

Specification

客户 Customer	Hongkai	规格型号 Specs	S6091 BN
三好料号 Part Number	CQ-S6091BN-01 CQ-S6091BN-02 CQ-S6091BN-03	频 段 Frequency Band	BT&2.4G WIFI:2400~2483.5MHZ GSM850/900/1800/1900 WCDMA2/4/5 B2.4.5.7.12.25.26.66.71.41
颜 色 Color	black	版 本 Edition	
销 售 Salesperson		设 计 Design	Guanbingkun
结 构 Structure	Lifulun	确 认 Confirm	Zhouwu
日 期 Date		签字日期 Signing Date	
客户确认 Customer confirmation:			
Join hands to create the future			
Manufacturer: Shenzhen 3good Wireless Technology Co., Ltd			
Address: 501, Jinfulai Complex Building, No. 49-1 Dabao Road, Dalang Community, Xin 'an Street, Bao 'an District, Shenzhen			

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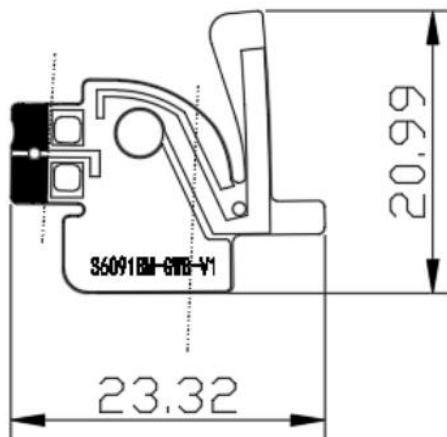
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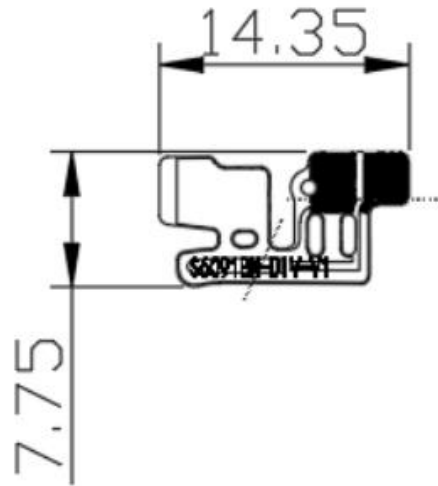
一、Product specifications

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

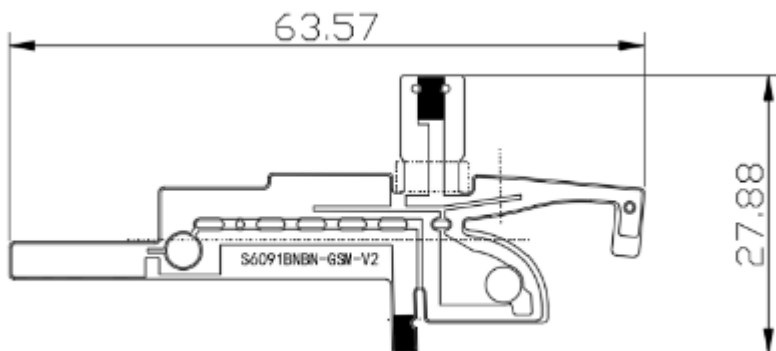
Three in one antenna



Diversity antenna



Main set antenna



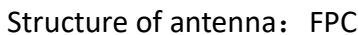
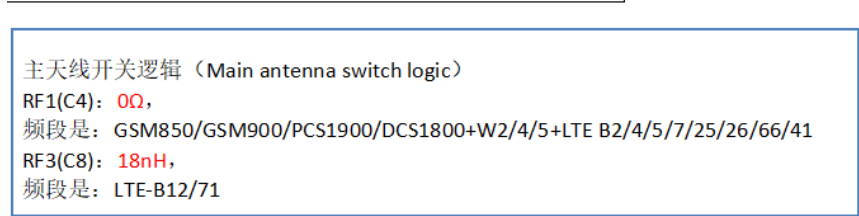
二、Electrical performance

1.Specifications

The operating frequency band of S6091BN antenna is 600~960MHZ and 1710~2700MHZ, in which resonance occurs.

2.Matching circuit of antenna

Matching circuits（匹配电路）



1. Test settings

E5071B network analyzer → 50 Ohmic coaxial Cable → 110mm Long copper tube → 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): 600~960MHZ, 1710~2700MHZ

GSM850/900/1800/1900

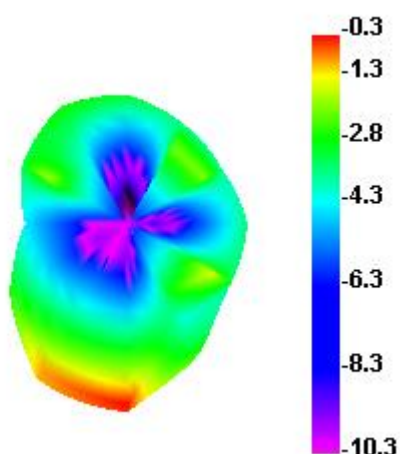
WCDMA2/4/5

LTE B2.4.5.7.12.25.26.66.71.41

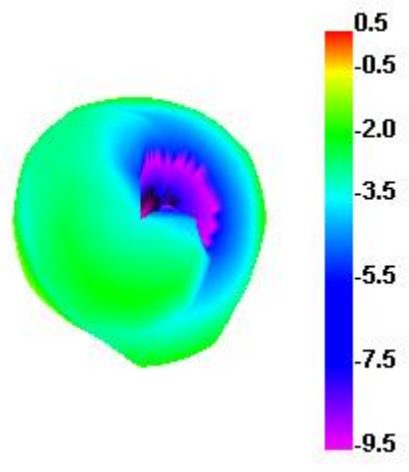
Gain			
频段 Band	Max gain 增益(dBi)	频段 Band	Max gain 增益(dBi)
GSM850,WCDMA-B5,LTE-B5/26	0.27	LTE-B7/41	0.48
GSM900	0.42	LTE-B12	-0.24
DCS1800,WCDMA-B4,LTE/B4/B66	1.02	LTE-B71	-0.37
PCS1900,WCDMA-B2,LTE-B2/25	1.06		

600

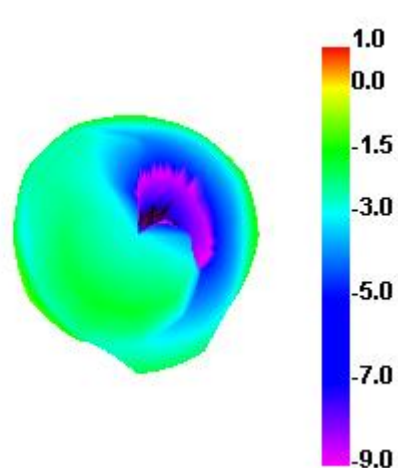
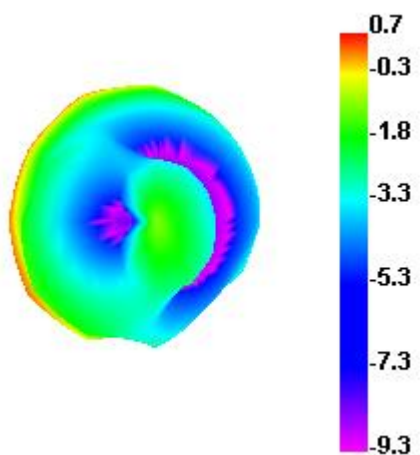
700

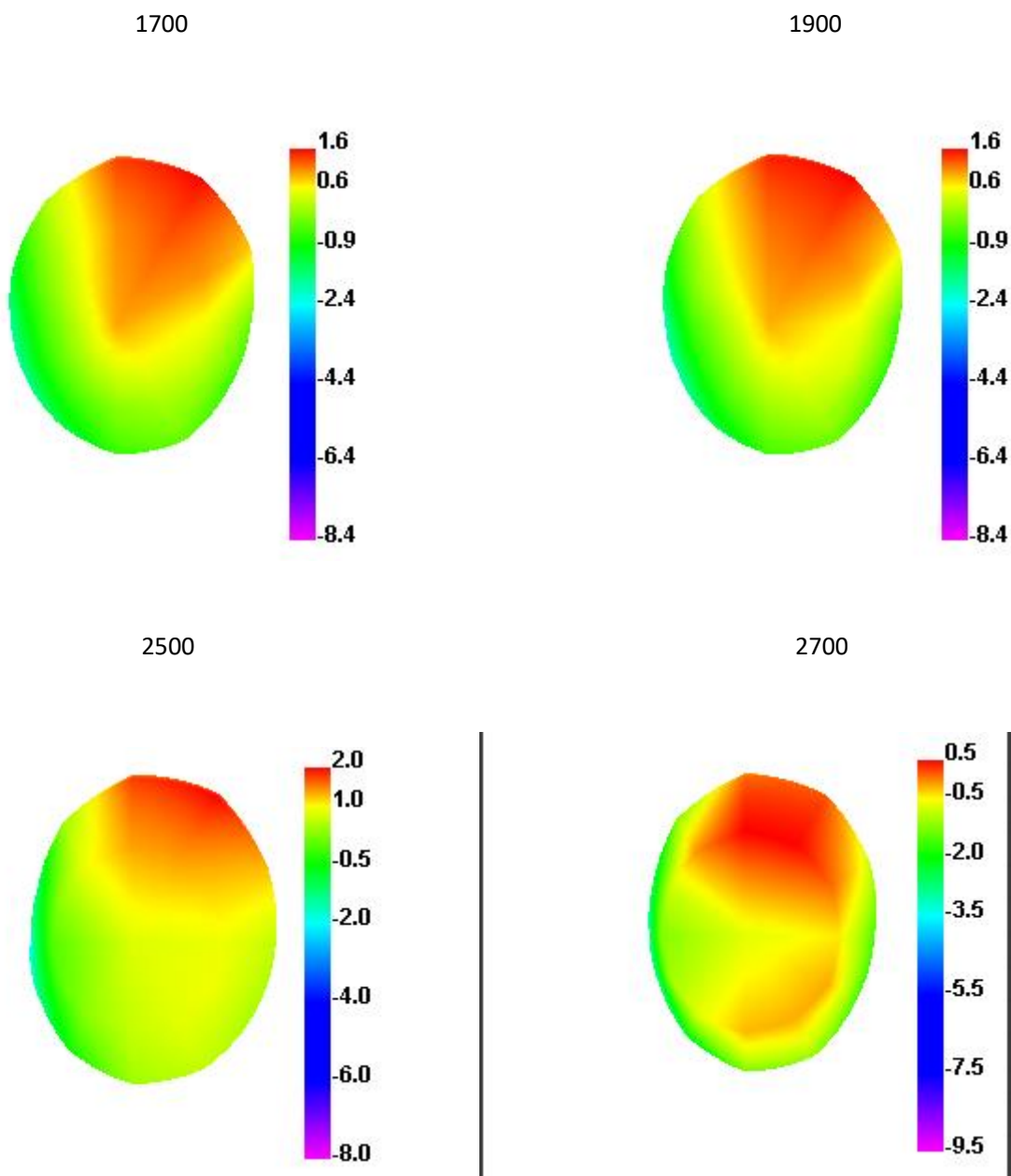


800



900



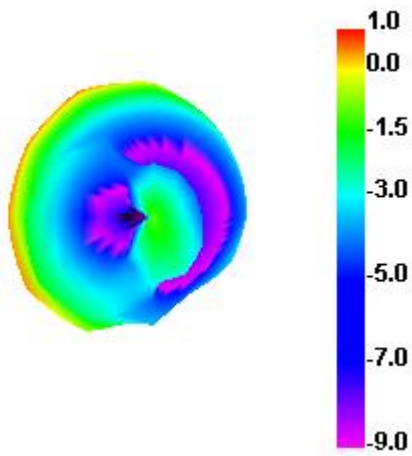


GPS/WIFI/BTPassive parameters of antenna:

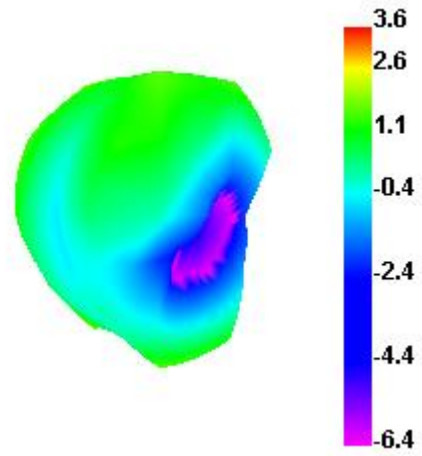
工作频段(Working frequency band): 1560~1580MHZ, 2400~2500MHZ,5180~8525MHZ

Gain			
频段 Band	Max gain 增益(dBi)	频段 Band	Max gain 增益(dBi)
GPS	0.54	2.4G WIFI/BT	1.21
5G WIFI	0.31		

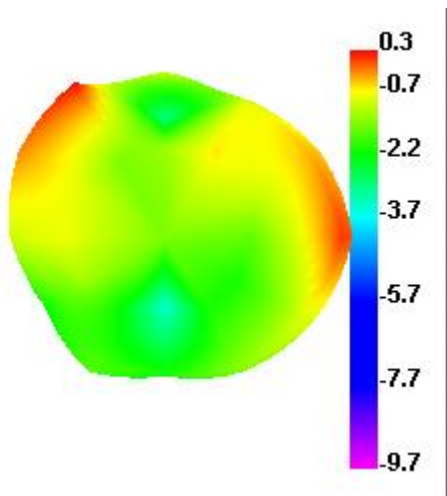
GPS



2.4G WIFI/BT



5G WIFI

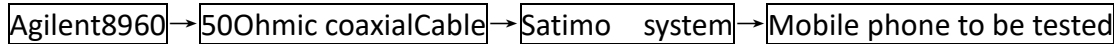


2.test result

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 S6091BM mobile phone main antenna:

2-1.Three in one test results

Test data (测试数据)

	CH	TRP	TIS
GSM850	128	28.06	
	190	28.11	
	251	27.25	-103.67
EGSM900	1	26.78	
	62	25.88	
	124	25.14	-96.87
DCS1800	512	24.28	
	698	25.01	
	885	26.25	-103.96
PCS1900	512	26.85	
	661	26.45	
	810	26.81	-103.07
W2	9262	18.5	
	9400	18.15	
	9538	18.64	-103.9
W4	1312	18.84	
	1413	18.97	
	1513	18.74	-102.71
W5	4132	17.59	
	4183	17.9	
	4233	17.53	-103.29



	CH	TRP	TIS
B2	18650	18.03	
	18900	18.47	
	19150	18.19	-93.67
B4	20000	18.06	
	20175	18.34	
	20300	18.1	-89.95
B5	20450	17.73	
	20525	17.47	
	20600	17.4	-90.87
B7	20800	16.05	
	21100	16.25	
	21400	16.3	-90.29
B12	23035	17.48	
	23095	17.8	
	23155	17.41	-92.7
B25	26065	18.61	
	26365	18.04	
	26665	18.15	-93.09
B26	26715	17.63	
	26865	18.67	
	27015	17.96	-90.8
B66	132022	17.52	
	132322	17.36	
	132622	17.24	-90.27
B71	133172	16.84	
	133297	16.54	
	133422	17.03	-87.42
B41	40340	17.79	
	40620	17.53	
	41140	18.57	-89.15

GPS/WIFI Field test (GPS/WIFI)

Brighten the screen			
B	1	14.5	-80.42
	7	14.71	-80.09
	13	14.83	-79.5
g	1	14.56	-86.65
	7	14.82	-87.23
	13	14.76	-87.28
n	1	14.53	-86.27
	7	14.39	-86.33
	13	14.75	-85.73
BT	0	5.24	-87.62
	39	4.23	-87.01
	78	3.57	-86.54

GPS	TIS	-140.53
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2-2. 蓝牙测试（Bluetooth Test）：

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

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