

Antenna Performance Description

Applicant: Xiaomi Communications Co., Ltd

Product description: Mobile Phone

Model Name: 2510ERA8BG

FCC ID: 2AFZZRA8BG

Test date: 2024/08

Antenna	Model Name	Antenna Pattern	Antenna Type	Manufacturer	Manufacturer Address	Test party of antenna gain
ANT11/13	2510ER	Metal Frame	PIFA Antenna		(Building 8, Guilin Lingyi Intelligent	Beijing Xiaomi

	A8BG			Guilin Lingyi Intelligent Manufacturing Co., Ltd Zhejiang Yingwang Precision Technology Co., Ltd.	Manufacturing Co., Ltd., B3-4, west of Yang 25th Road, Lingui District, Guilin City, Guangxi) (Yingwang Industrial Park, No. 666, Chuangxin Road, Huangzhai Town, Pujiang County, Jinhua City, Zhejiang Province)	Communications Co.,Ltd.
ANT12	2510ER A8BG	Metal Frame	PIFA Antenna	Guilin Lingyi Intelligent Manufacturing Co., Ltd Zhejiang Yingwang Precision Technology Co., Ltd.	(Building 8, Guilin Lingyi Intelligent Manufacturing Co., Ltd., B3-4, west of Yang 25th Road, Lingui District, Guilin City, Guangxi) (Yingwang Industrial Park, No. 666, Chuangxin Road, Huangzhai Town, Pujiang County, Jinhua City, Zhejiang Province)	Beijing Xiaomi Communications Co.,Ltd.
NFC (47.5mm×56.1mm×0.24mm)	2510ER A8BG	FPC antenna	LOOP Antenna	Kunshan Innwave Communication Technology Co.,Ltd;	(Building H, Jindu Intelligent Garden, Shengchuang Road, Yushan Town, Kunshan City, Suzhou City, Jiangsu Province)	Beijing Xiaomi Communications Co.,Ltd.
ANT7/1/5/8/4/9/6		Metal Frame	PIFA Antenna	Guilin Lingyi Intelligent Manufacturing Co., Ltd	(Building 8, Guilin Lingyi Intelligent Manufacturing Co., Ltd., B3-4, west of	Beijing Xiaomi Communications

	2510ER A8BG			Zhejiang Yingwang Precision Technology Co., Ltd.	Yang 25th Road, Lingui District, Guilin City, Guangxi) (Yingwang Industrial Park, No. 666, Chuangxin Road, Huangzhai Town, Pujiang County, Jinhua City, Zhejiang Province)	s Co.,Ltd.
ANT0						
		Metal Frame	T Antenna	Guilin Lingyi Intelligent Manufacturing Co., Ltd	(Building 8, Guilin Lingyi Intelligent Manufacturing Co., Ltd., B3-4, west of Yang 25th Road, Lingui District, Guilin City, Guangxi) (Yingwang Industrial Park, No. 666, Chuangxin Road, Huangzhai Town, Pujiang County, Jinhua City, Zhejiang Province)	Beijing Xiaomi Commu nication s Co.,Ltd.
	2510ER A8BG			Zhejiang Yingwang Precision Technology Co., Ltd.		

WLAN

Test instrument:GTS2800

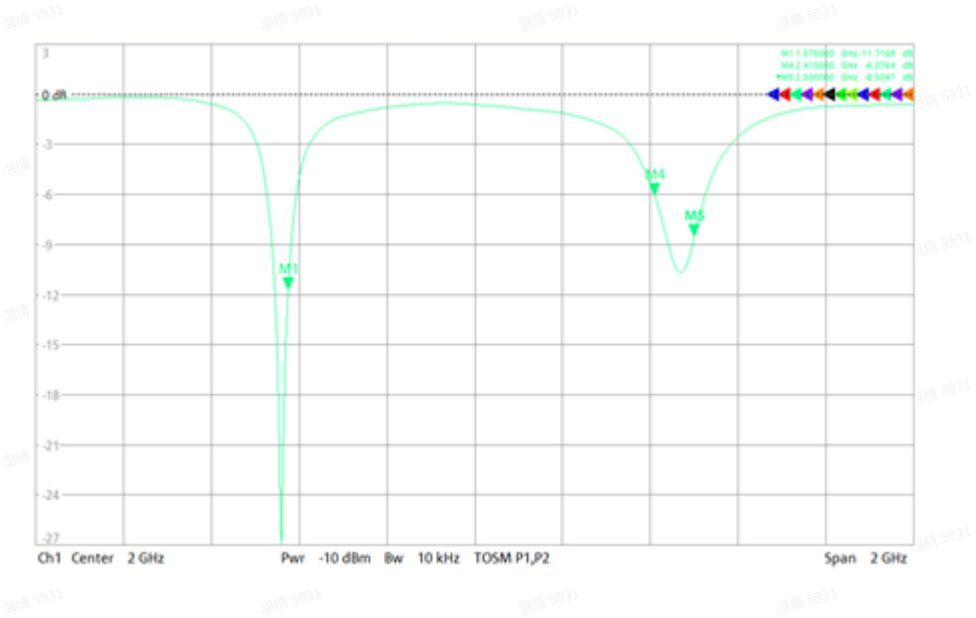
ANT13	WiFi2.4G0+BT0
ANT11	WiFi5G1
ANT12	WiFi2.4G1+BT1+WiFi5G0

ANT13:

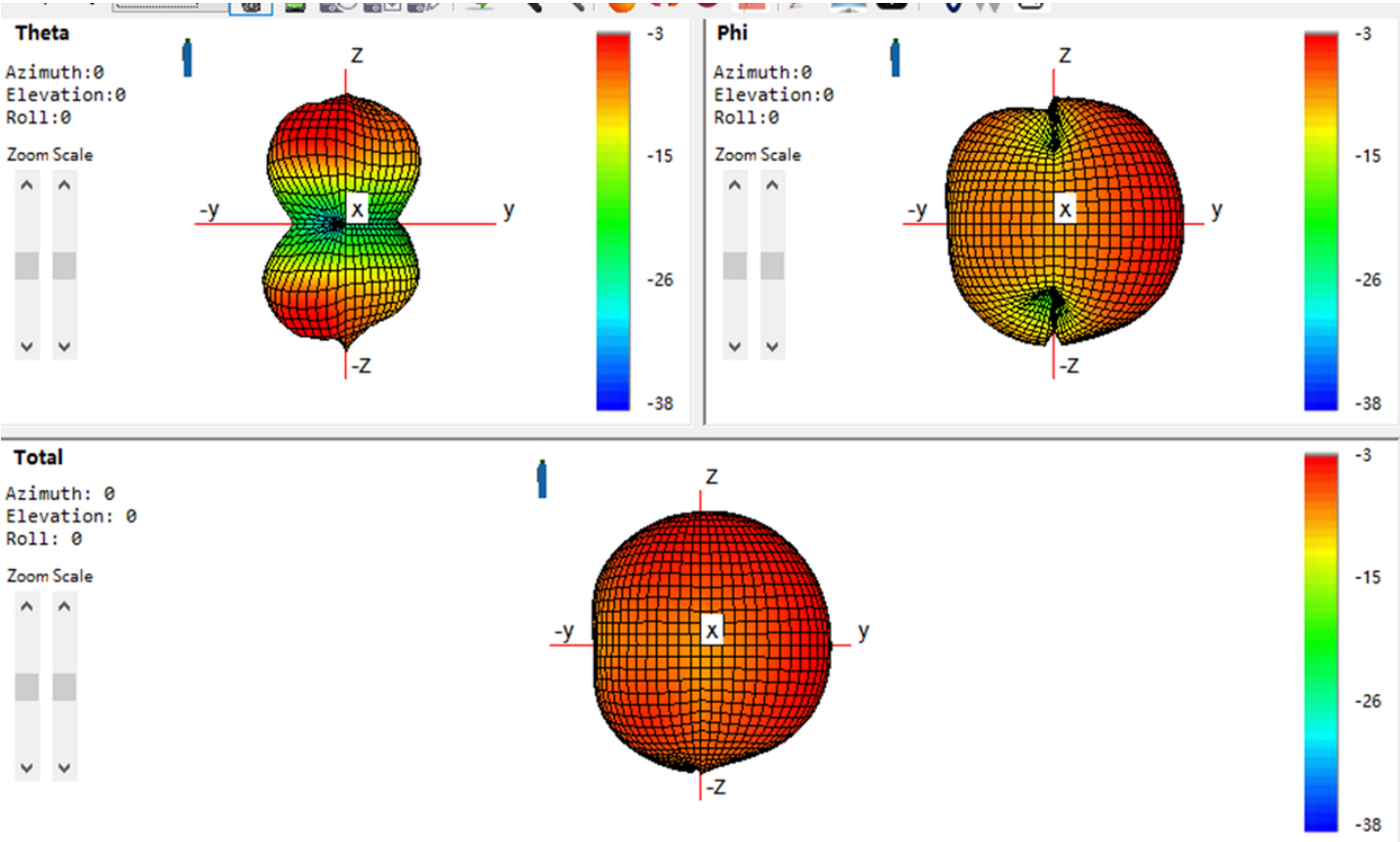
Band	ant 7	
	Effi.(dBi)	peak gain(dBi)
2.4G/BT	-5.6	-3.5

S11

ANT13:



2.4G

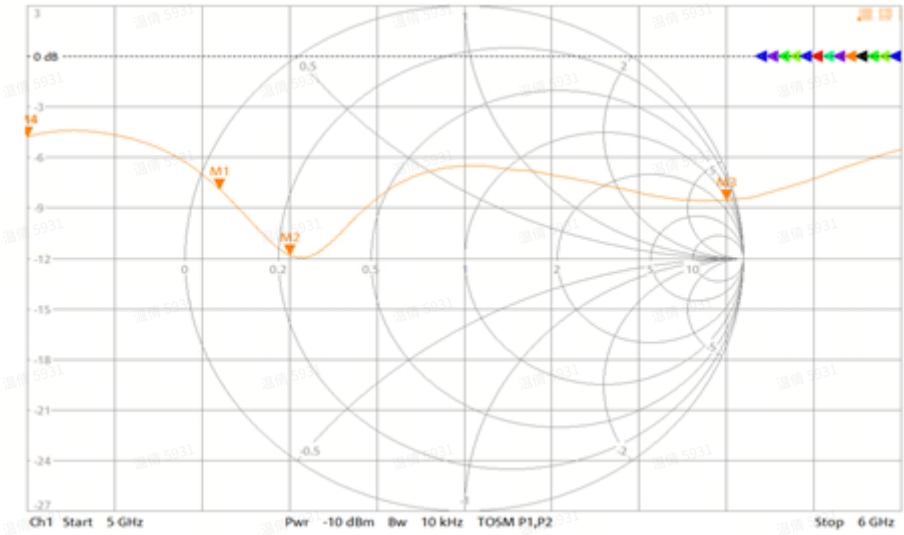


ANT11:

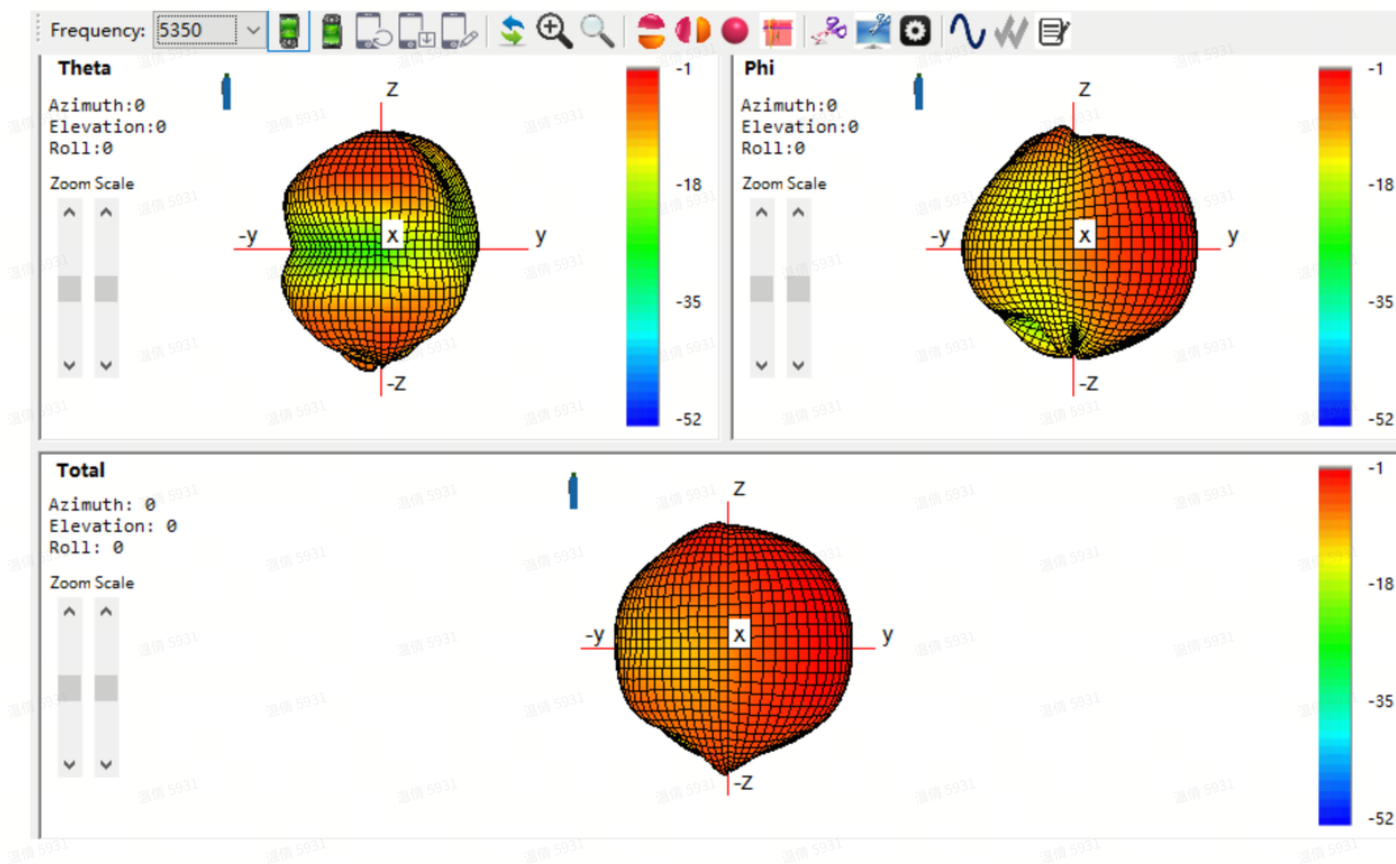
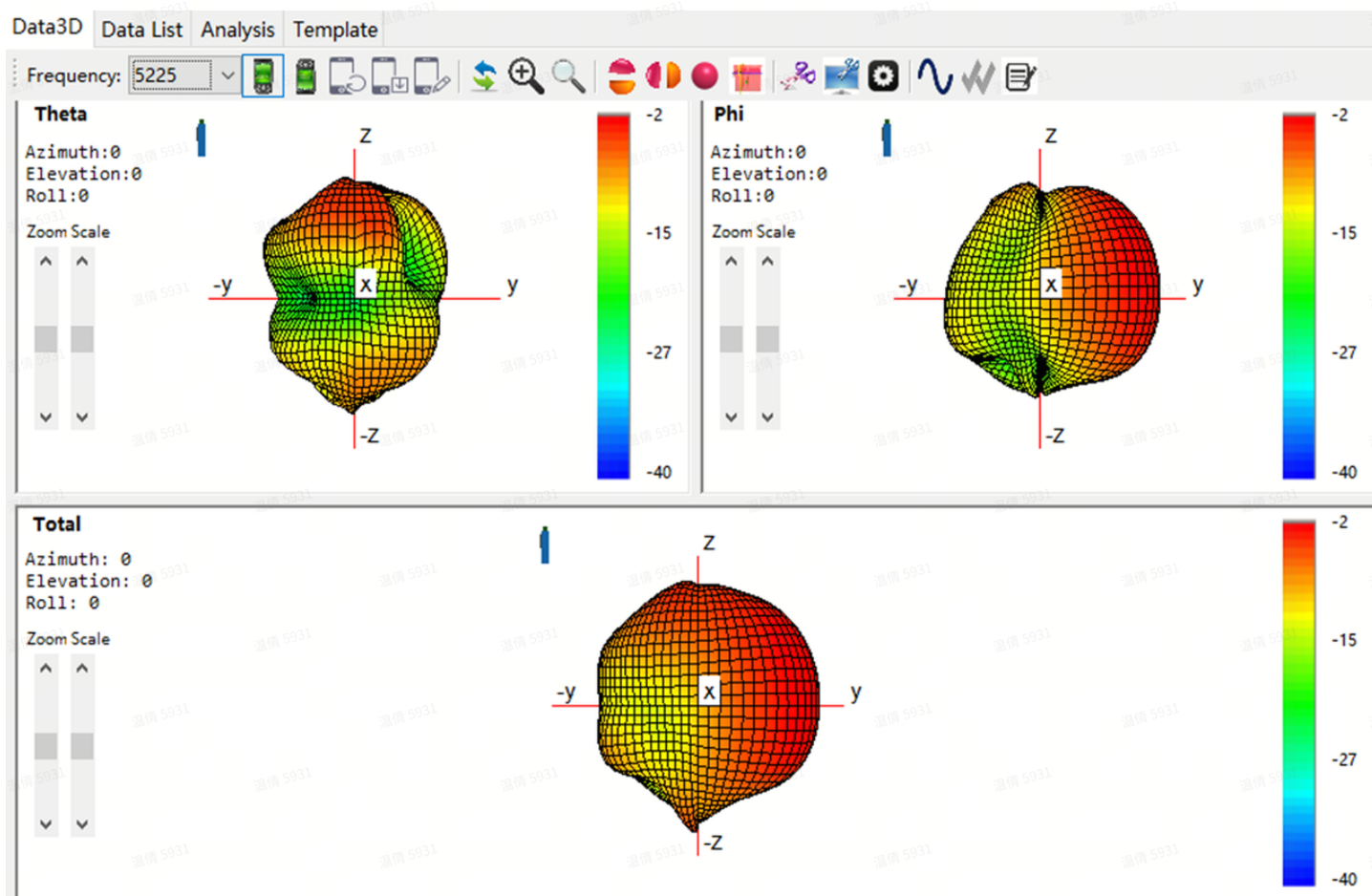
Band	ant9	
	Effi.(dBi)	peak gain(dBl)
5G (5.15-5.25GHZ)	-7.38	-2.19
5G (5.25-5.35GHZ)	-5.87	-1.5
5G (5.47-5.725GHZ)	-6.55	-2.14

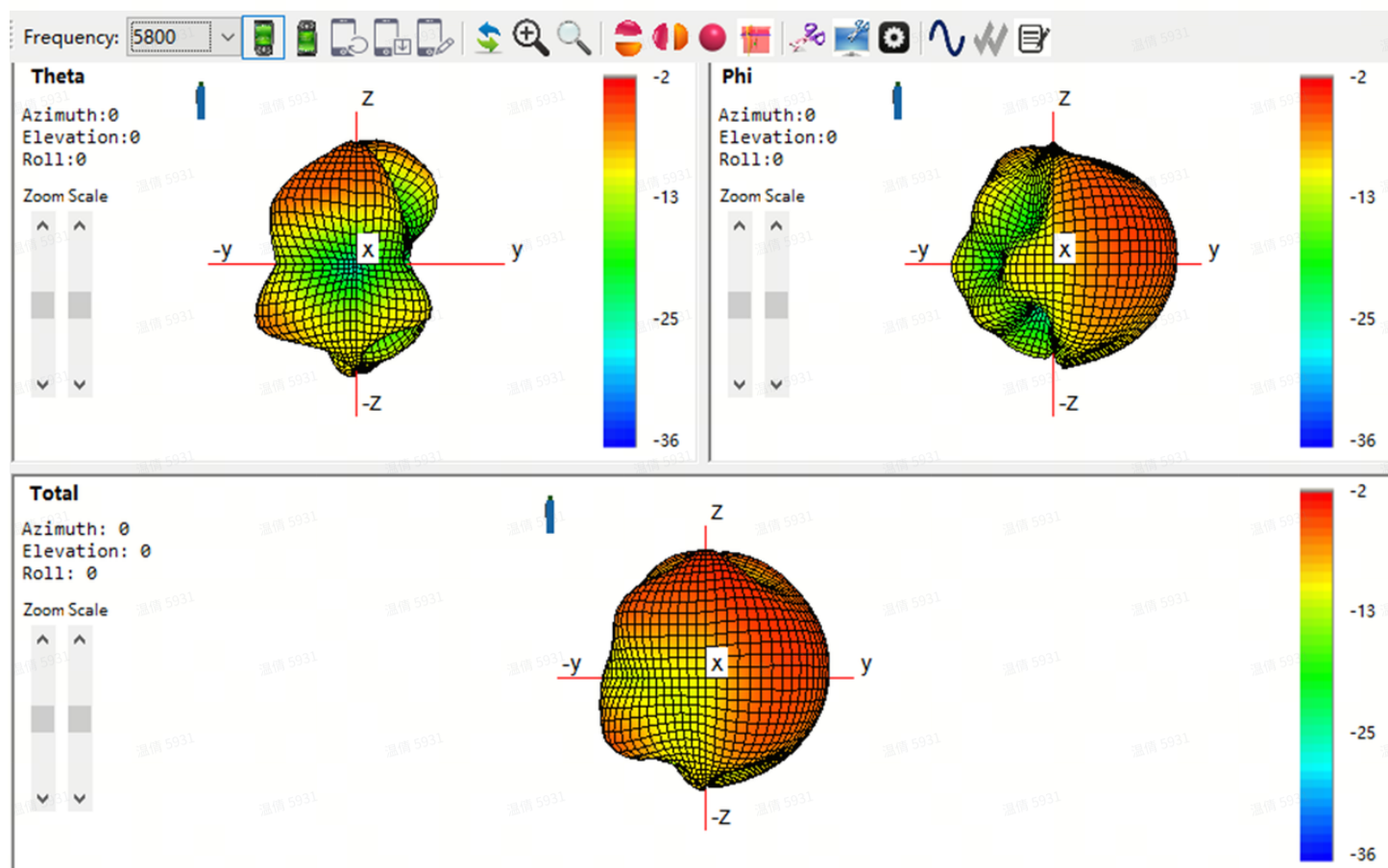
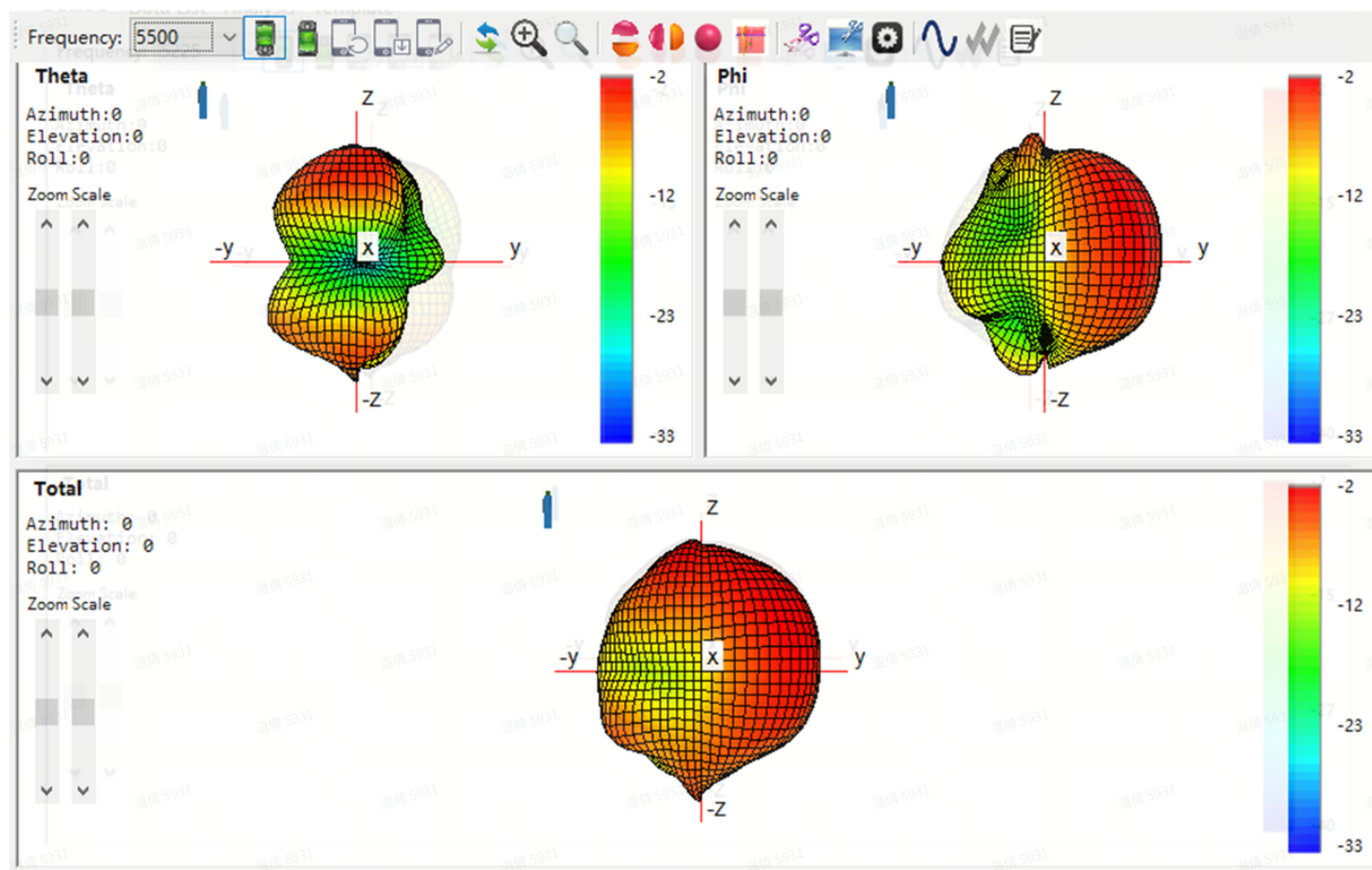
5G (5.725-5.85GHz)	-7.01	-3
6e(5.925-6.425GHz)	-7.45	-4.23
6e(6.425-6.525GHz)	-7.52	-3.9
6e(6.525-6.875GHz)	-6.12	-1.37
6e(6.875-7.125GHz)	-5.14	0.03

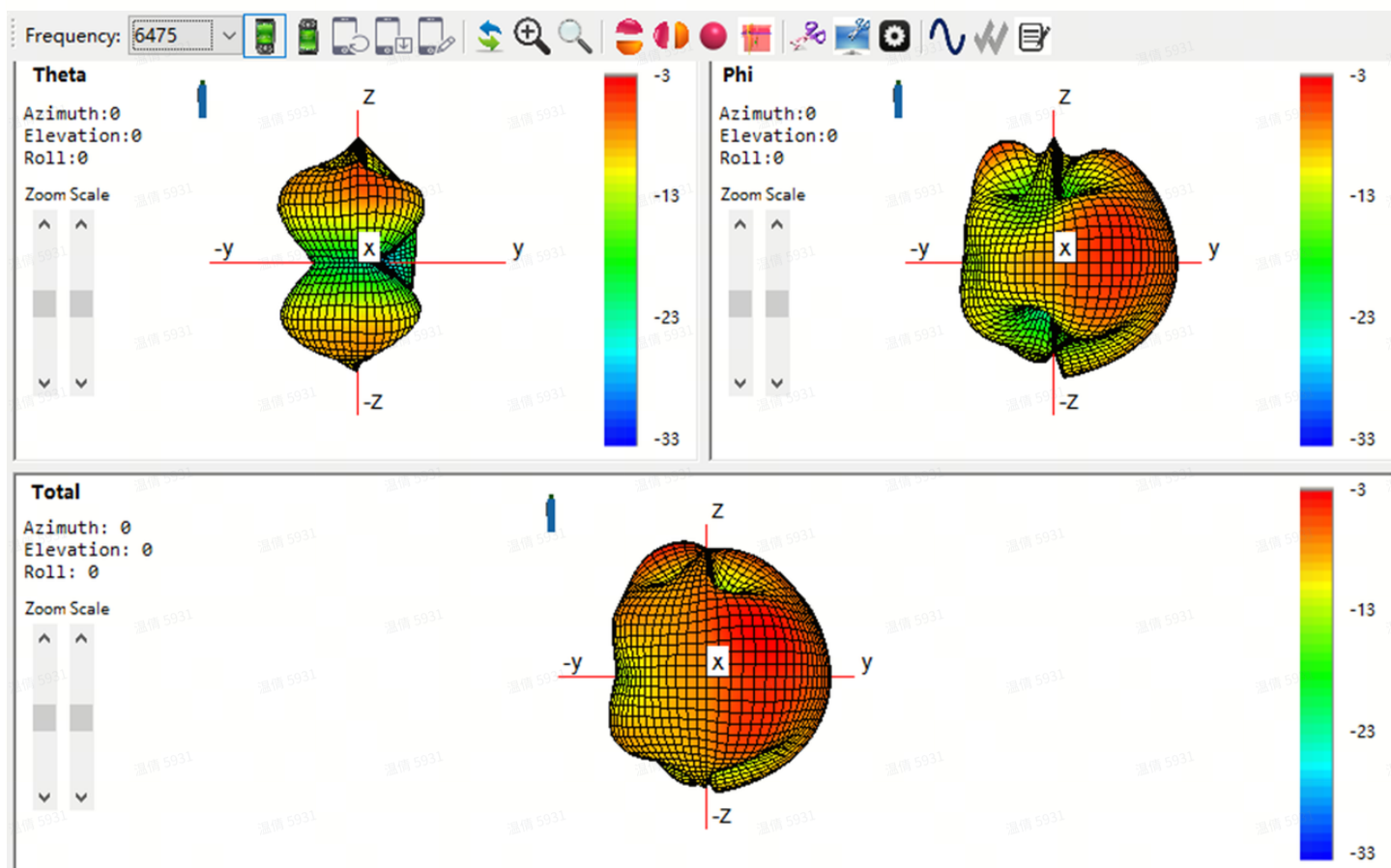
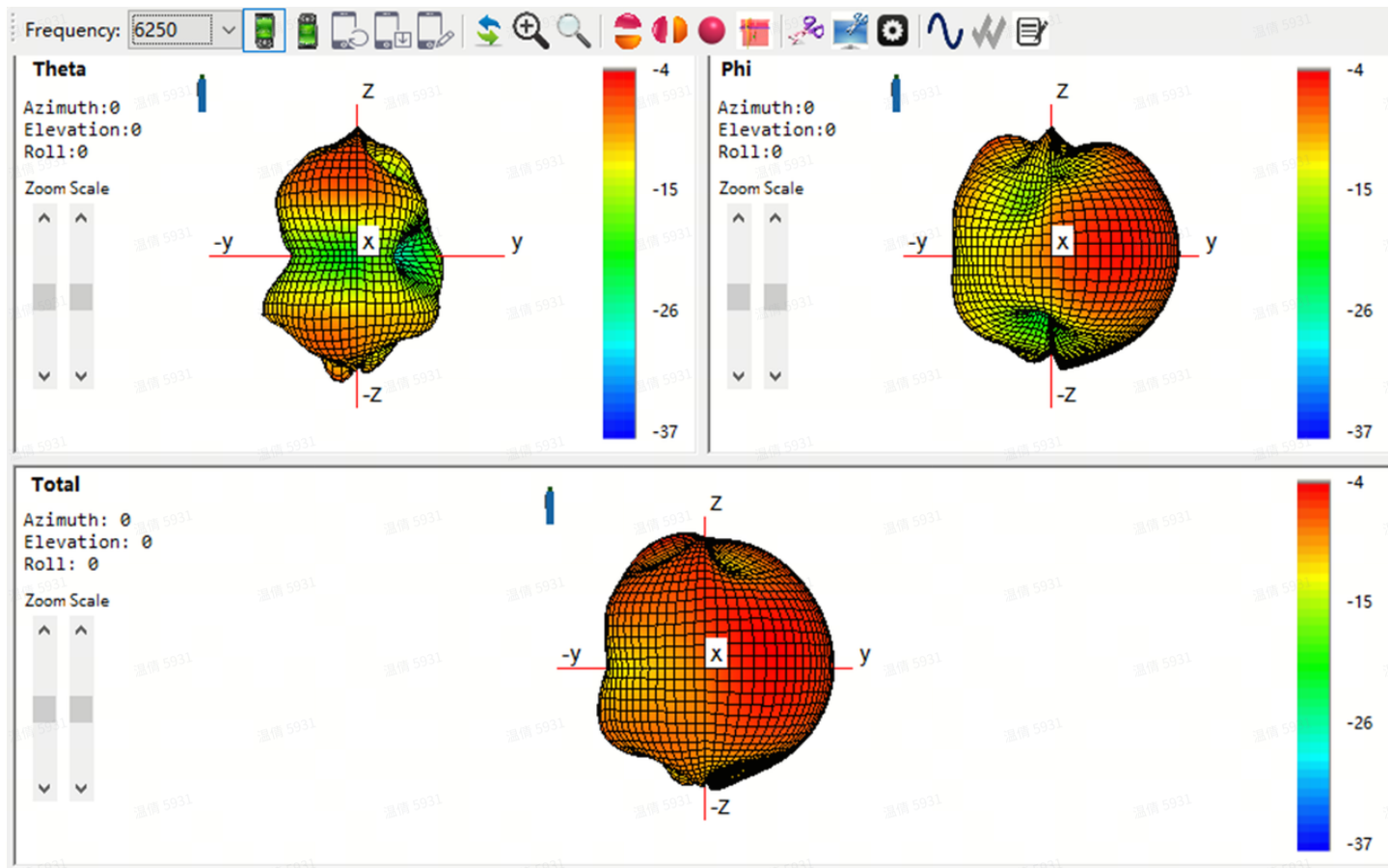
S11:

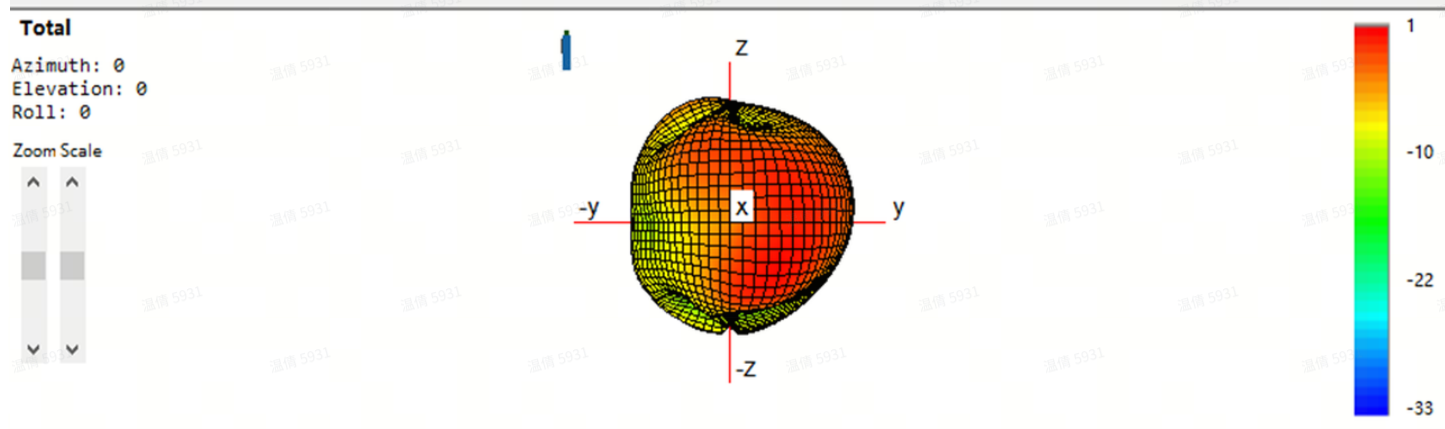
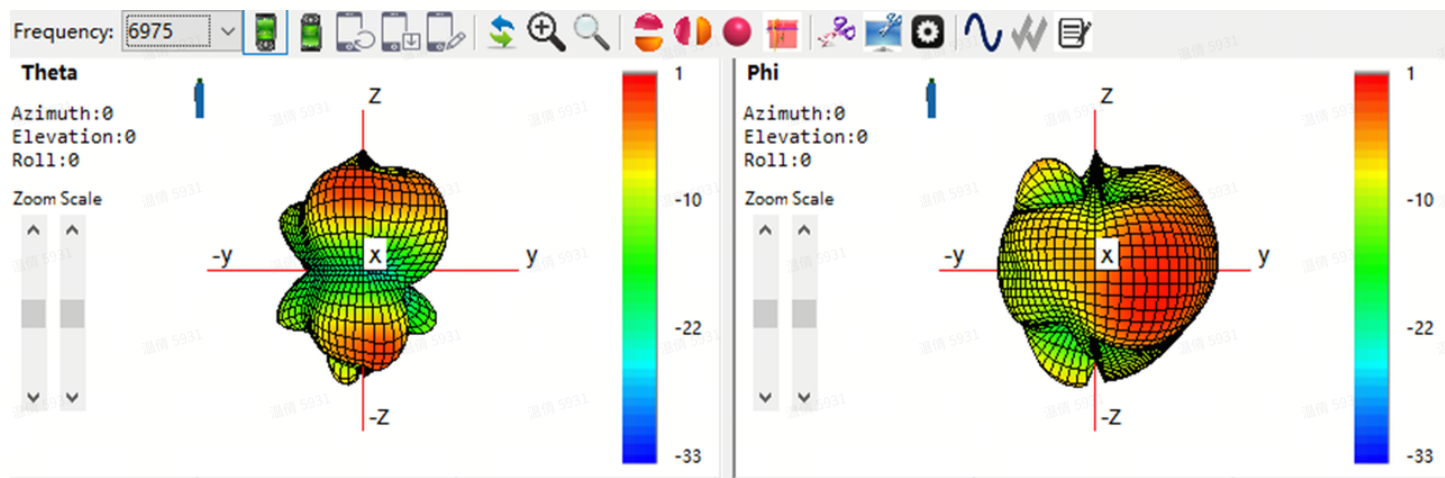
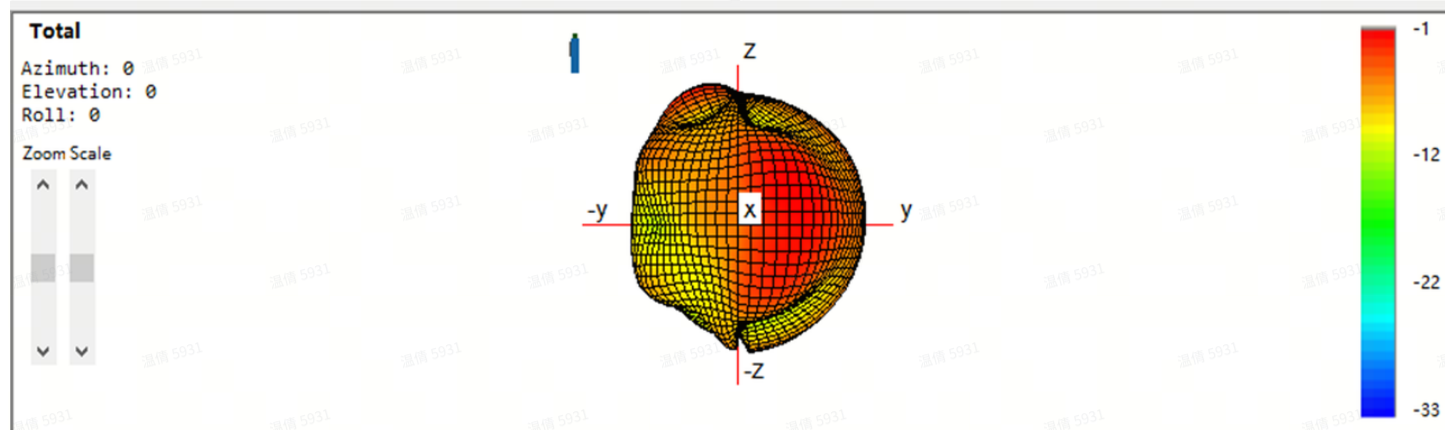
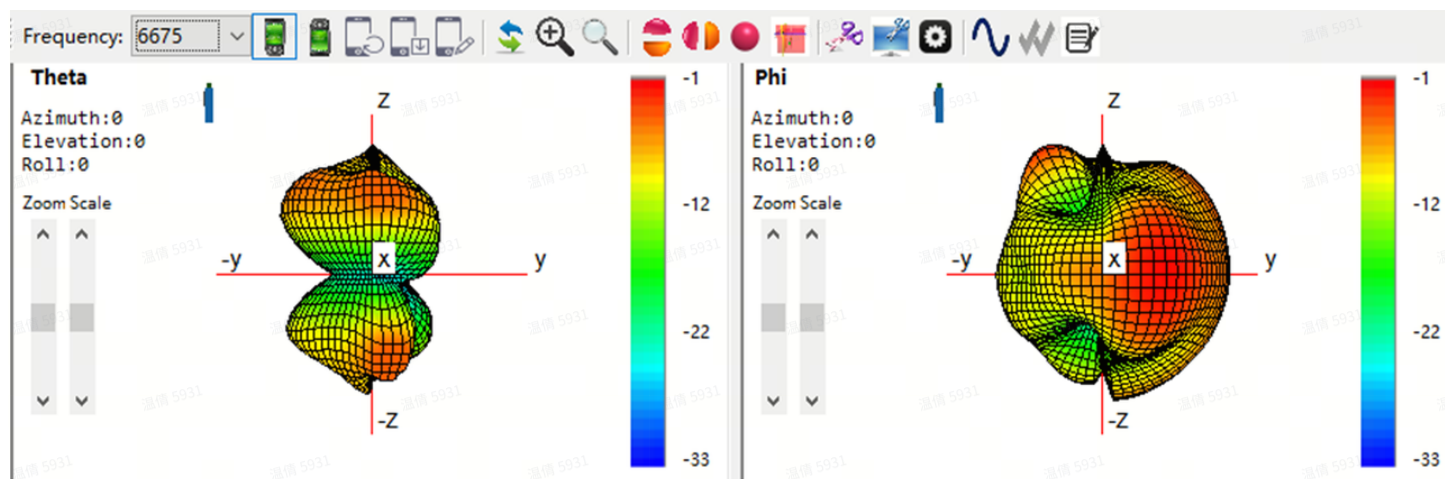


5G:









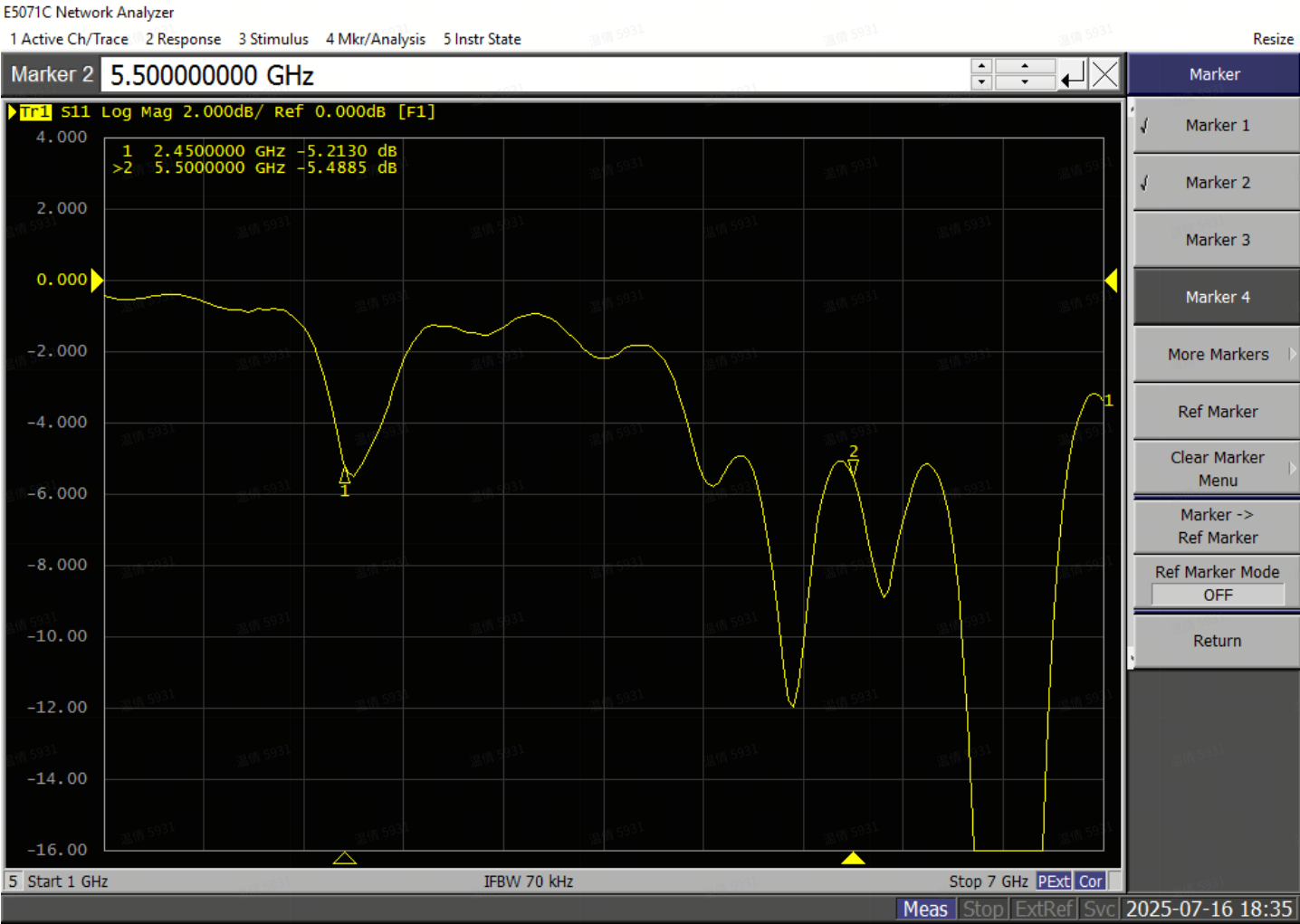
ANT12:

Band

ant11

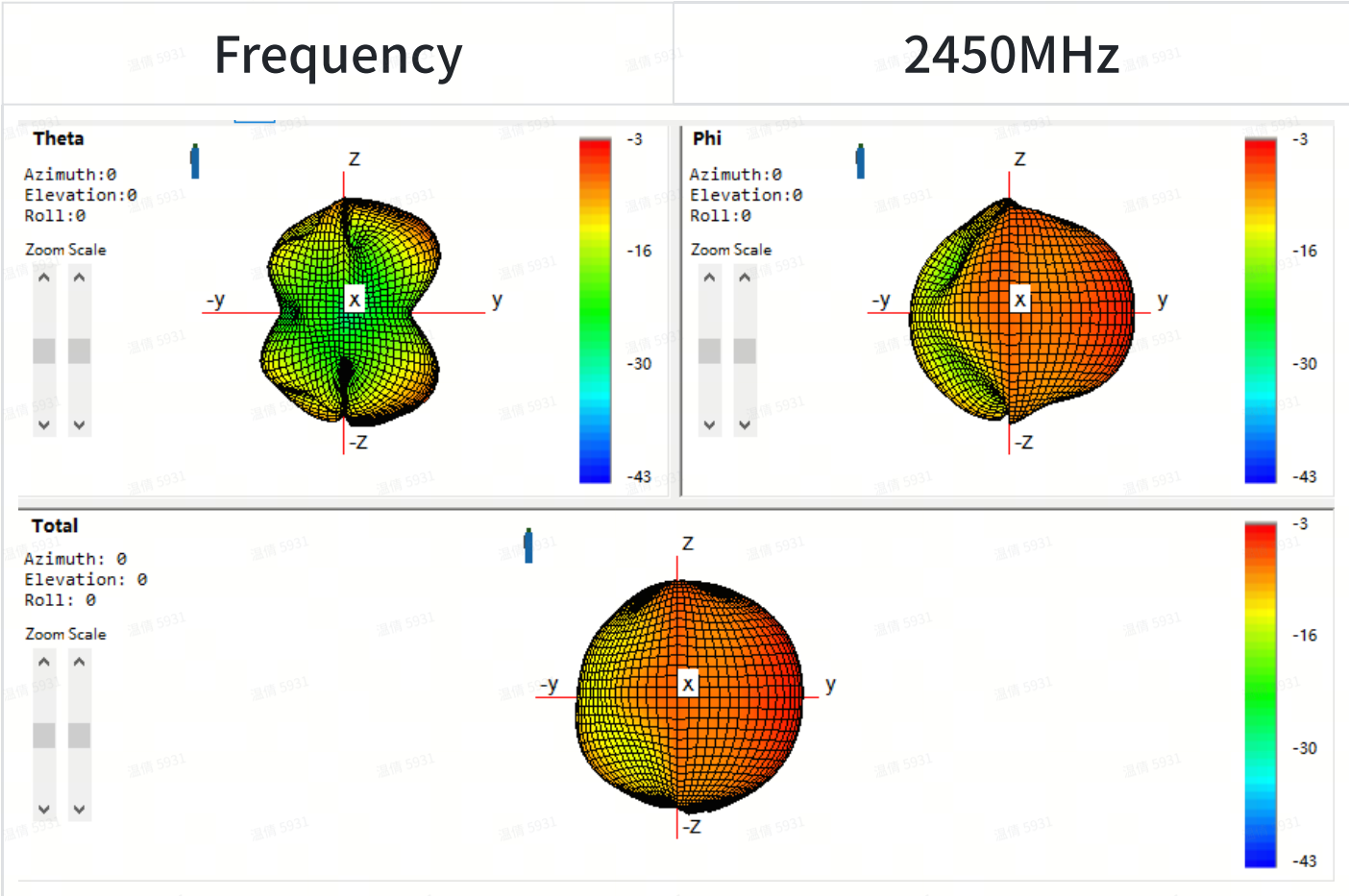
	Effi.(dBi)	peak gain(dBi)
2.4G/BT	-7.5	-3.3
5G (5.15-5.25GHZ)	-4.9	0.5
5G (5.25-5.35GHZ)	-5	0.4
5G (5.47-5.725GHZ)	-5.6	0.4
5G (5.725-5.85GHZ)	-5.8	0.3
6e(5.925-6.425GHZ)	-6.6	-0.4
6e(6.425-6.525GHZ)	-7	-2.2
6e(6.525-6.875GHZ)	-7.9	-3.3
6e(6.875-7.125GHZ)	-10.3	-5.2

S11:

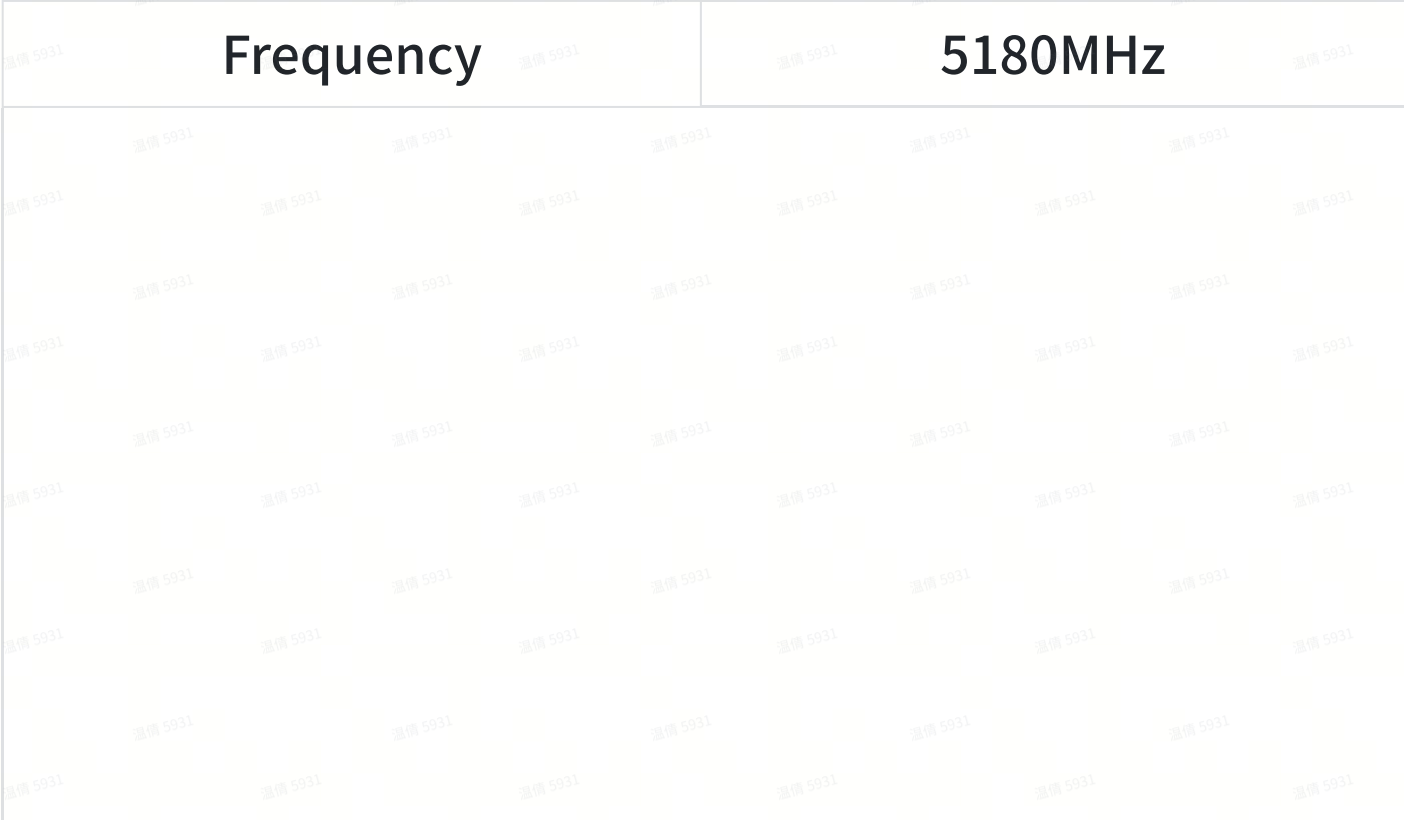


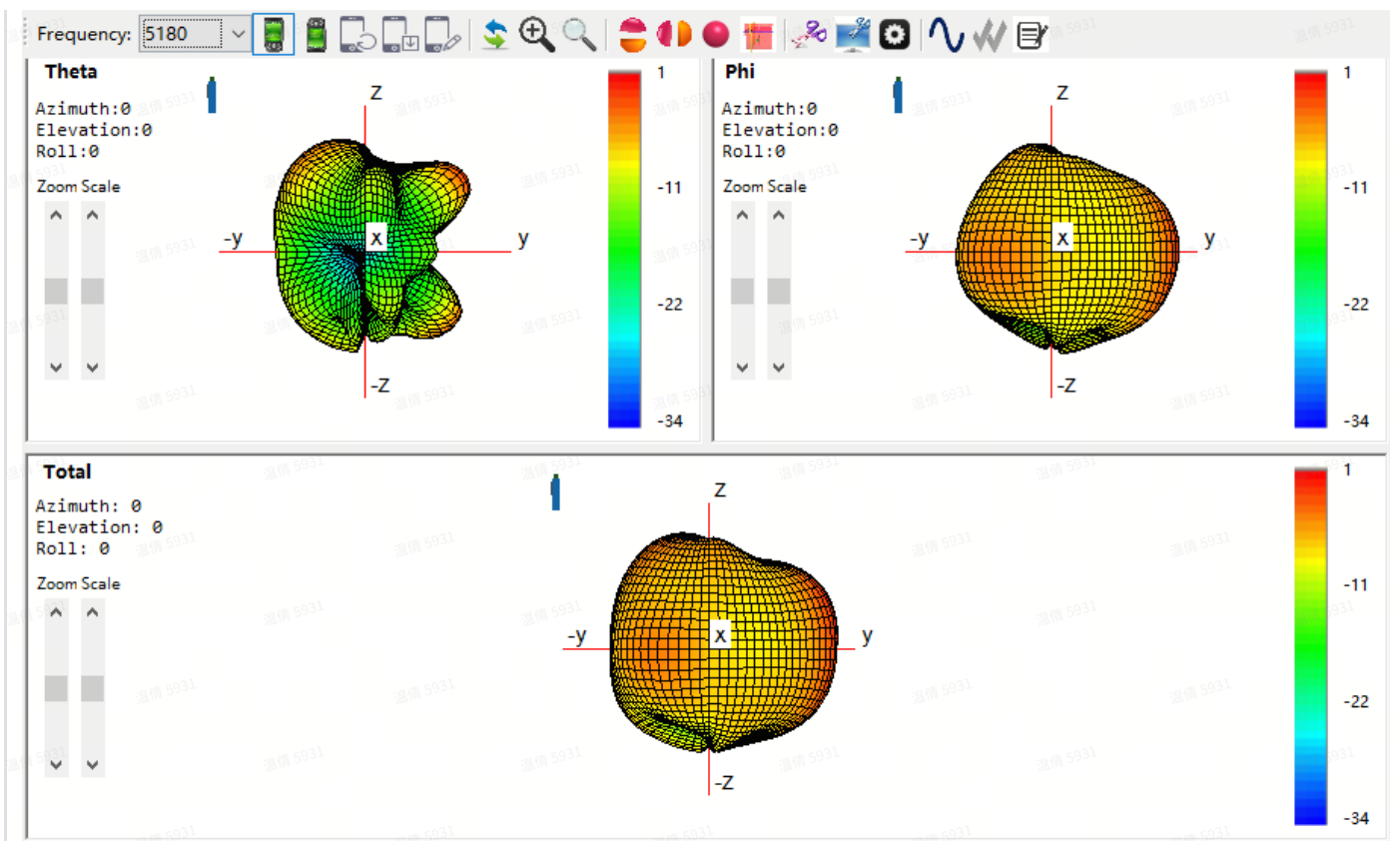
方向图：

WiFi2.4G



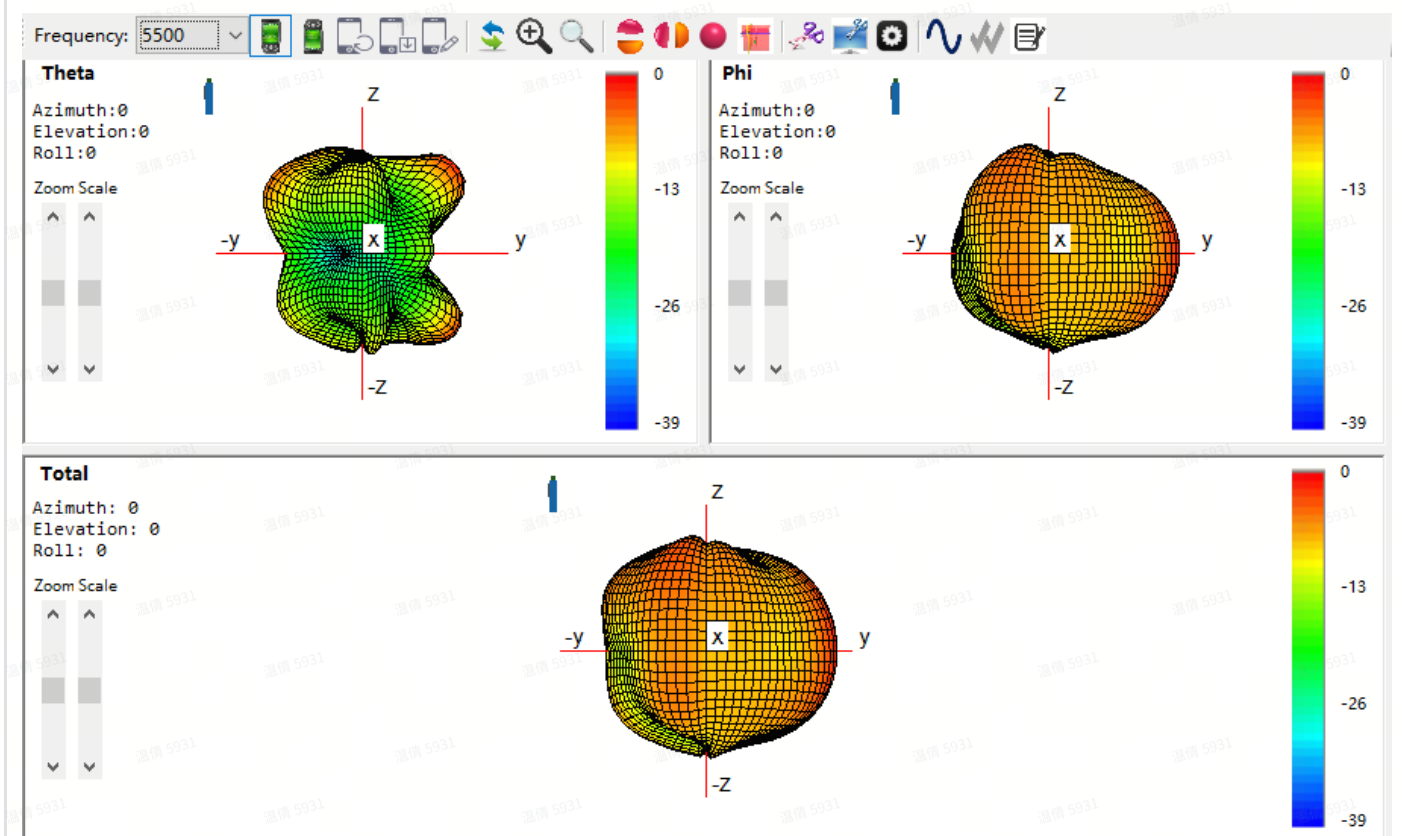
5G:





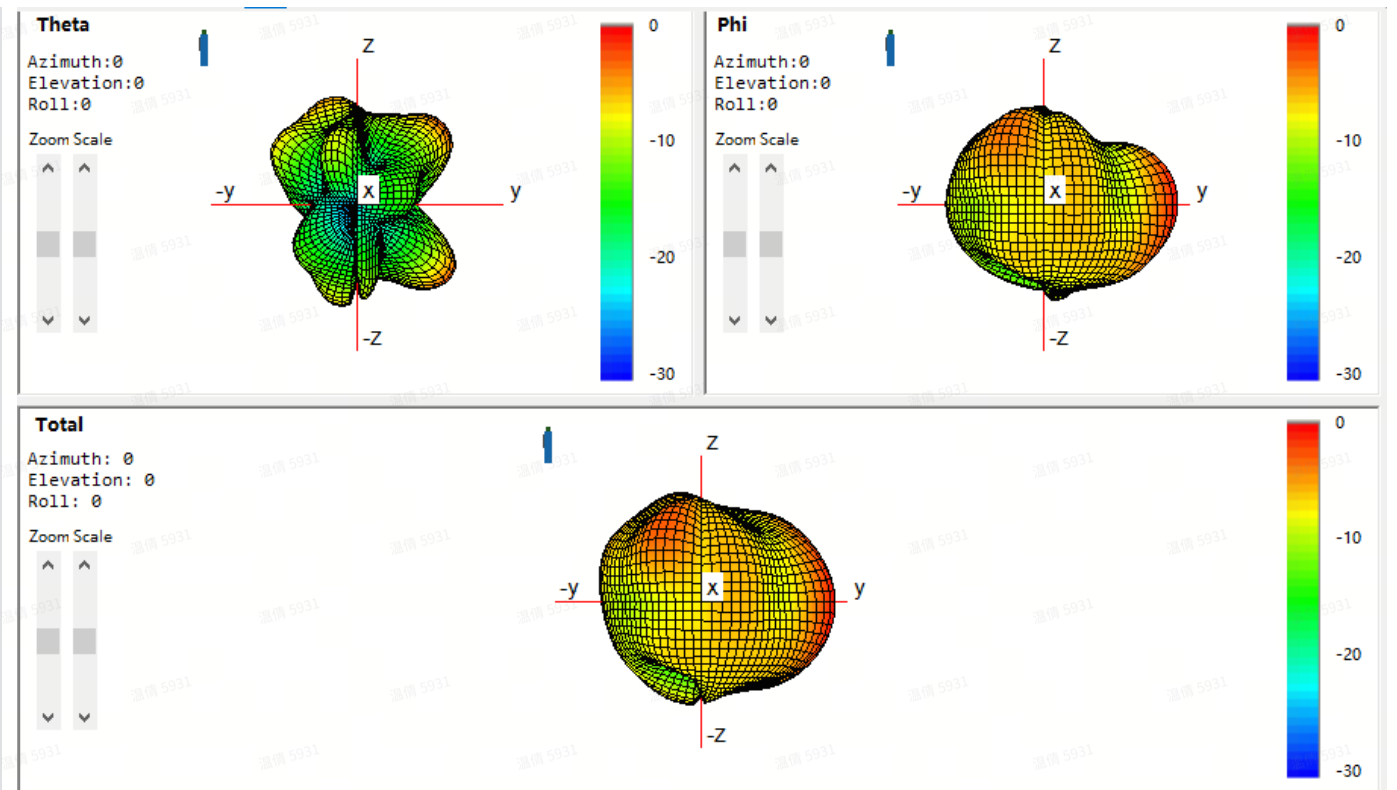
Frequency

5500MHz



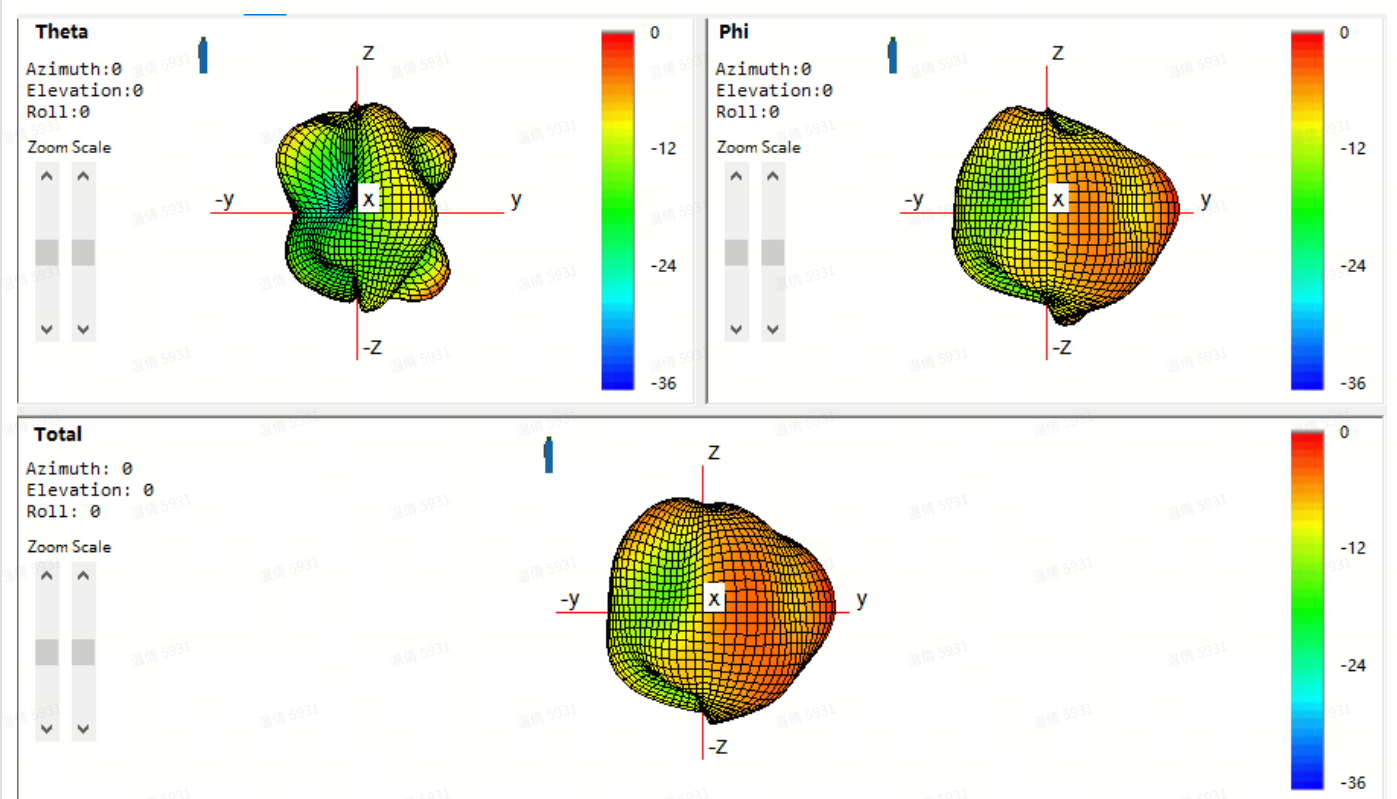
Frequency

5785MHz



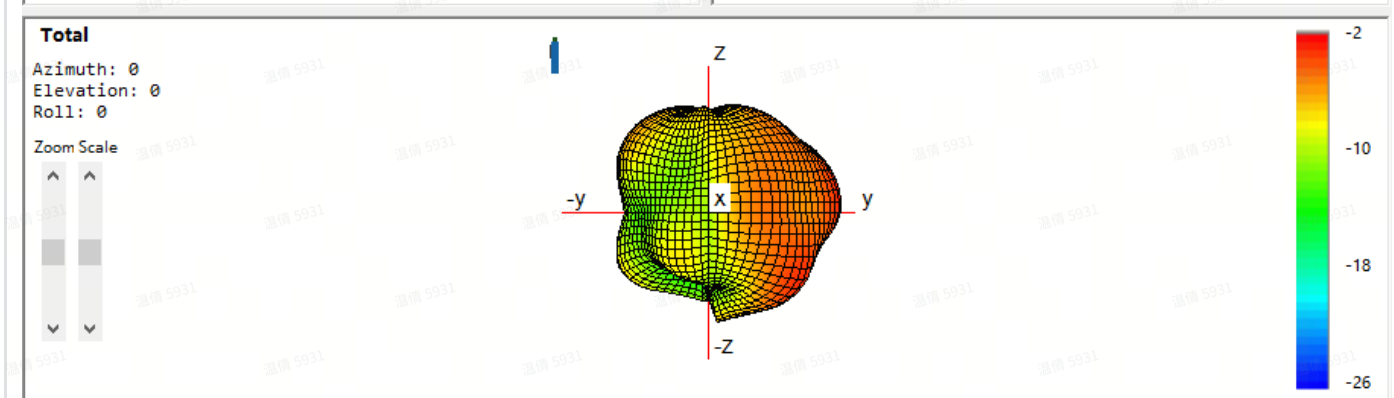
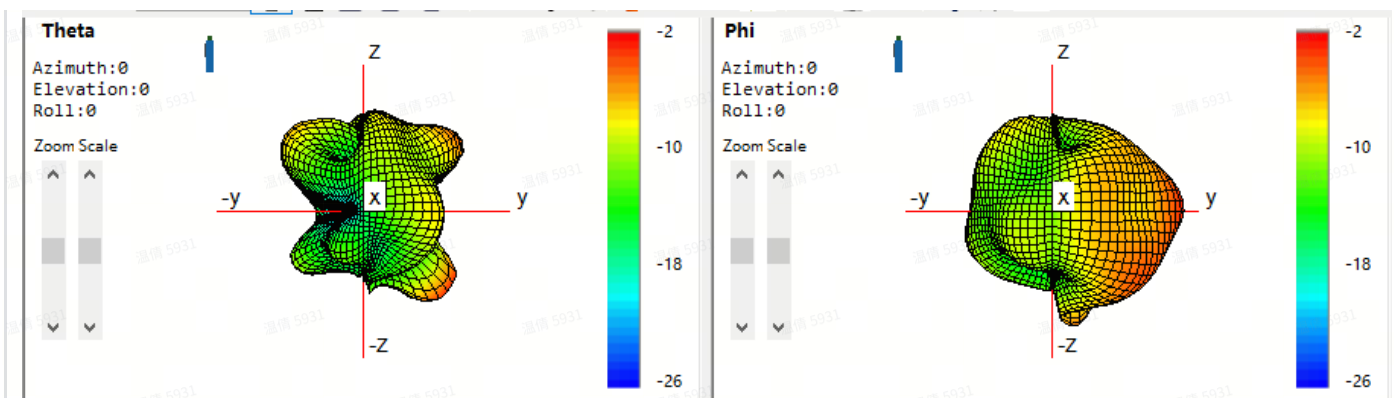
Frequency

6250MHz



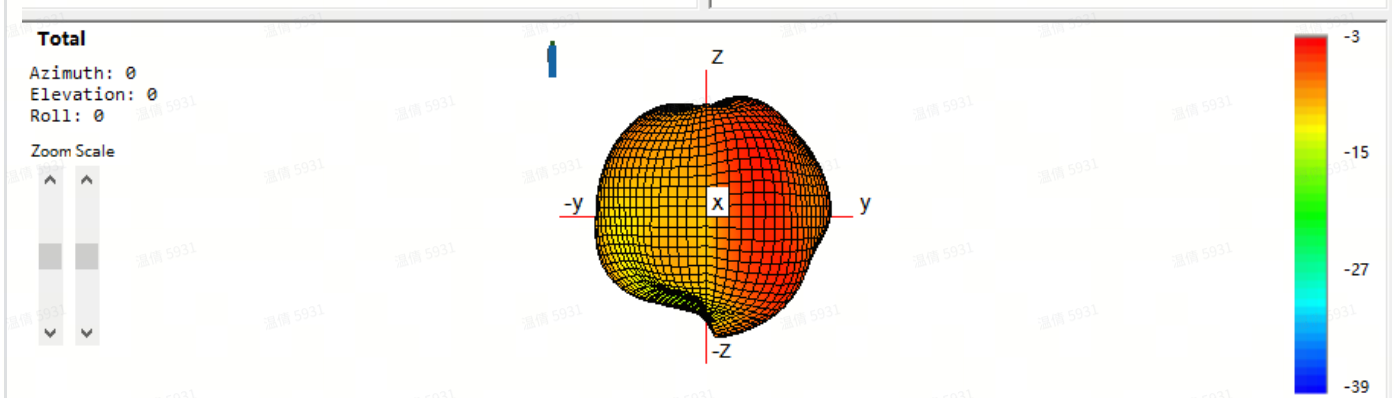
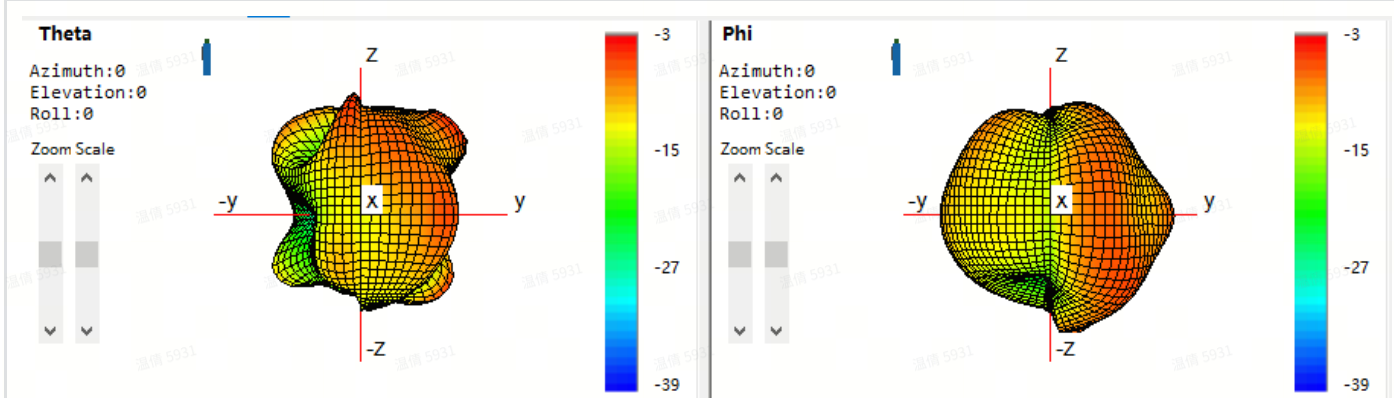
Frequency

6450MHz



Frequency

6700MHz



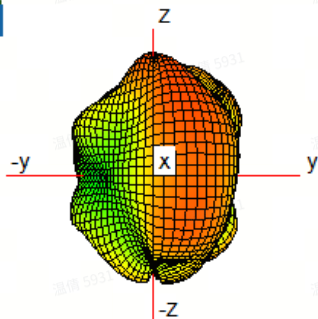
Frequency

7000MHz

Theta

Azimuth: 0
Elevation: 0
Roll: 0

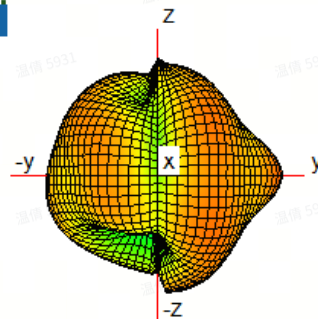
Zoom Scale



Phi

Azimuth: 0
Elevation: 0
Roll: 0

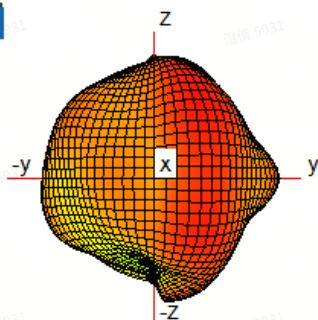
Zoom Scale



Total

Azimuth: 0
Elevation: 0
Roll: 0

Zoom Scale



WWAN

ANT0:

Band	
	peak gain(dBI)
G850/WB5/LB5/NR5	-6.89
G900/WB8/LB8/NR8	-6.6
LB12/N12	-7.31
LB13	-7.31
LB17	-7.31
LB18	-6.89
LB19	-6.89
LB20/N20	-6.89
LB26	-6.89

LB28/N28	-7.31
N71	-7.8

ANT1:

Band	peak gain(dBl)
G850/WB5/LB5/NR5	-5.81
G900/WB8/LB8/NR8	-4.75
LB12/N12	-4.19
LB13	-4.95
LB17	-3.96
LB18	-5.81
LB19	-5.81
LB20/N20	-5.81
LB26	-5.81
LB28/N28	-3.96
N71	-6.49

ANT4:

Band	peak gain(dBl)
WB1/LB1/n1	-1.98
G1900/WB2/LB2/N2	-1.98
G1800/WB3/LB3/N3	-2.84
WB4/LB4	-2.84
LB7/N7	-1.71

B66/N66	-2.84
LB38/N38	-0.6
LB40/N40	-0.65
LB41/N41	-0.6
LB42	-0.65
LB48/N48	-1.77
N77	-1.77
N78	-1.77

ANT5:

Band	peak gain(dBI)
WB1/LB1/n1	-0.78
G1900/WB2/LB2/N2	-2.08
G1800/WB3/LB3/N3	-2.97
WB4/LB4	-2.97
LB7/N7	-1.67
B66/N66	-2.97
LB38/N38	-1.58
LB40/N40	-1.3
LB41/N41	-1.58

ANT6:

Band	peak gain(dBI)
WB1/LB1/n1	-2.89

LB3/N3	-4.61
WB4/LB4	-2.75
LB7/N7	-4.73
B66/N66	-4.61
LB38/N38	-4.15
LB40/N40	-5.93
LB41/N41	-4.15
LB42	0.26
LB48/N48	-1.14
N77	0.26
N78	0.26

ANT7:

Band	
	peak gain(dB)
WB1/LB1/n1	-2.68
LB3/N3	-3.43
WB4/LB4	-2.68
LB7/N7	-3.77
B66/N66	-2.68
LB38/N38	-3.77
LB40/N40	-1.56
LB41/N41	-3.77

ANT8:

Band	
------	--

	peak gain(dB)
LB42	2.32
LB48/N48	2.32
N77	2.32
N78	2.32

ANT9:

Band	
	peak gain(dB)
LB42	-1.33
LB48/N48	0.8
N77	2.34
N78	2.17

Main Test Instruments:

Name	Manufacturer	Model name	Serial Number	Cal., Date	Exp., Date
2G/3G/4G Vector Network Analyzer	KEYSIGHT	E5071C	My46733920	2024/07/20	2025/07/20
OTA TEST SYSTEM	GENERAL TEST	RayZone 2800	CT10120480B5 054	2024/07/20	2025/07/20

Antenna test environment

