



Antenna Performance Description

Applicant: Xiaomi Communications Co., Ltd

Product description: Mobile Phone

Model Name: XIG04

FCC ID: 2AFZZN60R

Test date: 2023/05/16

Test Engineer	Gong Xiaoqing
Signature	Gong Xiaoqing



1. Antenna information

Antenna	Pattern	Antenna Type	Manufacturer	Test party of Antenna gain
ANT0	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
ANT1	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
ANT2	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
ANT3	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
ANT4	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.



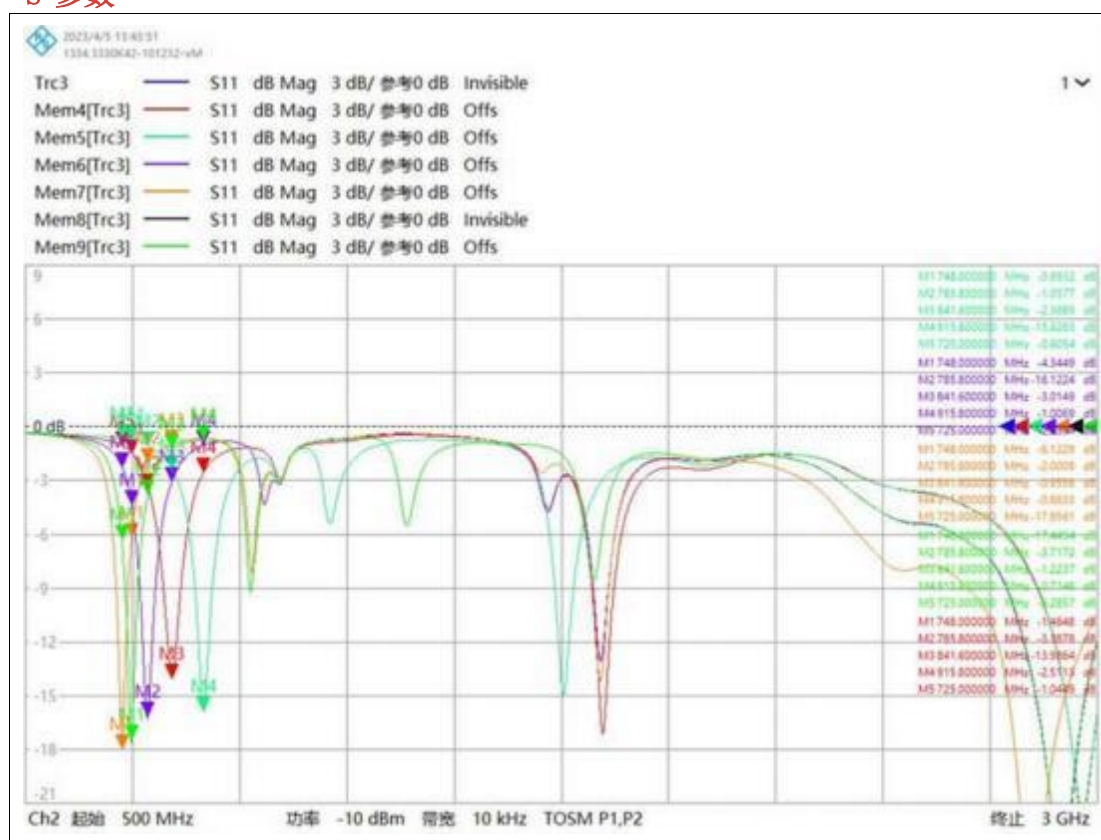
ANT5	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
ANT6	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
ANT7	FPC	Fixed Internal Antenna	Kunshan Innowave Communication Technology Co., Ltd.	Shenzhen Xiaomi Communications Co., Ltd.
ANT17	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
ANT18	Metal Frame	Fixed Internal Antenna	XIAOMI	Shenzhen Xiaomi Communications Co., Ltd.
NFC	FPC	Fixed Internal Antenna 48.15*35.97m m	Kunshan Innowave Communication Technology Co., Ltd.	Building 4, Zone A, Hong Xin Tai Industrial Park, No.28 Yinying Road, Gaoying Village, Dongguan City



2. Test data

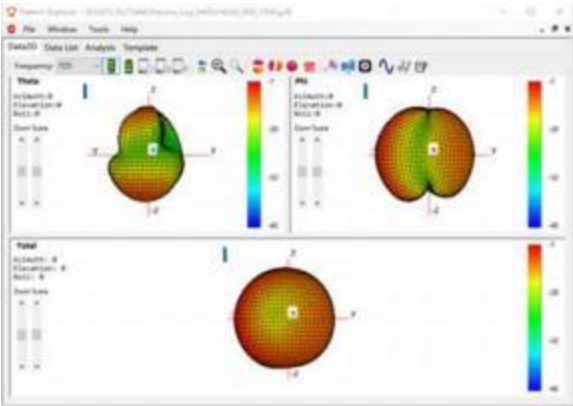
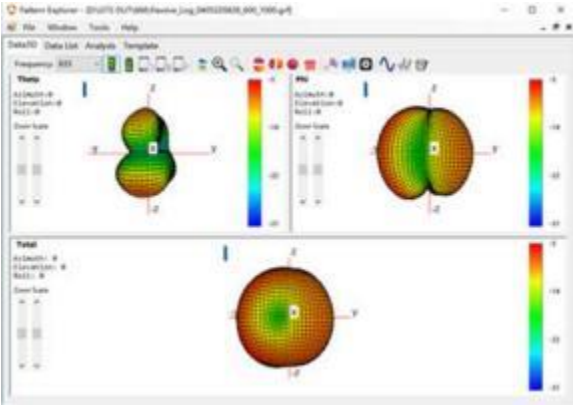
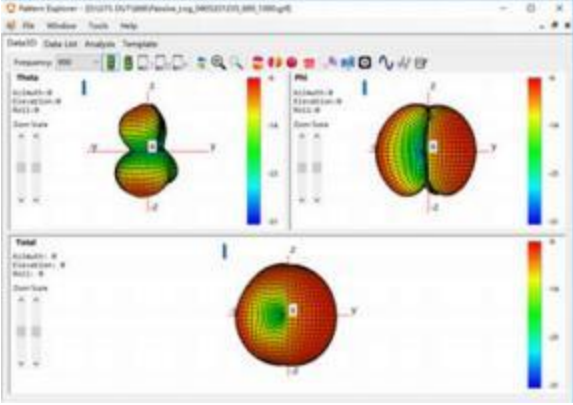
Bands for Antenna 0	LB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B28/B12/B13/B17/N28	-9	-5.5
B20	-9.27	-5.53
B5/B18/B19/B26/WB5 /WB6/WB19/G5	- 10.4	-5.53
B8/WB8/G8	-9.4	-6.4

S 参数





方向图

Frequency	723MHz
	
Frequency	835MHz
	
Frequency	900MHz
	



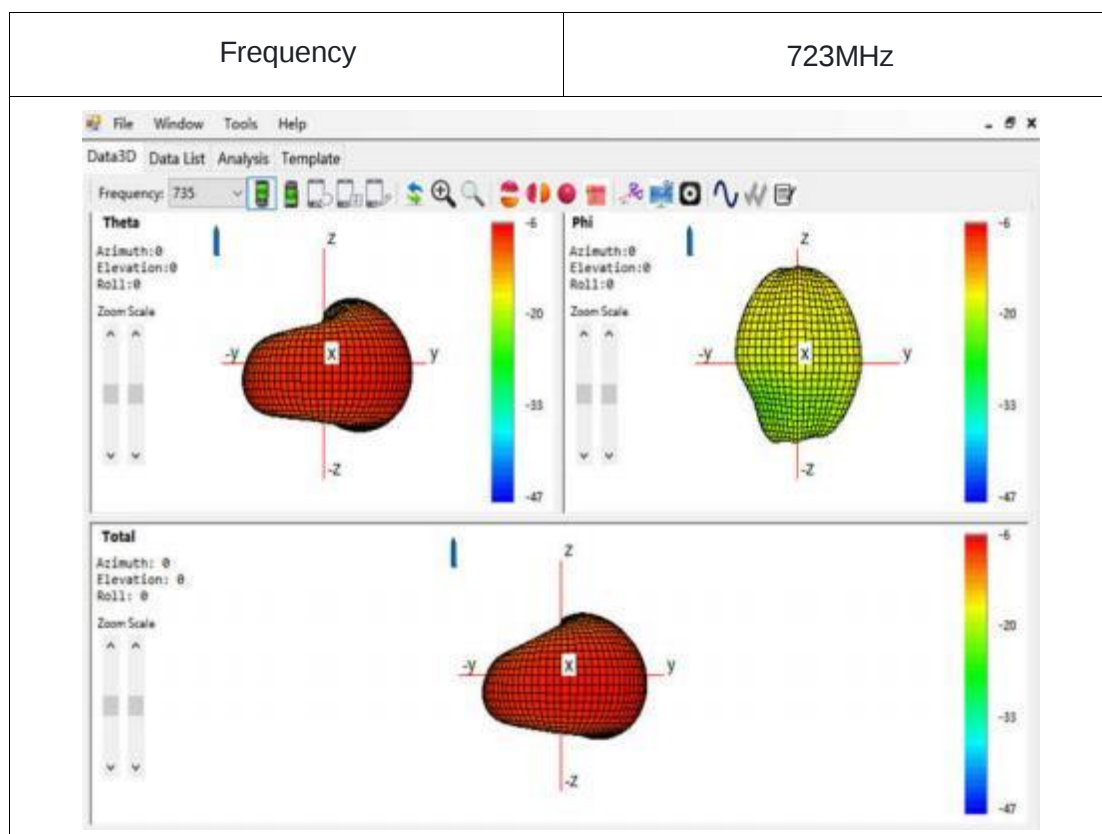
Bands for Antenna 1	LMHB+NR ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B5/B19/B26/WB5/WB6/WB19/G5	-8.57	-7.8
B8/WB8/G8	-8.9	-8.2
B20	-8.8	-8.5
B28/N28/B12/B13/B17/B18	-8.9	-7.9
B3/N3/G3	-5.9	-5.6
B1/WB1	-4.8	-4.4
B41/N41	-4.8	-4.5
G2/WB2	-6.5	-6
WB4/B4	-6.5	-6
B42	-6.1	-7
N77(3450~3550MHz,3700~3980MHz)	-9	-7
N78(3450~3550MHz,3700~3800MHz)	-9	-7



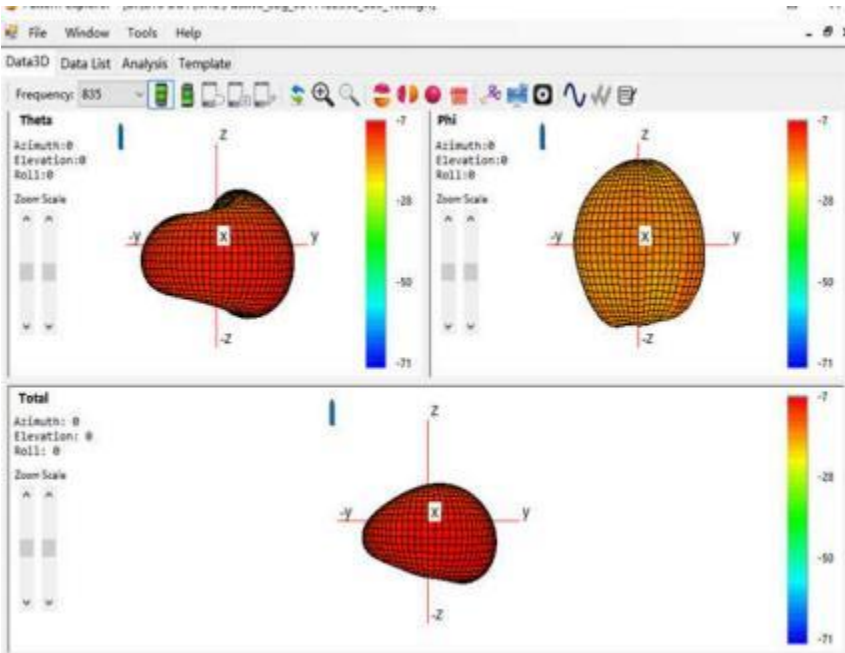
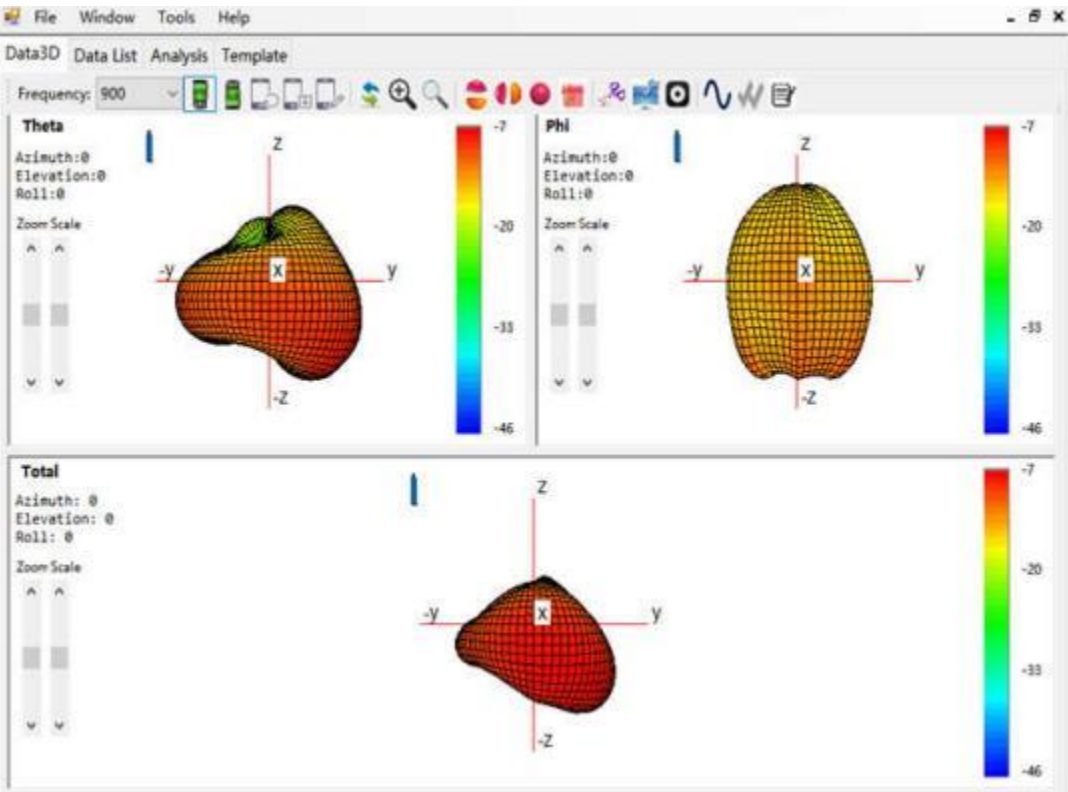
S 参数

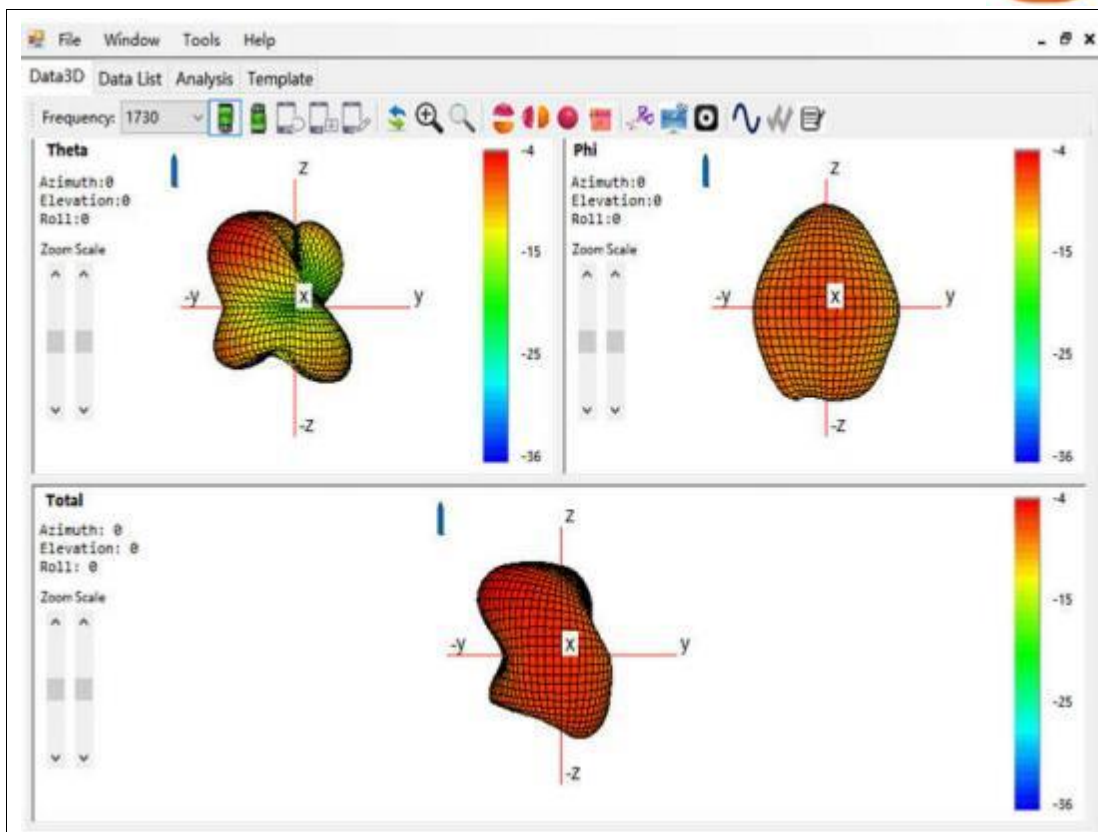


方向图



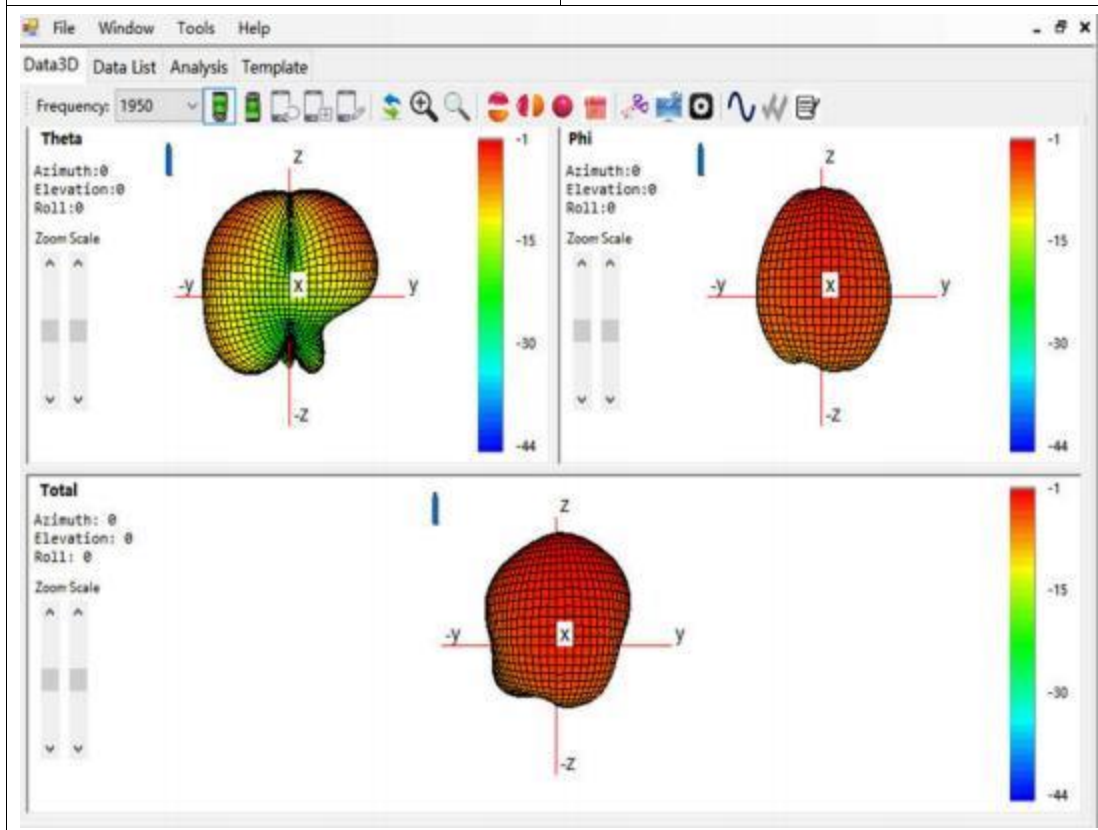


Frequency	835MHz
	
Frequency	900MHz
	
Frequency	1735MHz



Frequency

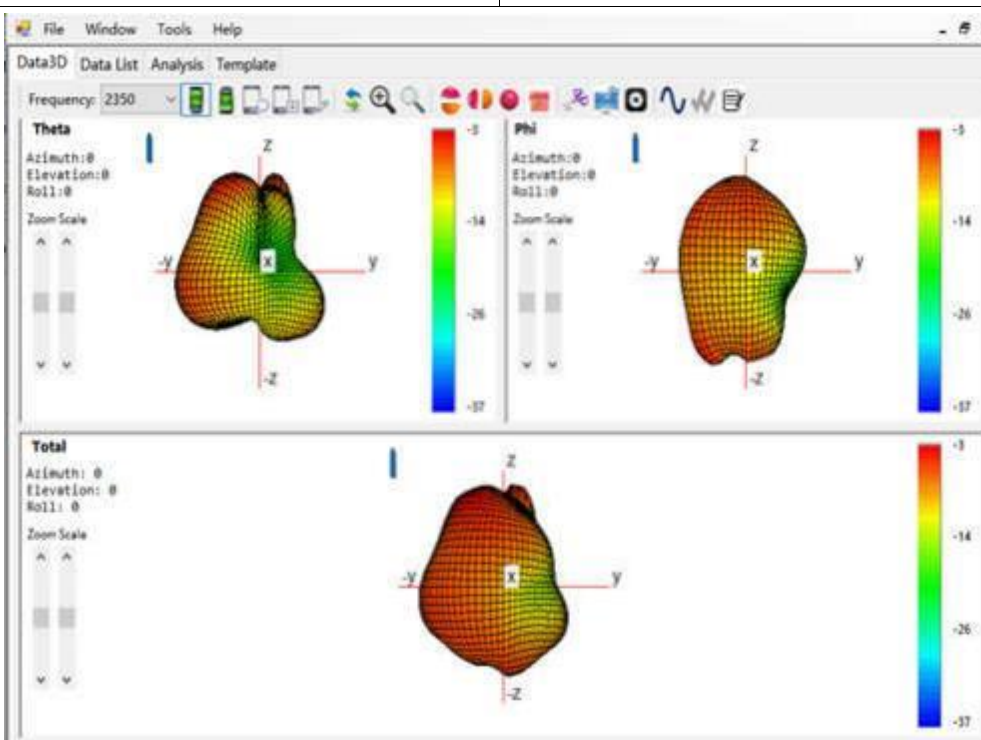
1950MHz





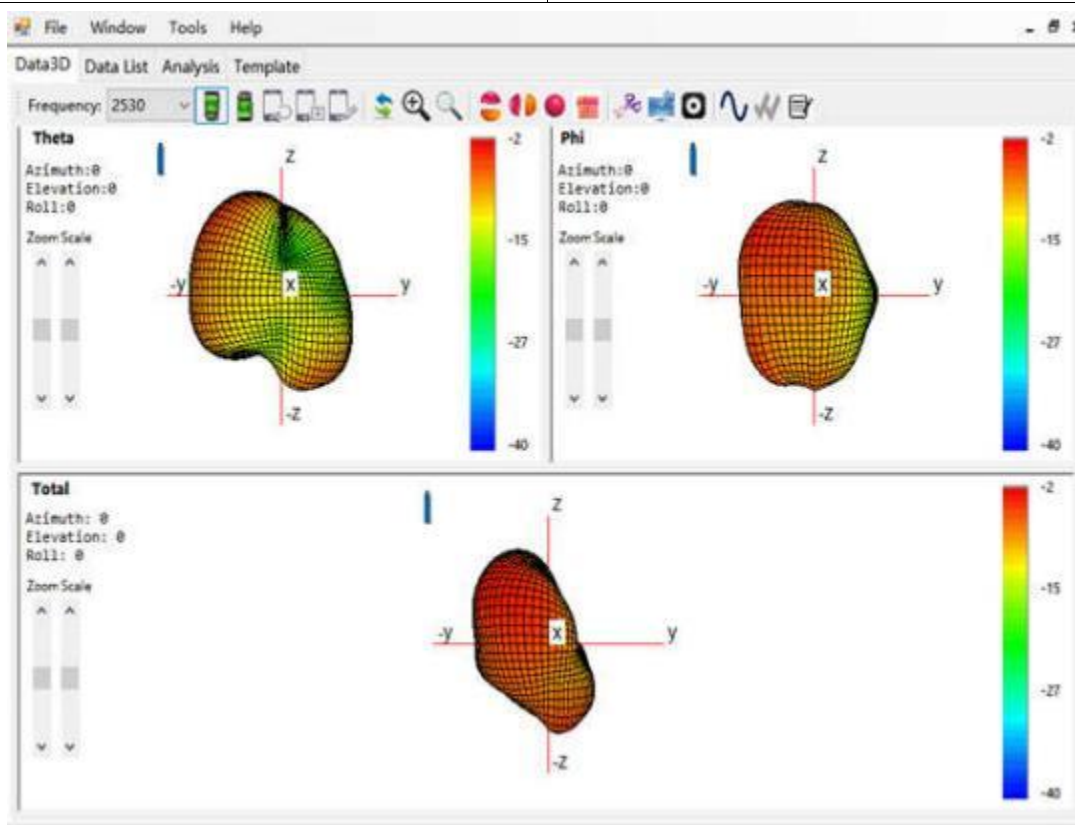
Frequency

2350MHz



Frequency

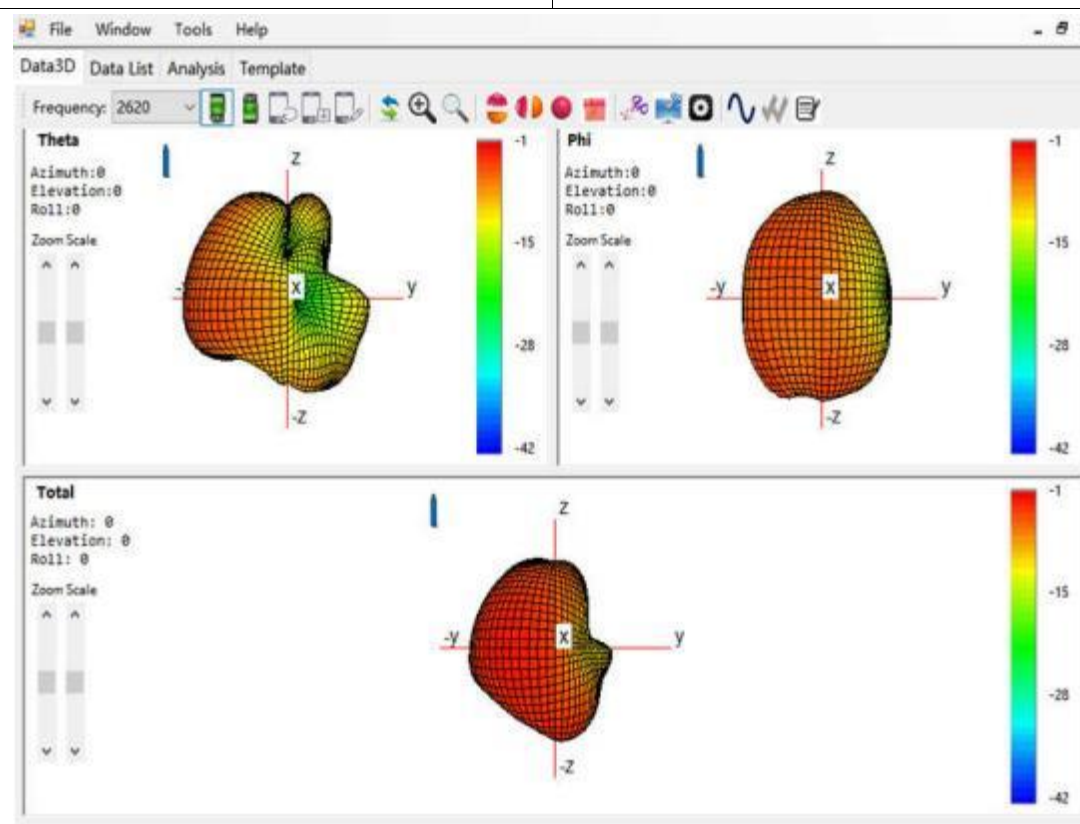
2535MHz





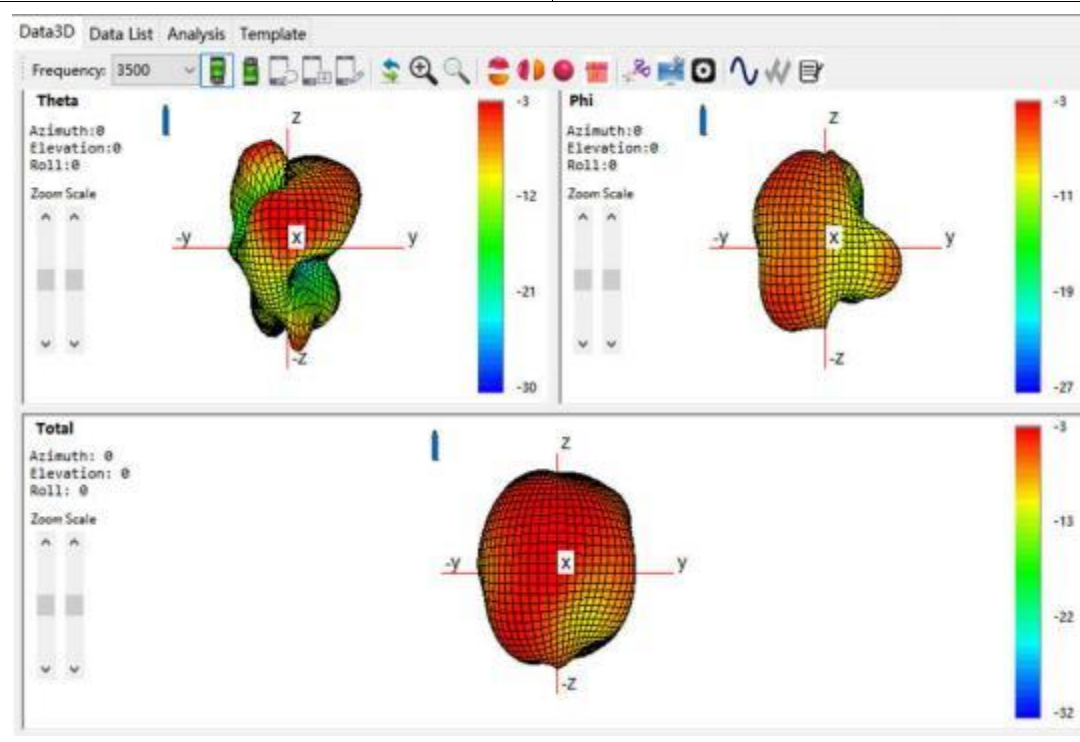
Frequency

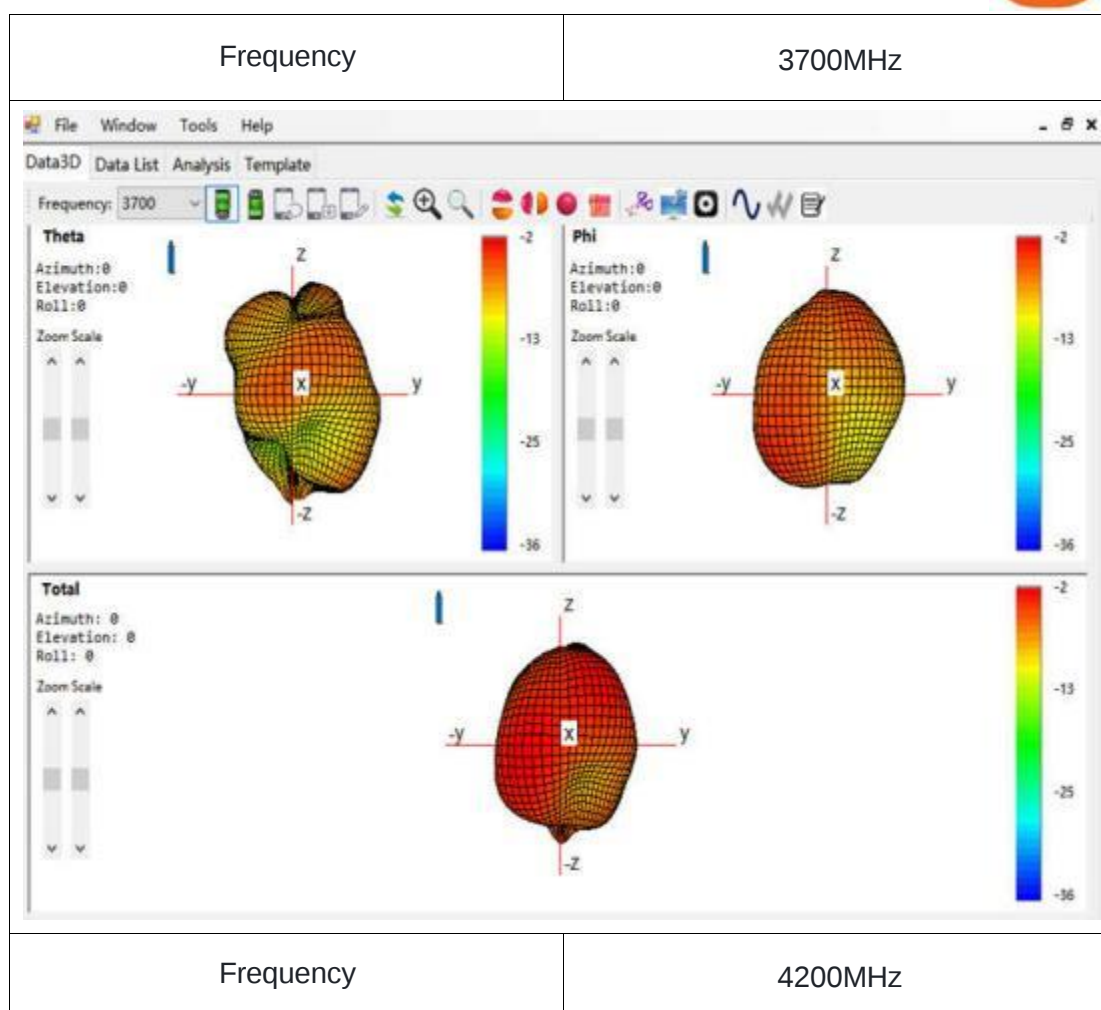
2620MHz

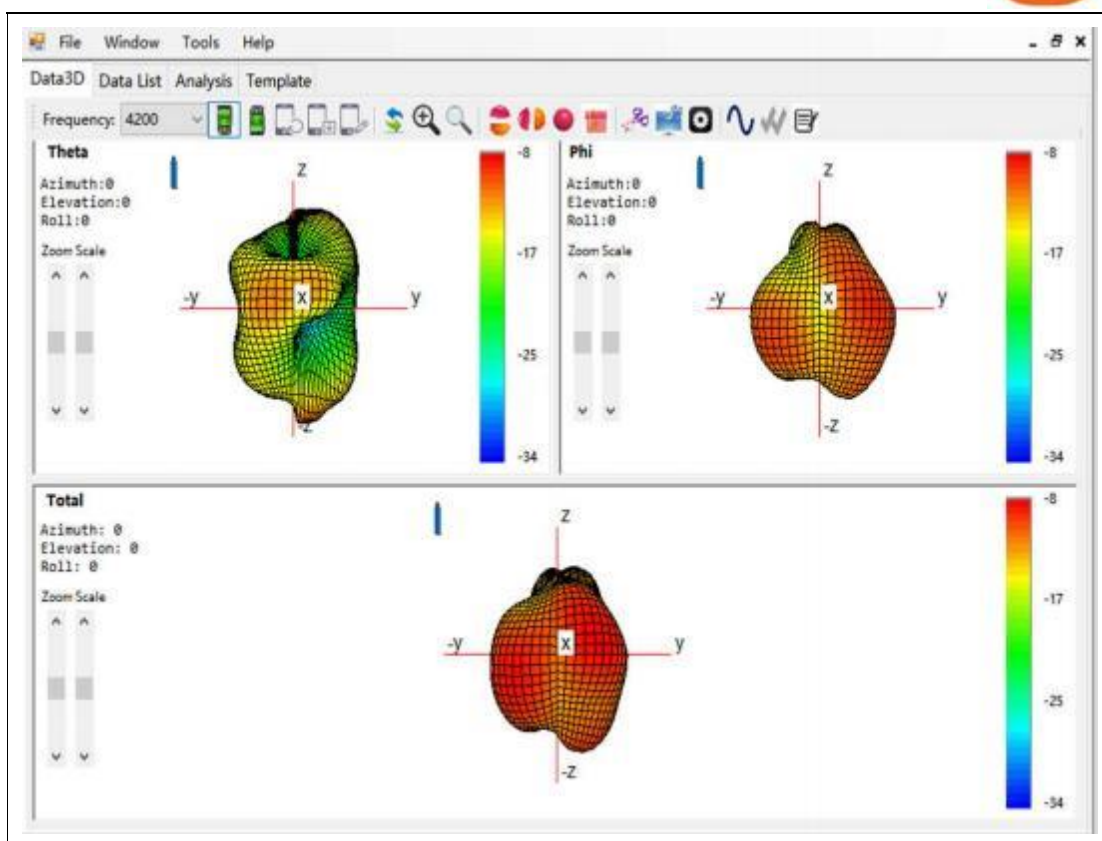


Frequency

3450MHz



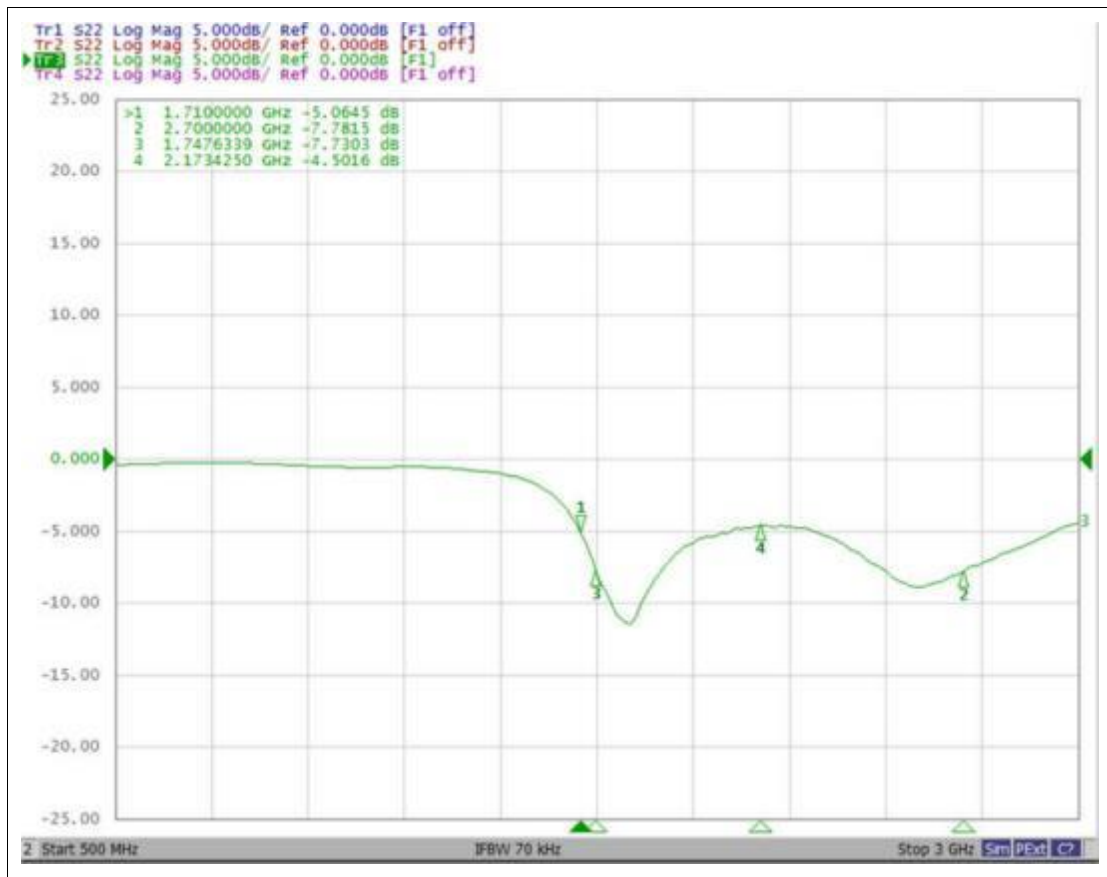






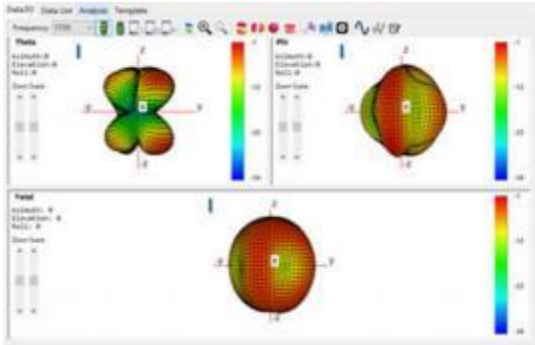
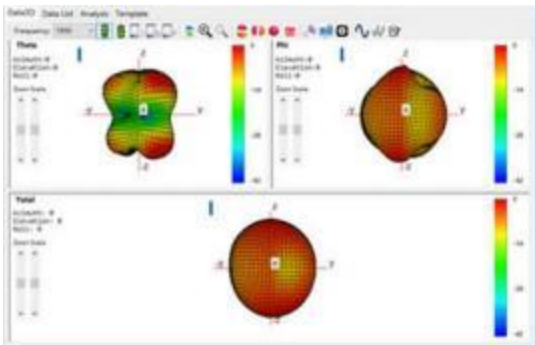
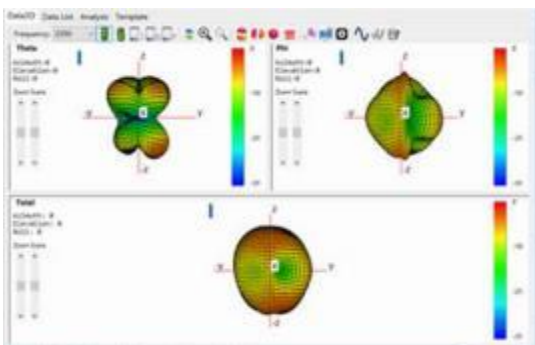
Bands for Antenna 2	MHB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B1/WB1	-4.3	-3.8
B2/G2/WB2	-3.7	-3.6
B3/N3/B4/G3/WB4	-3.9	-3.6
B7/B38/B41/N41	-5.6	-4.9
B40	-5.1	-4.9

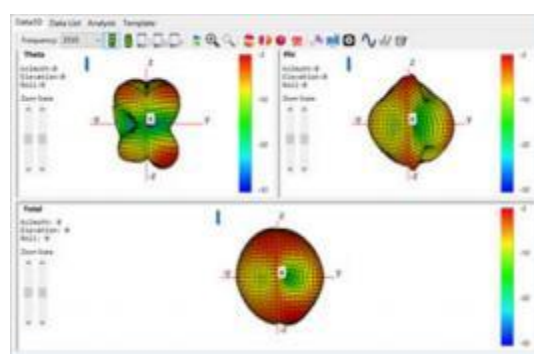
S 参数





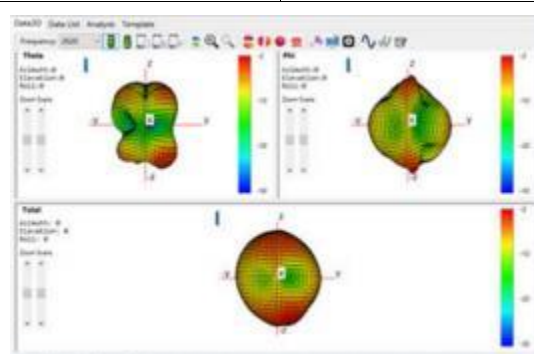
方向图

Frequency	1735MHz
	
Frequency	1950MHz
	
Frequency	2350MHz
	
Frequency	2535MHz



Frequency

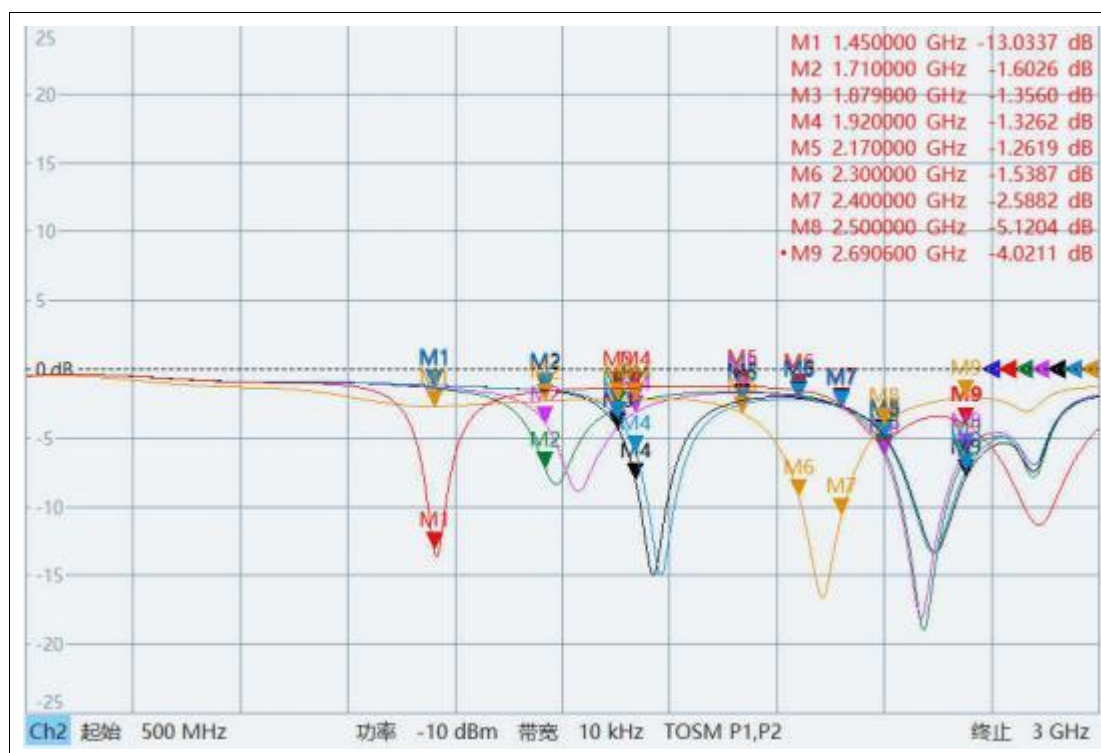
2620MHz





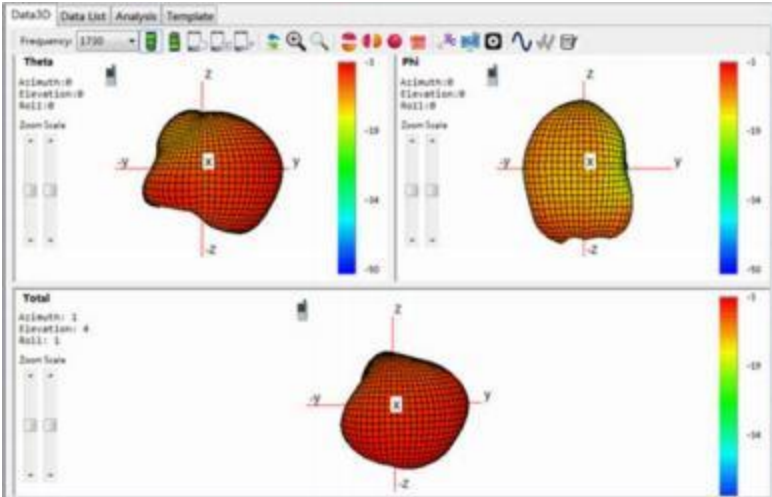
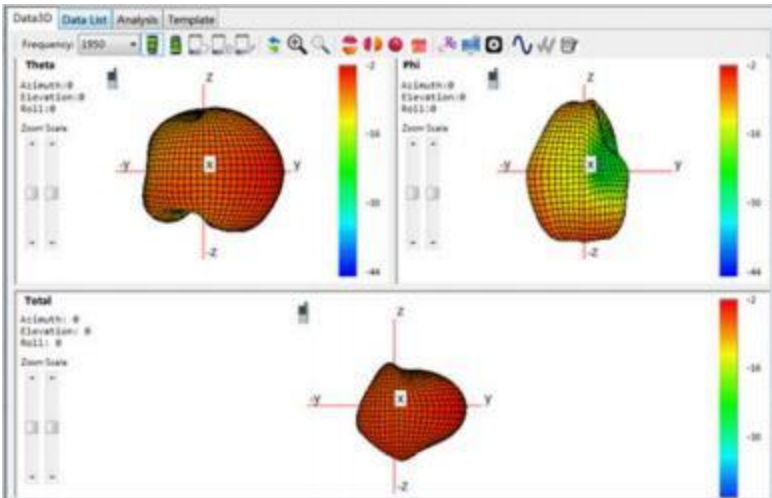
Band for Antenna 3	MHB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B1	-6.8	-6
B3/N3	-7	-6.1
B4	-10.2	-7.2
B41/N41	-6.8	-6.3

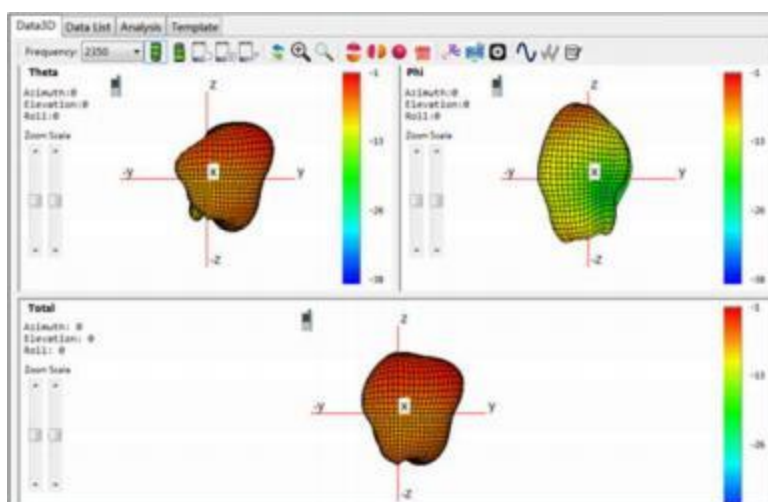
S 参数





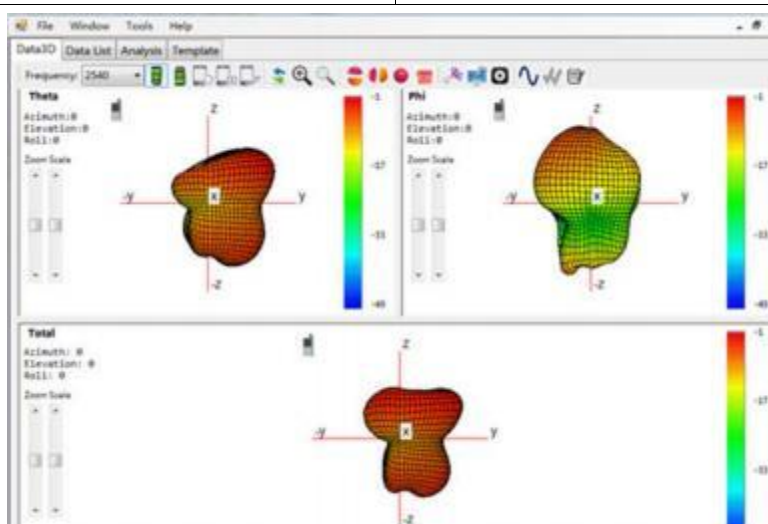
方向图

Frequency	1735MHz
	
Frequency	1950MHz
	
Frequency	2350MHz



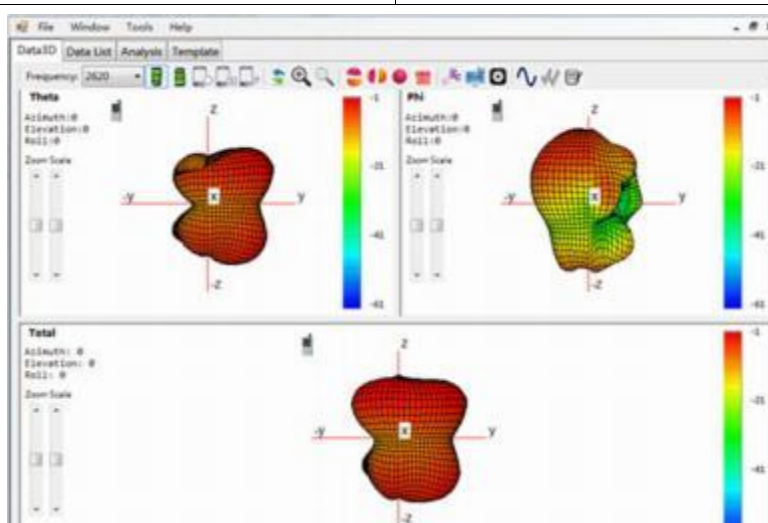
Frequency

2535MHz



Frequency

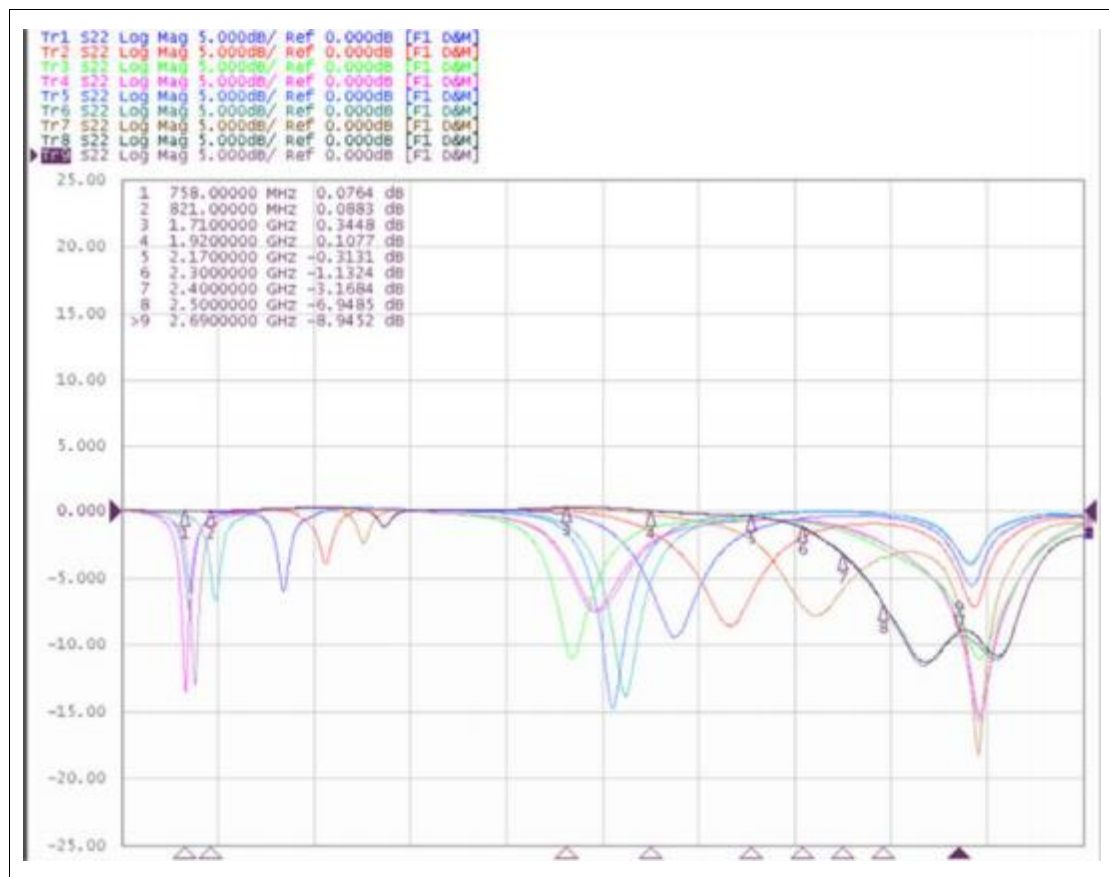
2620MHz





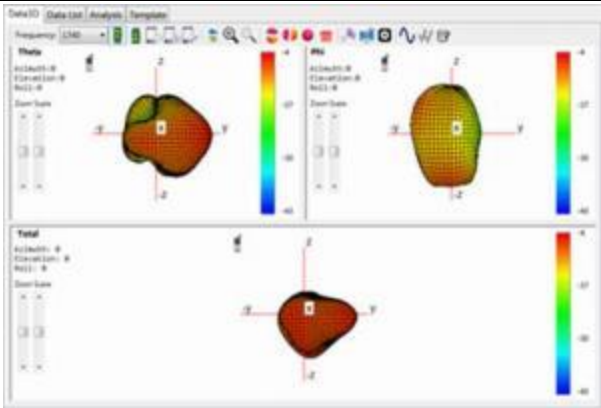
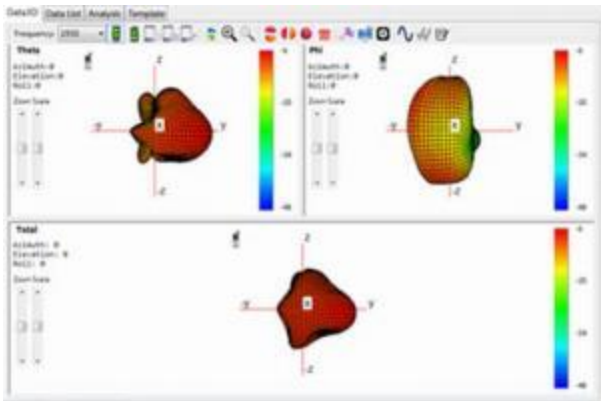
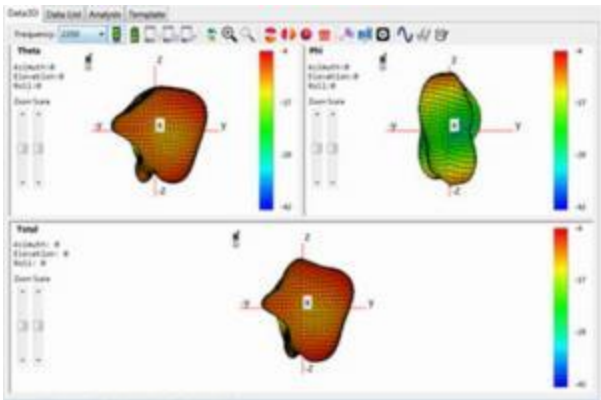
Band for Antenna 4	MHB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B1	-8.9	-6
B2	-9	-6.1
B3/N3/B4	-8.5	-5
B7/B38/B41/N41	-5.6	- 1.5
B40	-8.2	-4.2

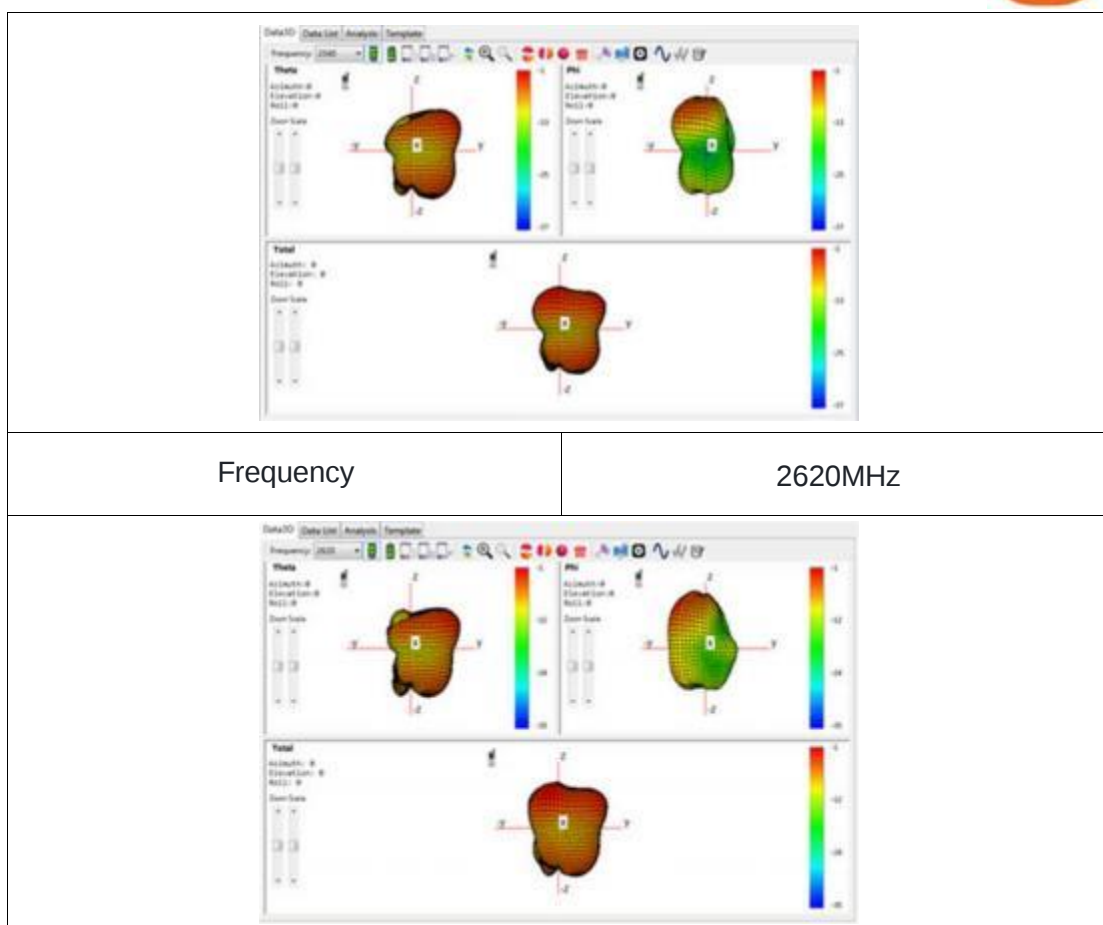
S 参数





方向图

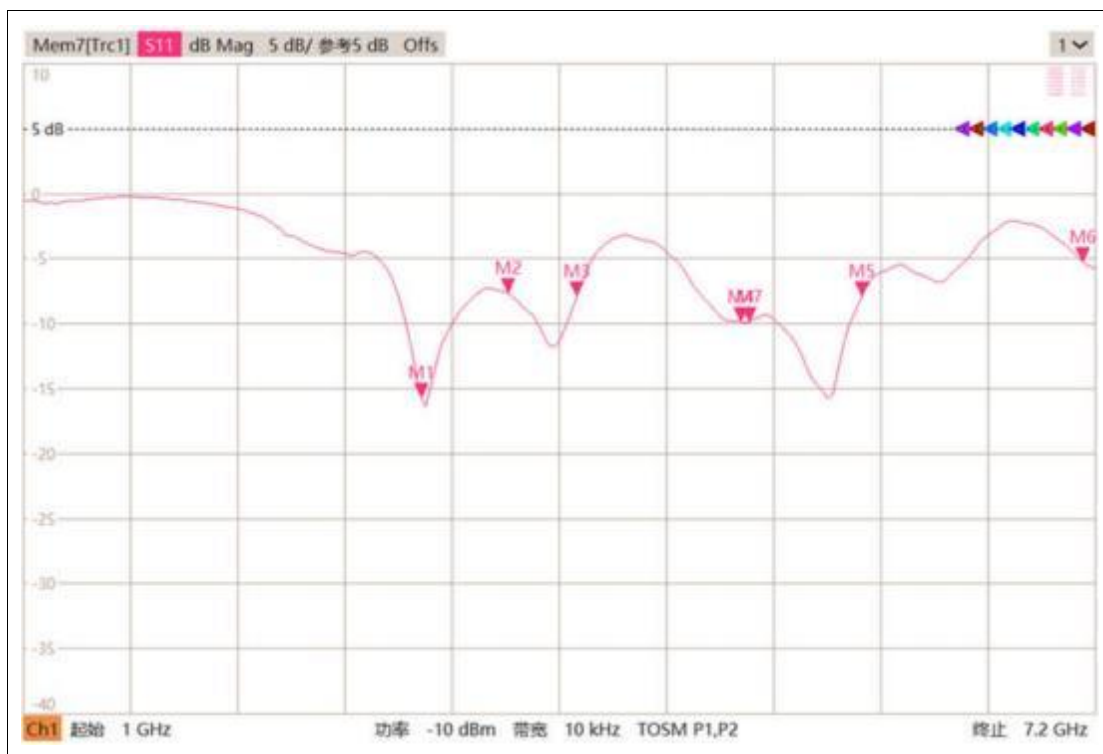
Frequency	1735MHz
	
Frequency	1950MHz
	
Frequency	2350MHz
	
Frequency	2535MHz





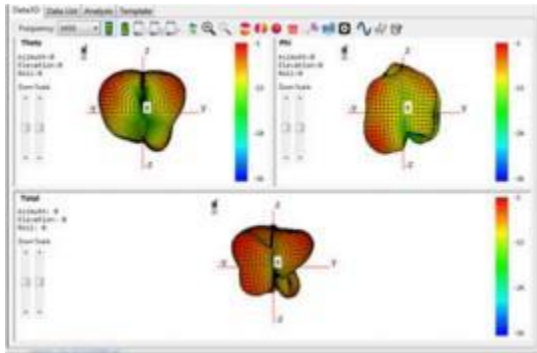
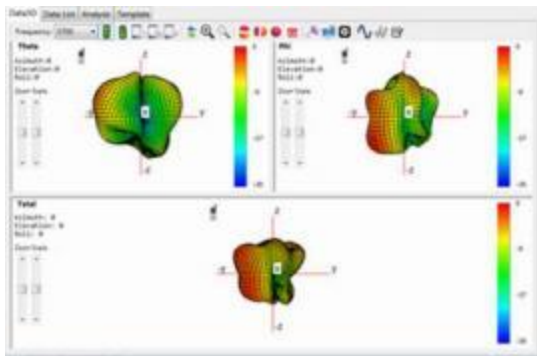
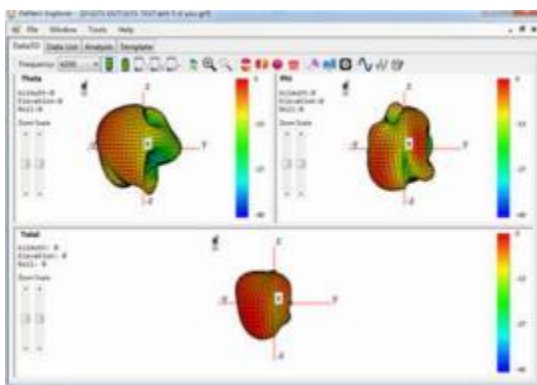
Band for Antenna 5	NR+WIFI_5G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B42	-4.9	-0.9
N77(3450~3550MHz,3700~3980MHz)	-6.03	-0.26
N78(3450~3550MHz,3700~3980MHz)	-6.56	-0.67
5G (5150~5250MHz)	-5.1	- 1.29
5G (5250~5350MHz)	-5.1	- 1.36
5G (5470~5725MHz)	-4.6	0
5G (5470~5850MHz)	-4.8	0

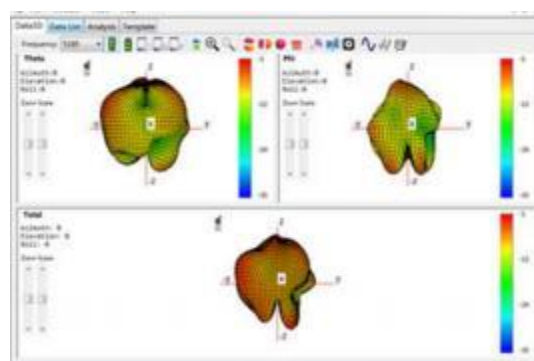
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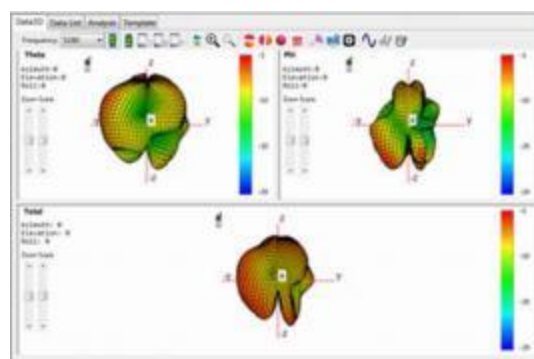
方向图

Frequency	3450MHz
	
Frequency	3700MHz
	
Frequency	4200MHz
	
Frequency	5180MHz



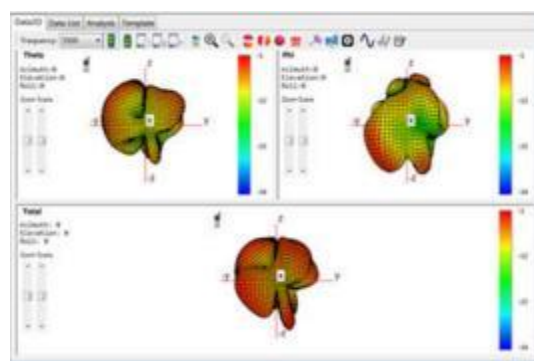
Frequency

5280MHz



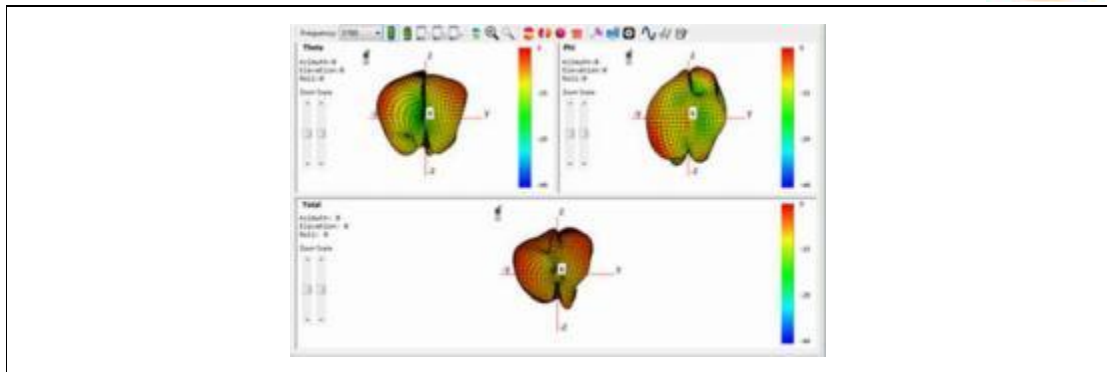
Frequency

5500MHz



Frequency

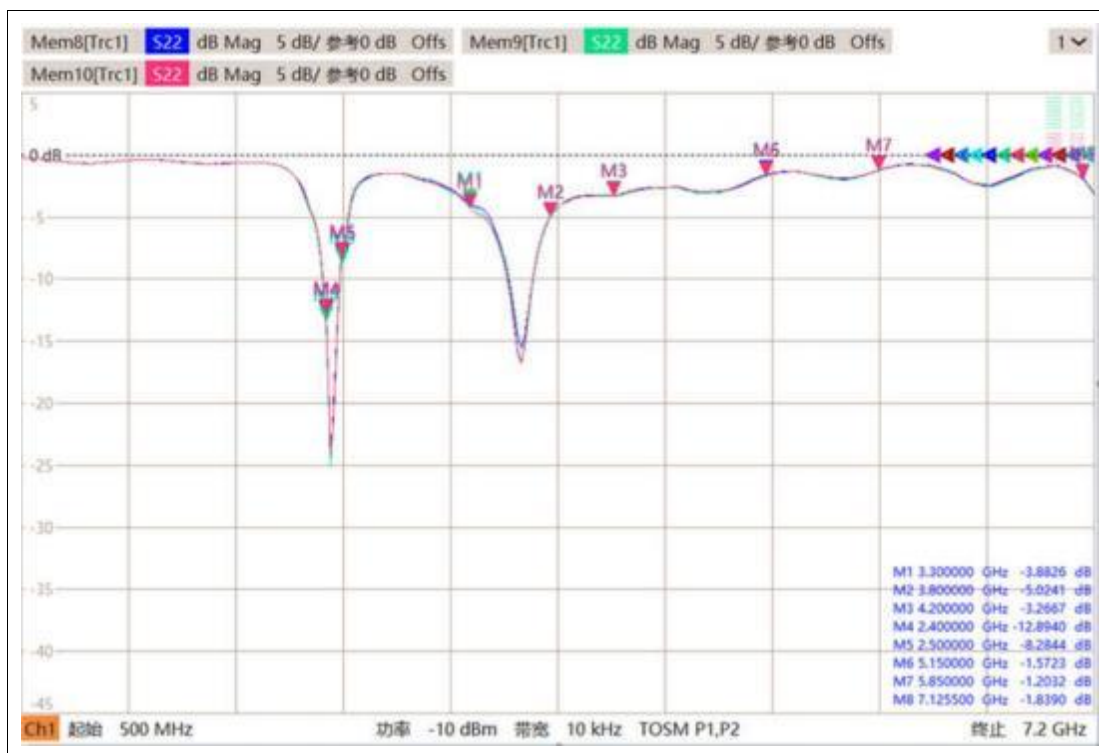
5785MHz





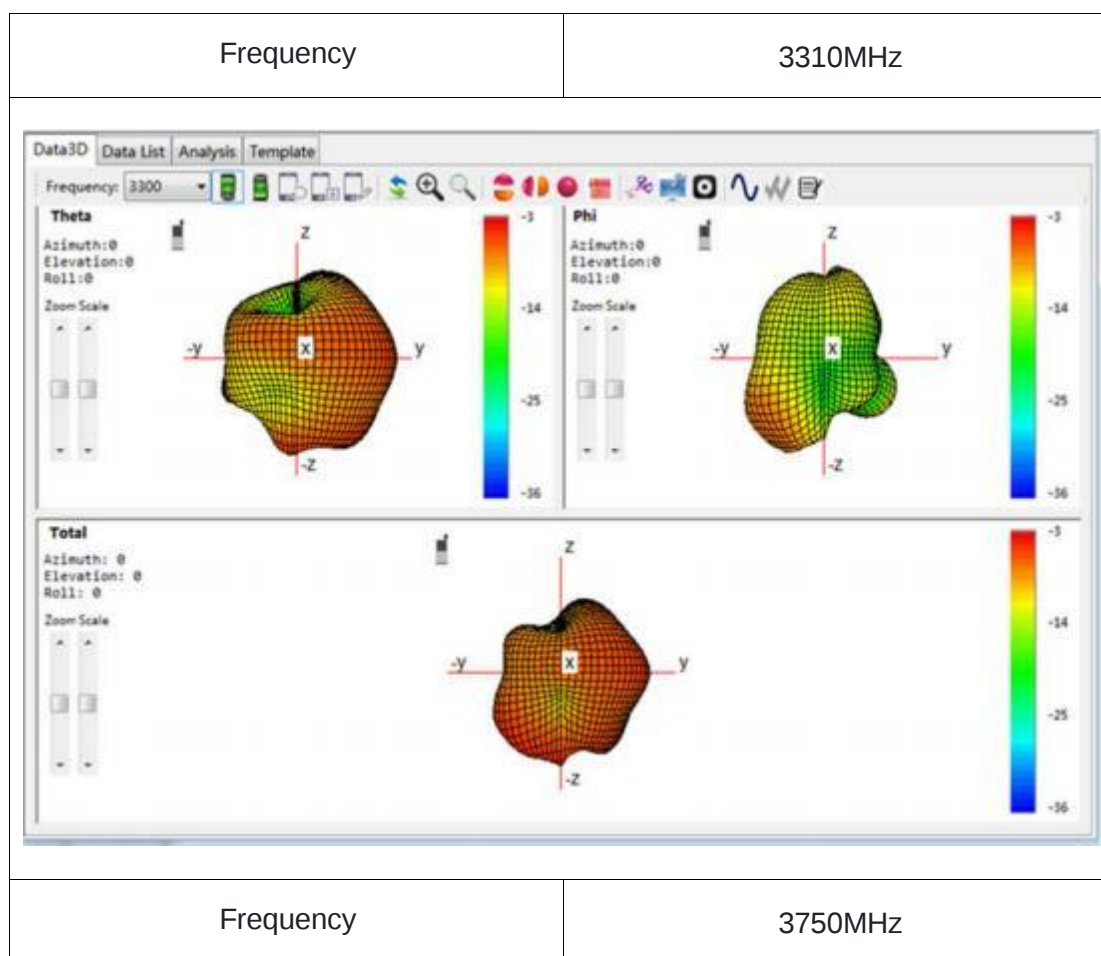
Band for Antenna 6	NR+WIFI_2.4G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B42	-5.76	- 1.21
N77(3450~3550MHz,3700~3980MHz)	-7.3	- 1.0
N78(3450~3550MHz,3700~3800MHz)	- 10.4	- 1.0
WIFI 2.4G(2400~2485MHz)	-6.6	- 1.72

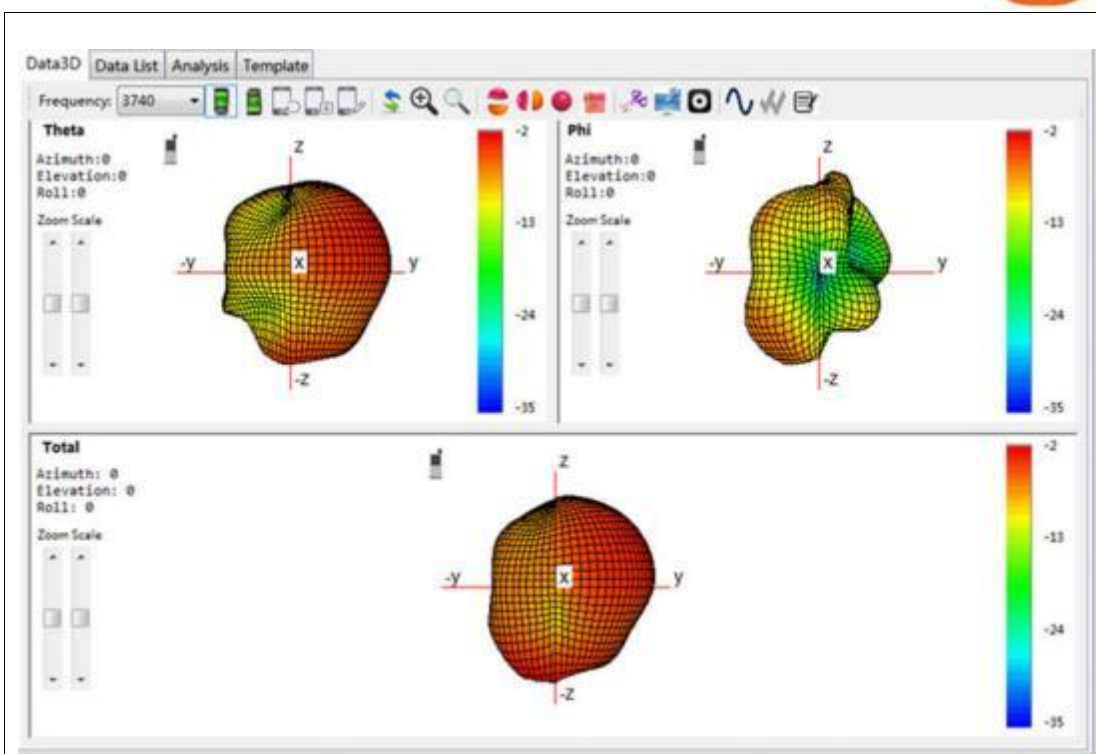
S 参数





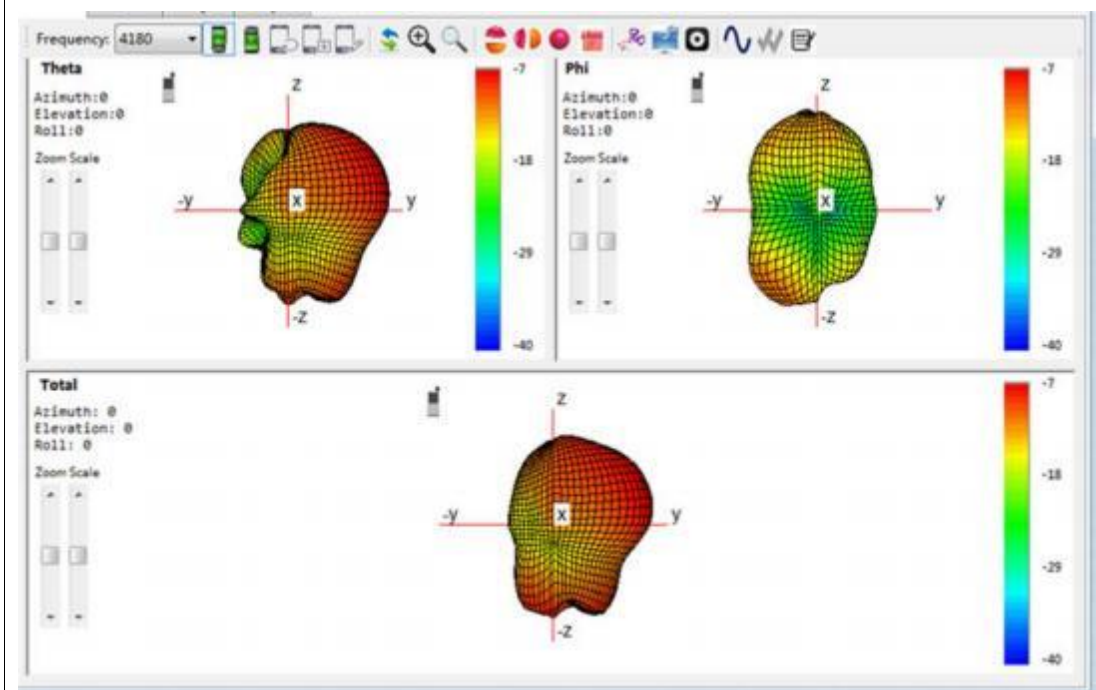
方向图





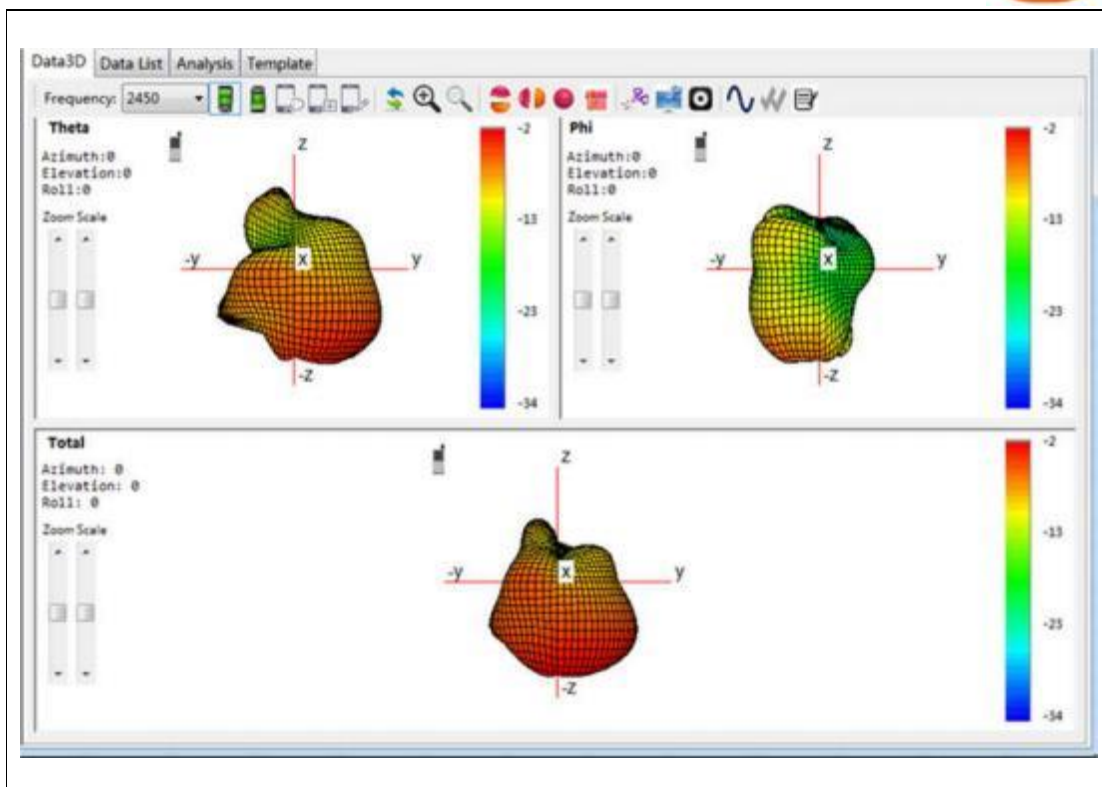
Frequency

4190MHz



Frequency

2450MHz





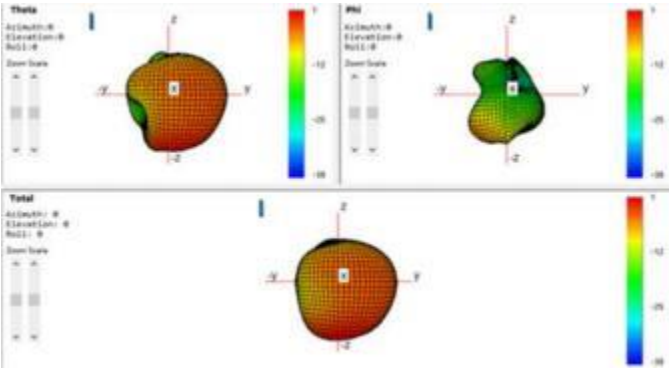
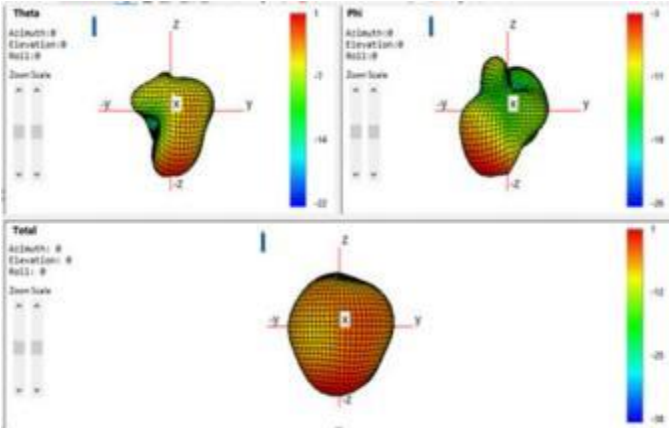
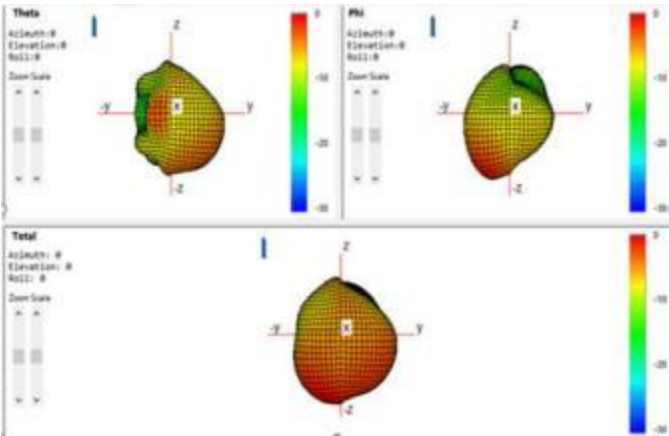
Band for Antenna 7	NR ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B42	-6.1	-6
N77(3450~3550MHz 3700~3980MHz)	-6.7	-6
N77(3450~3550MHz 3700~3800MHz)	-8.6	-6

S 参数





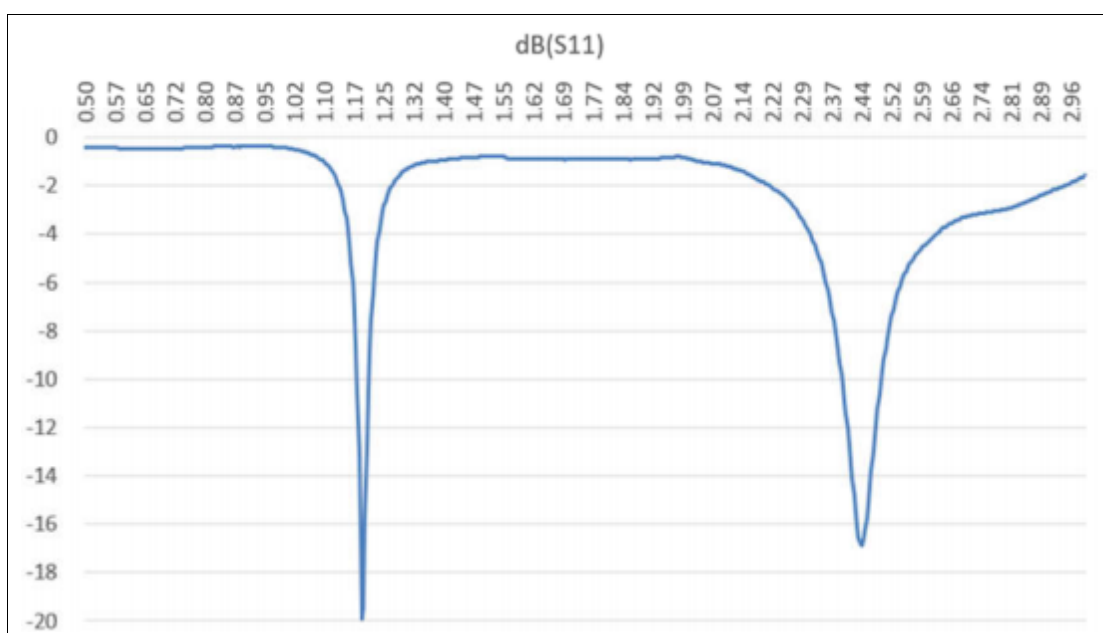
方向图

Frequency	3310MHz
	
Frequency	3750MHz
	
Frequency	4190MHz
	

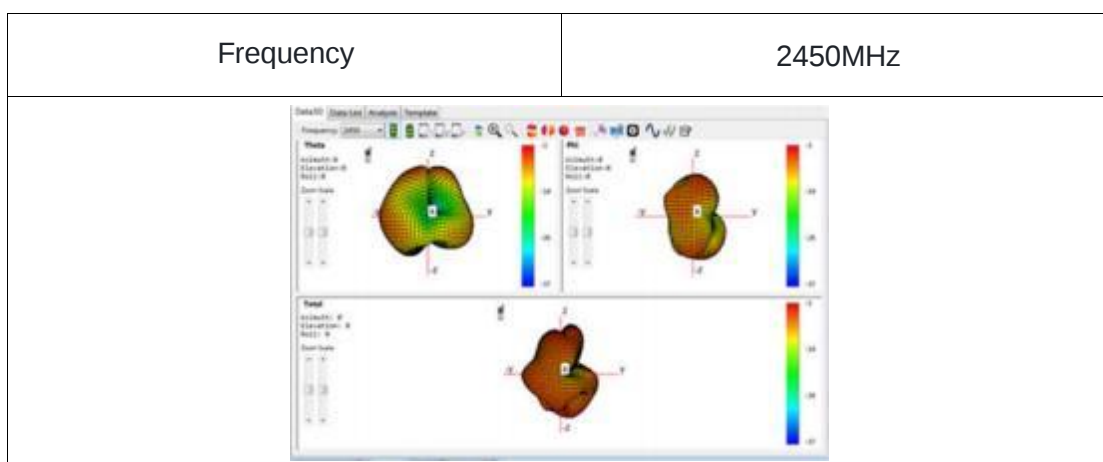


Band for Antenna 17	WIFI_2.4G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
WIFI 2.4G(2400~2485MHz)	-6.6	-2.62
Bluetooth	-6.6	-2.62

S 参数



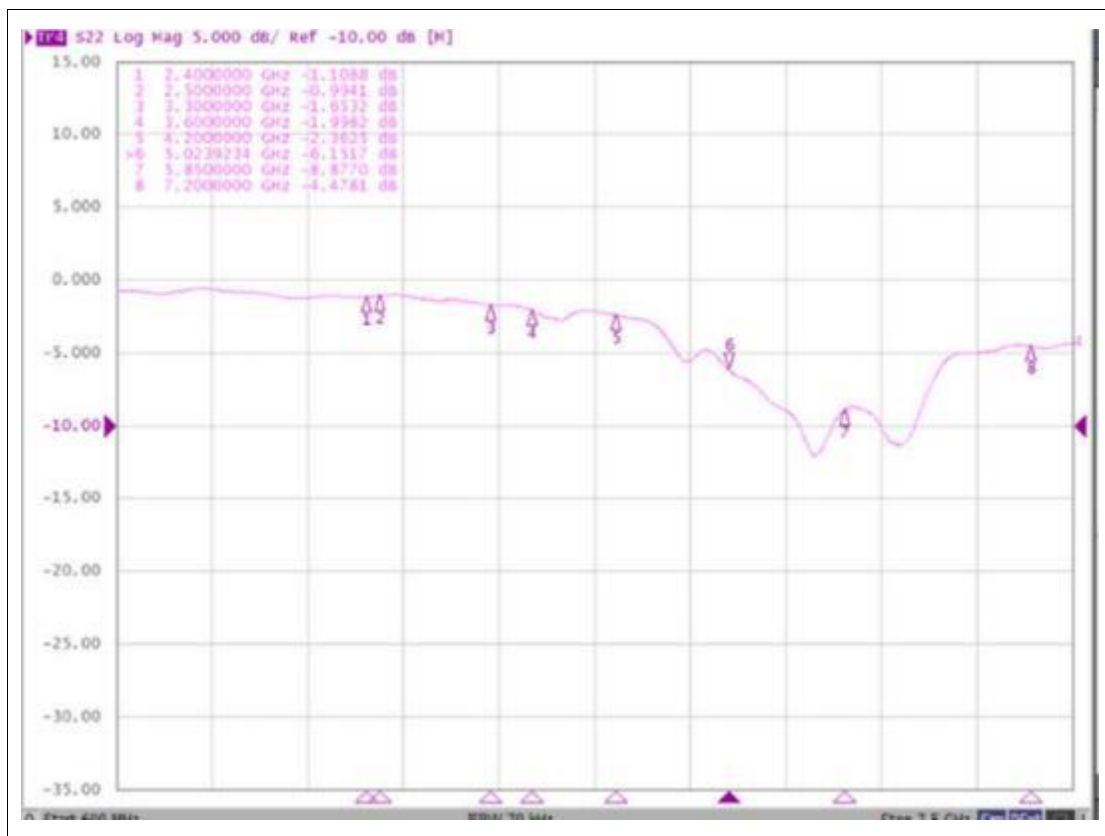
方向图



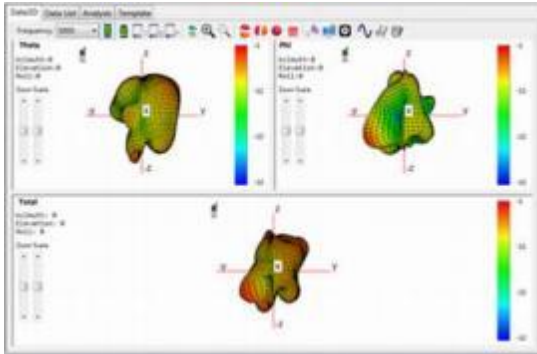
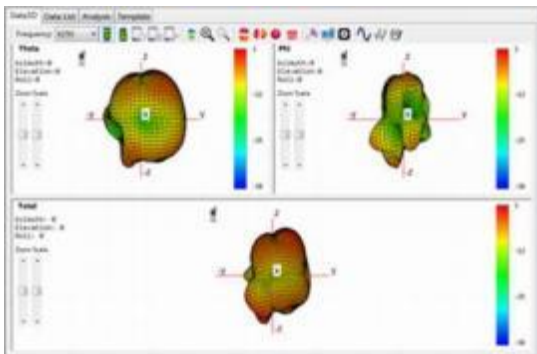
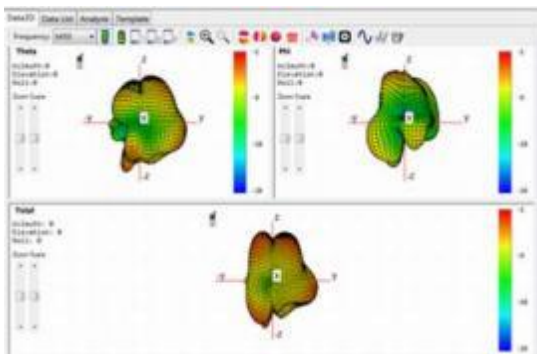


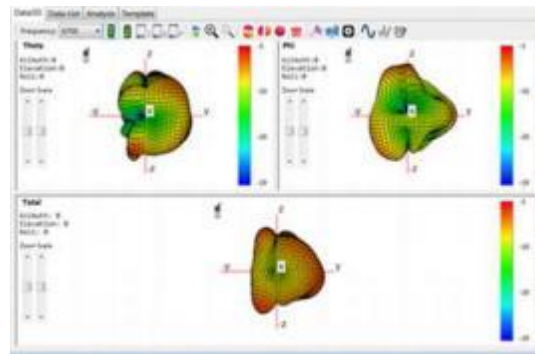
Band for Antenna 18	WIFI_5G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
5G (5150~5250MHz)	-6.3	- 1.6
5G (5250~5350MHz)	-6.4	- 1.58
5G (5470~5725MHz)	-6.5	- 1.49
5G (5725~5850MHz)	-6.5	- 1.29

S 参数



方向图

Frequency	5180MHz
	
Frequency	5280MHz
	
Frequency	5500MHz
	
Frequency	5785MHz





3. Main Test Instruments

Name	Manufacturer	Model name	Serial Number	Antenna Type
E5071C	KEYSIGHT	E5071C	EQ80224	/
Testing software	KEYSIGHT	Maxsign100	/	/

4. Antenna model name: Rayzone2800