

Shenzhen 3good Wireless Technology Co., Ltd

Specification

客户 Customer		规格型号 Specs	F071
三好料号 Part Number	CQ-F071-01 CQ-F071-02 CQ-F071-03	频 段 Frequency Band	BT&2.5G WIFI:2400~2483.5MHZ 5G WIFI:5100~5800MHZ
颜 色 Color	black	版 本 Edition	
销 售 Salesperson		设 计 Design	官炳坤
结 构 Structure	李富伦	确 认 Confirm	周武
日 期 Date		签字日期 Signing Date	
客户确认 Customer confirmation:			
Join hands to create the future			

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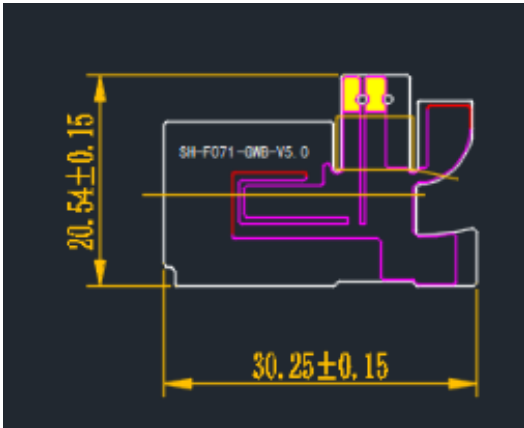
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一、 Product specifications

The report mainly provides parameter tests of S105 antenna performance. S105 antenna is 4G antenna. (As shown in the figure below)

Three in one antenna



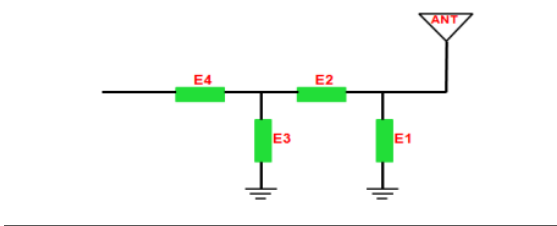
二、 Electrical performance

1.Specifications

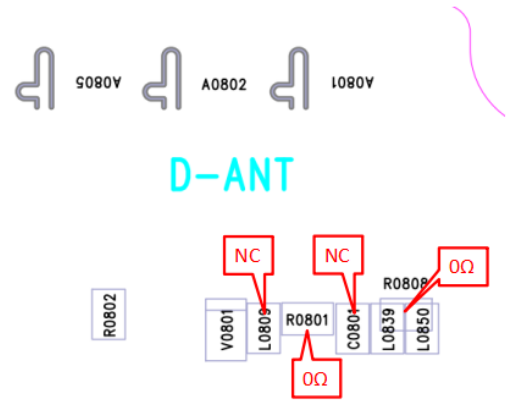
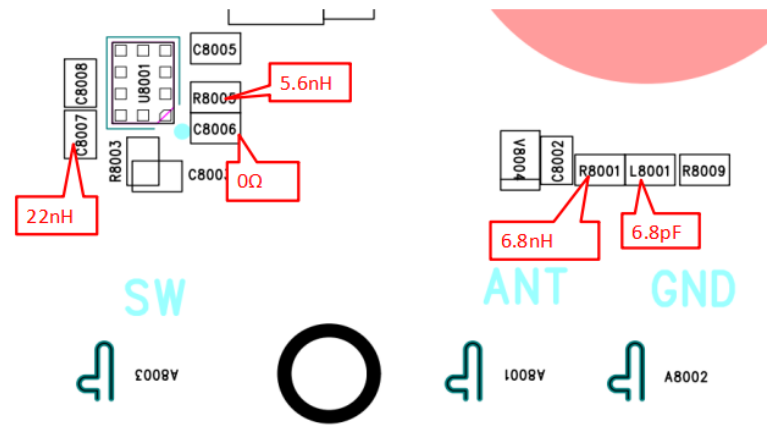
The operating frequency band of F071 antenna is 2400-2500MHZ, in which resonance occurs.

2.Matching circuit of antenna

Matching circuits (匹配电路)



主天线		分集天线		三合一	
Element	Value	Element	Value	Element	Value
C8002	6.8nH	L0809	NC	L7201	NC
R8001	6.8pF	R0801	0Ω	R7201	0Ω
L8001	NC	C0801	NC	C7201	NC
R8009	0Ω	R0808	0Ω		



主集开关逻辑

RF1: 0Ω
 频段是: GSM850RX/GSM900TX/DCS1800/PCS1900+W1/2/4/8/LTE B1/2/3/4/7/8/38/40/41/66
 RF2: 5.6nH
 频段是: GSM850TX+W5+LTE B5/B20/B26
 RF3: 22nH
 频段是: LTE B12/B17/B28AB
 RF4: 12pF
 频段是: GSM900TX



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.

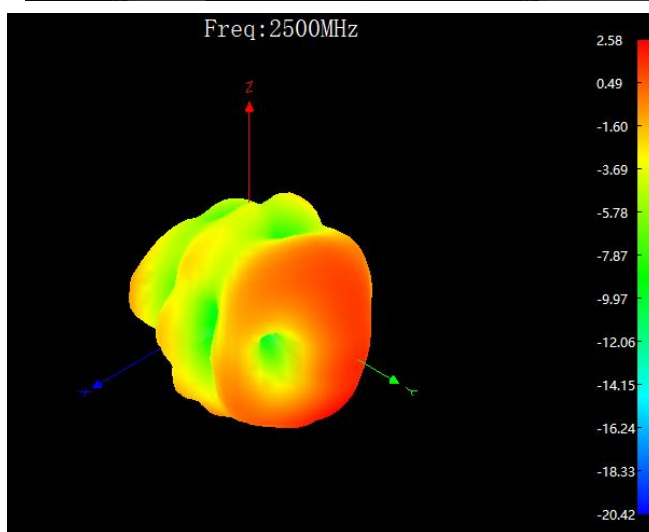
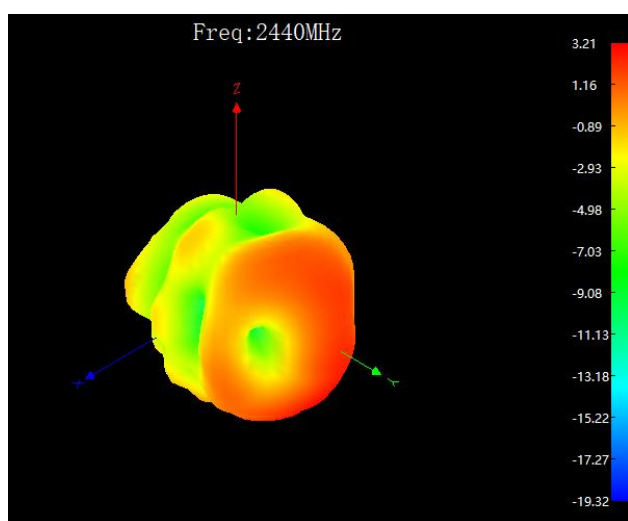
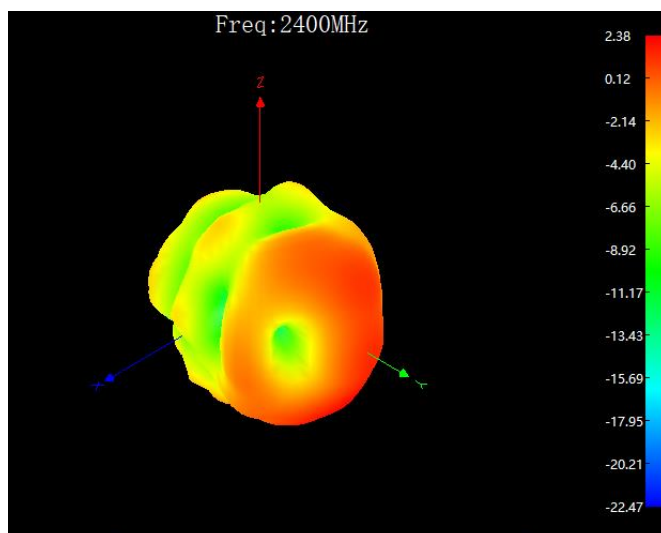
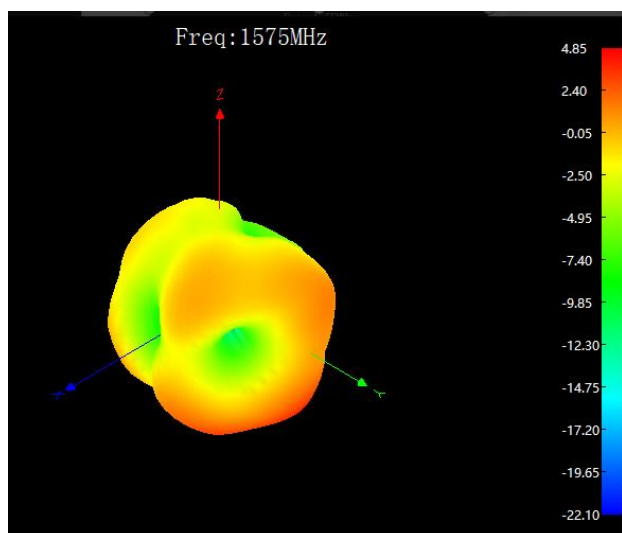
GPS/WIFI/BTPassive parameters of antenna:

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

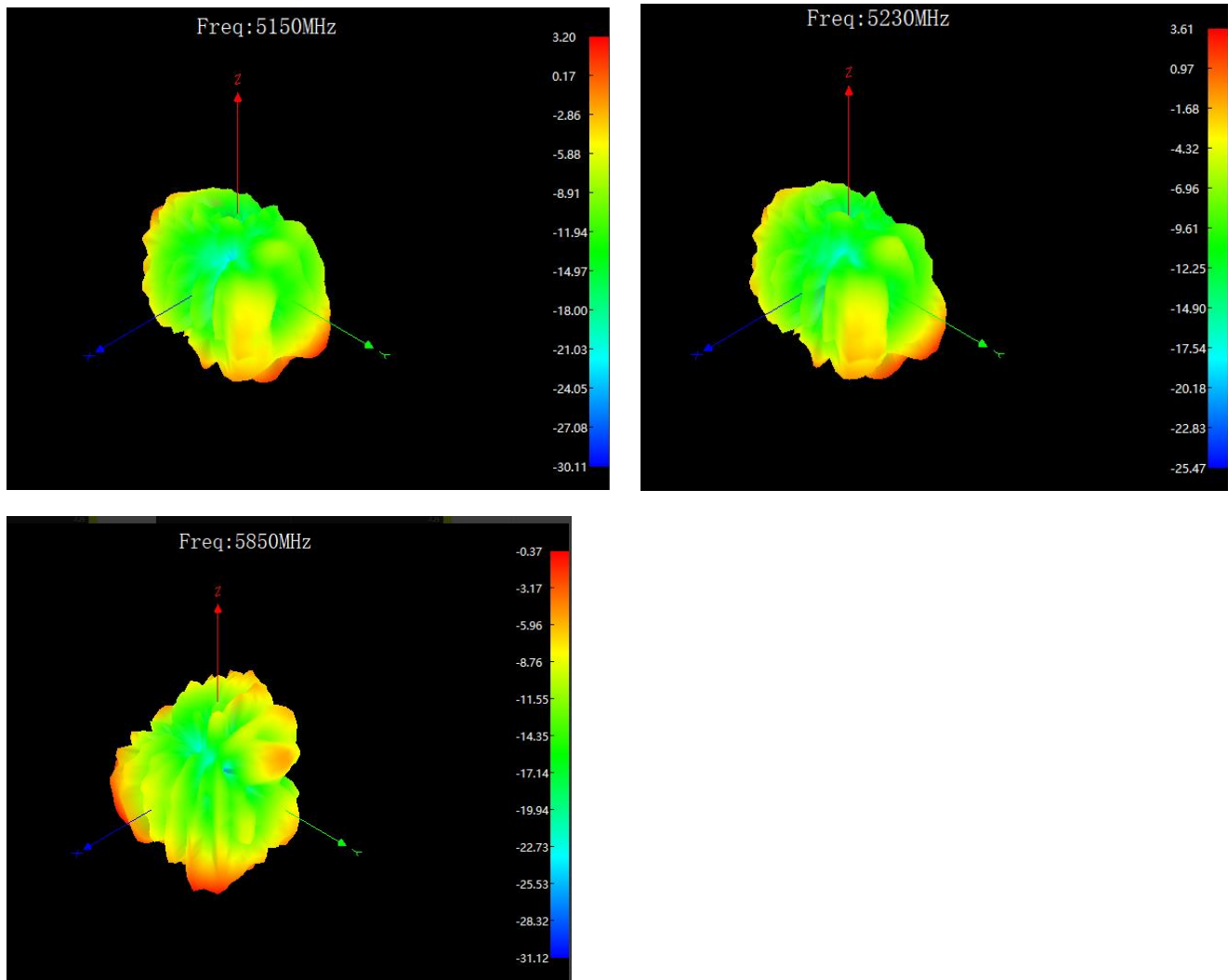
Gain			
频段 Band	gain 增益 (dBi)	频段 Band	gain 增益(dBi)
		2400MHz WIFI/BT	0.88
2440MHz WIFI/BT	0.77	2500MHz WIFI/BT	0.56
5150MHz WIFI	-0.68	5230MHz WIFI	-0.57
5850MHz WIFI	-0.75		

GPS

2.4G WIFI/BT



5G WIFI

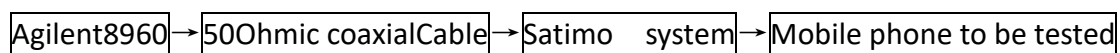


2.test result

business as usual.

四、 Active test setup

The active test devices are sequentially connected as follows:



1.Test site

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.

The following is the active test result of F071 mobile phone main antenna:

2-1.Three in one test results

灭屏			
	CH	TRP	TIS
WIFI-B	1	14.24	-82.33
	7	14.22	-82.36
	13	14.82	-82.5
WIFI-A	36	12.22	-72.65
	149	11.72	-72.23
	165	10.74	-70.88



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