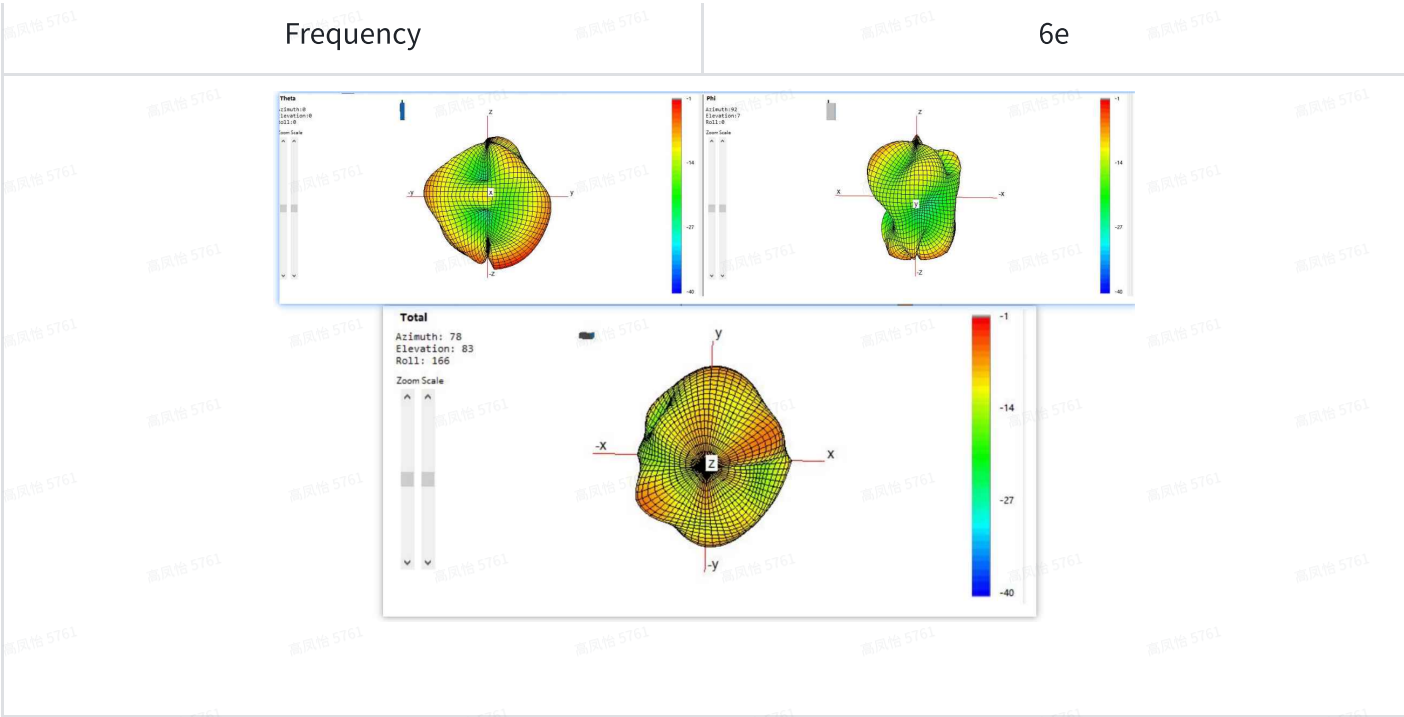
5200MHz



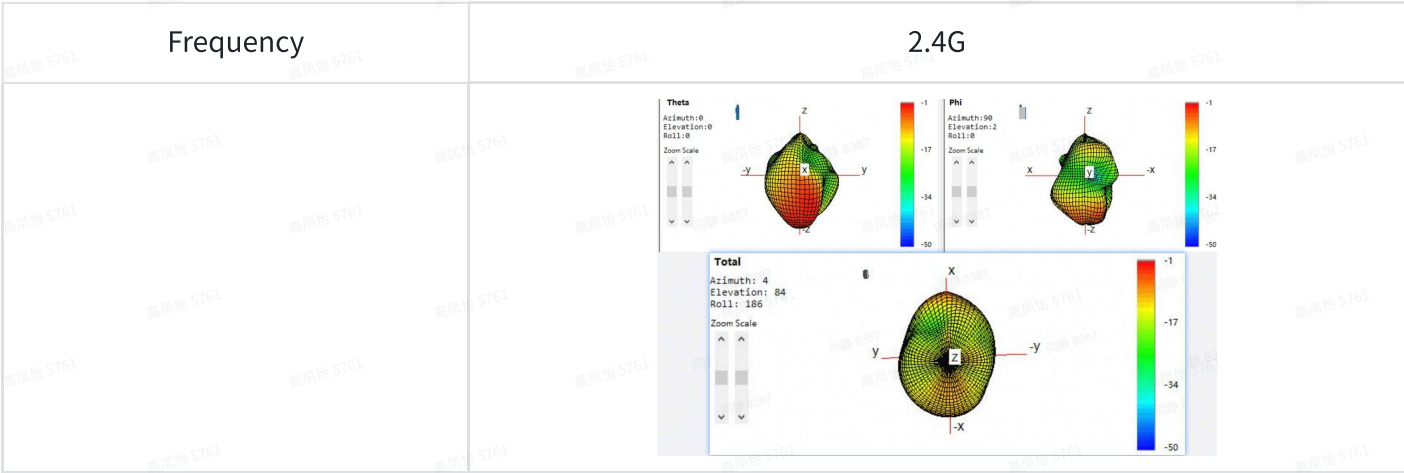
Frequency

5785MHz





ANT2 SISO:2.4G CHAIN1



BT

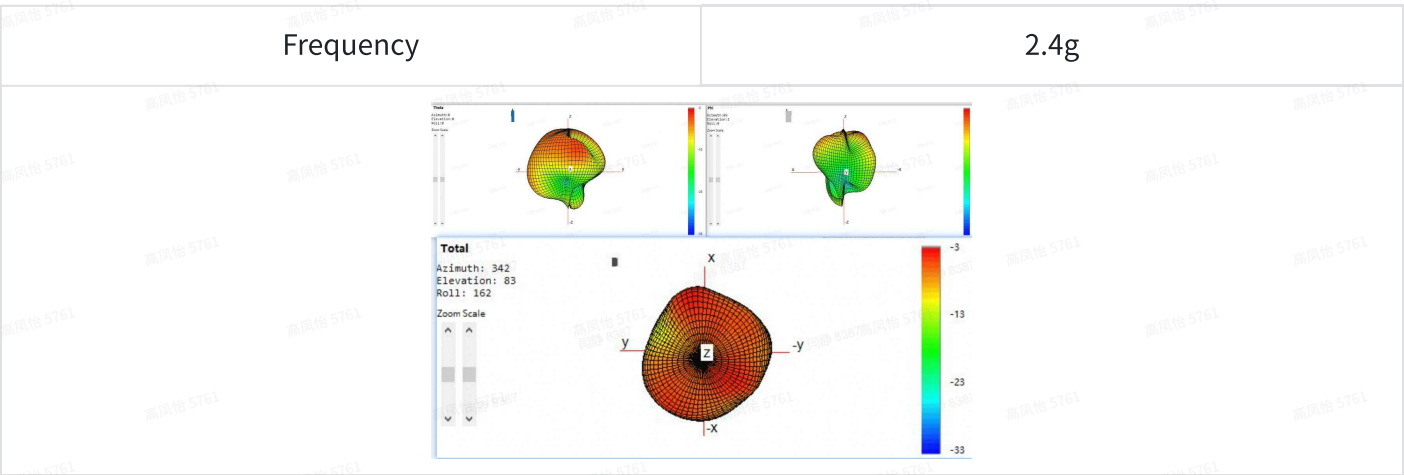
BT ANT0

Band for Antenna 0		Effi.(dB)	peak gain(dBi)
BT	2402MHz	-8.5	-3.8
	2440MHz	-7.5	-4
	2480MHz	-7.7	-4.5

S11



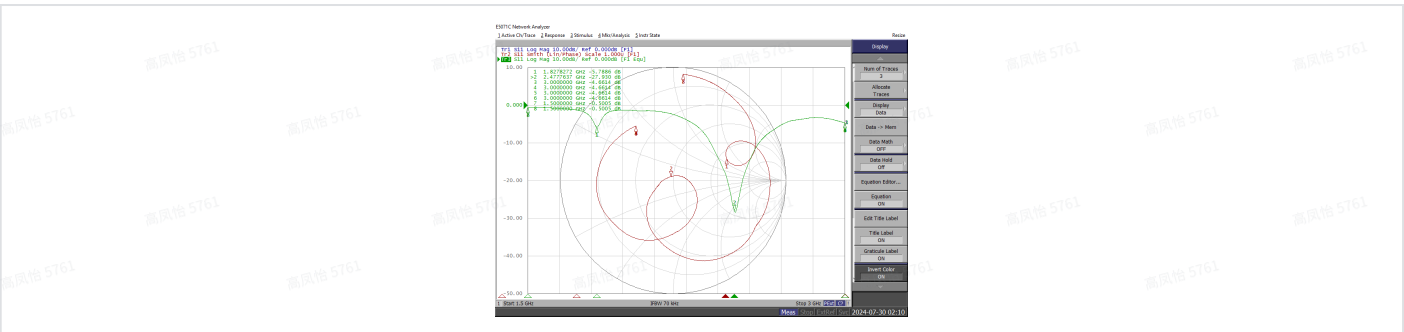
方向图



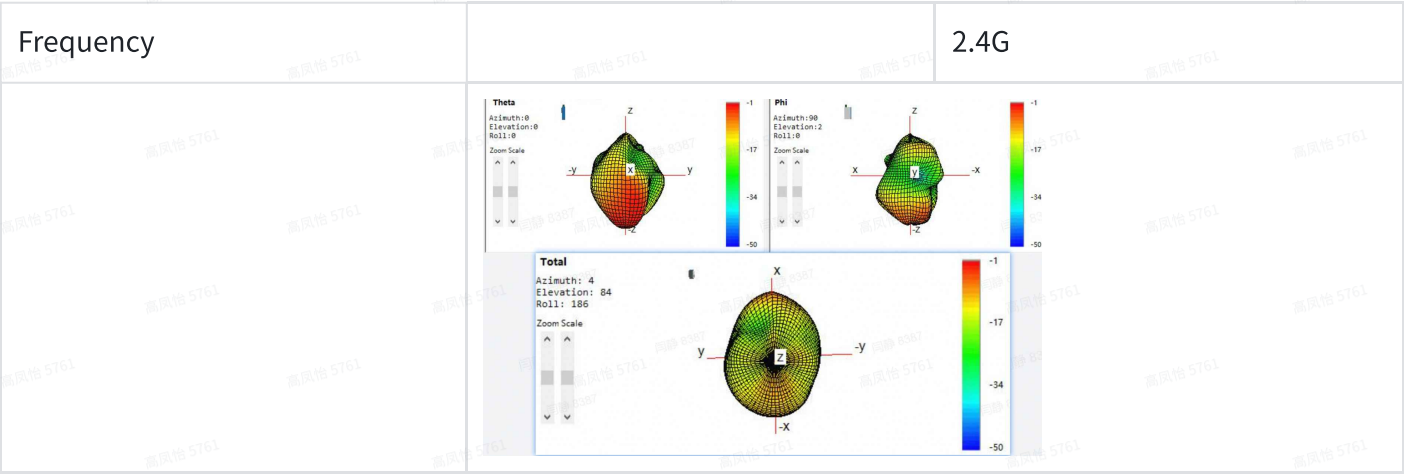
BT ANT2

Band for Antenna 2		Effi.(dBi)	peak gain(dBi)
BT	2402MHz	-7.8	-2.4
	2440MHz	-8.2	-2
	2480MHz	-8.8	-1.57

S11



方向图



3. Main Test Instruments

Name	Manufacturer	Model name	Serial Number	Cal., Date	Exp., Date
E5071C	KEYSIGHT	E5071C	MY46733949	2024/06/01	2024/10/01
RBS CMW500B37	R&S/罗德	RBS CMW500B37	101186	2024/06/01	2024/10/01

测试软件：GTS MaxSign-RayZone2800C_Z

测试工程师签字：

闫静