

Shenzhen 3good Wireless Technology Co, Ltd

Specification

客户 Customer	Cloud base	规格型号 Specs	F061
三好料号 Part Number	CQ-F061-01 CQ-F061-02 CQ-F061-03	频 段 Frequency Band	BT&2.5G WIFI:2400~2483.5MHZ 5G WIFI:5100~5800MHZ GSM850/900/1800/1900 WCDMA1/2/4/5/8 LTE-B1.2.3.4.5.7.8.12.17.20.26.28.66.38.40.41
颜 色 Color	black	版 本 Edition	REV:A1
销 售 Salesperson		设 计 Design	叶金强
结 构 Structure	李富伦	确 认 Confirm	周武
日 期 Date		签字日期 Signing Date	2025.03.07
客户确认 Customer confirmation:			
Join hands to create the future			

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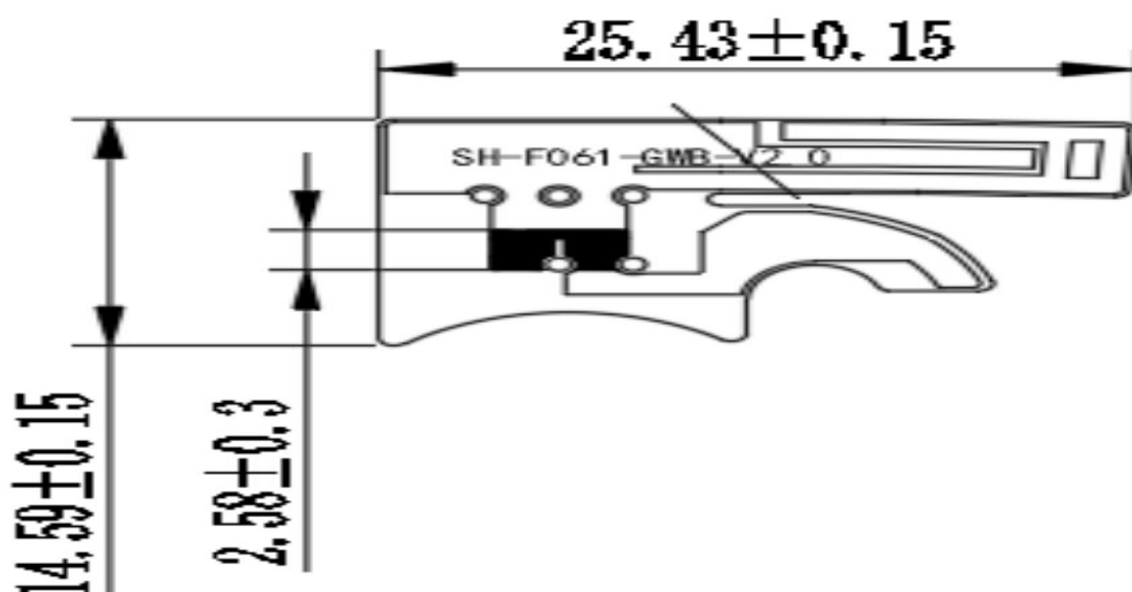
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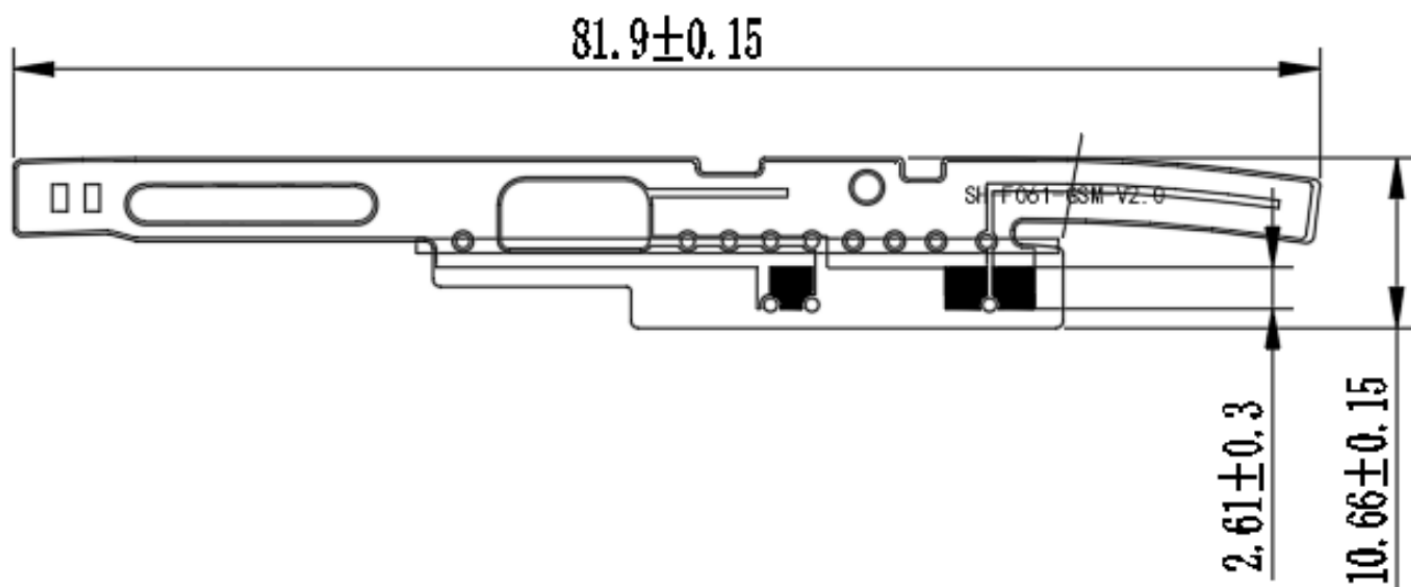
一、Product specifications

The report mainly provides parameter tests of F061 antenna performance. F061 antenna is 4G antenna. (As shown in the figure below)

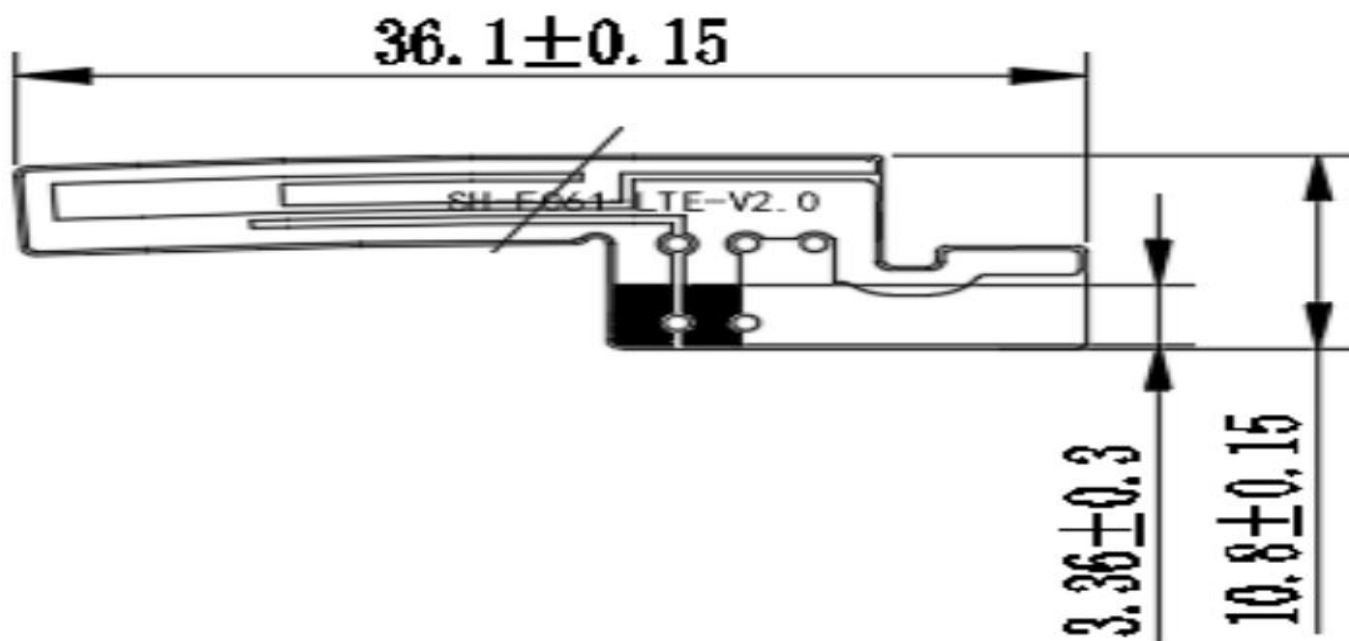
Three in one antenna



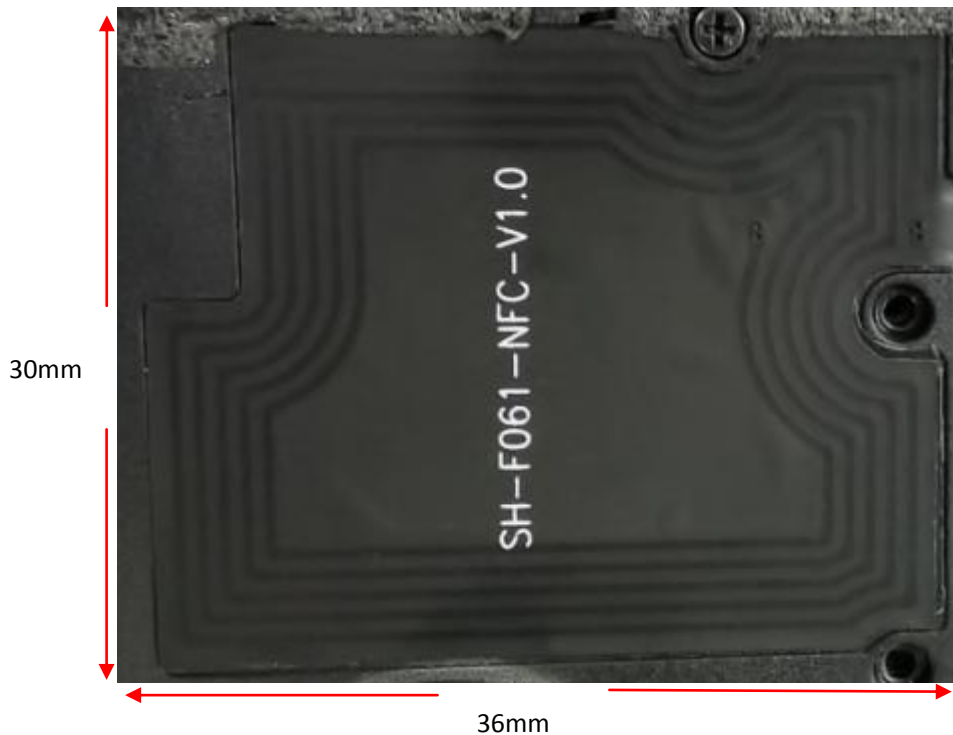
Main set antenna



Diversity antenna



NFC:



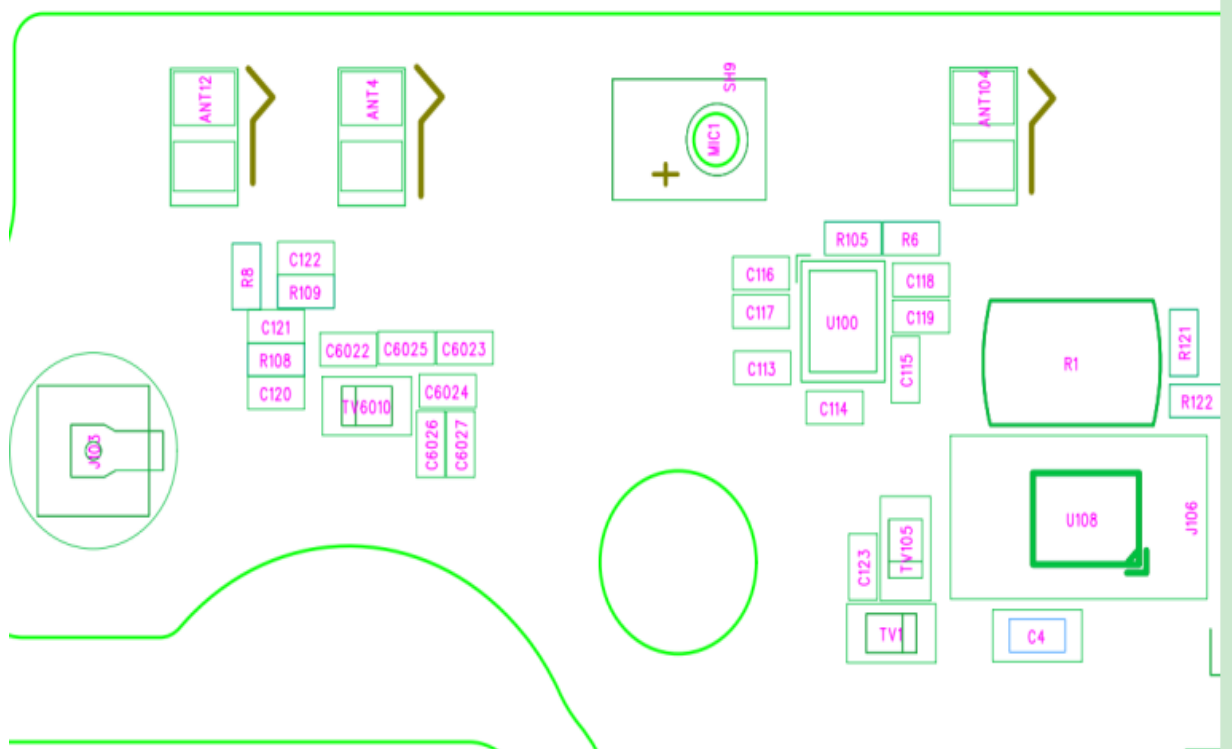
二、Electrical performance

1.Specifications

The operating frequency band of F061 antenna is 699~960MHZ and 1710~2700MHZ, in which resonance occurs.

2.Matching circuit of antenna

主天线		主路开关		分集		三合一天线	
Element	Value	Element	Value	Element	Value	Element	Value
C122	12NH	C116	0Ω				
R109	0Ω	C117	4.3NH				
C121	NC	C118	18NH				
R108	3NH	C119	4.7NH				
C120	NC	R105	0Ω				
R8	0Ω	R6	NC				



1.主天线主路匹配改动如上图标记。

2.小板开关配置如下：

RF1路(C116)，0Ω： GSM900/1800/1900+W1/2/4/8+FDD1/2/3/4/8/66+TDD40

RF2路(C117)，4.3NH： GSM850+ W5/+FDD5/26

RF3路(C118)，18NH： FDD12/17/28AB

RF4路(C119)，4.7NH： FDD20

3.分集天线控制下面频段的TRP和TIS： FDD7+TDD38/41

4.分集和三合一天线匹配没有改动。

Structure of antenna: FPC

三、Test of parameters

1.Test settings

The connection of VSWR test device is:

E5071B network analyzer → 50 Ohmic coaxial Cable → 110mm Long copper tube → Test fixture

Treatment of test fixture:

Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the mobile phone PCB, connect it to the copper tube with a choke, and then connect other devices in turn.

Passive parameters of main antenna:

工作频段(Working frequency band): 699~960MHZ, 1710~2700MHZ

GSM850/900/1800/1900

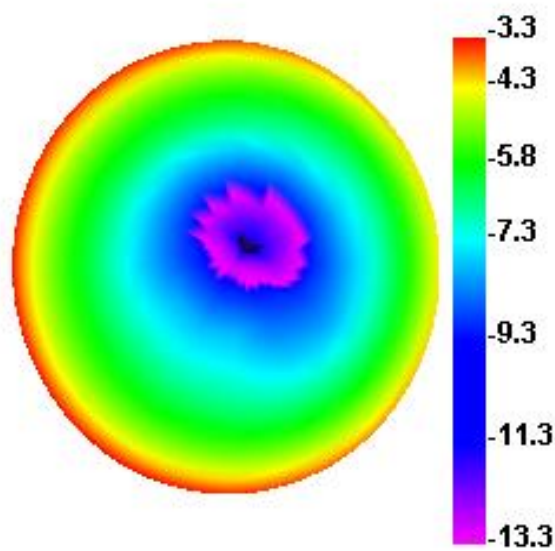
WCDMA1/2/4/5/8

LTE-B1.2.3.4.5.7.8.12.17.20.26.28.66.38.40.41

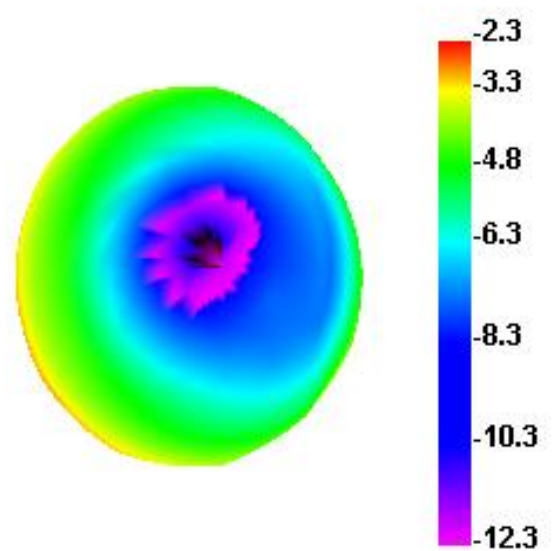
Gain	
频段 Band	gain 增益 (dBi)
LTE-B12/17/28	-1.85
LTE-B20	-1.69
GSM850,WCDMA-B5,LTE-B5/26	-1.63
GSM900,WCDMA-B8,LTE-B8	-1.59

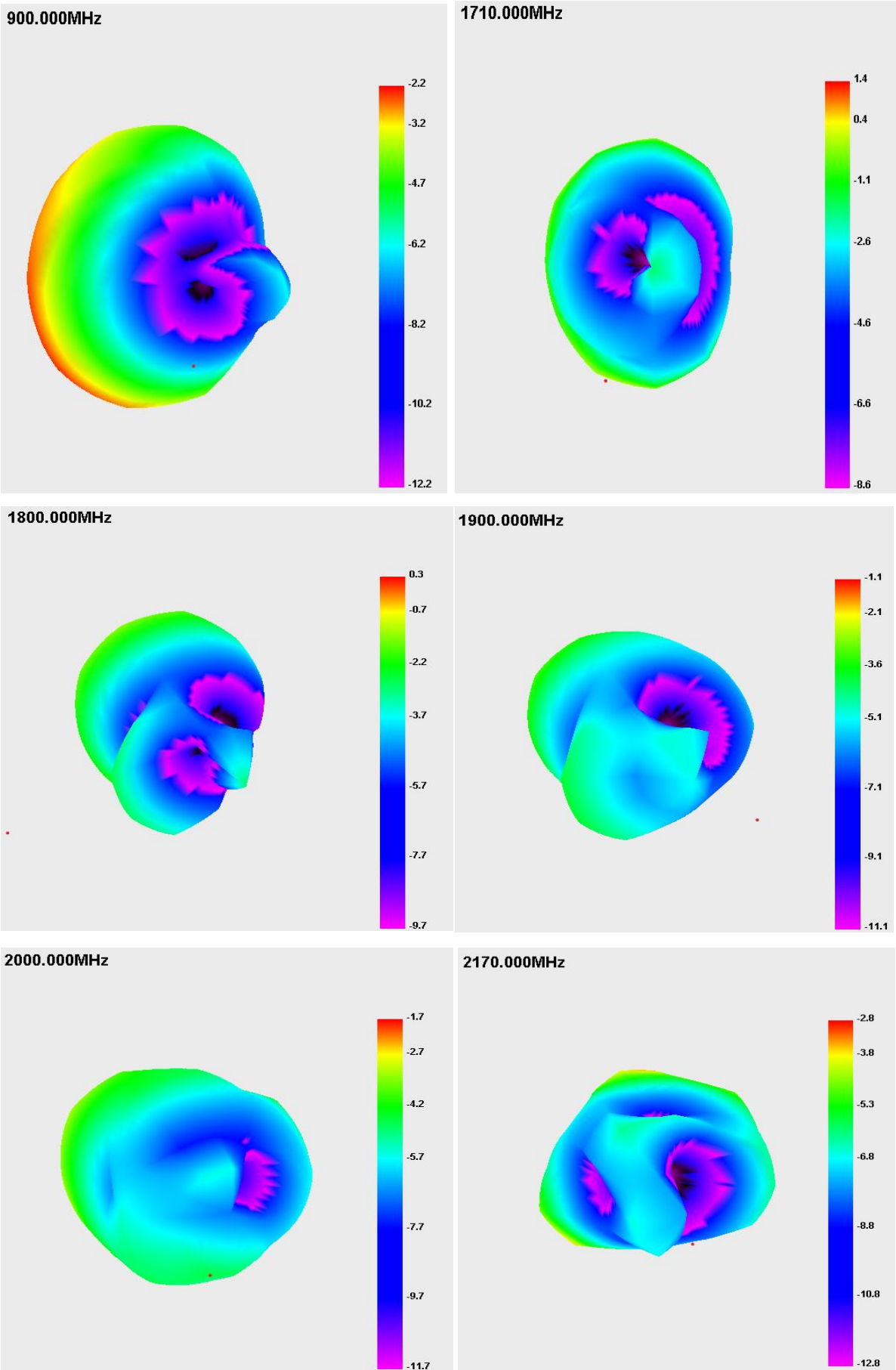
DCS1800,LTE-B3	0.71
WCDMA-B4,LTE-B4/66	-0.57
PCS1900,WCDMA-B2,LTE-B2	-0.29
WCDMA-B1,LTE-B1	-0.86
LTE-B38	-2.91
LTE-B40	-1.86
LTE-B7/41	-2.83
GPS	-0.32
2.4G WIFI/BT	-0.23
5G WIFI	-3.82

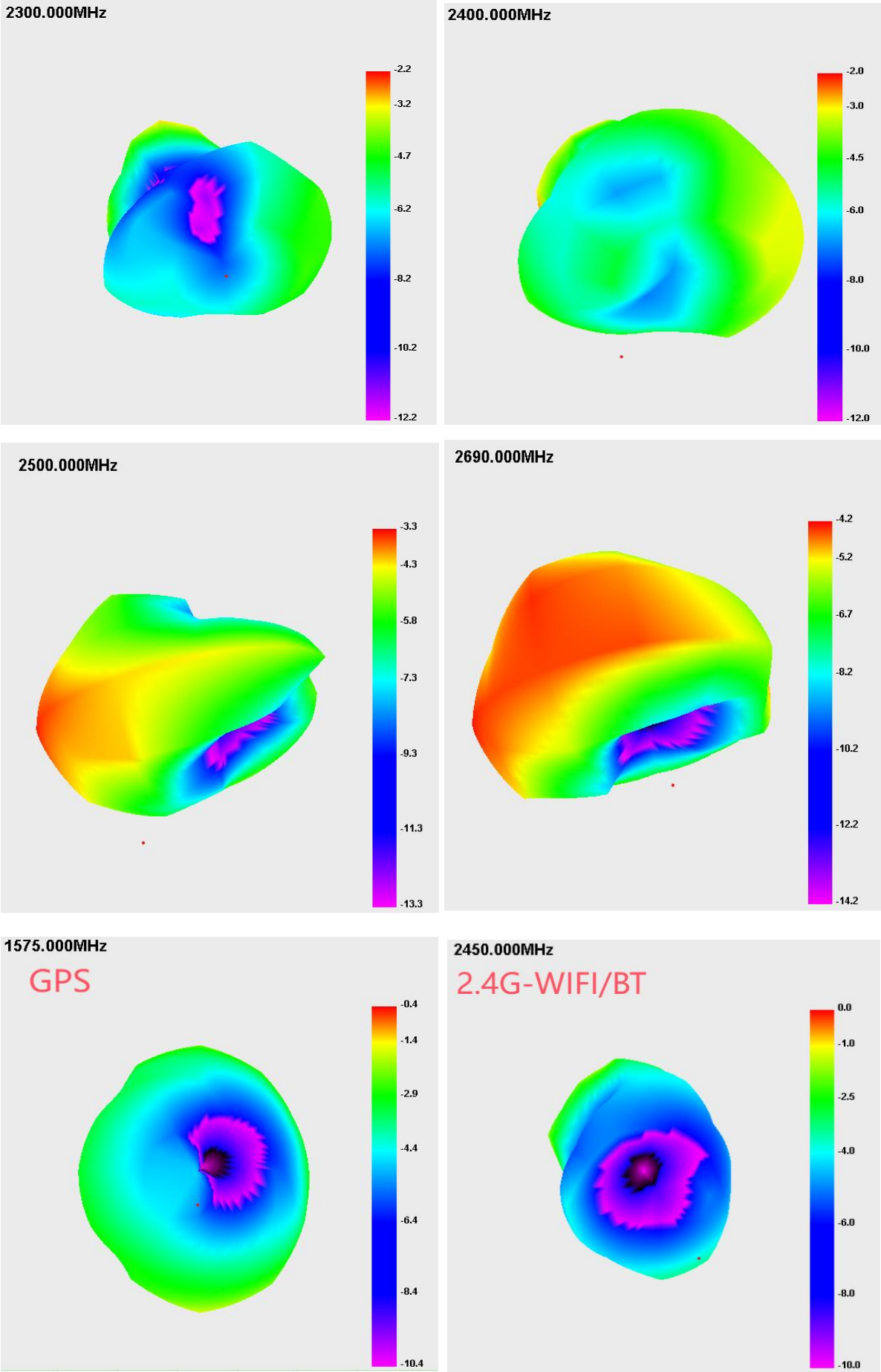
700.000MHz

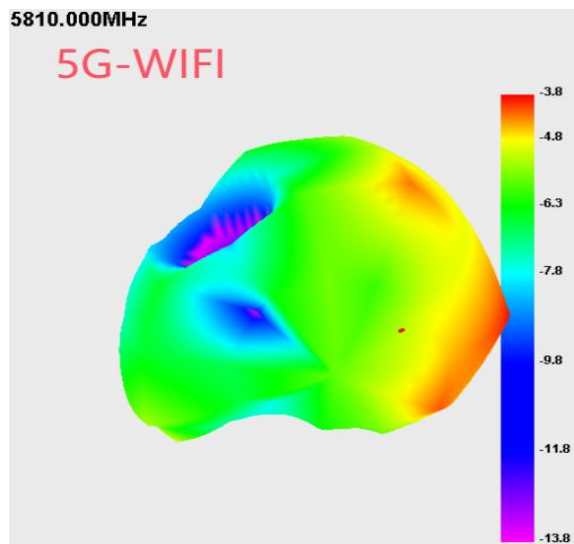


830.000MHz

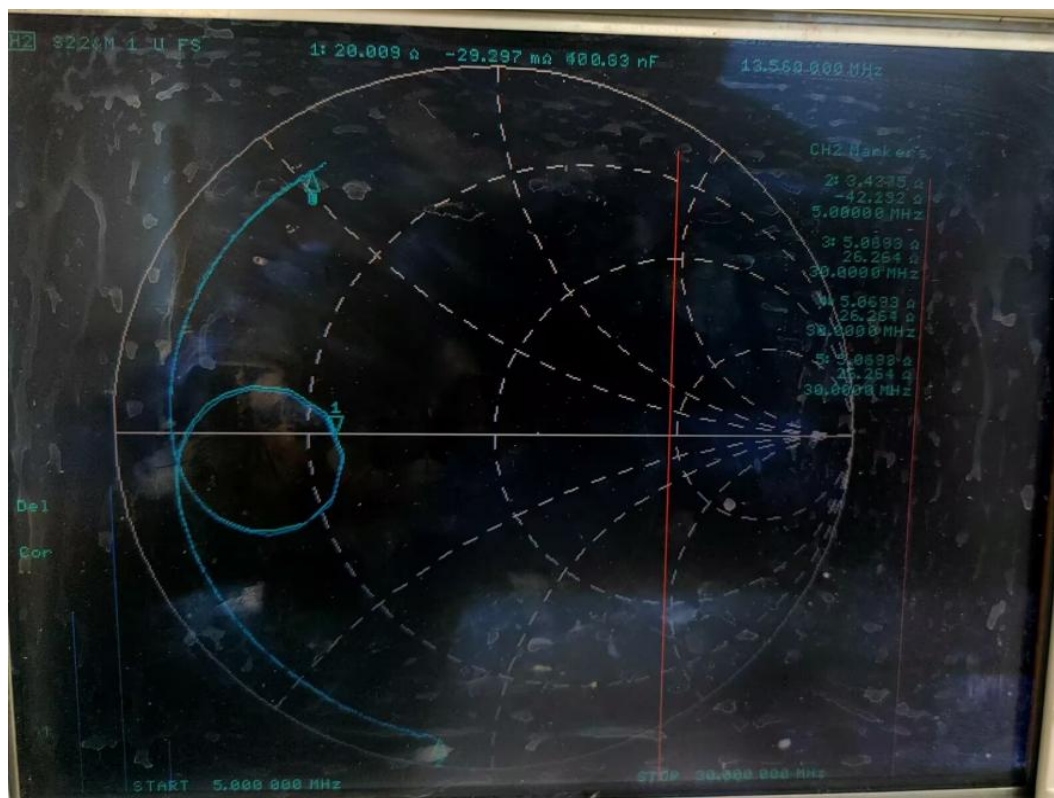








NFC:



GPS/WIFI/BTPassive parameters of antenna:

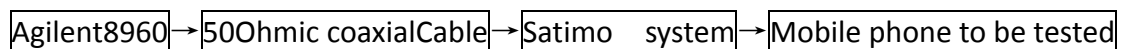
工作频段(Working frequency band): 1560~1580MHZ, 2400~2500MHZ,5180~8525MHZ

2.test result

business as usual.

四、 Active test setup

The active test devices are sequentially connected as follows:



1.Test site

Shenzhen 3good microwave anechoic chamber: the test frequency range is 400MHz - 6GHz, the quiet zone range is 40cm circumference, and the reflectivity is less than - 90 dB.

2.test result

The maximum radiation power and maximum receiving sensitivity reflect the maximum power radiation value and the optimal receiving performance of the antenna in the entire radiation space. TRP and TIS reflect the average radiation power and average receiving sensitivity of the antenna, that is, the overall receiving performance of the antenna.

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