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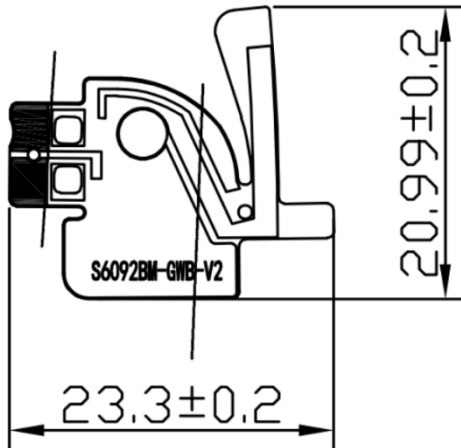
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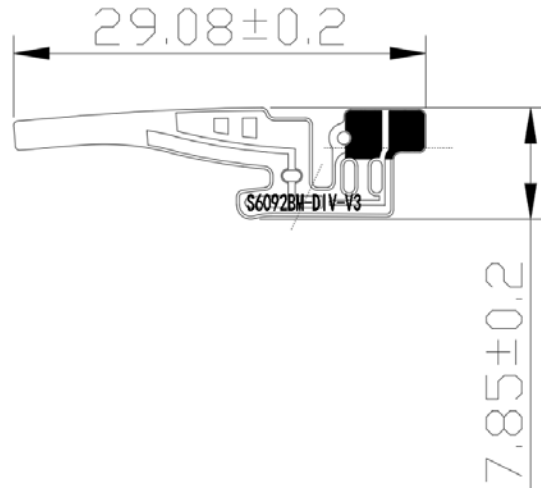
一,Product specifications

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

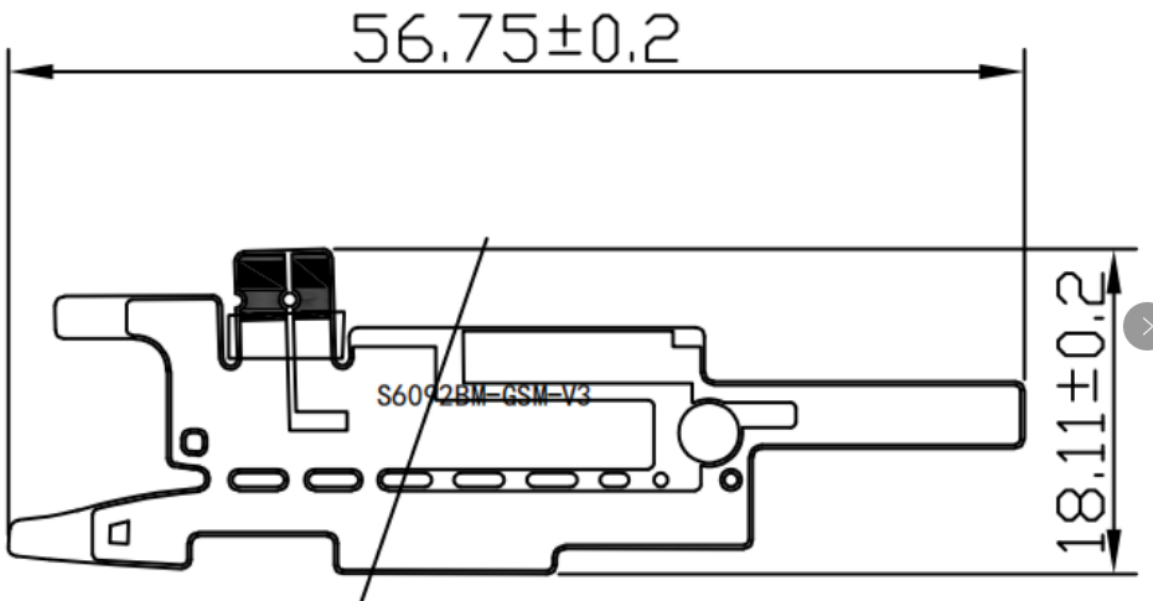
Three in one antenna



Diversity antenna



Main set antenna



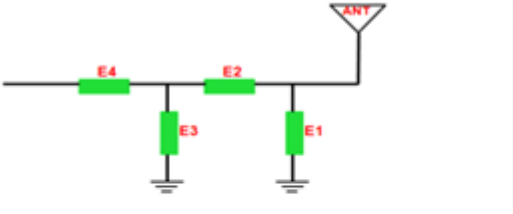
二,Electrical performance

1.Specifications

The operating frequency band of S6092BM antenna is 699~960MHZ and 1710~2700MHZ, in which resonance occurs.

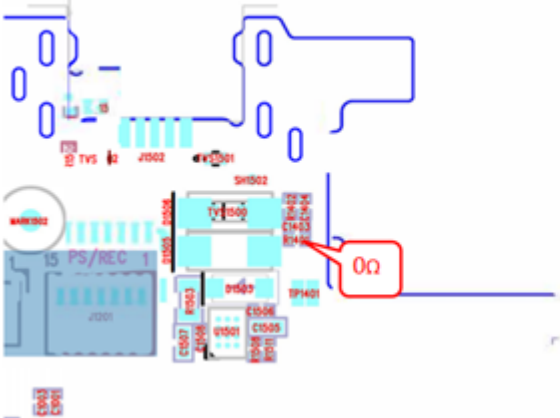
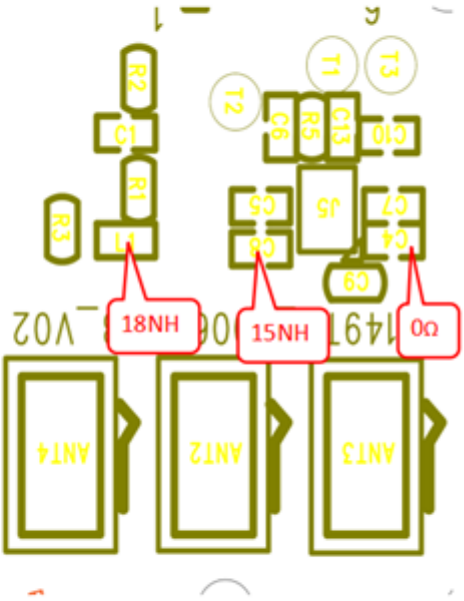
2. Matching circuit of antenna

Matching circuits (匹配电路)



Main Antenna		Aux Antenna		GPS/WIFI Antenna	
Element	Value	Element	Value	Element	Value
E1(L1)	18nH	E1(C1404)	NC	E1(0402)	NC
E2(R1)	0Ω	E2(R1402)	0Ω	E2(0402)	0Ω
E3(C1)	NC	E3(C1403)	NC	E3(0402)	NC
E4(R2)	0Ω	E4(R1401)	0Ω	E4(0402)	0Ω

(Main antenna switch logic)
 RF1(C4): 0Ω,
 GSM850/GSM900/PCS1900/DCS1800+W2/5+LTE B2/4/5/7
 RF3(C8): 15nH,
 LTE-B28

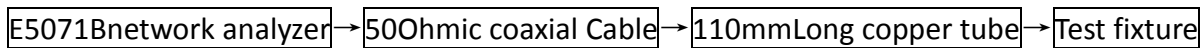



Structure of antenna: FPC

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.

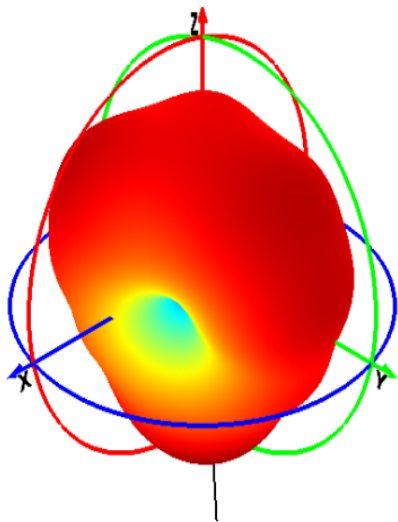
Passive parameters of main antenna:

(Working frequency band): 699~960MHZ,1710~2700MHZ
 GSM850/900/1800/1900
 WCDMA2/5
 LTE B2.4.5.7.28

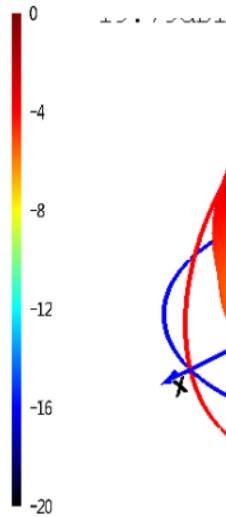
Gain			
频段 Band	gain 增益(dBi)	频段 Band	gain 增益(dBi)
GSM850,WCDMA-B5,LTE-B5	-0.64	LTE-B7	0.92
GSM900	0.13	LTE-B28	-0.91
DCS1800,LTE/B4/B66	0.87	PCS1900,WCDMA-B2,LTE-B2	0.97

700

800

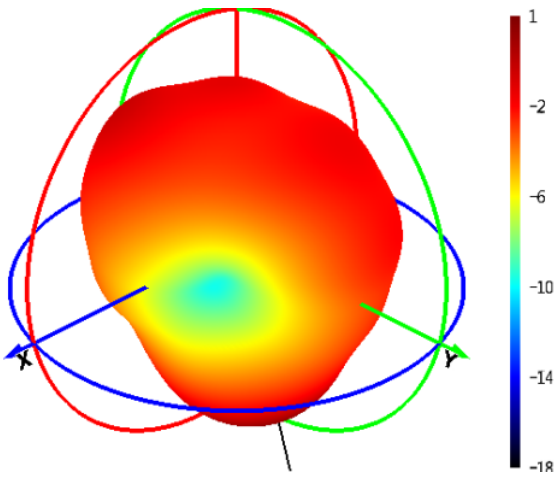


900

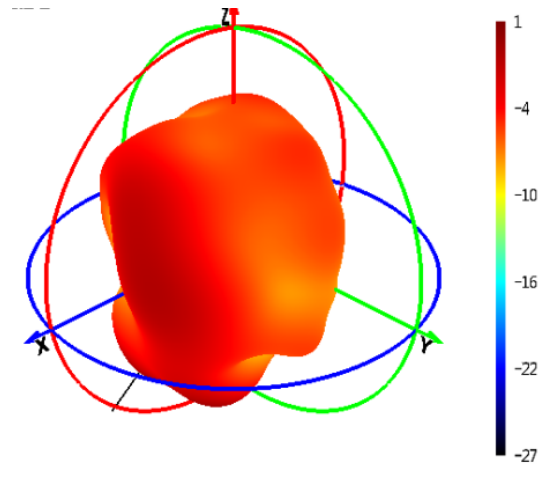


1700

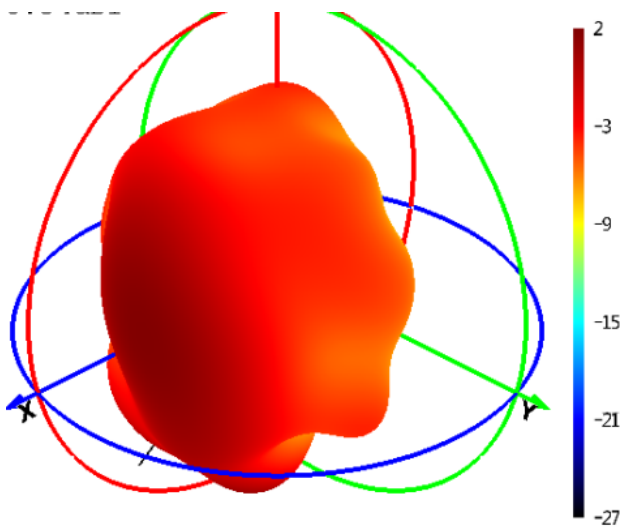




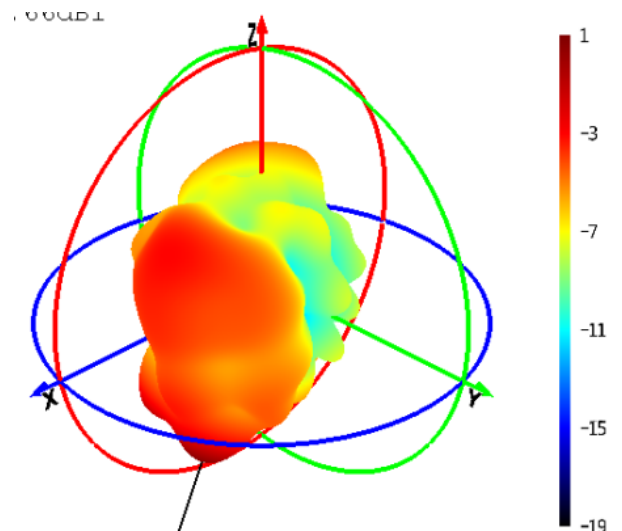
1900



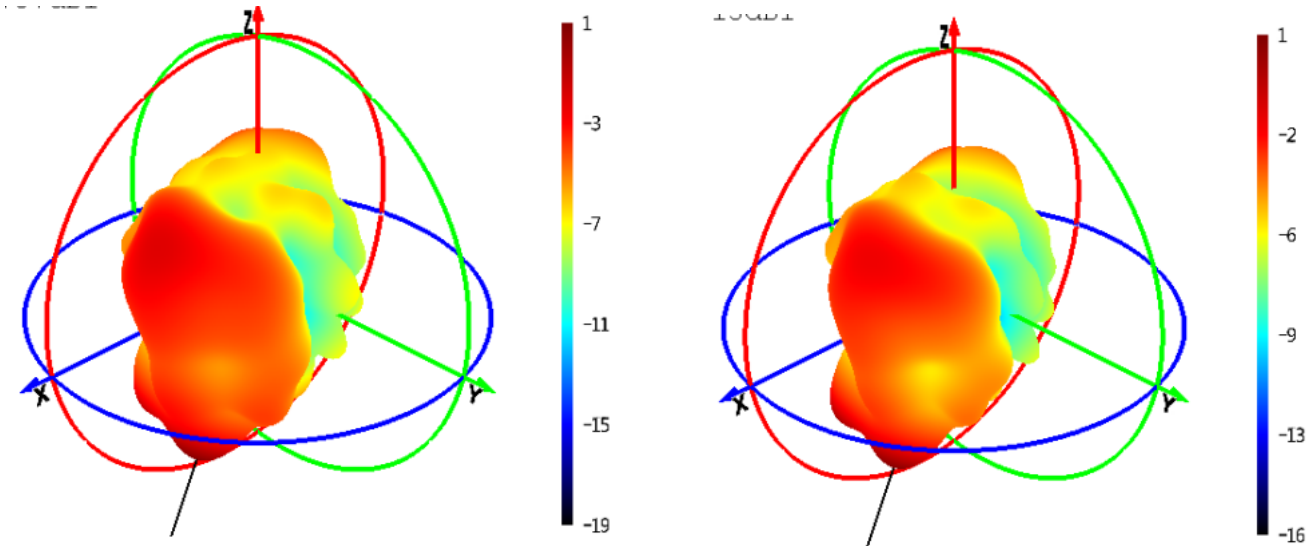
2300



2400



2700



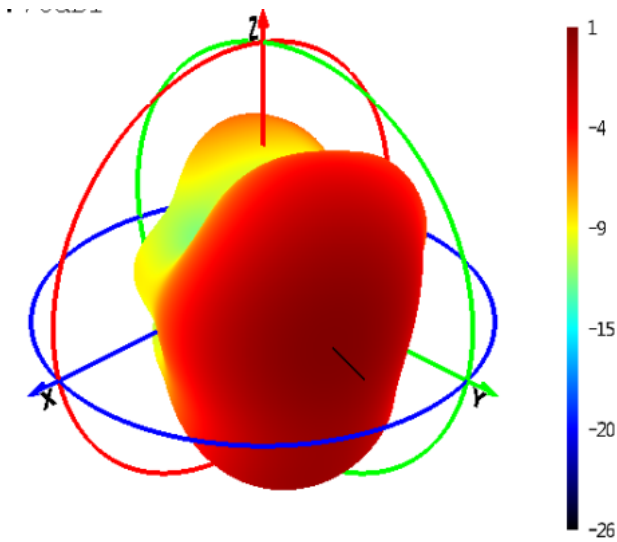
GPS/WIFI/BTPassive parameters of antenna:

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

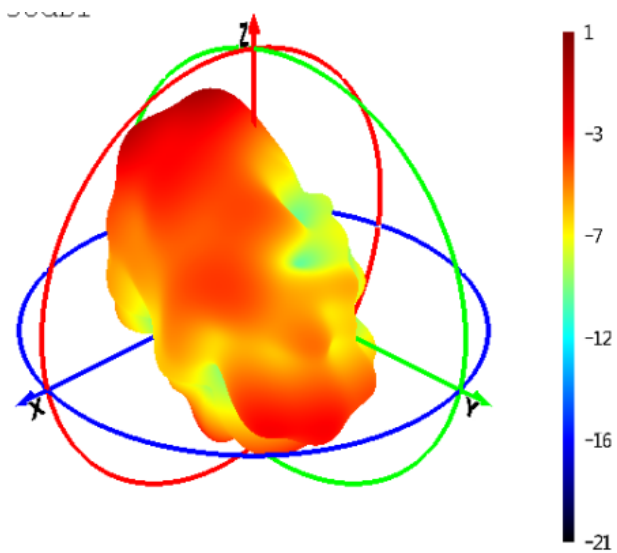
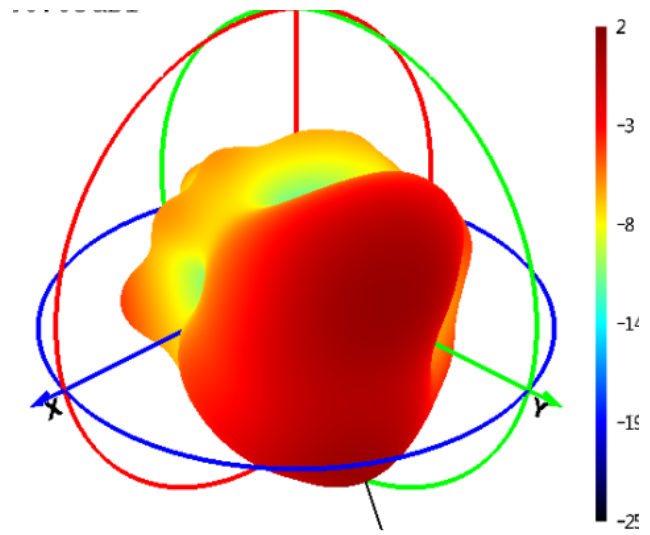
Gain			
频段 Band	gain 增益(dBi)	频段 Band	gain 增益(dBi)
GPS	0.54	2.4G WIFI/BT	1.21
5G WIFI	0.71		

GPS

2.4G WIFI/BT



5G WIFI

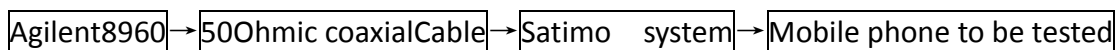


2. test result

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.

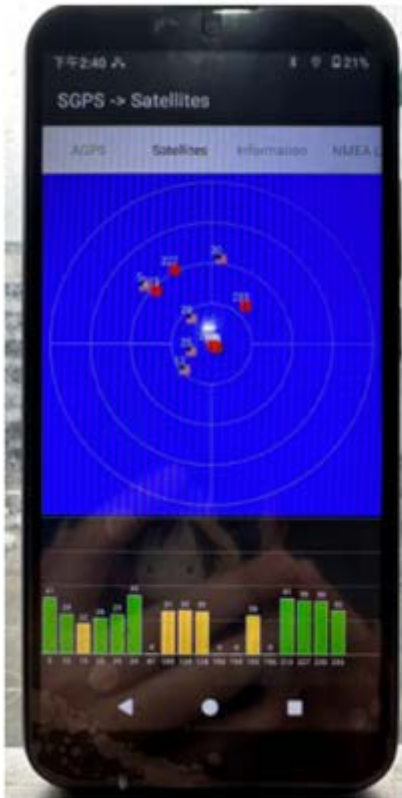
The following is the active test result of S6092BM mobile phone main antenna:

Test data (测试数据)

	CH	TRP	TIS
GSM850	128	25.87	
	190	27.01	
	251	27.38	-104.09
EGSM900	1	25.32	
	62	24.7	
	124	23.41	-98.18
DCS1800	512	25.82	
	698	26.54	
	885	26.98	-103.37
PCS1900	512	26.62	
	661	26.41	
	810	25.29	-104.14
W2	9626	18.81	
	9400	18.95	
	9538	19.27	-105.22
W5	4132	15.19	
	4183	16.03	
	4233	16.27	-104.74
B2	18650	19.31	
	18900	19.56	
	19150	20.05	-92.85
B4	20000	18.41	
	20175	18.81	
	20300	19.76	-95.52
B5	20450	15.43	
	20525	16.41	
	20600	16.88	-92.4
B7	20800	18.81	
	21100	19.68	
	21400	18.89	-91.03
B28A	27260	15.11	
	27360	16.42	
	27460	16.8	-90.43
B28B	27410	16.25	
	27510	16.17	
	27610	16.33	-90.24

2-1.Three in one test results

GPS/WIFI Field test (GPS/WIFI)



	1	14	-79.48
B	7	13.57	-80.1
	13	14.14	-80.04

2-2. 蓝牙测试 (Bluetooth Test) :

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