



Antenna Performance Description

Applicant: Xiaomi Communications Co., Ltd

Product description: Mobile Phone

Model Name: 2306EPN60G

FCC ID: 2AFZZN60G

Test date: 2023/04/06

Test Engineer	Gong Xiaoqing
Signature	



1. Antenna information

Antenna	Pattern	Antenna Type	Manufacturer	Manufacturer Address	Test party of Antenna gain
ANT0	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
ANT1	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
ANT2	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
ANT3	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
ANT4	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.



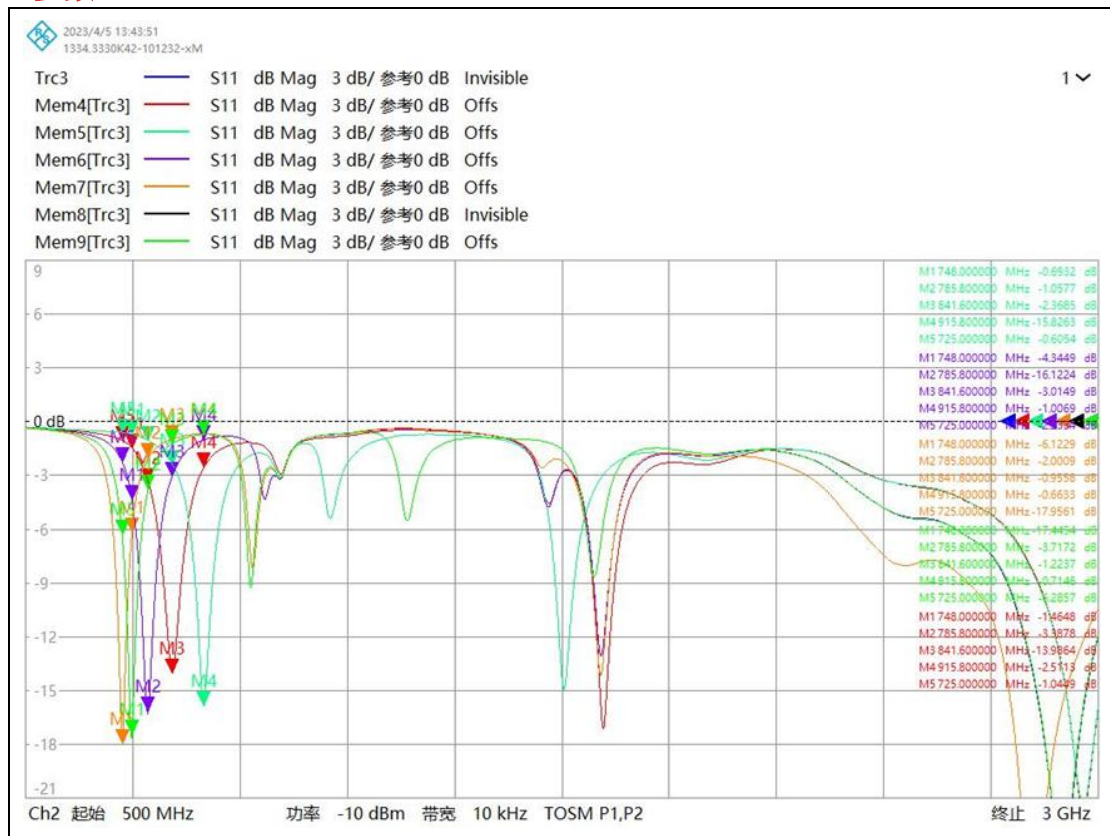
ANT5	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
ANT6	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
ANT7	FPC	Fixed Internal Antenna	Kunshan Innowave Communication Technology Co., Ltd.	Building 4, Zone A, Hong Xin Tai Industrial Park, No.28 Yinying Road, Gaoying Village, Dongguan City	Shenzhen Xiaomi Communications Co., Ltd.
ANT17	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
ANT18	Metal Frame	Fixed Internal Antenna	XIAOMI	Floor 9th, Tower 1, Novel Park, No.4078 Dongbin Road, Nanshan District, Shenzhen.	Shenzhen Xiaomi Communications Co., Ltd.
NFC	FPC	FPC Antenna	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

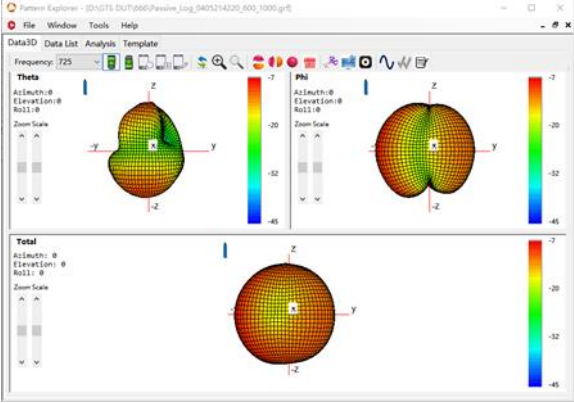
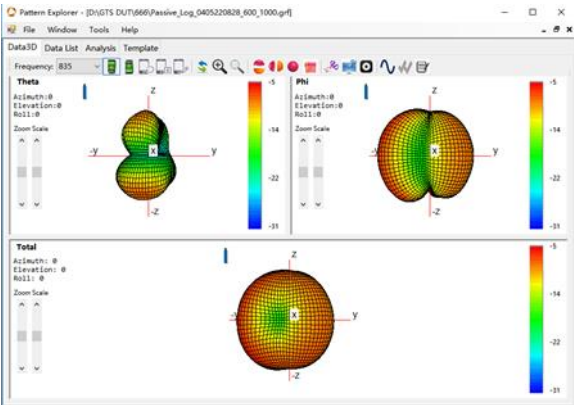
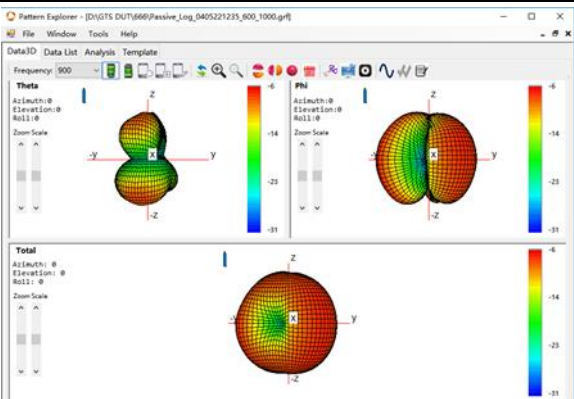
Bands for Antenna 0	LB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B28/B12/B13/B17/N28	-9	-5.5
B20/N20	-9.27	-5.53
B5/B18/B19/B26/WB5 /WB6/WB19/G5/N5	-10.4	-5.53
B8/WB8/G8/N8	-9.4	-6.4
NFC		

S 参数





方向图

Frequency	723MHz
	
Frequency	835MHz
	
Frequency	900MHz
	



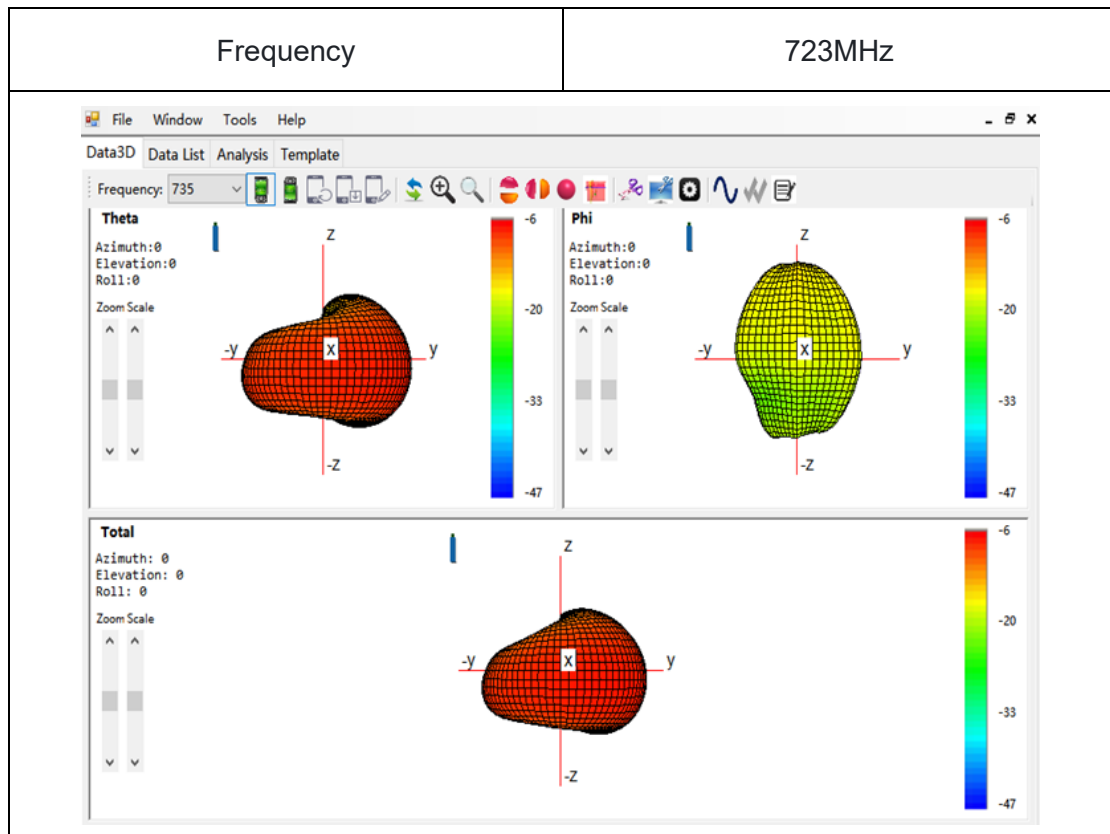
Bands for Antenna 1	LMHB+NR ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B5/N5/B19/B26/WB5/WB6 /WB19/G5	-8.57	-7.8
B8/N8/WB8/G8	-8.9	-8.2
B20/N20	-8.8	-8.5
B28/N28/B12/B13/B17/B18	-8.9	-7.9
B3/N3/G3	-5.9	-5.6
B1/N1/WB1	-4.8	-4.4
B40/N40	-6.5	-6
B7/N7/B38/N38/B41/N41	-4.8	-4.5
G2/WB2	-6.5	-6
B4/B66/N66	-6.5	-6
WB4	-6.5	-6
N77/78(3450~3550MHz)	-6.1	-7
N77(3700~3980MHz)	-9	-7
N78(3700~3800MHz)	-9	-7

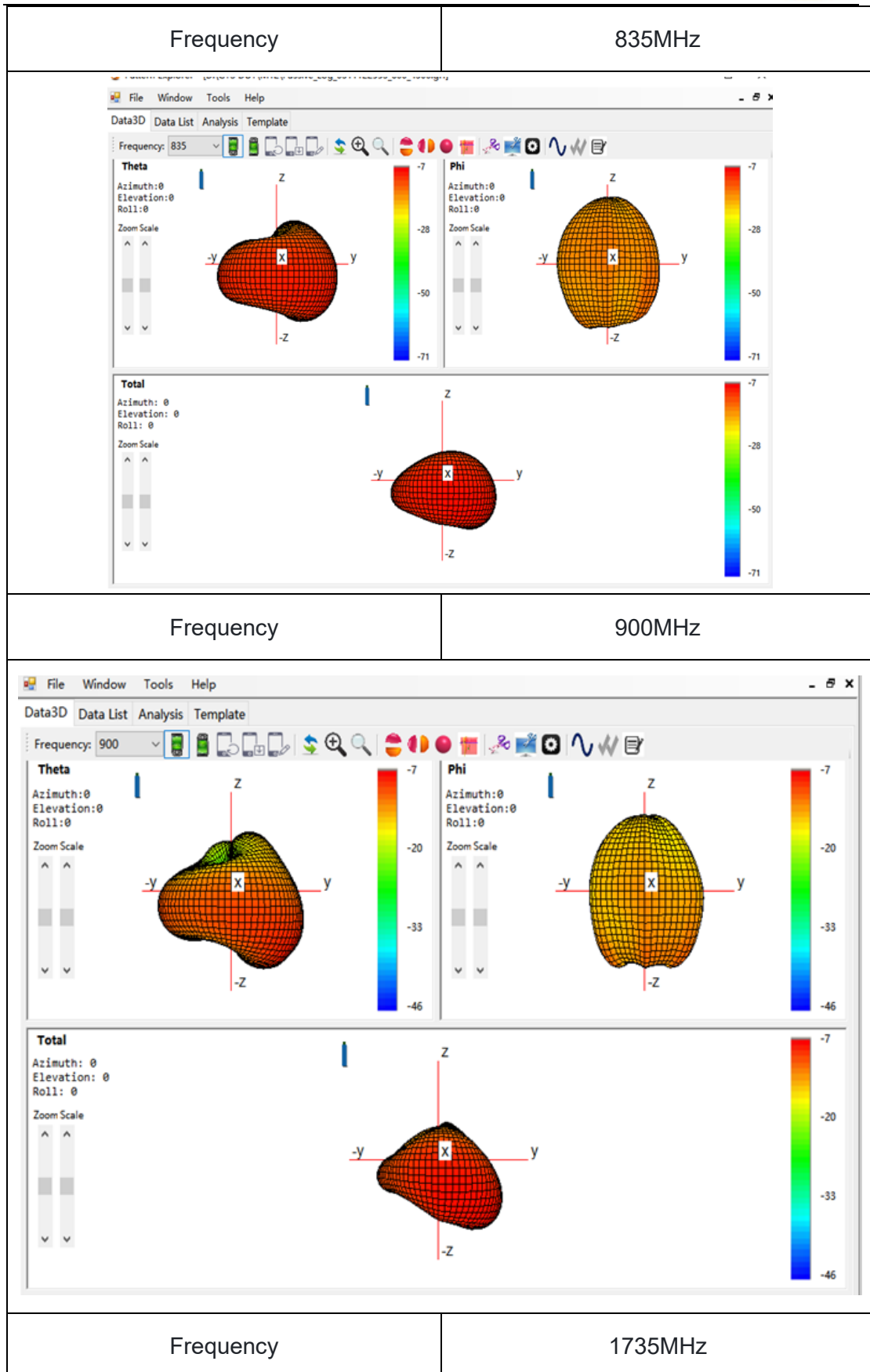


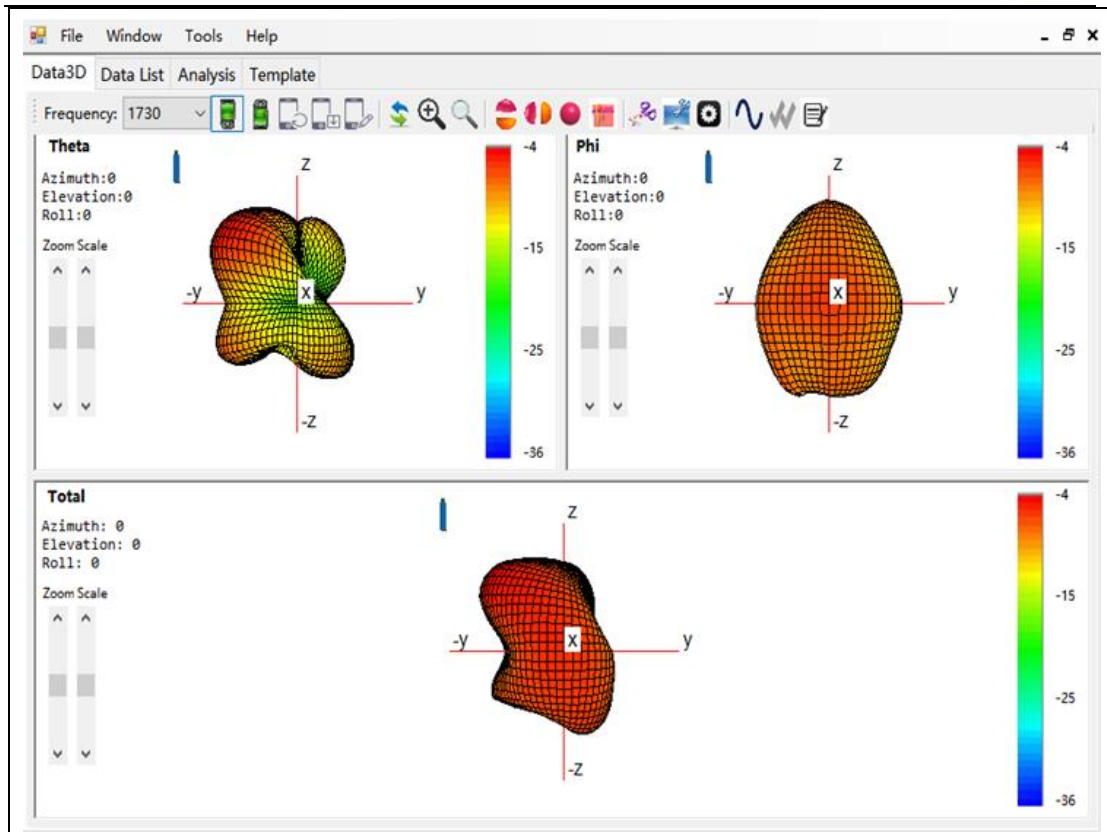
S 参数



方向图

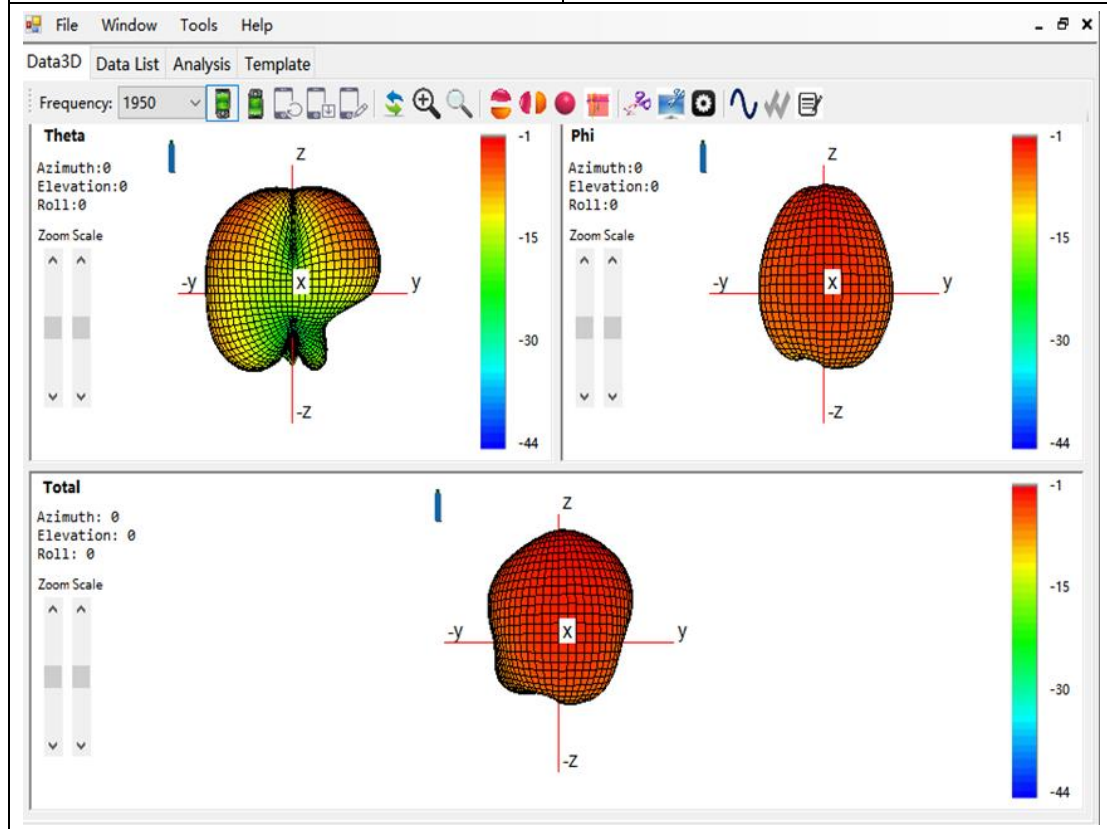






Frequency

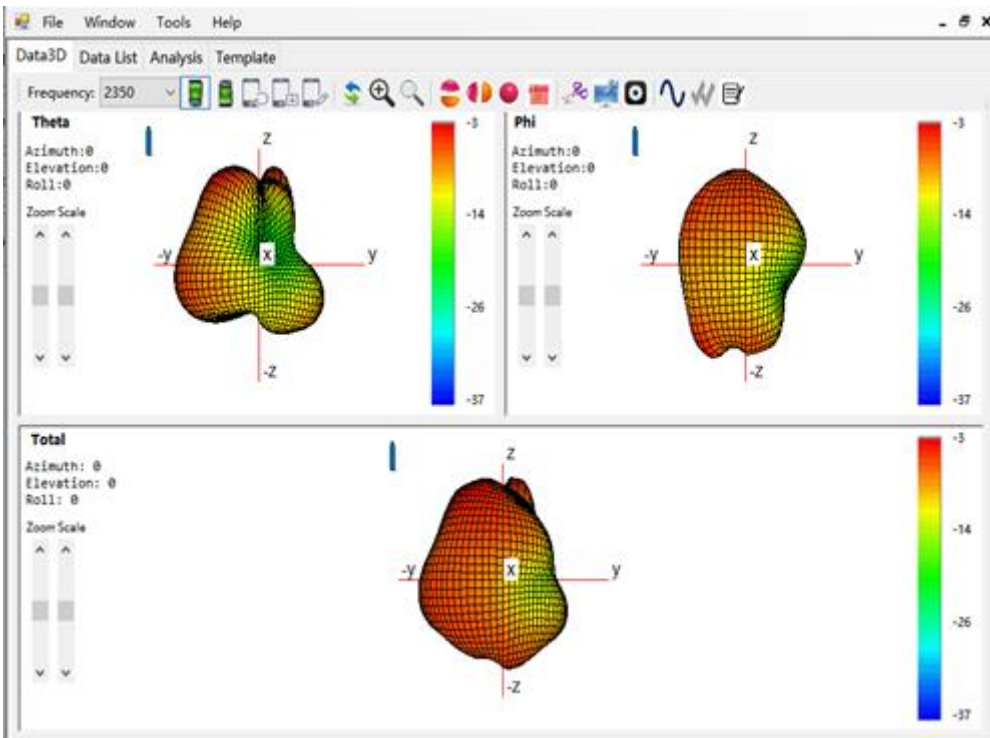
1950MHz





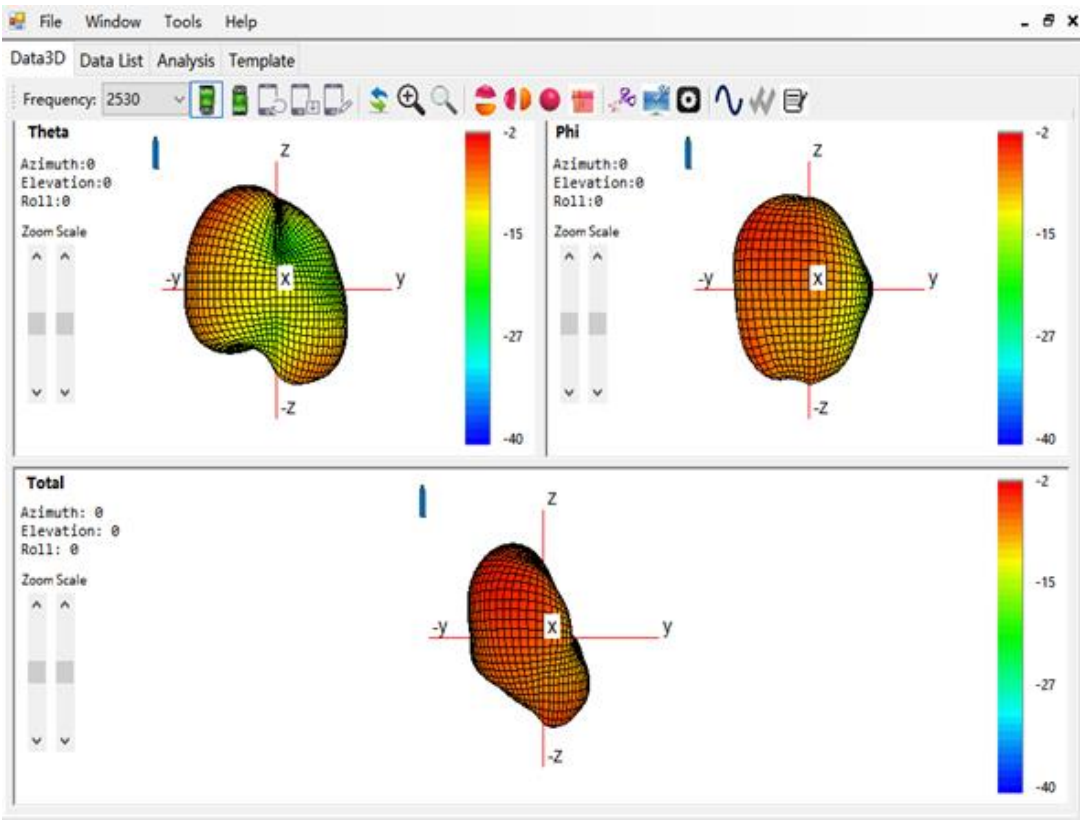
Frequency

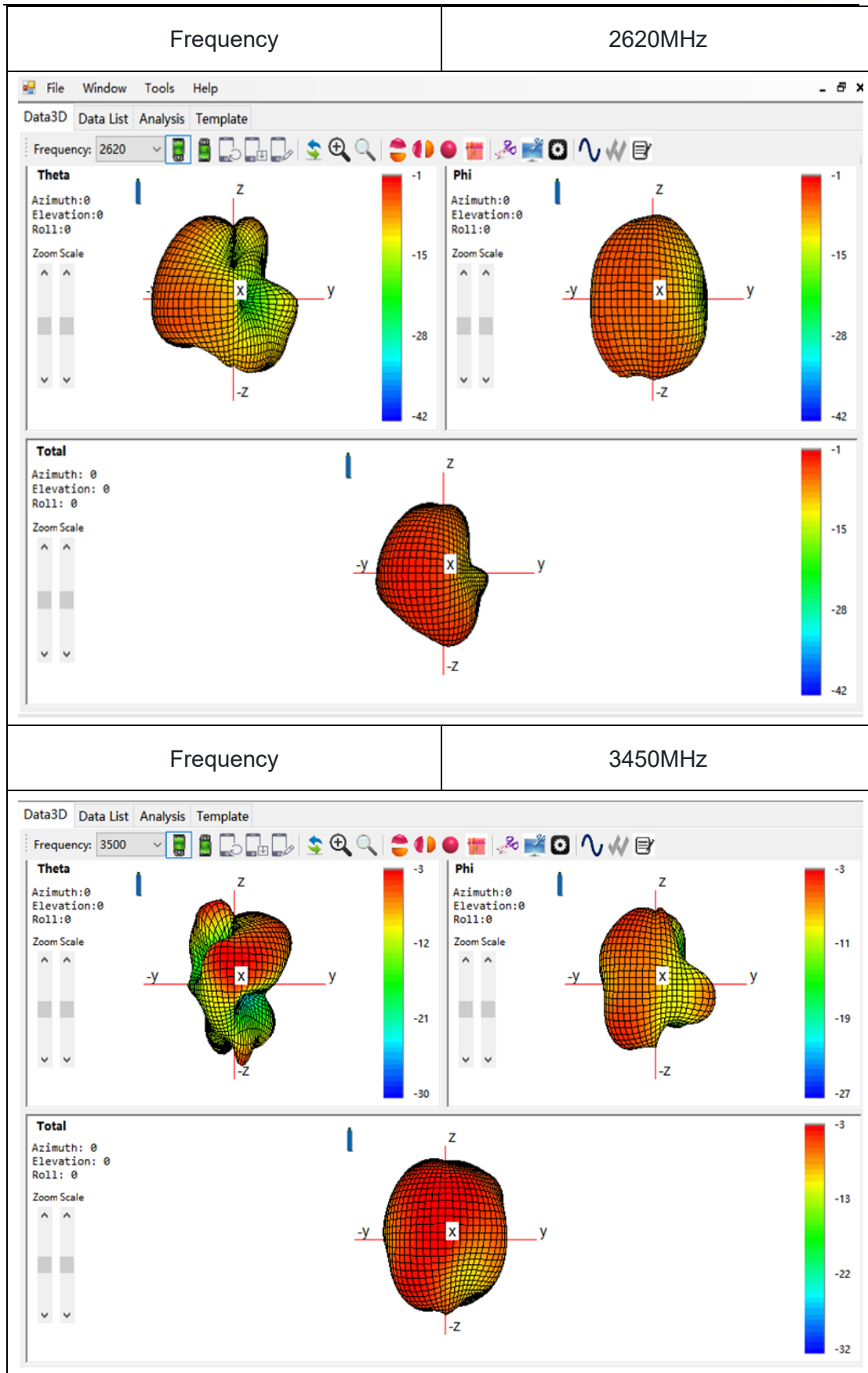
2350MHz

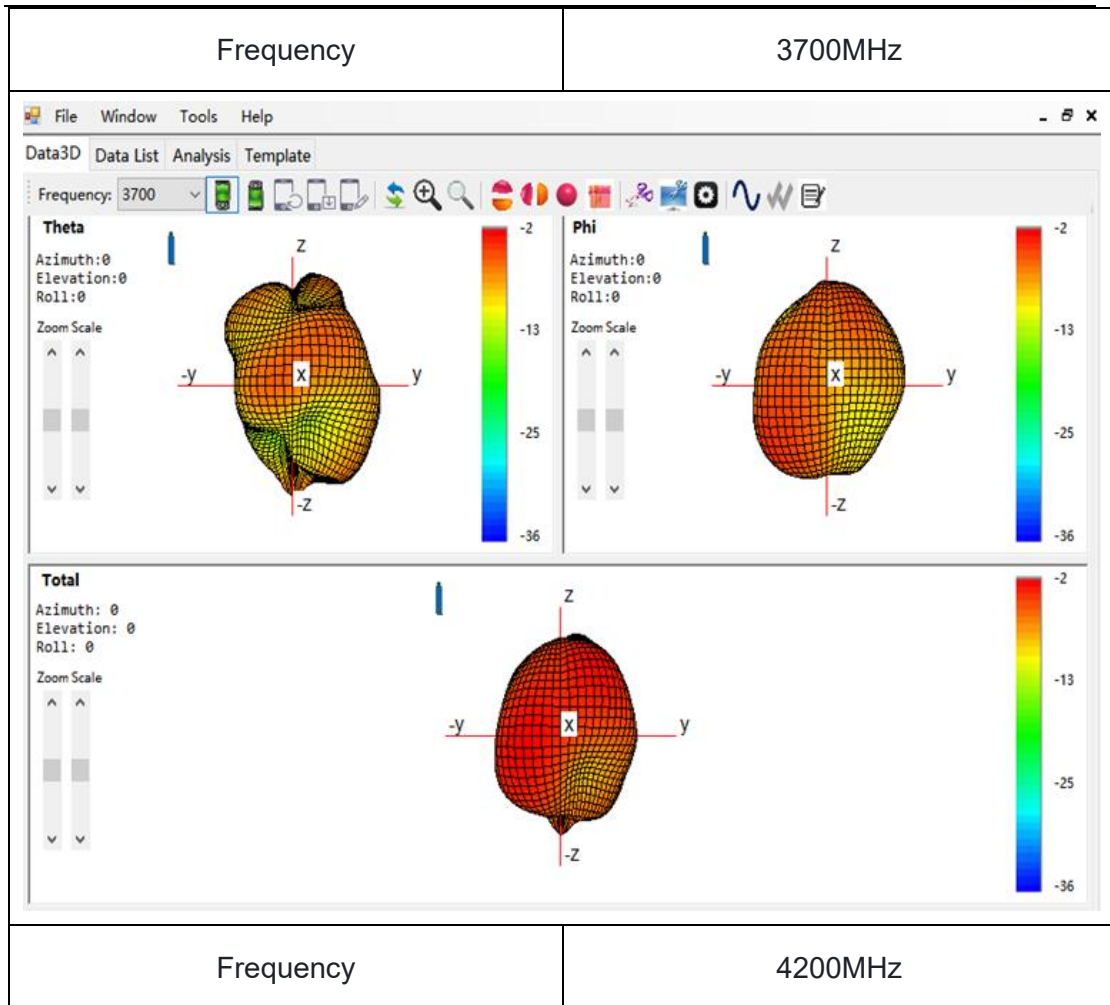


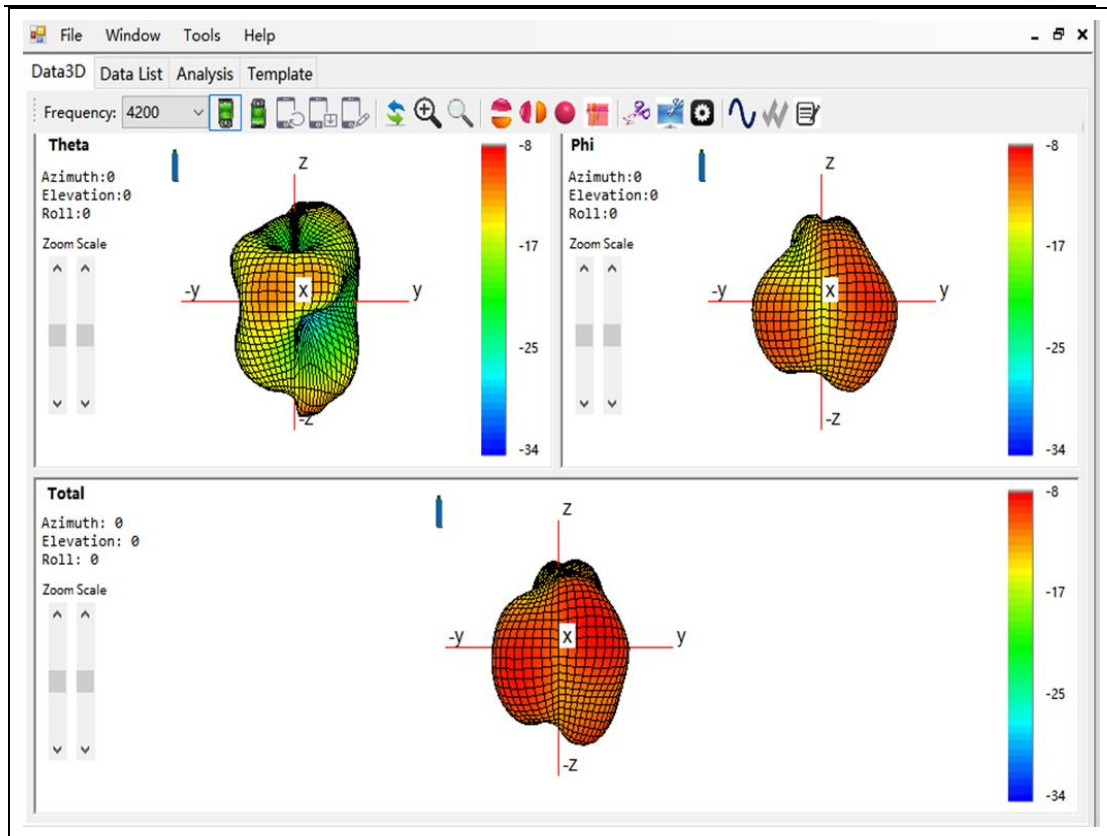
Frequency

2535MHz





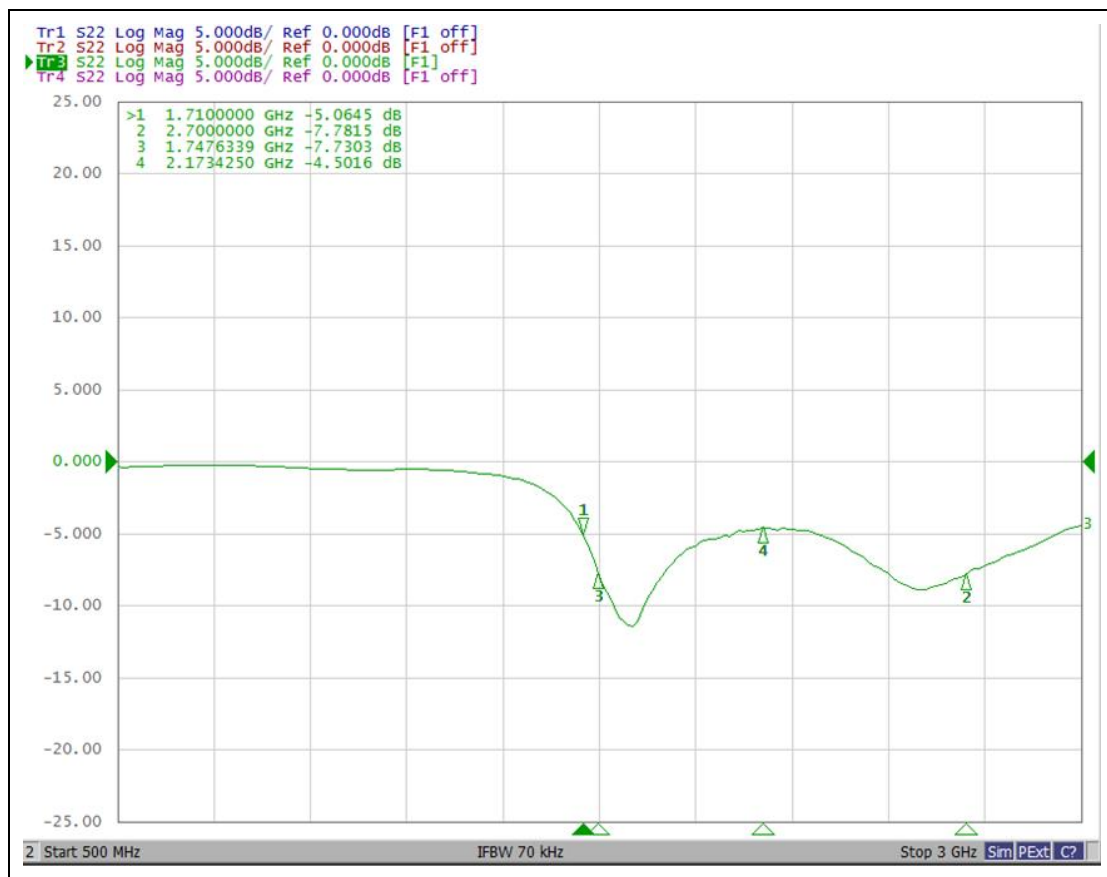






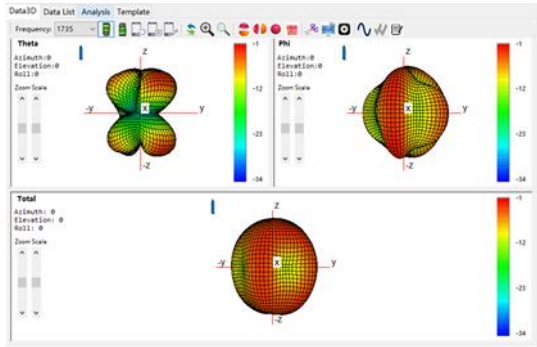
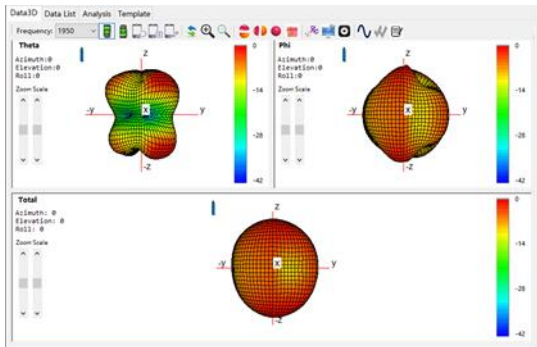
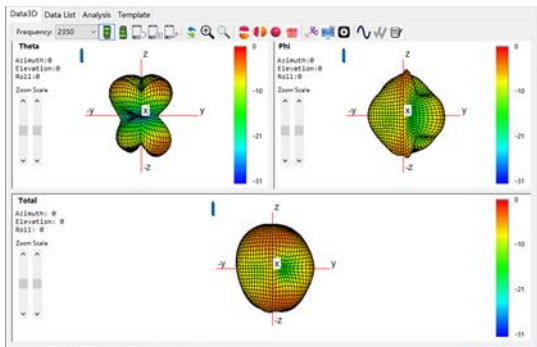
Bands for Antenna 2	MHB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B1/N1/WB1	-4.3	-3.8
B2/G2/WB2	-3.7	-3.6
B3/N3/B4/G3/WB4/B66/N66	-3.9	-3.6
B7/N7/B38/N38/B41/N41	-5.6	-4.9
B40/N40	-5.1	-4.9

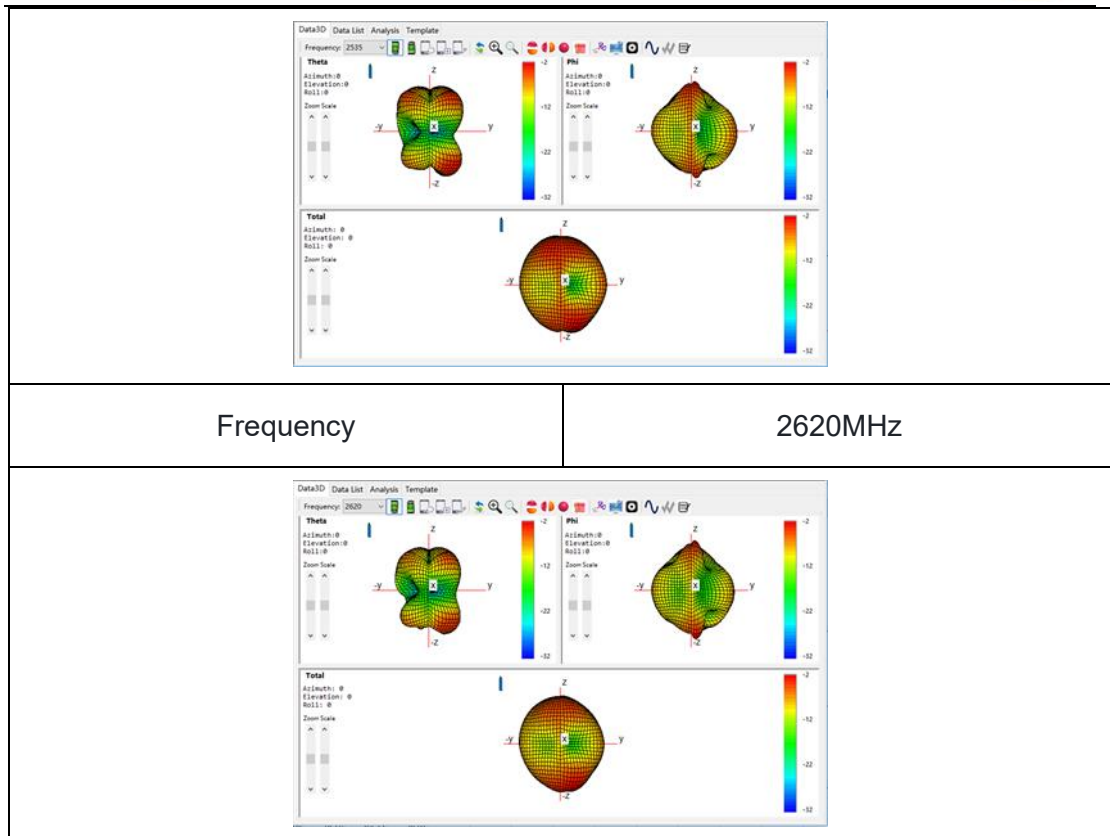
S 参数





方向图

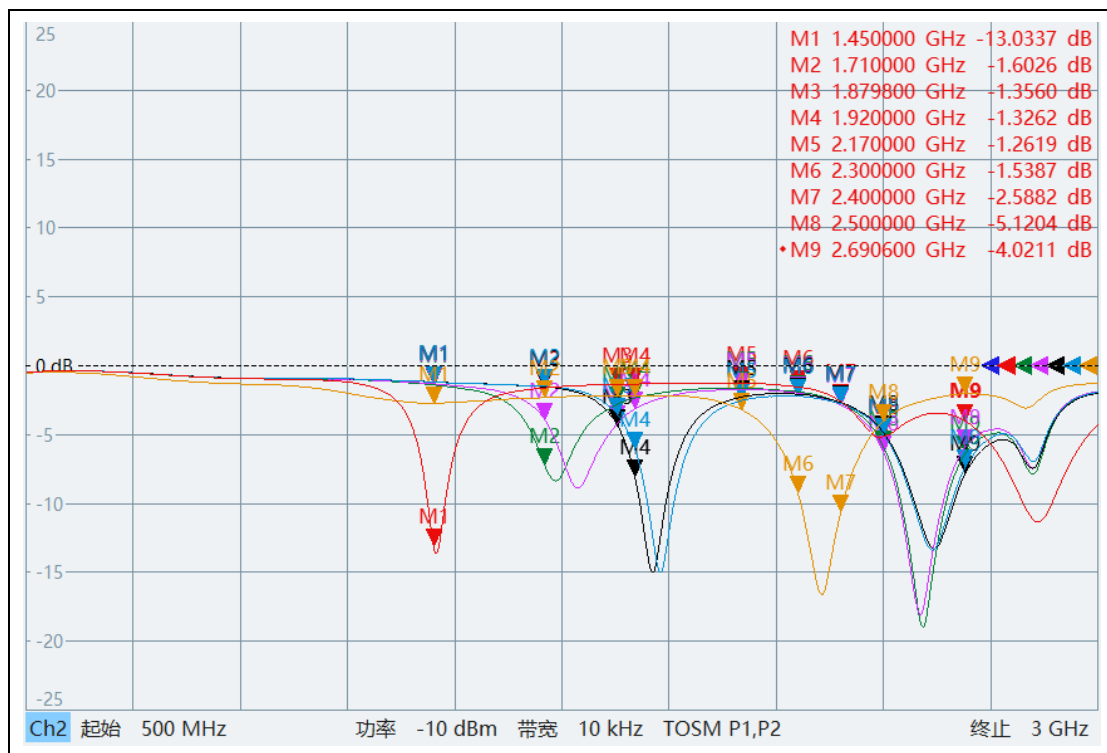
Frequency	1735MHz
	
Frequency	1950MHz
	
Frequency	2350MHz
	
Frequency	2535MHz





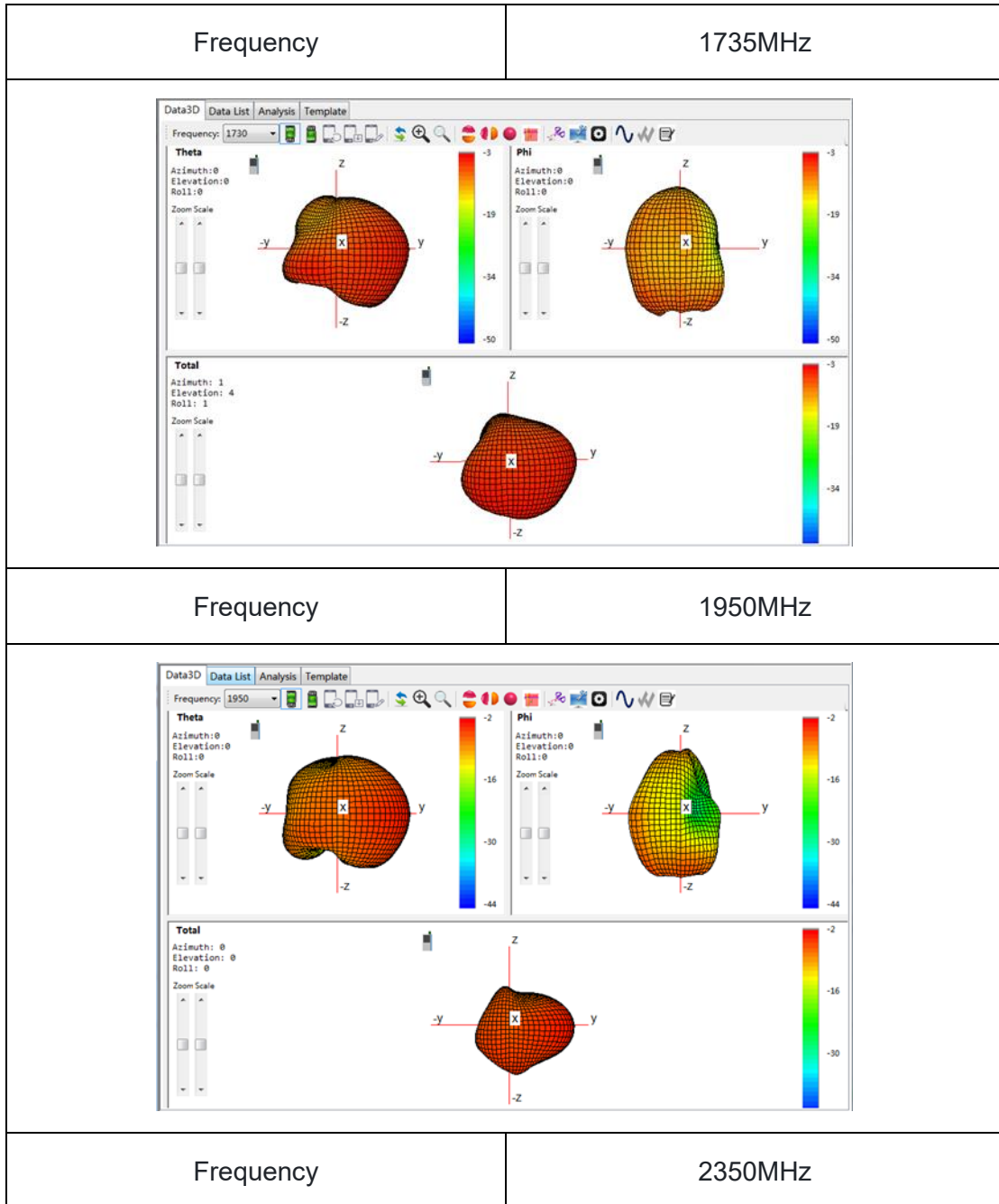
Band for Antenna 3	MHB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
WB1/B1/N1	-6.8	-6
B4/B66/N66	-10.2	-7.2
B3/N3	-7	-6.1
B40/N40	-6.3	-5.8
B7/N7/B41/N41/B38/N38	-6.8	-6.3

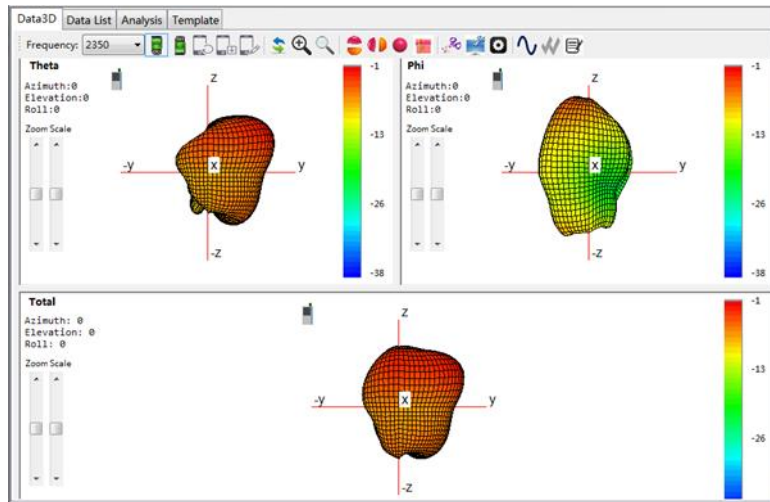
S 参数





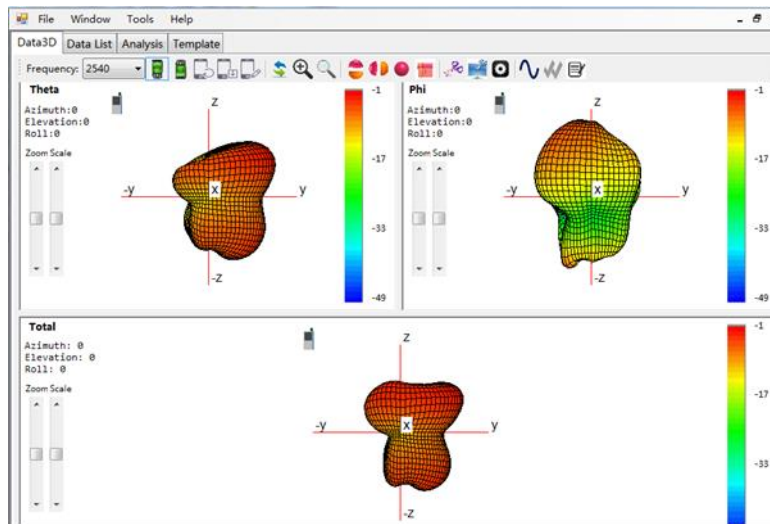
方向图





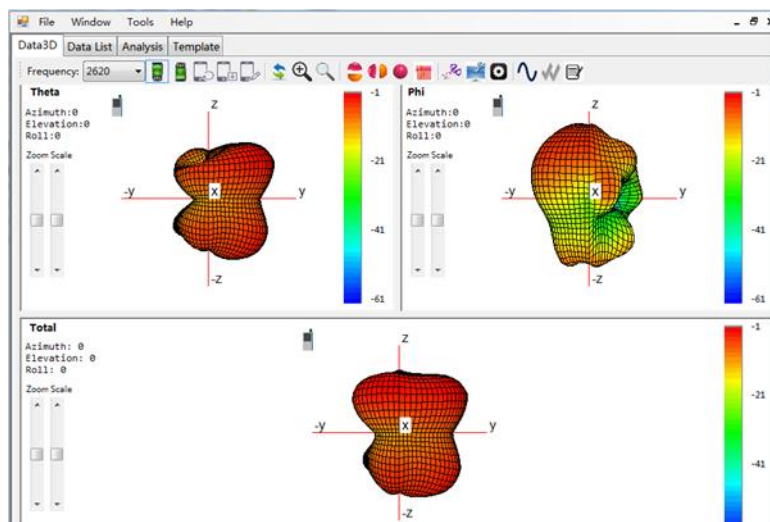
Frequency

2350MHz



Frequency

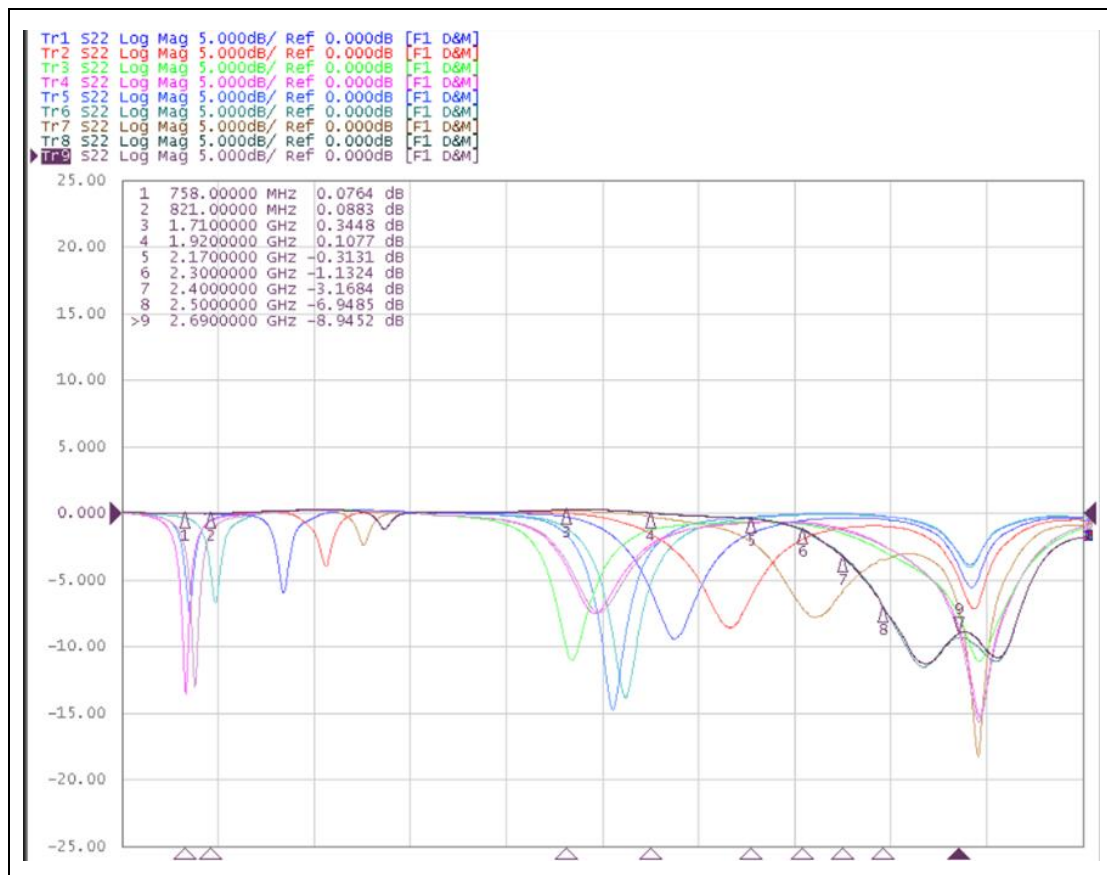
2620MHz





Band for Antenna 4	MHB ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
B1/N1/WB1	-8.9	-6
B2	-9	-6.1
B3/N3/B4/B66/N66	-8.5	-5
B7/N7/B38/N38/B41/N41	-5.6	-1.5
B40/N40	-8.2	-4.2

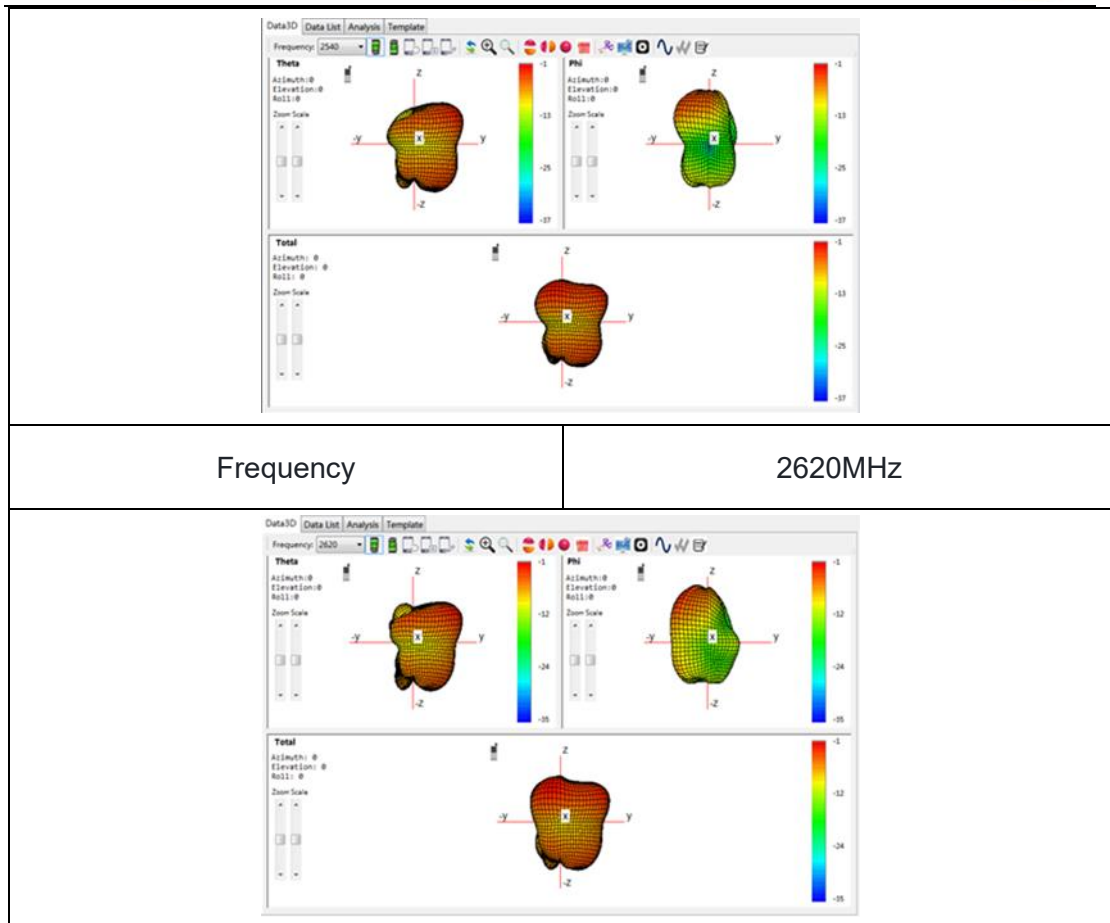
S 参数





方向图

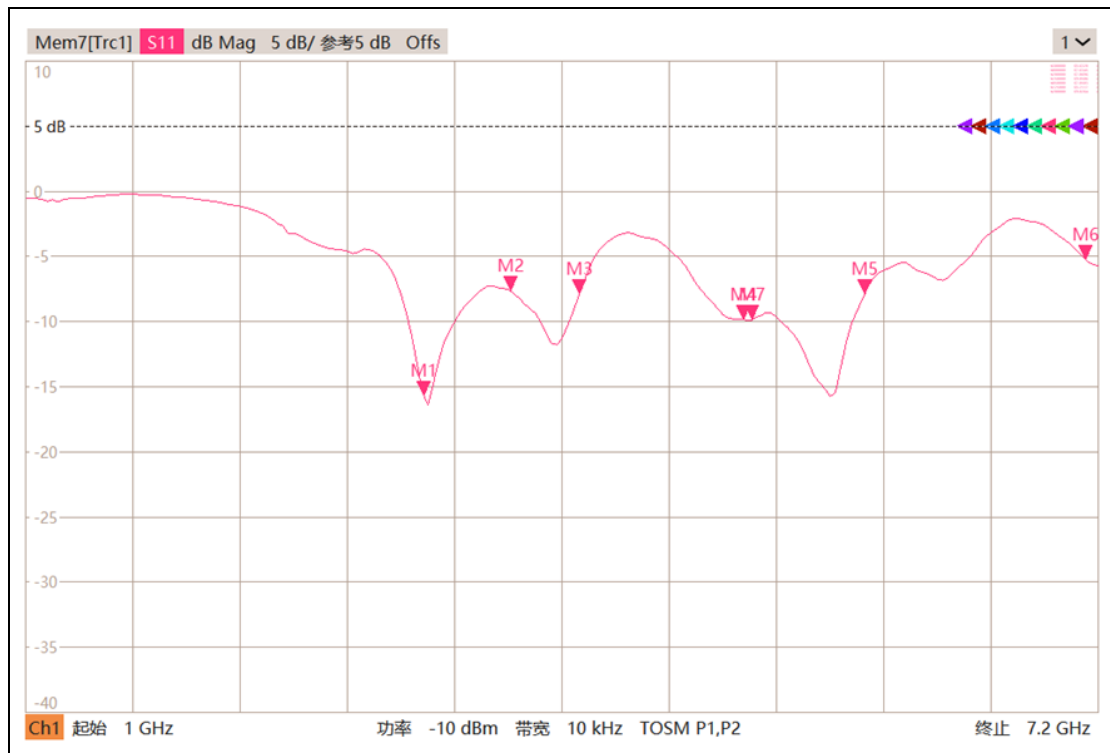
Frequency	1735MHz
Frequency	1950MHz
Frequency	2350MHz
Frequency	2535MHz





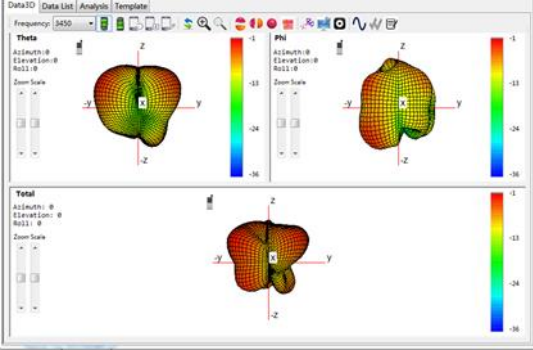
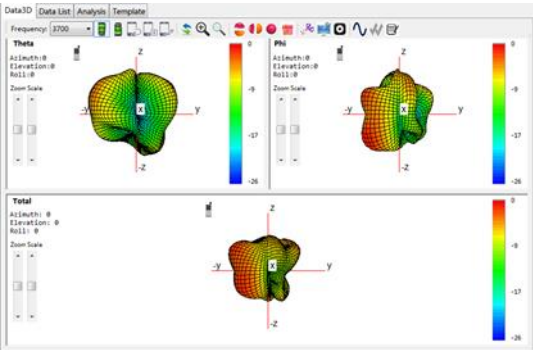
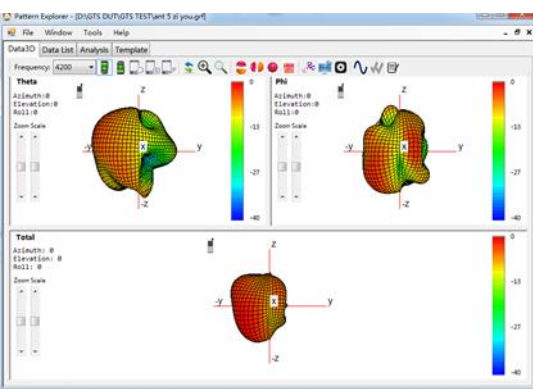
Band for Antenna 5	NR+WIFI_5G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
N77/78(3450~3550MHz)	-4.9	-0.26(n77) -0.67(n78)
N77(3700~3980MHz)	-6.03	-0.26
N78(3700~3800MHz)	-6.03	-0.67
5G (5150~5250MHz)	-5.1	-1.29
5G (5250~5350MHz)	-5.1	-1.36
5G (5470~5725MHz)	-4.6	0
5G (5470~5850MHz)	-4.8	0

S 参数



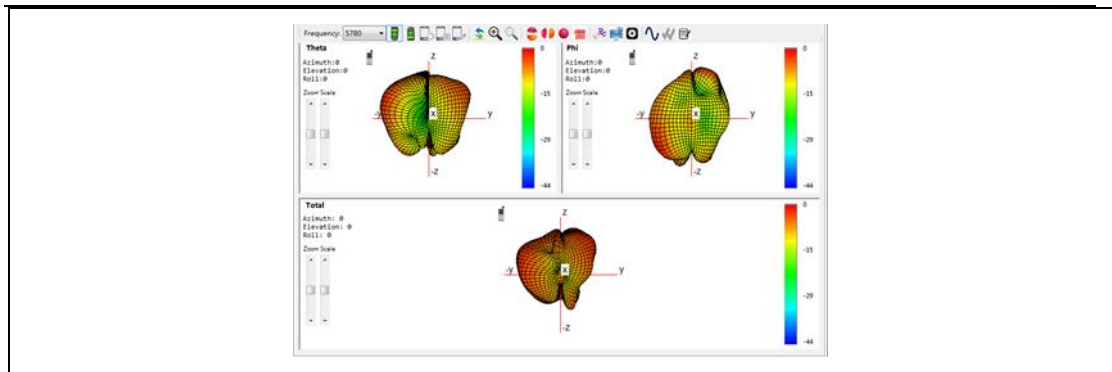


方向图

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



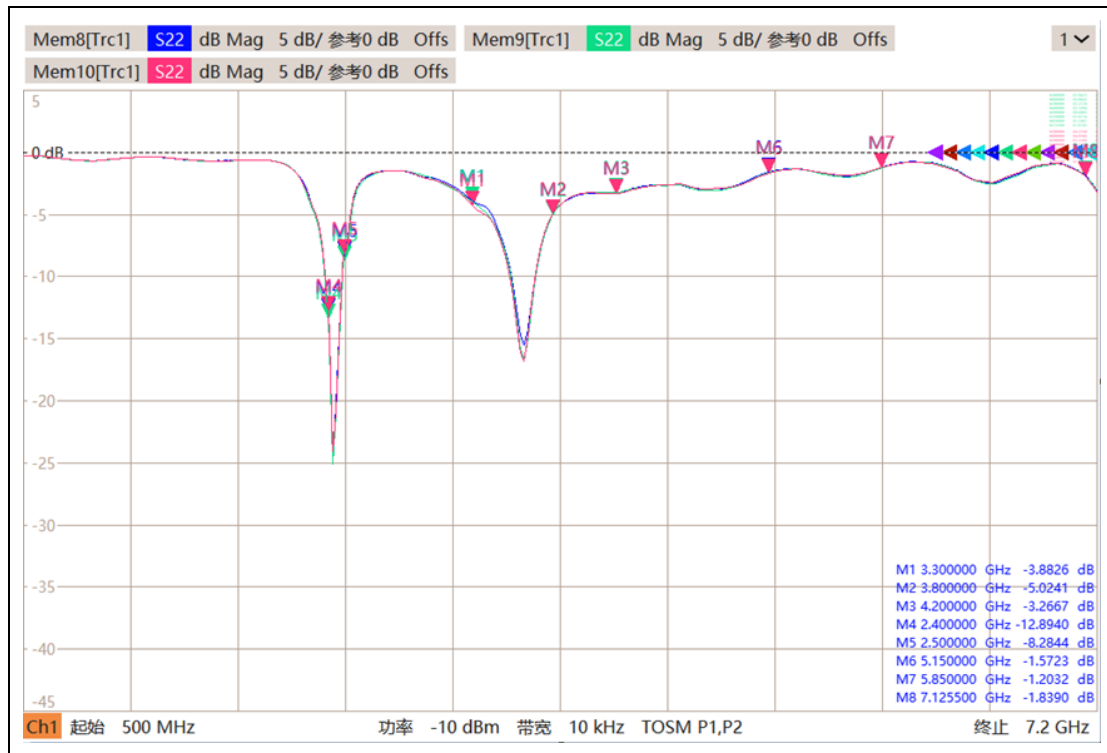
Frequency	5280MHz
Frequency	5500MHz
Frequency	5785MHz





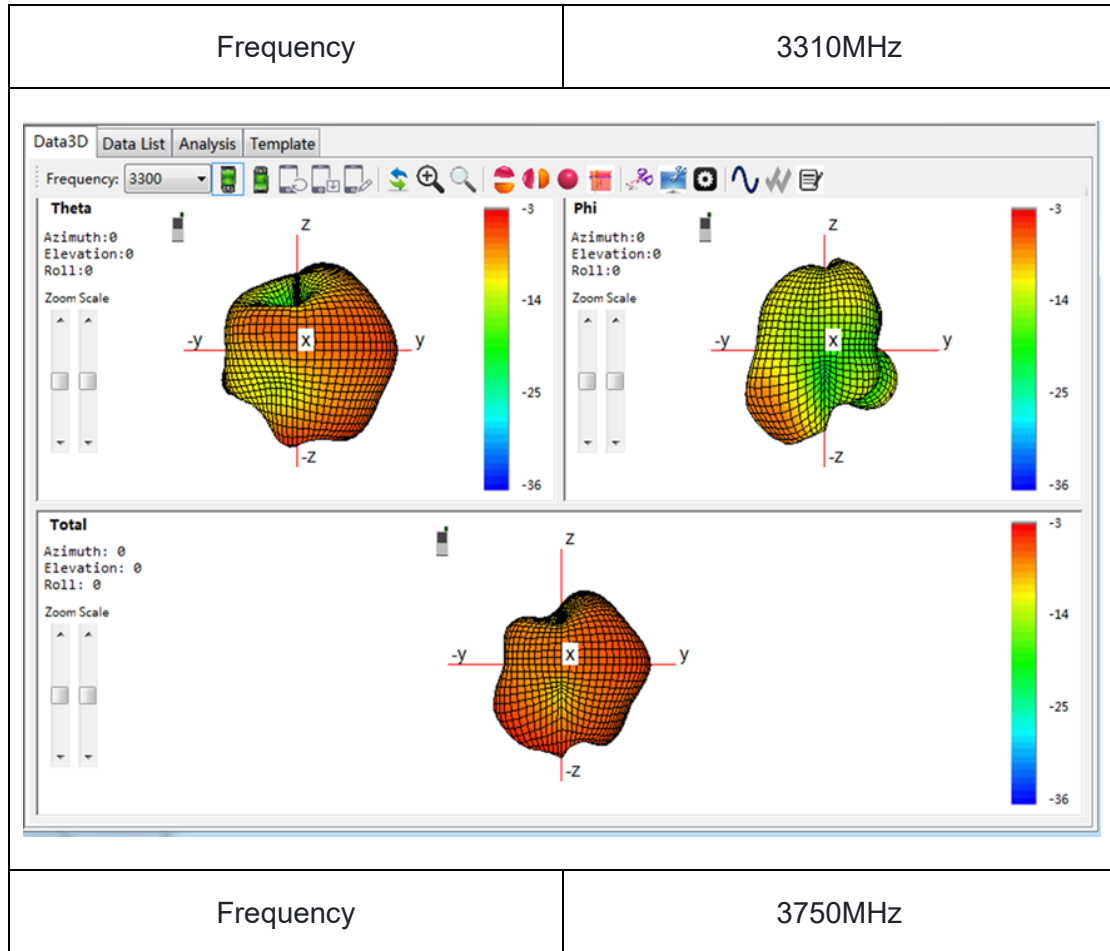
Band for Antenna 6	NR+WIFI_2.4G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
N77/78(3450~3550MHz)	-5.76	-1.00
N77(3700~3980MHz)	-7.3	-1.00
N78(3700~3800MHz)	-7.3	-1.00
2.4G WIFI(2400~2485MHz)	-6.6	-1.72

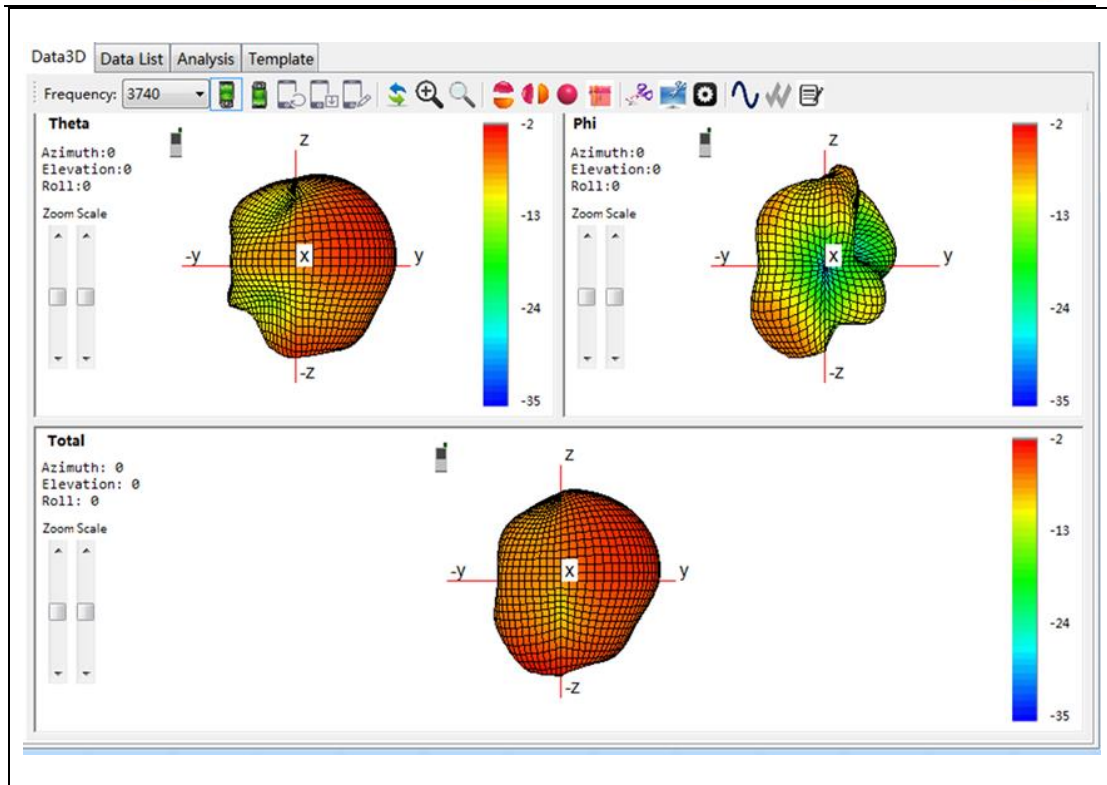
S 参数





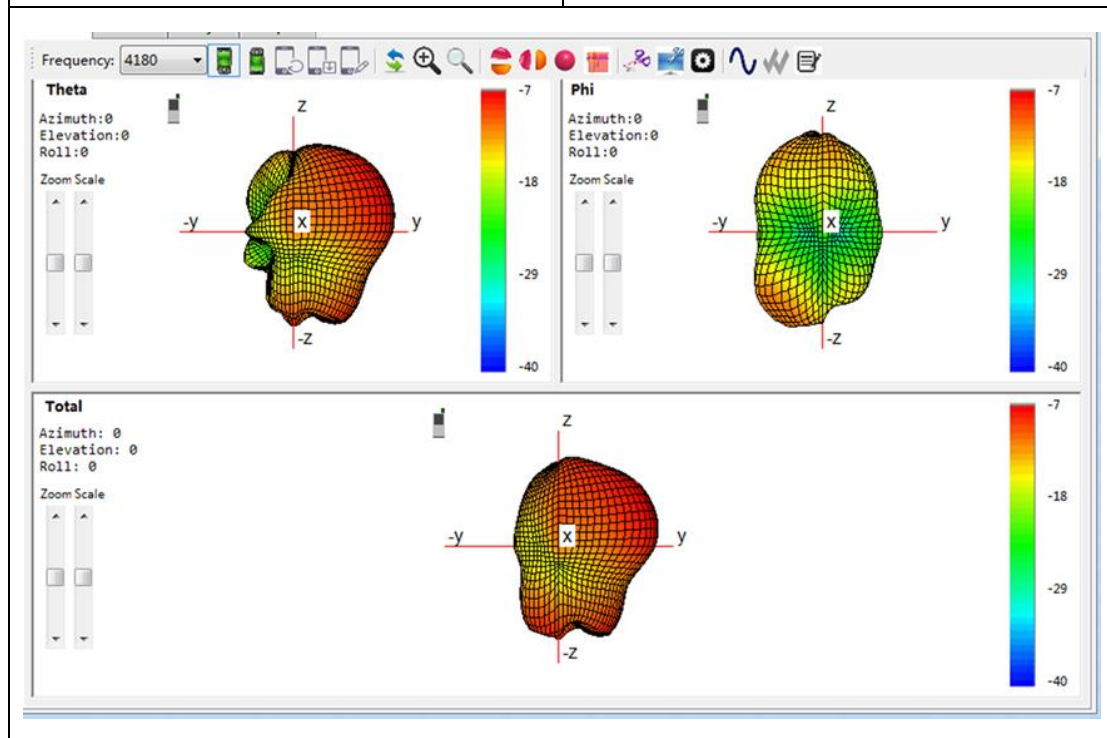
方向图





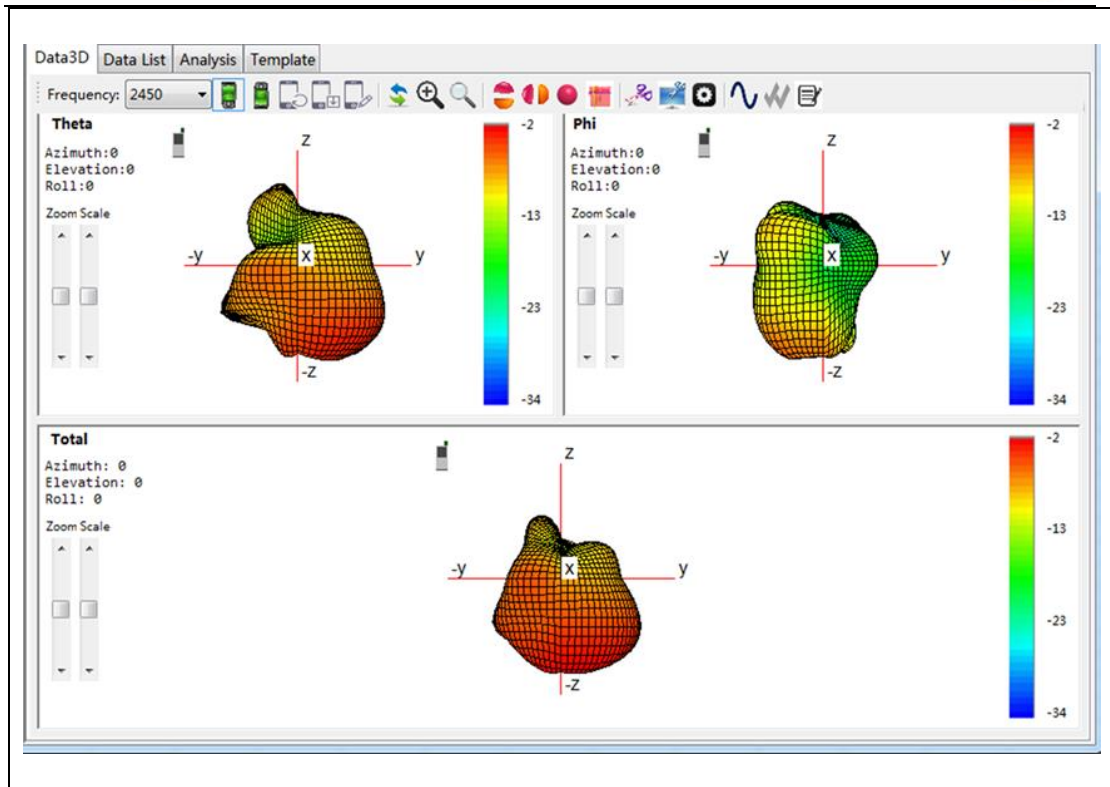
Frequency

4190MHz



Frequency

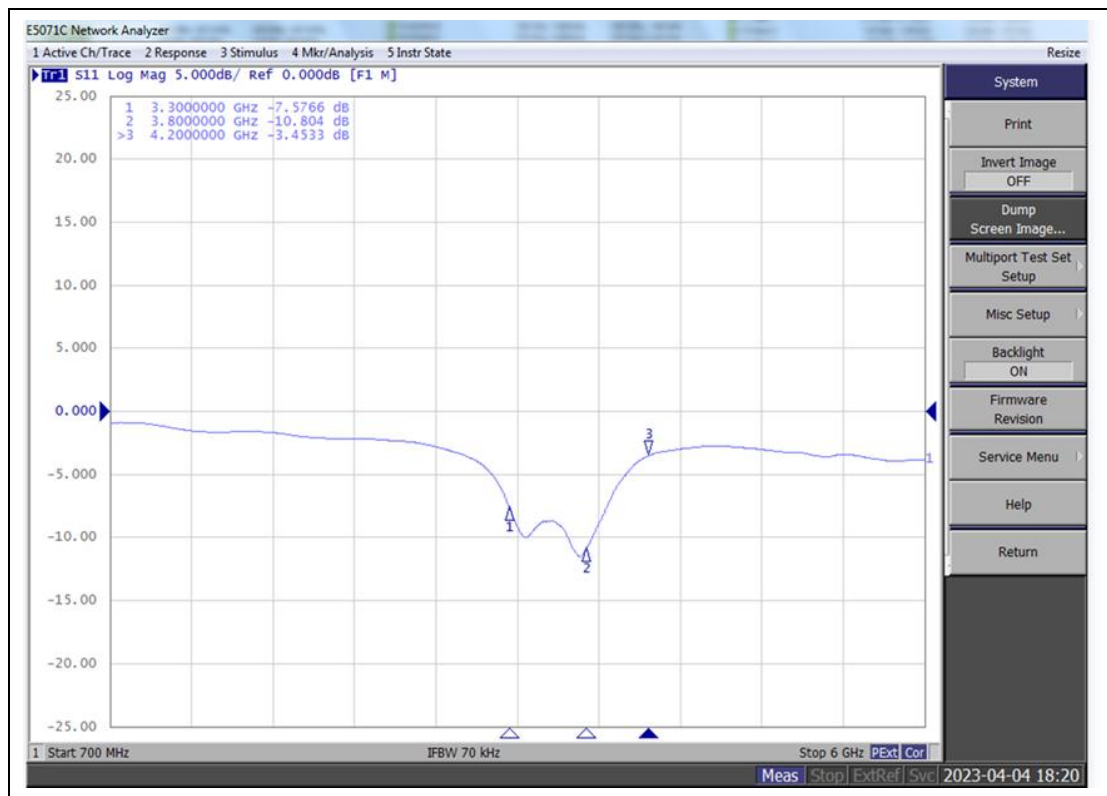
2450MHz





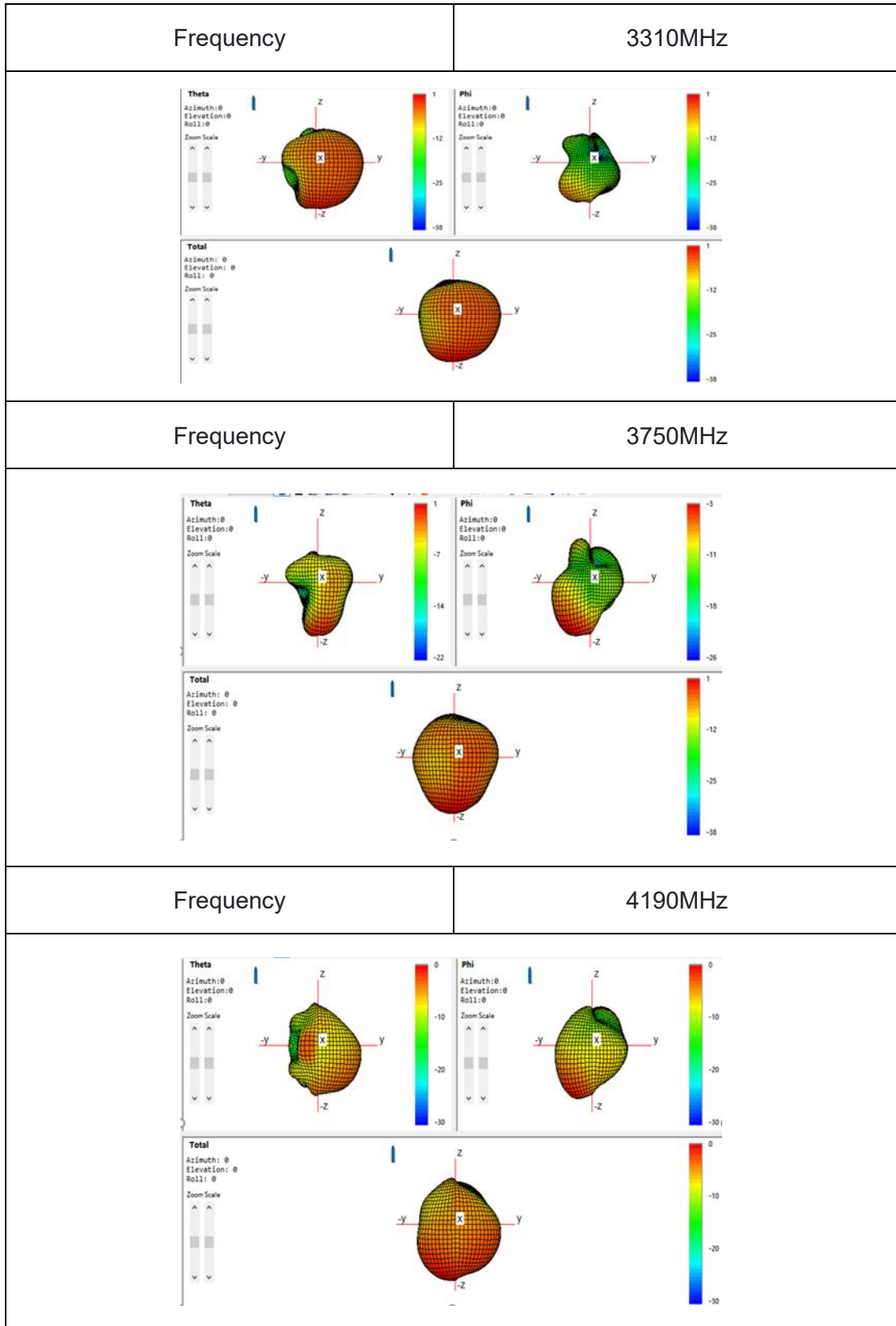
Band for Antenna 7	NR ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
N77/78(3450~3550MHz)	-6.1	-6
N77(3700~3980MHz)	-6.7	-6
N78(3700~3800MHz)	-6.7	-6

S 参数





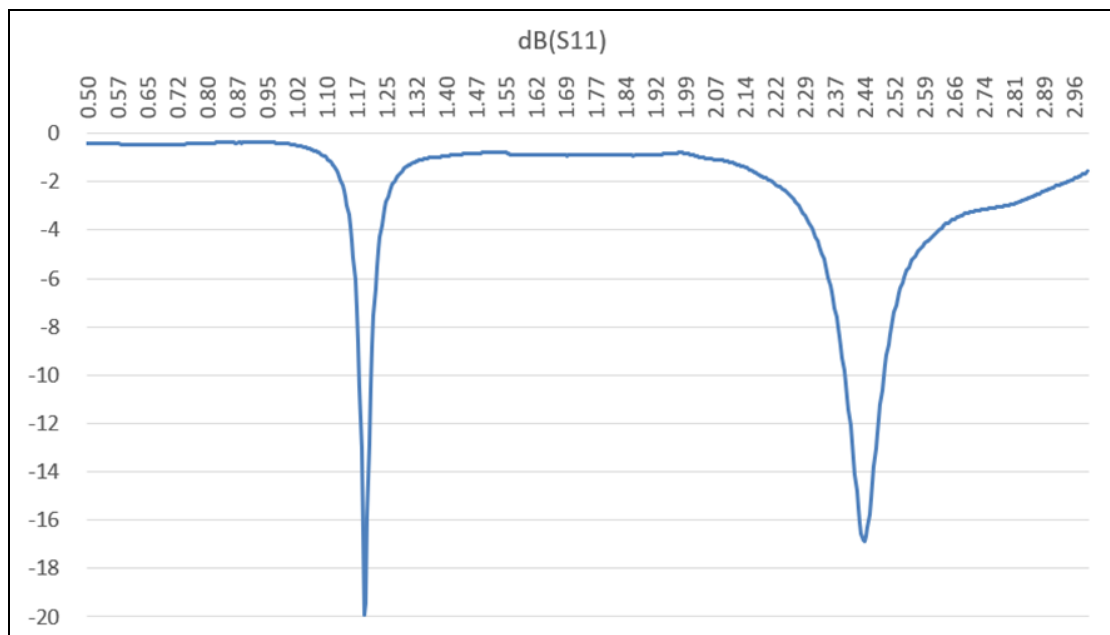
方向图



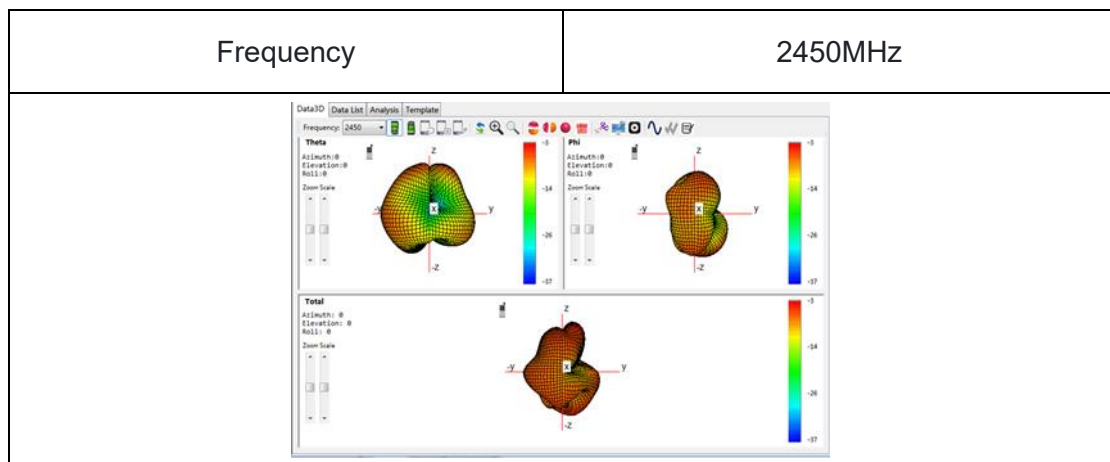


Band for Antenna 17	WIFI_2.4G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
2.4G(2400~2485MHz)	-6.6	-2.62
Bluetooth	-6.6	-2.62

S 参数



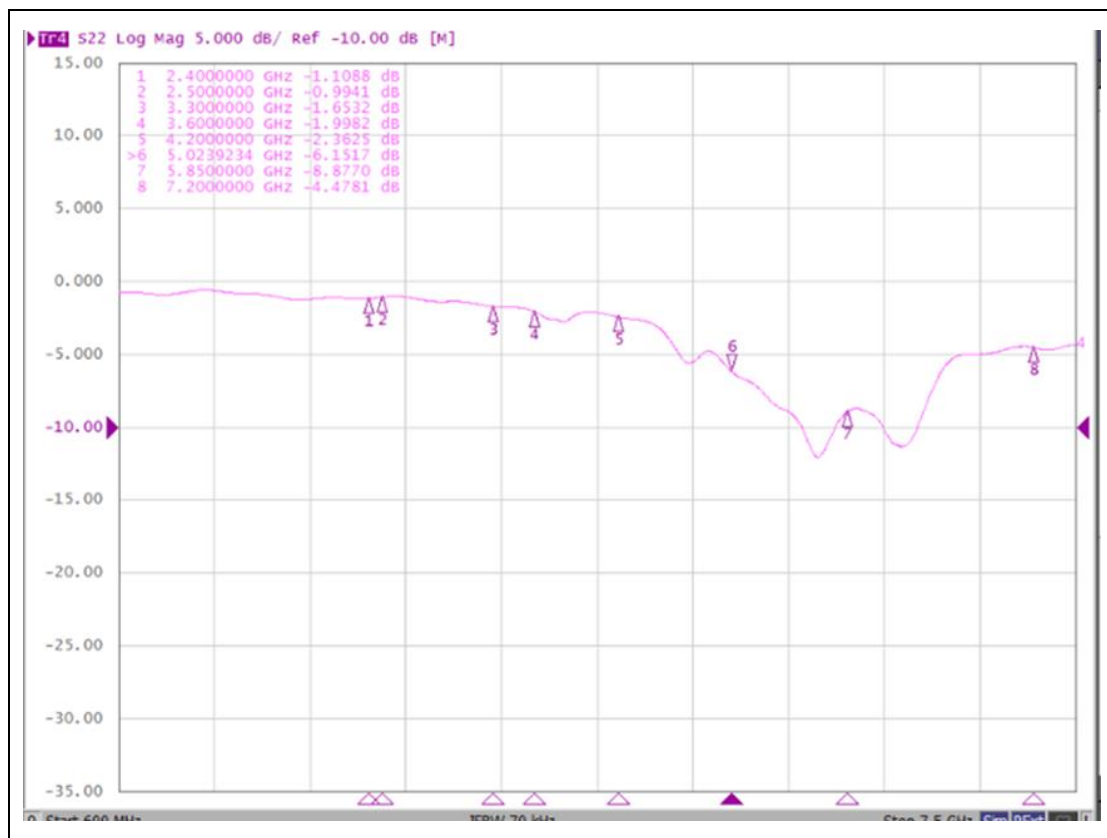
方向图





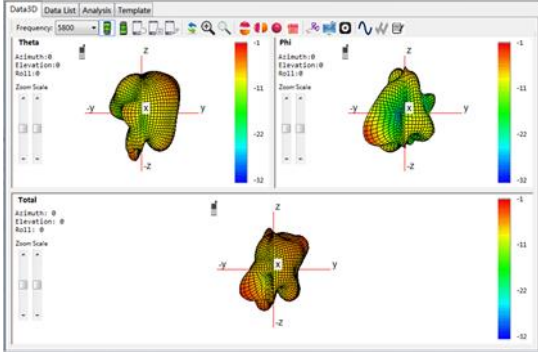
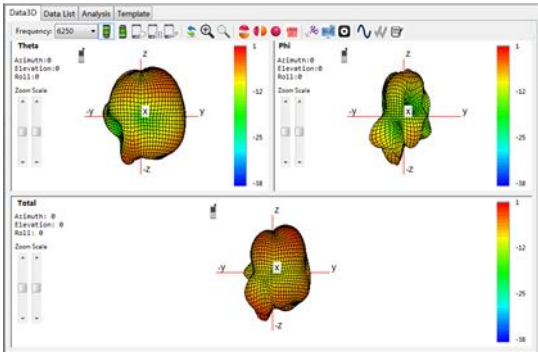
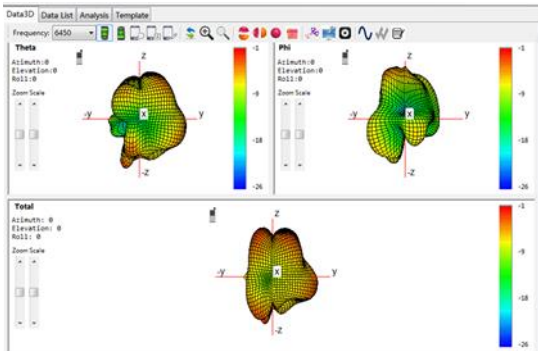
Band for Antenna 18	WIFI_5G ANT	
	Avg.Effi.(dB)	Peak gain(dBi)
5G (5150~5250MHz)	-6.3	-1.6
5G (5250~5350MHz)	-6.4	-1.58
5G (5470~5725MHz)	-6.5	-1.49
5G (5470~5850MHz)	-6.5	-1.29

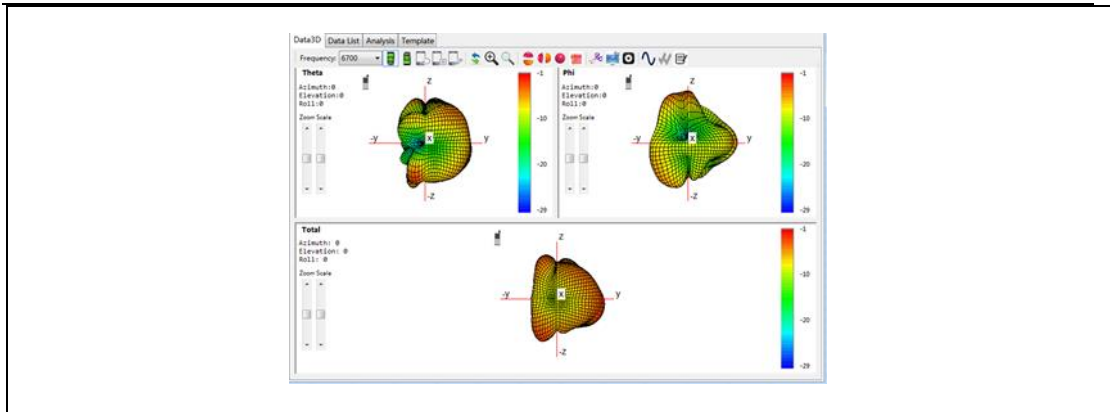
S 参数





方向图

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





3. Main Test Instruments

Name	Manufacturer	Model name	Serial Number	Cal., Date	Exp., Date
E5071C	KEYSIGHT	E5071C	EQ80224	2023-4-6	2024-4-6