

Shenzhen 3good Wireless Technology Co., Ltd

Specification

客户 Customer	传奇数码 SAGAMOBILE	规格型号 Specs	D071
三好料号 Part Number	CQ-D071-01 CQ-D071-02 CQ-D071-03	频段 Frequency Band	BT&2.5G WIFI:2400~2483.5MHZ 5G WIFI:5100~5800MHZ GSM850/900/1800/1900 WCDMA1/2/4/5/6/8/19 CDMA BC0 BC1 B1.2.3.4.5.7.8.12.13.17.18.19.20.25.26.28.66.38 .39.40.41.66
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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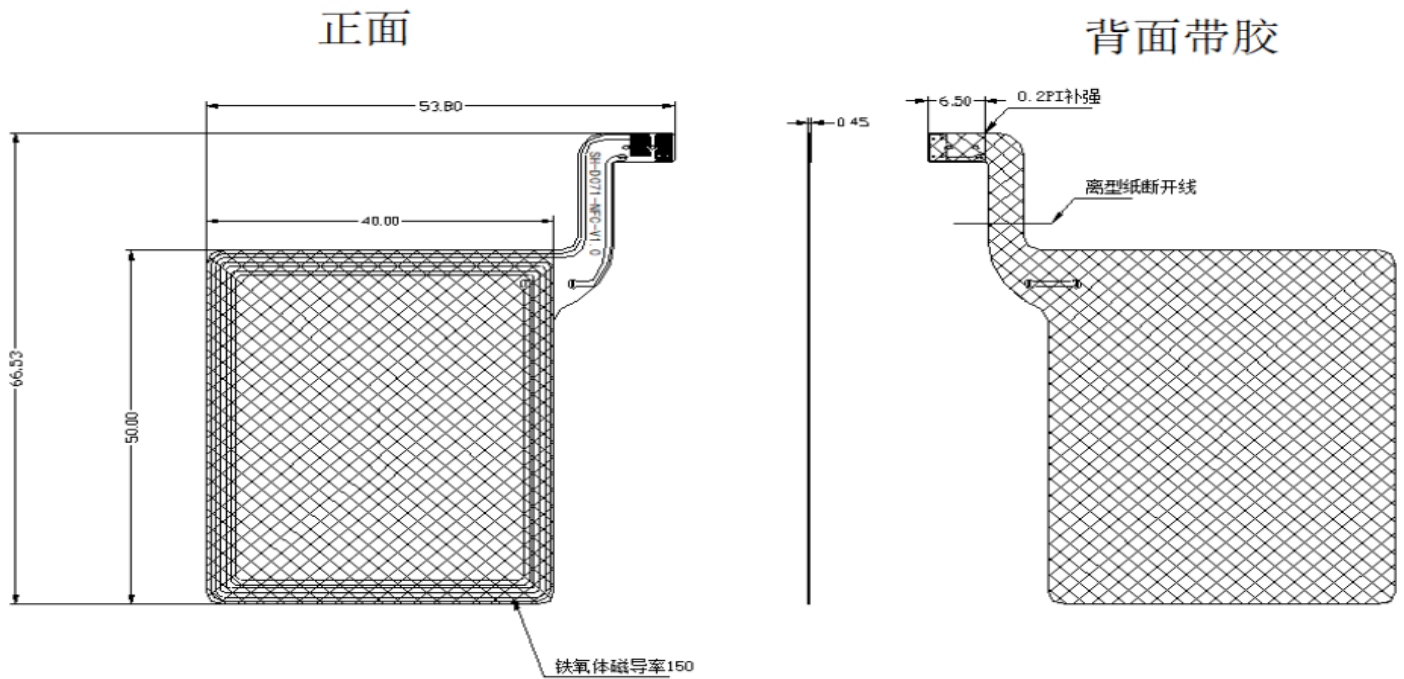
目录

一、产品规格(Product specification)	3
二、电器性能(Electrical performance)	3
1.规格标准(Specification standard)	3
2.天线的匹配电路(Matching circuit)	3
三、参数的测试(Parameter test)	4
1.测试的设置(Test settings)	4
2.测试结果(Test result)	4
四、有源测试的设置(Active test setup)	5
1.测试的场地(Test site)	5
2.测试结果(Test result)	5
3.环境处理 Environmental treatment	5

一、Product specifications

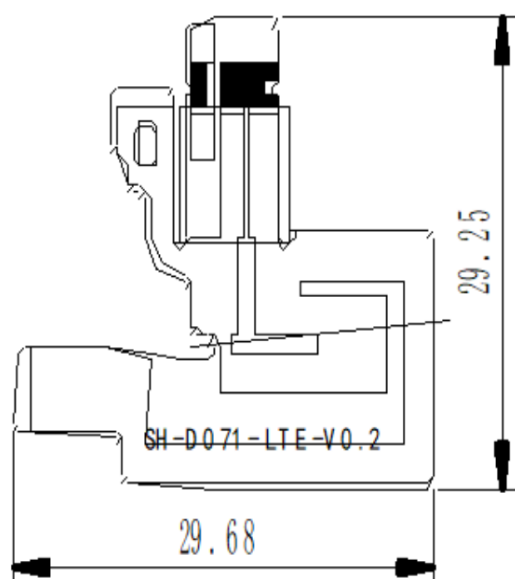
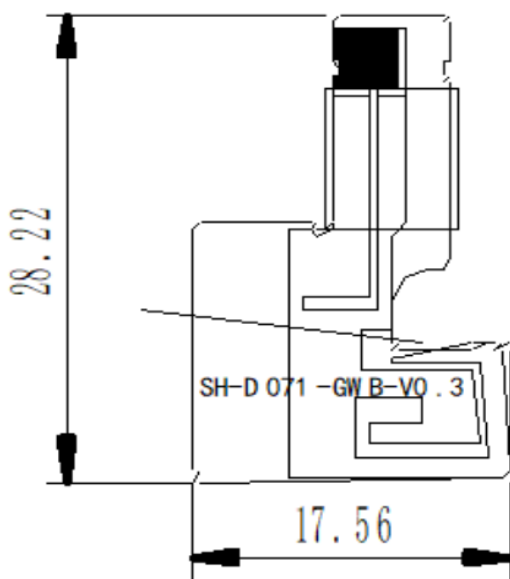
The report mainly provides parameter tests of S105 antenna performance. S105 antenna is 4G antenna. (As shown in the figure below)

NFC antenna

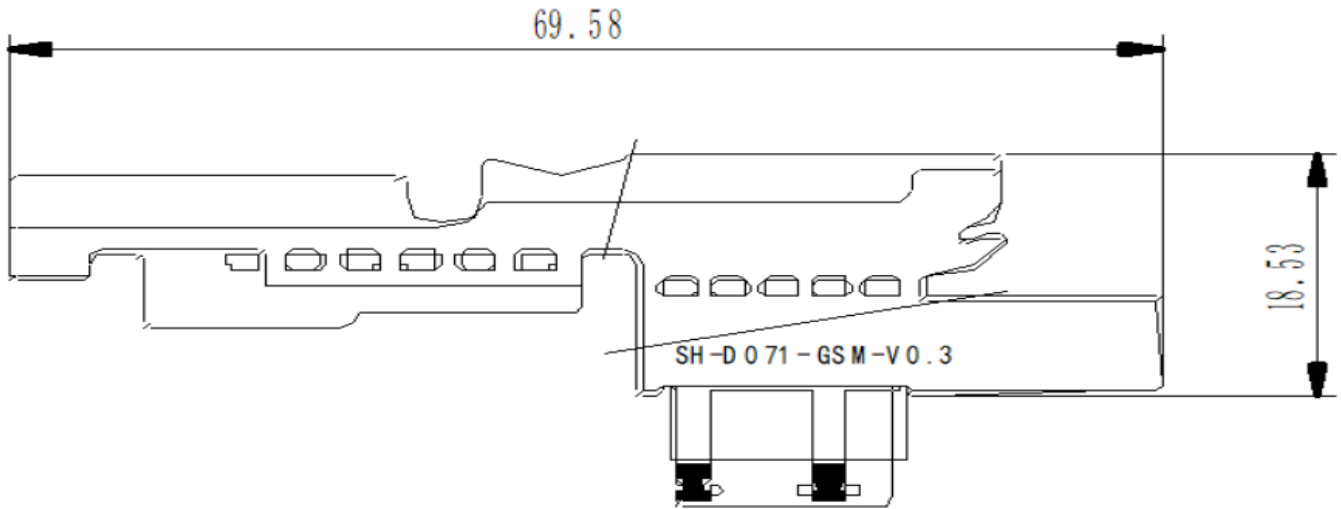


Three in one antenna

Diversity antenna



Main set antenna

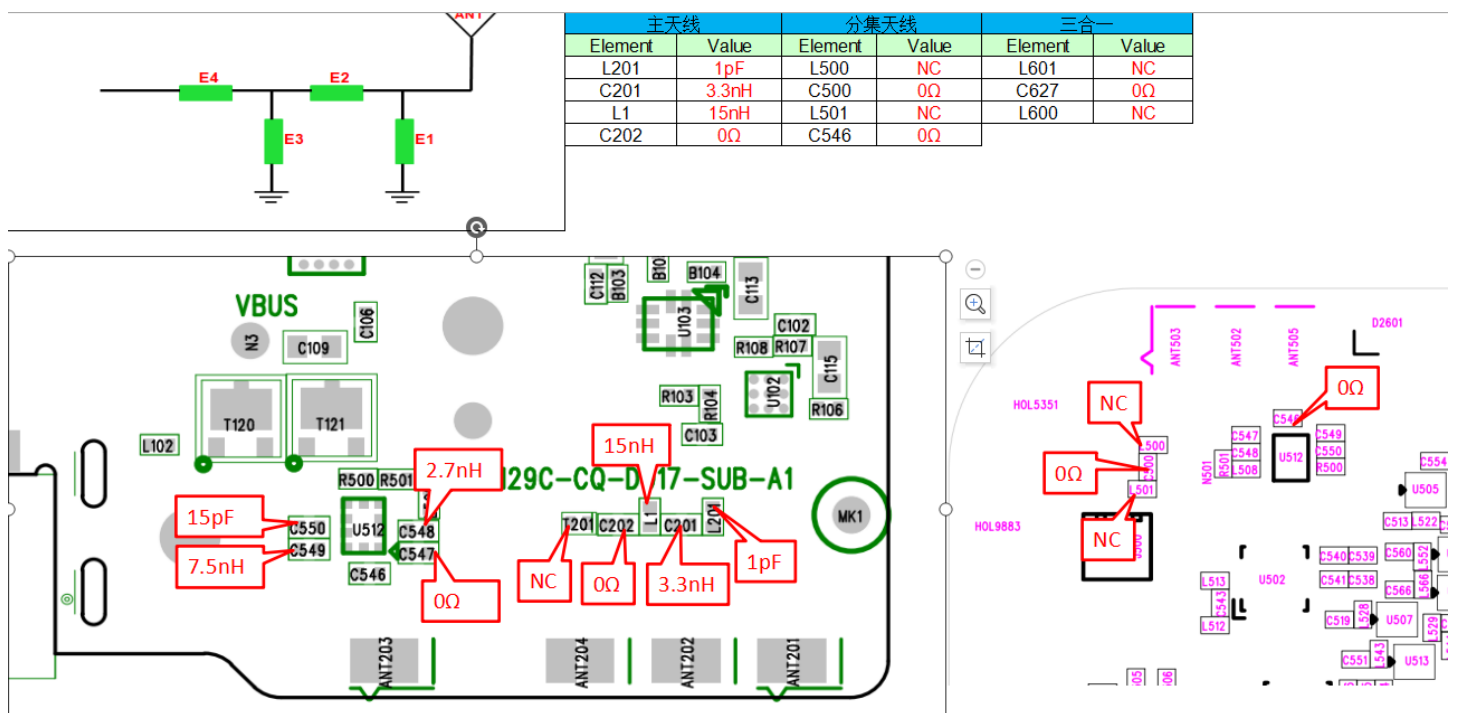


二、Electrical performance

1.Specifications

The operating frequency band of D071 antenna is 699~960MHZ and 1710~2700MHZ, in which resonance occurs.

2.Matching circuit of antenna



主天线（ANT0）开关逻辑

RF1(C312): 0Ω

频段是: GSM900 TX+W8+LTE B7/8/38/40/41

RF2(C311): $2.7nH$

频段是: GSM850+BC0+W5/6/19+LTE B5/B18/B19/B20/B26

RF3(C303): $7.5nH$

频段是: LTE B12/B13/B17/B28AB

RF3(C303): $15pF$

频段是: GSM900 RX

分集天线（ANT1）

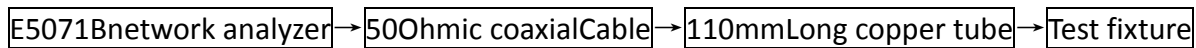
DCS1800/PCS1900+BC1+W1/2/4+LTE B1/2/3/4/25/39/66

Structure of antenna: FPC

三、Test of parameters

1.Test settings

The connection of VSWR test device is:



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

WCDMA1/2/4/5/6/8/19

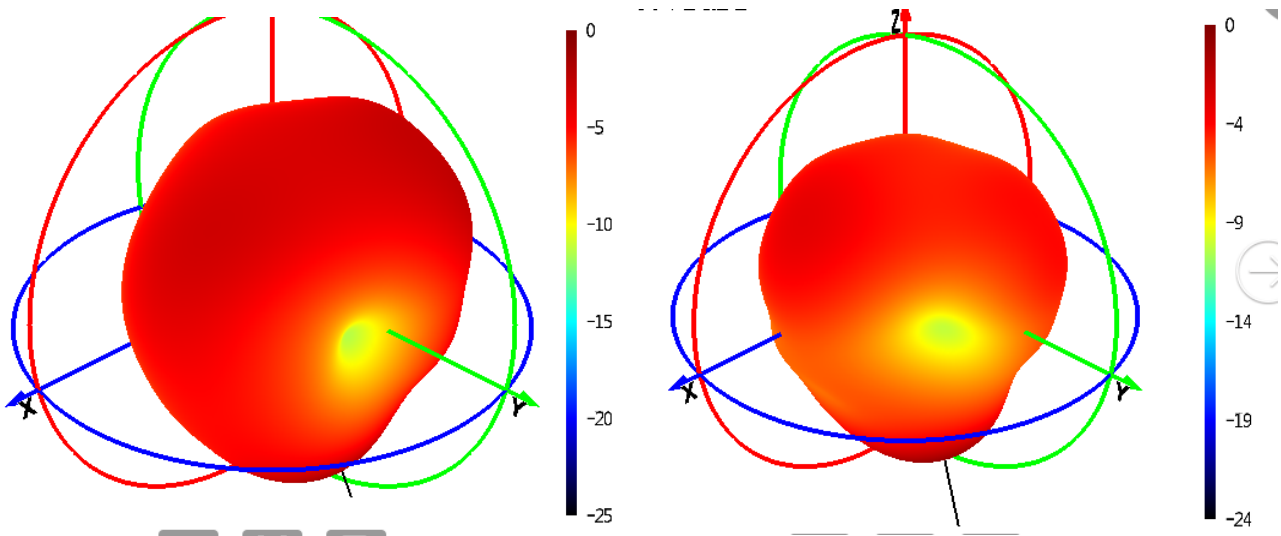
CDMA BC0 BC1

LTE B1.2.3.4.5.7.8.12.13.17.18.19.20.25.26.28.66.38.39.40.41

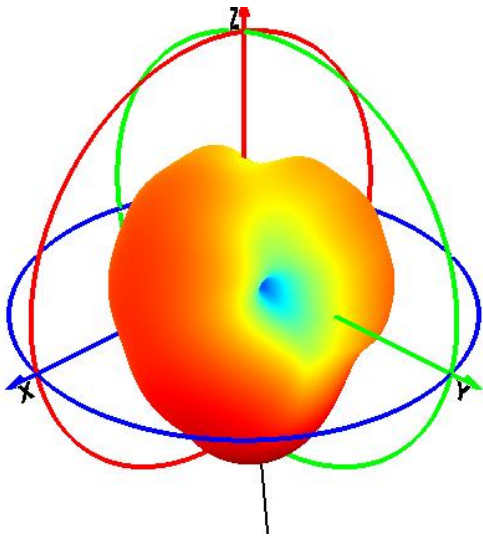
Gain			
频段 Band	gain 增益 (dBi)	频段 Band	gain 增益(dBi)
BC0/GSM850,WCDMA-B5/B6/19,LTE-B5/B18/B19/B20/B26	-0.27	LTE-B7/B38/B41	0.88
GSM900,WCDMA-B8,LTE-B8	-0.17	LTE-B12/B13/B17/B28	-0.57
DCS1800,WCDMA-B4,LTE-B3/B4/B66	0.58	LTE-B40	0.79
BC1,PCS1900,WCDMA-B1/B2,LTE-B1/B2/B39	0.67		

700

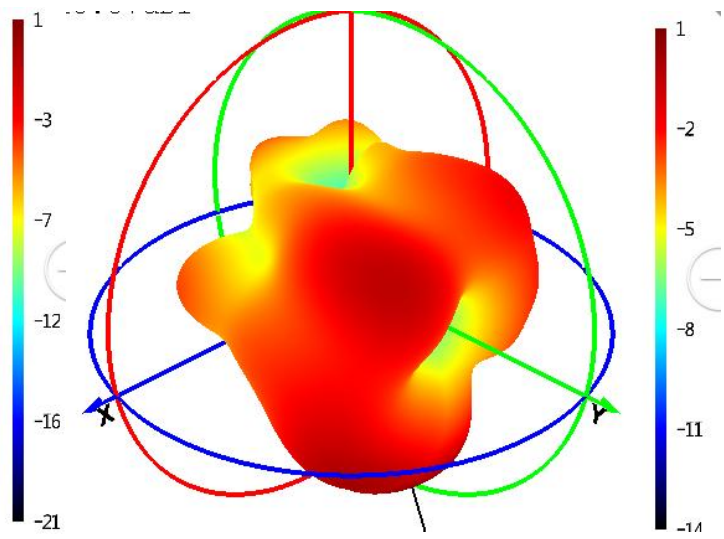
800



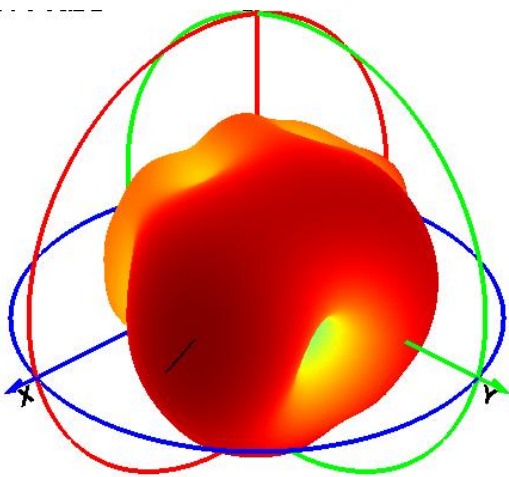
900



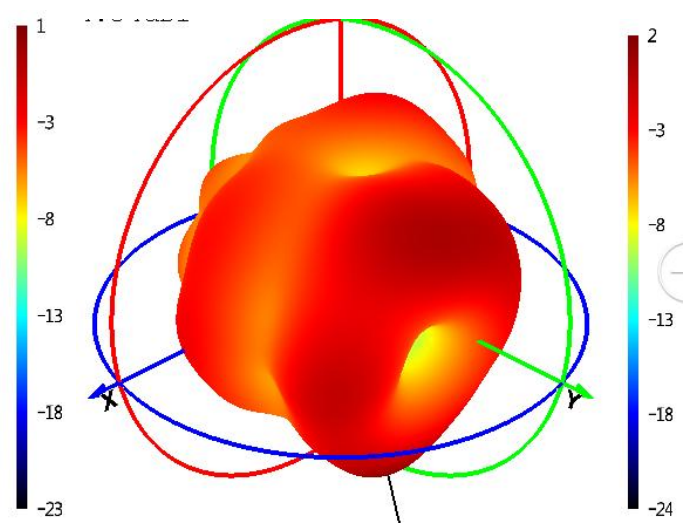
1700



1900

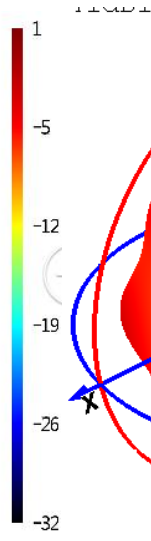
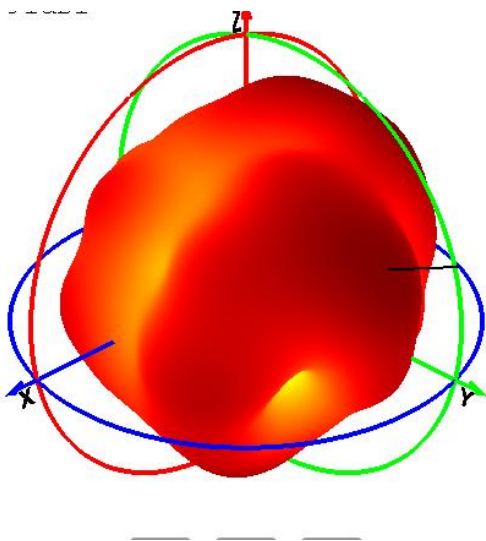


2300



2400

2700



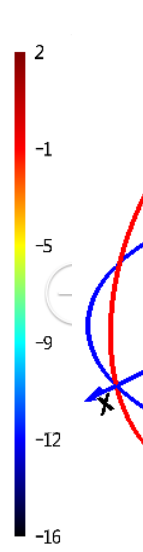
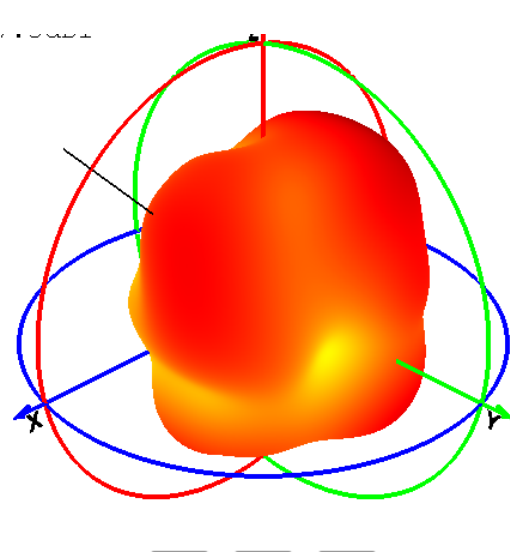
GPS/WIFI/BTPassive parameters of antenna:

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

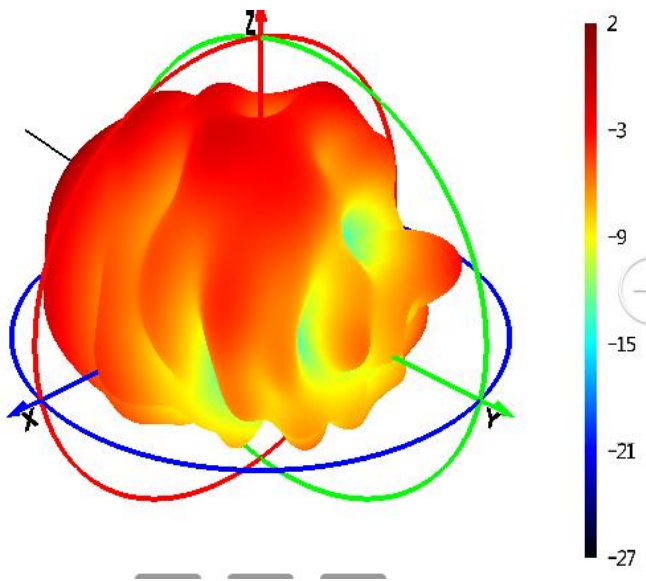
Gain			
频段 Band	gain 增益 (dBi)	频段 Band	gain 增益(dBi)
GPS		2.4G WIFI/BT	0.88
5G WIFI	-0.57		

GPS

2.4G WIFI/BT



5G WIFI

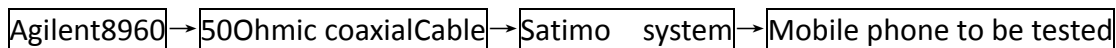


2.test result

business as usual.

四、Active test setup

The active test devices are sequentially connected as follows:



1.Test site

AW 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 D071 mobile phone main antenna:

	CH	TRP	TIS
GSM850	128	25.91	
	190	26.25	
	251	26.44	-102.14
EGSM900	1	27.45	
	62	27.42	
	124	26.46	-101.23
DCS1800	512	25.52	
	698	26.1	
	885	26.28	-104.43
PCS1900	512	25.37	
	661	25.37	
	810	24.58	-103.63
W1	10562	17.71	
	10700	17.13	
	10838	16.89	-103.75
W2	9626	17.3	
	9400	17.34	
	9538	16.53	-103.82
W4	1312	17.39	
	1412	16.61	
	1512	17.35	-103.43
W5	4132	17.25	
	4183	17.72	
	4233	16.78	-102.43
W6	4162	17.69	
	4175	17.52	
	4188	17.53	-102.92
W8	2937	18	
	3013	17.63	
	3088	16.51	-100.43
W19	312	17.69	
	387	17.54	
	437	17.27	-102.71
BC0	1013	16.32	
	384	16.24	
	777	16.19	-102.12
BC1	25	18.22	
	600	18.42	
	1175	18.37	-106.35

	CH	TRP	TIS
B1	18050	17.82	
	18300	17.55	
	18550	17.2	-94.57
B2	18650	18.07	
	18900	18.53	
	19150	17.7	-94.37
B3	19250	16.13	
	19575	16.72	
	19900	17.07	-94.66
B4	20000	16.79	
	20175	17.09	
	20300	18.07	-94.51
B5	20450	17.22	
	20525	16.34	
	20600	16.13	-90.15
B7	20800	15.62	
	21100	16.45	
	21400	17.24	-90.28
B8	21500	16.26	
	21625	16.73	
	21750	16.61	-90.44
B12	23035	15.34	
	23095	15.51	
	23155	15.96	-90.28
B13	23230	16.92	-90.04
	23780	15.67	
	23790	15.78	
B17	23800	16.06	-90.14
	23850	17.49	
	23925	17.64	
B18	23999	17.45	-90.57
	24050	17.31	
	24075	18.01	
B19	24100	17.54	-90.66
	24200	16.23	
	24300	16.17	
B20	24400	15.53	-90.6

	CH	TRP	TIS
B25	26065	16.85	
	26365	17.24	
	26665	17.6	-92.44
B26	26715	17.5	
	26865	17.4	
	27015	16	-90.5
B28	27260	15.08	
	27435	15.76	
	27610	15.88	-91.3
B66	132022	17.54	
	132322	17.66	
	132622	17.31	-93.3
B38	37850	16.39	
	38000	16.95	
	38150	16.5	-90.46
B39	38350	18.31	
	38450	18.7	
	38550	18.61	-91.6
B40	38750	14.82	
	39150	15.29	
	39550	15.33	-88.95
B41	40340	17.61	
	40620	16.7	
	41140	16.51	-89.2

2-1.Three in one test results



	CH	TRP	TIS
WIFI-B	1	11.23	-80.42
	7	11.85	-80.12
	13	11.74	-80.11
WIFI-A	36	9.46	-70.32
	149	10.26	-66.57
	165	10.33	-66.49
BT	0	9.54	-87.32
	39	10.12	-87.22
	78	10.33	-87.08

2-2.蓝牙测试（Bluetooth Test）：

10 meters online listening to music, making calls smoothly without interruption

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