Antenna Performance Description

Applicant: Xiaomi Communications Co., Ltd

Product description: Mobile Phone

Model Name: 23117RA68G

FCC ID: 2AFZZRA68G

Test date: 2023/10/17

1. Antenna information

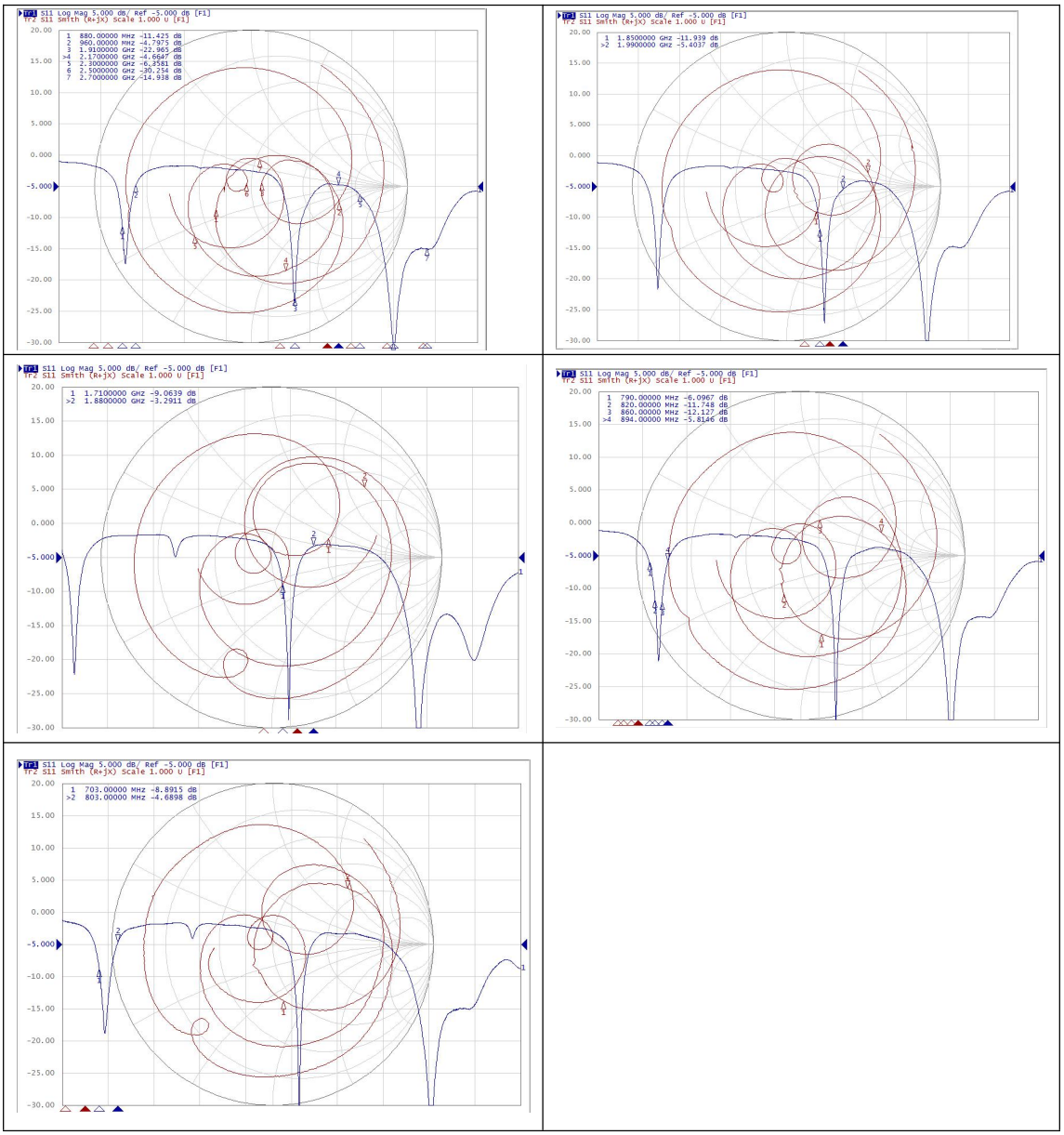
Antenna	Model Name	Antenna Pattern	Antenna Type	Manufacturer	Test party of Antenna gain
ANT1	AN6860A	MDA+FPC	PIFA Antenna	Luxshare Precision Industry Co., Ltd.	Luxshare Precision Industry Co., Ltd.
ANT4	AN6860A	MDA+FPC	PIFA Antenna	Luxshare Precision Industry Co., Ltd.	Luxshare Precision Industry Co., Ltd.
ANT2	AN6860A	MDA	PIFA Antenna	Luxshare Precision Industry Co., Ltd.	Luxshare Precision Industry Co., Ltd.
ANT5	AN6860A	MDA	PIFA Antenna	Luxshare Precision Industry Co., Ltd.	Luxshare Precision Industry Co., Ltd.
NFC	AN6860A	FPC	loop Antenna	Kun Shan Innowave Communication Technology Co., Ltd.	Kun Shan Innowave Communication Technology Co., Ltd.

2、Test data

(ANT1)	Band	Efficiency	Gain
2G	GSM850 (824-849，869-894)	-9.2	-5.9
	GSM900（880-915，925-960）	-9.1	-5.6
	GSM1800（1710-1785，1905-1880）	-7.3	0.66
	GSM1900（1850-1910，1930-1990）	-7.1	0.02
3G	WCDMA B1（1920-1980，2110-2170）	-7.6	-0.62
	WCDMA B2（1850-1910，1930-1990）	-7.2	0.02
	WCDMA B4（1710-1785，2110-2155）	-7.9	0.66
	WCDMA B5 （824-849，869-894）	-9.2	-5.9
	WCDMA B8（880-915，925-960）	-9.1	-5.6
4G	TTE FDD 1: （1920-1980，2110-2170）	-7.6	-0.62
	TTE FDD 2: （1850-1910，1930-1990）	-7.2	0.02
	TTE FDD 3: （1710-1785，1905-1880）	-7.3	0.66
	TTE FDD 4: （1710-1785，2110-2155）	-7.9	0.66
	TTE FDD 5: （824-849，869-894）	-9.2	-5.9
	TTE FDD 7: （2500-2570，2620-2690）	-4.2	2.0
	TTE FDD 8: （880-915，925-960）	-9.1	-5.6
	TTE FDD 20: （832-862，791-821）	-9.4	-5.92
	TTE FDD 28: （703-748,758-803）	-8.8	-5.03
	TTE TDD 38: （2570-2620）	-4.2	2.0

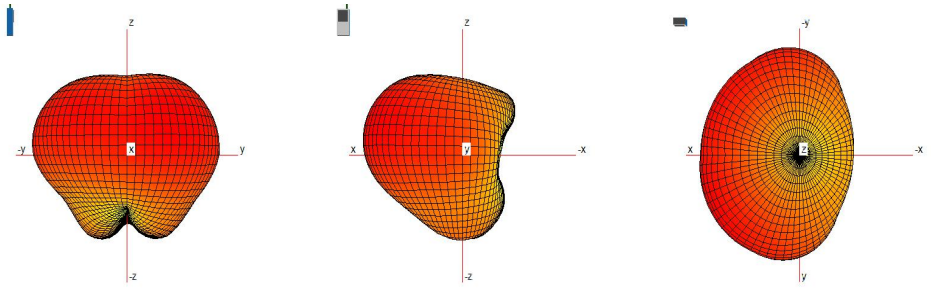
	TTE TDD 40: （2300-2400）	-4.9	0.57
	TTE TDD 41: （2496-2690）	-4.2	2.0

ANT1 S11&SMTTH

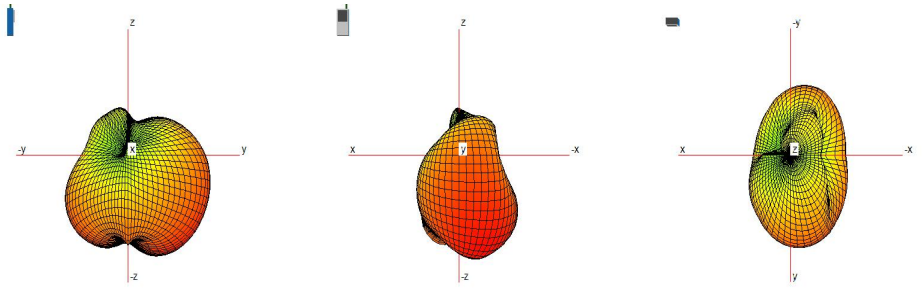


ANT1

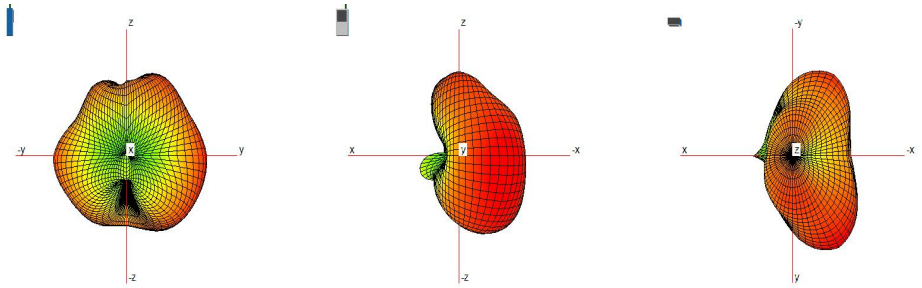
Frequency	B8



Frequency	B3/4



Frequency	B41/38/7



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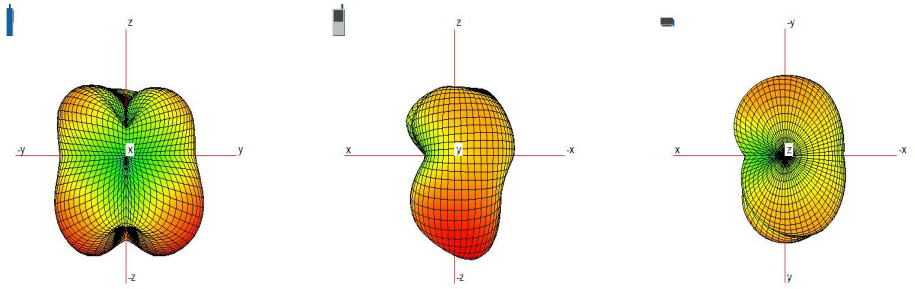

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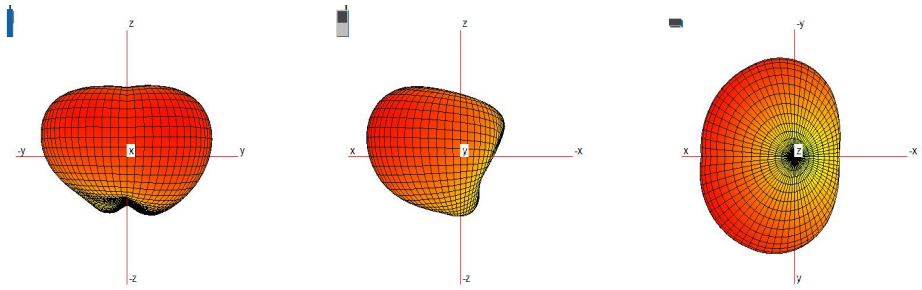

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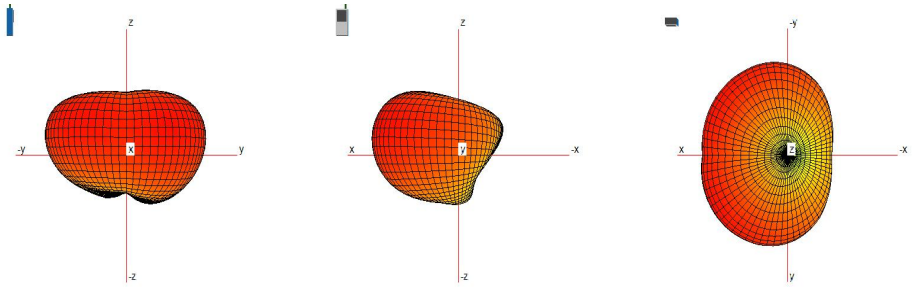

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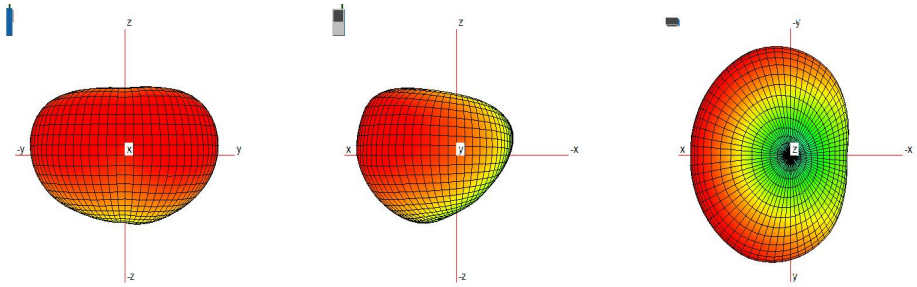
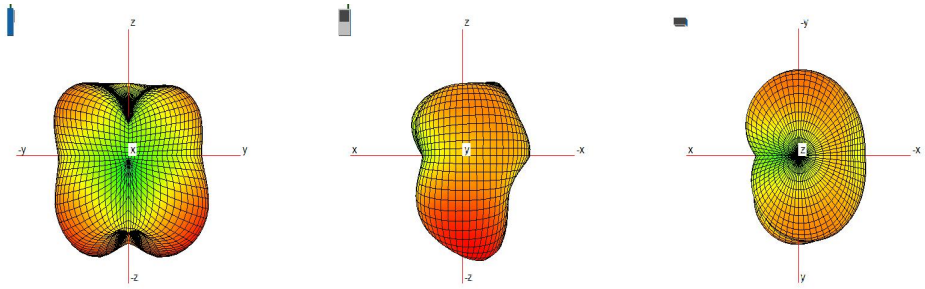


Frequency	B1



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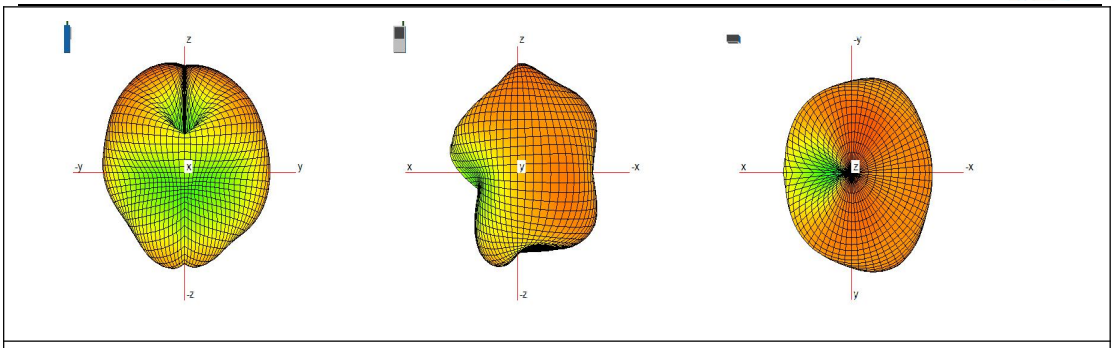
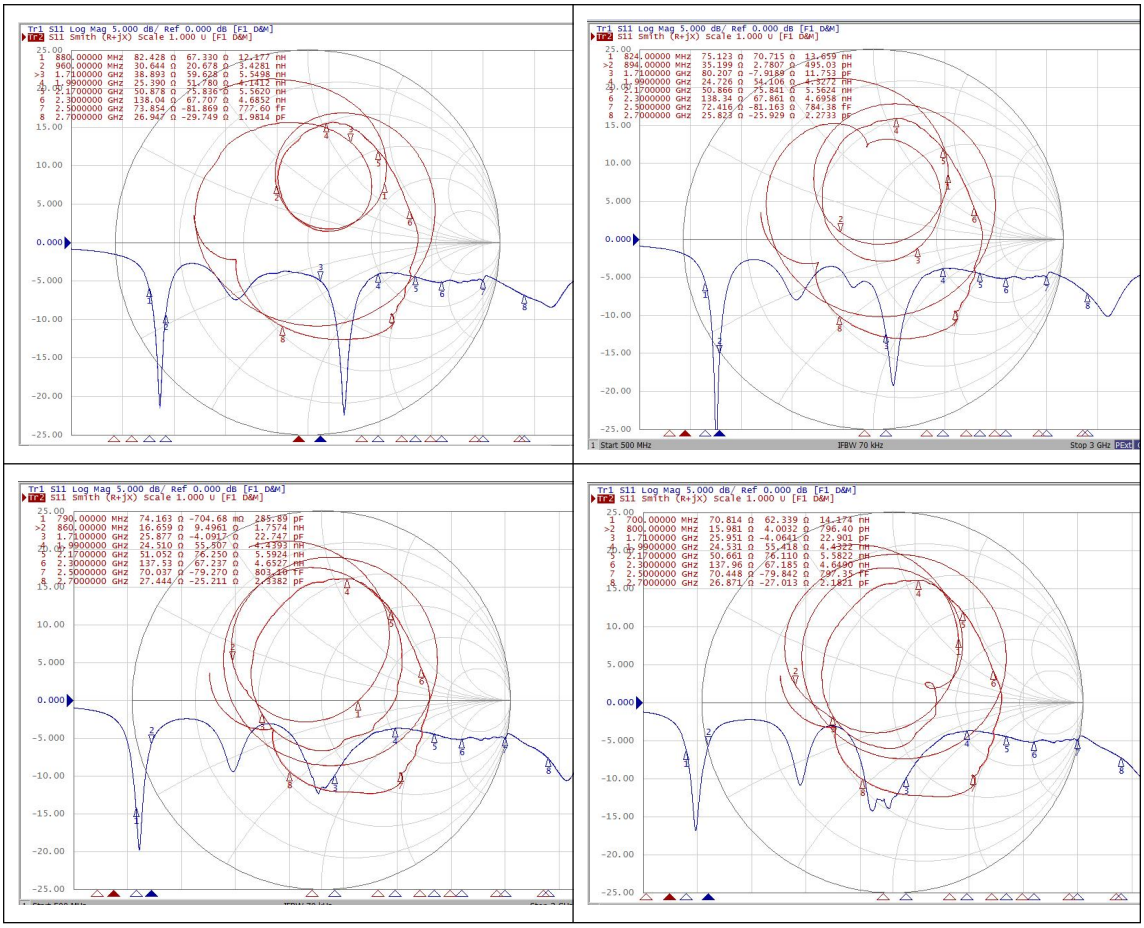
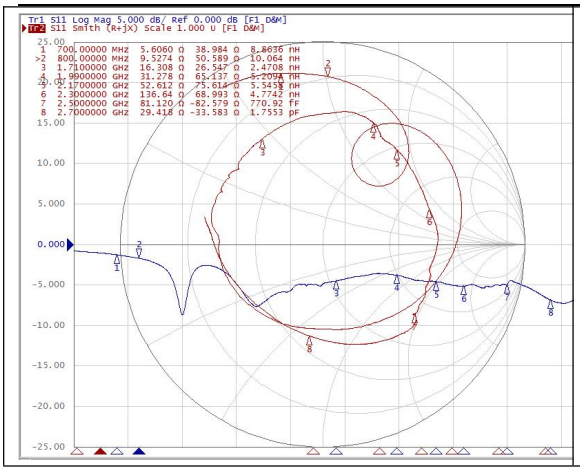


ANT4	Band	Efficiency	Gain
2G	GSM850 (824-849，869-894)	-12	-7.6
	GSM900（880-915，925-960）	-11.5	-7.7
	GSM1800（1710-1785，1905-1880）	-5.8	-0.4
	GSM1900（1850-1910，1930-1990）	-6.0	1.1
3G	WCDMA B1（1920-1980，2110-2170）	-6.8	0.6
	WCDMA B2（1850-1910，1930-1990）	-6	1.1
	WCDMA B4（1710-1785，2110-2155）	-6.4	-0.6
	WCDMA B5 （824-849，869-894）	-12	-7.6
	WCDMA B8（880-915，925-960）	-11.5	-7.7
4G	TTE FDD 1: （1920-1980，2110-2170）	-6.8	0.6
	TTE FDD 2: （1850-1910，1930-1990）	-6	1.1
	TTE FDD 3: （1710-1785，1905-1880）	-5.8	-0.4
	TTE FDD 4: （1710-1785，2110-2155）	-6.4	-0.6
	TTE FDD 5: （824-849，869-894）	-12	-7.6
	TTE FDD 7: （2500-2570，2620-2690）	-6.9	-1.3

	TTE FDD 8: (880-915，925-960)	-11.5	-7.7
	TTE FDD 20: (832-862，791-821)	-10.8	-7.3
	TTE FDD 28: (703-748,758-803)	-11.2	-7.9
	TTE TDD 38: (2570-2620)	-6.7	-2.4
	TTE TDD 40: (2300-2400)	-7.6	-2.5
	TTE TDD 41: (2496-2690)	-7.0	-1.2

ANT4 S11&SMTTH





ANT4

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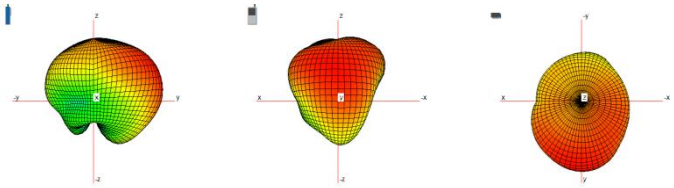	
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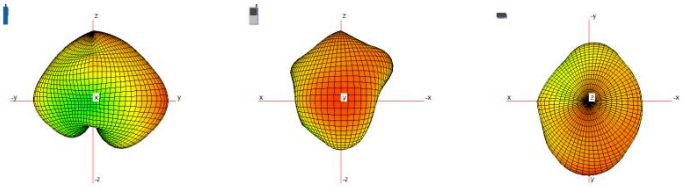	
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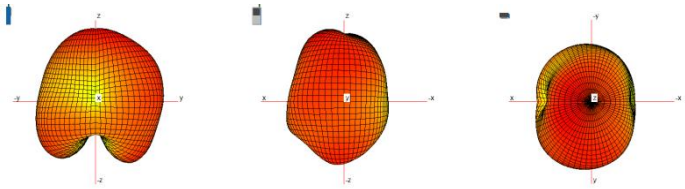	
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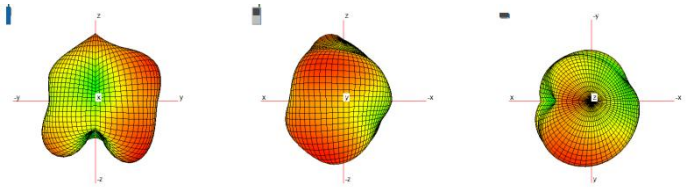	
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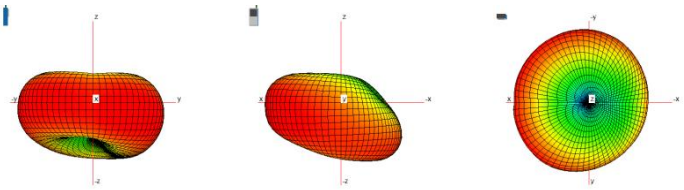	
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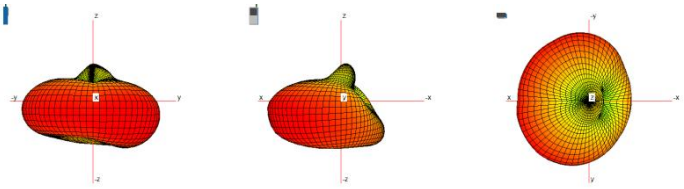
Frequency	B8
	
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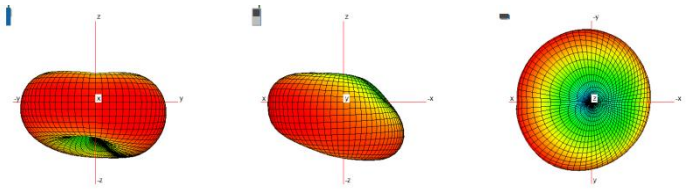
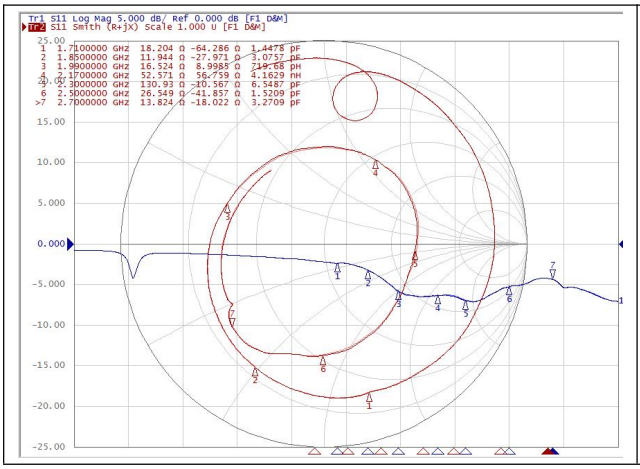
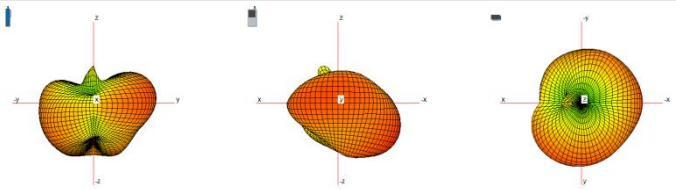
	

ANT2	Band	Efficiency	Gain
4G	TTE FDD 1: (1920-1980，2110-2170)	-5.7	-1
	TTE FDD 2: (1850-1910，1930-1990)	-7.3	-1.8
	TTE FDD 3: (1710-1785，1905-1880)	-10.7	-4.3
	TTE FDD 7: (2500-2570，2620-2690)	-7.4	-3.0
	TTE TDD 38: (2570-2620)	-7.5	-3.7
	TTE TDD 40: (2300-2400)	-6.1	-2.3
	TTE TDD 41: (2496-2690)	-7.4	-3.0

ANT2S11&SMITH



ANT2

Frequency	B3
	
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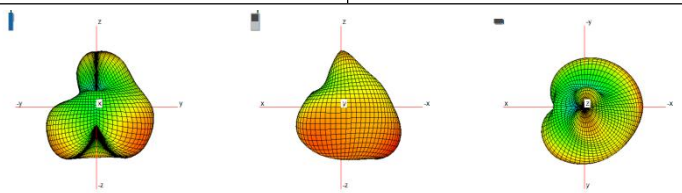	
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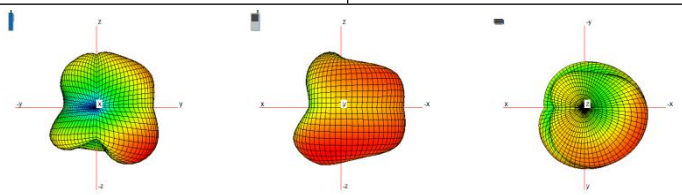	
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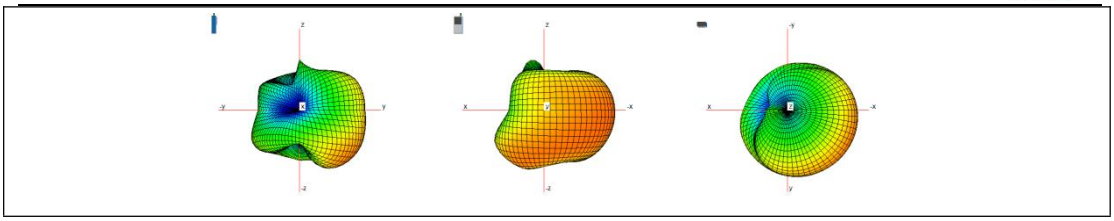
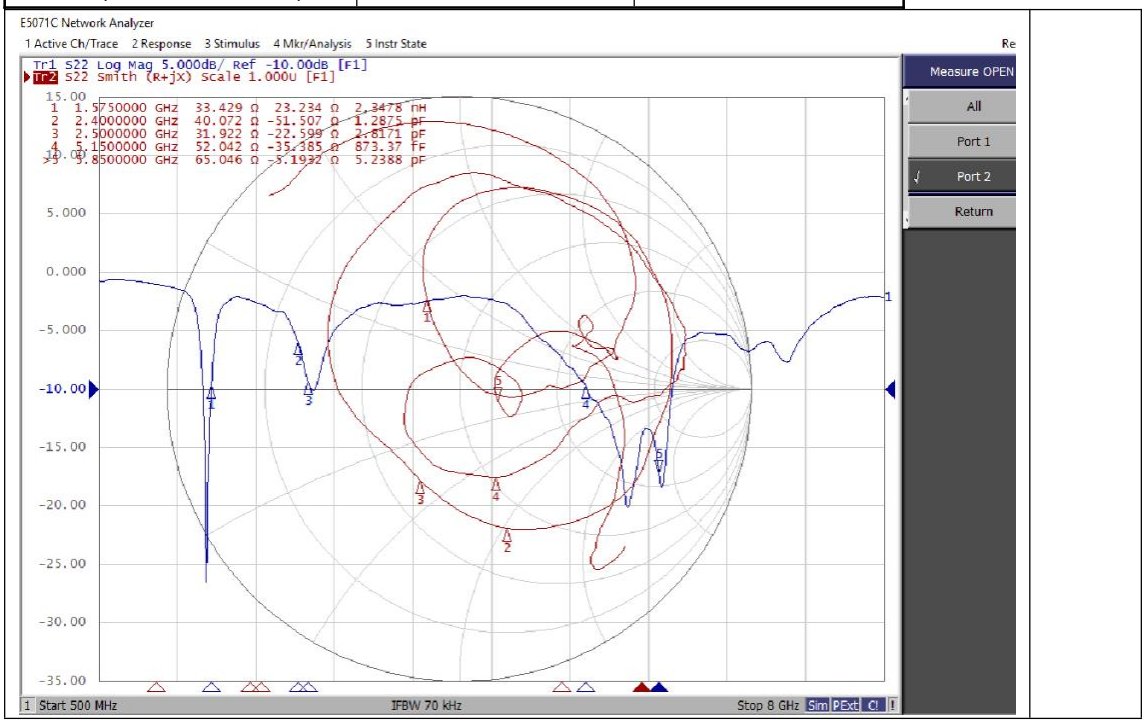


ANT5

Band	Efficiency	Gain
2.4G(2.4-2.5GHZ)	-7.0	-3.60
5G (5.15-5.25GHz)	-6.0	-1.06
5G (5.25-5.35GHz)	-5.3	-0.90
5G (5.47-5.725GHz)	-4.8	-1.66
5G (5.725-5.85GHz)	-5.4	-1.35



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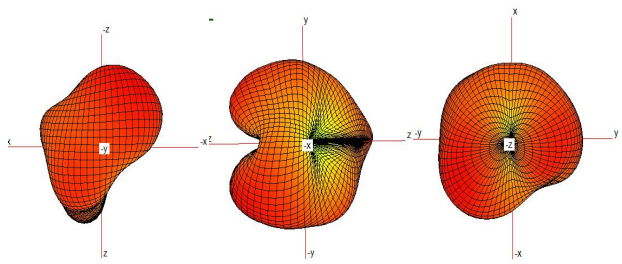
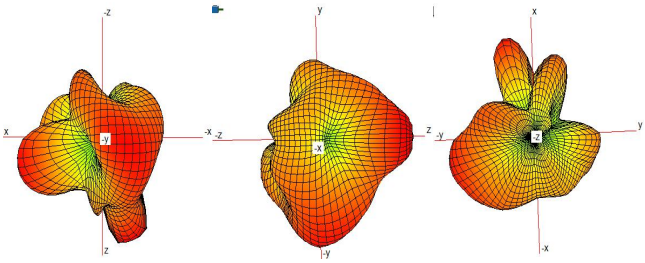


Frequency	WIFI5G


-z
x
-y
-x
z
y
-z
-x
z
-y
x
-y
-z
y
-x

3、 Main Test Instruments

Name	Manufacturer	Model name	Serial Number	Cal., Date	Exp., Date
E5071B	KEYSIGHT	E5071B	EQ60215	2023-4-21	2024-4-20

4、Test Site

Kunshan

End of Test Report