Specification

客户 Customer		规格型号 Specs	K651B1
三好料号 Part Number	K651B1-01 K651B1-02 K651B1-03	频　　段 Frequency Band	BT&2.4G WIFI:2400~2483.5MHZ GSM850/900/1800/1900 WCDMA2/4/5 B2.4.5.12.13.25.26.66.71.41
颜　色 Color	black	版　　本 Edition	REV:A1
销　售 Salesperson		设　　计 Design	
结　构 Structure		确　　认 Confirm	
日　期 Date		签字日期 Signing Date	
客户确认 Customer confirmation:			
Join hands to create the future			

/

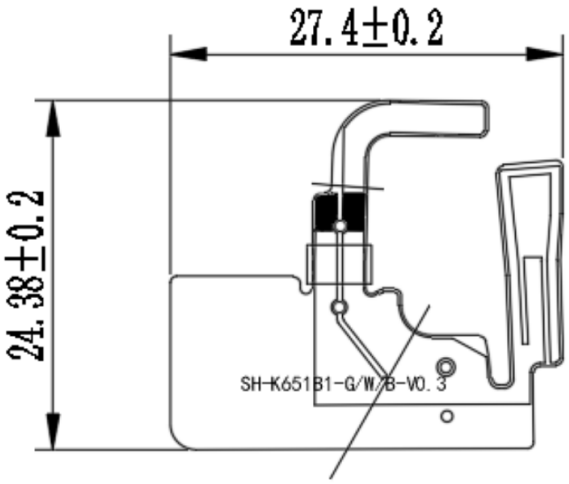
Manufacture：Shenzhen Sanhao Wireless Communication Co., Ltd

Add：501-508, Jinfulai Building, No. 49-1 Dabao Road, Bao'an District, Shenzhen

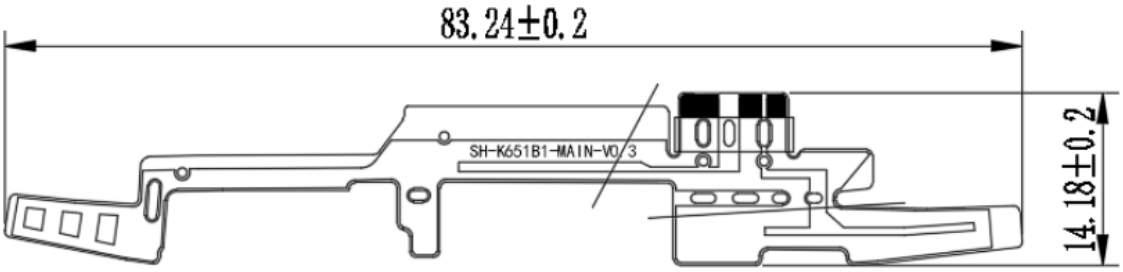
目录

Type of antenna：FPC antenna

Three in one antenna unit：mm

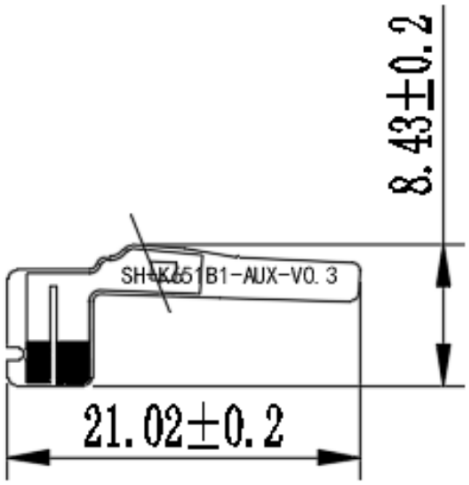


Main set antenna unit：mm



Diversity antenna unit：mm

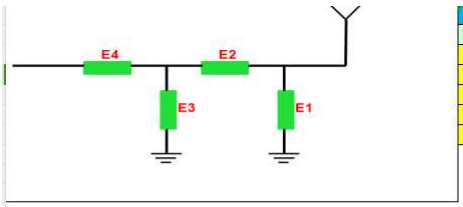
二、Electrical performance　　unit：mm



1.Specifications

The operating frequency band of K55B1 antenna is 699~960MHZ and 1710~2700MHZ, in which resonance occurs.

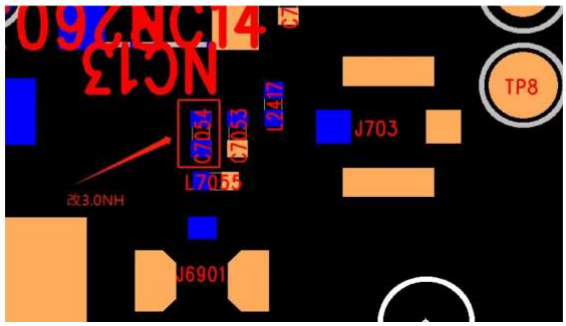
2.Matching circuit of antenna

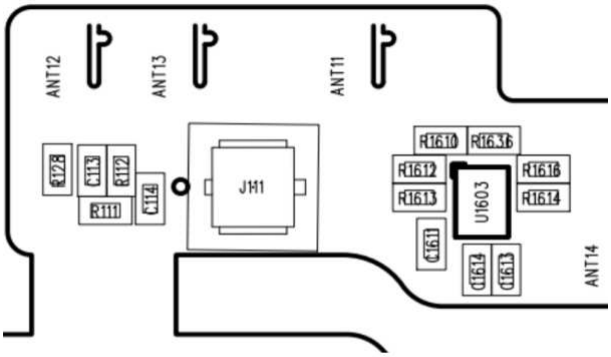


Main Antenna		Aux Antenna	
Element	Value	Element	Value
R128	0Ω	R1612	0Ω
C113	NC	R1613	6.2NH
R112	0Ω	R1616	10NH
R111	2.0NH	R1614	22NH
C114	NC		

主天线主路匹配改动如右图标记。

开关配置如下：
RF1路，0Ω：
GSM850/900/1800/1900+WCDMA2/4/5+FDD2/4/5/25/26/66/41
RF2路，6.2NH：FDD13
RF3路，10NH：FDD12
RF4路，22NH：FDD71





三、Test of parameters

1.Test settings

The connection of VSWR test device is：

E5071Bnetwork analyzer → 50Ohmic coaxial Cable → 110mmLong copper tube → Test fixture

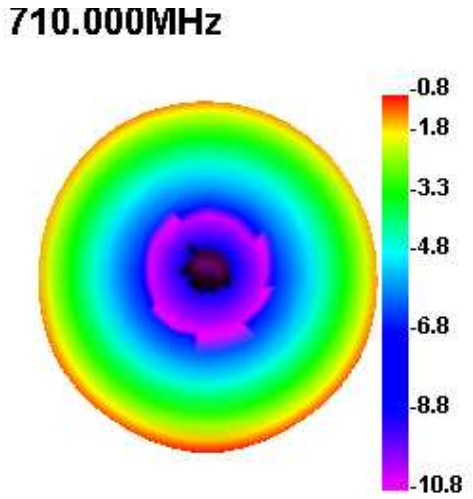
Treatment of test fixture:

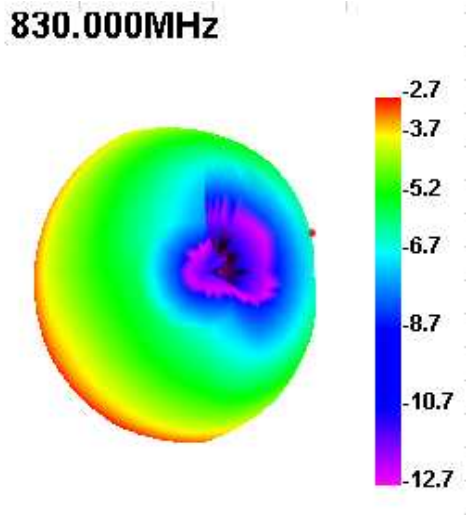
Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the mobile phone PCB, connect it to the copper tube with a choke, and then connect other devices in turn.

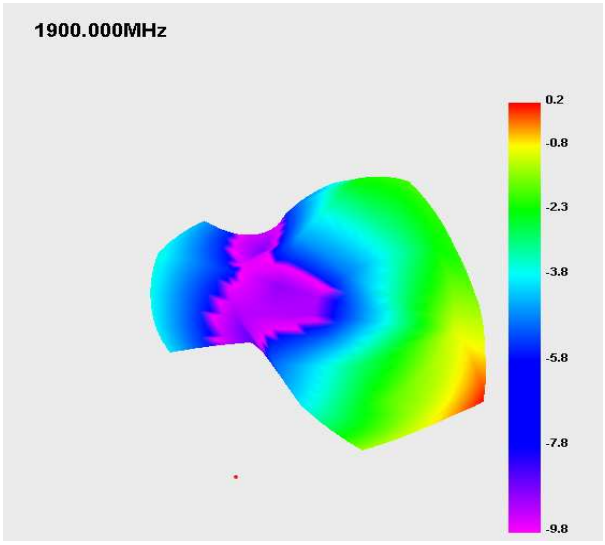
Passive parameters of main antenna：

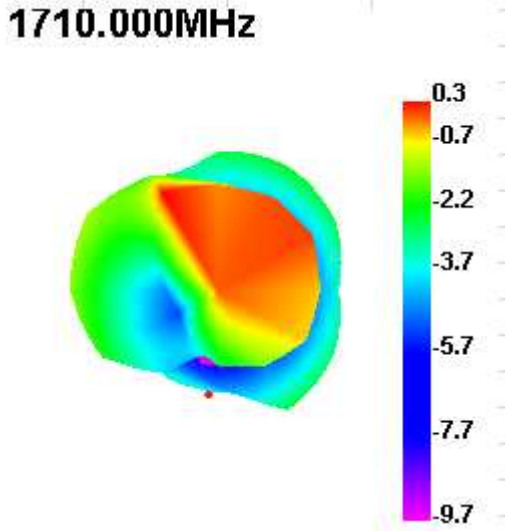
Working frequency band：617~960MHZ，1710~2700MHZ
GSM850/900/1800/1900
WCDMA2/4/5
B2.4.5.12.13.25.26.66.71.41

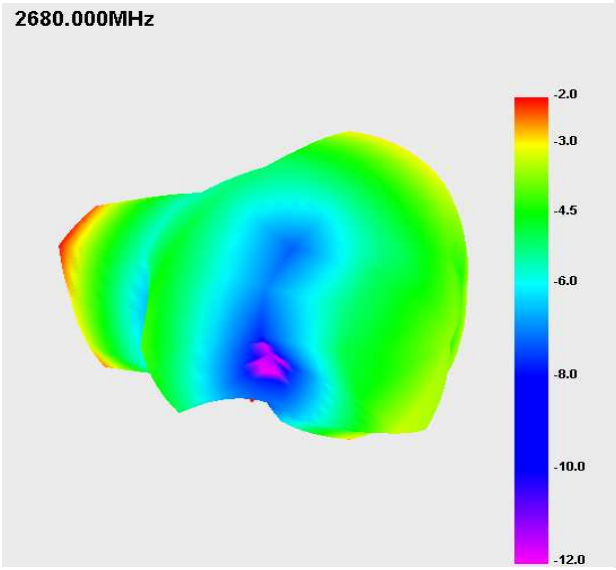
Gain	
频段 Band	gain 增益 (dBi)
GSM850,WCDMA-B5,LTE-B5/26	-2.6
GSM900	-4.53
DCS1800,LTE-B25	0.58
PCS1900,WCDMA-B2,LTE-B2	0.16
WCDMA-B4,LTE-B4/66	0.39
LTE-B12	-2.98
LTE-B13	-2.83
LTE-B71	-3.25
LTE-B41	-0.39
GPS	2.57
2.4G WIFI/BT	-0.18

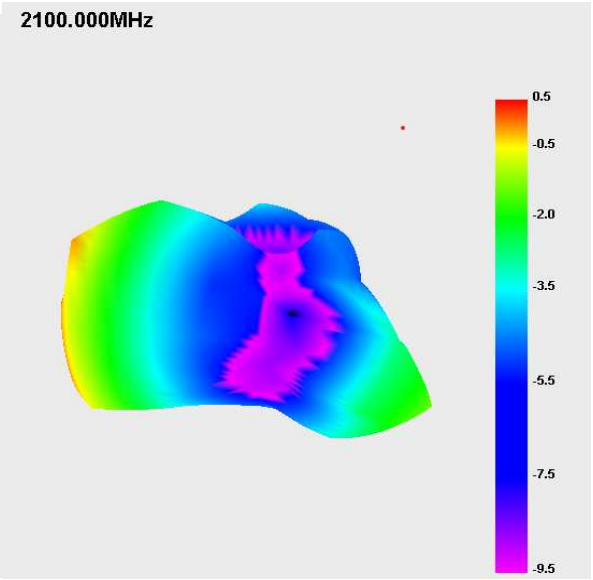

710.000MHz
-0.8
-1.8
-3.3
-4.8
-6.8
-8.8
-10.8

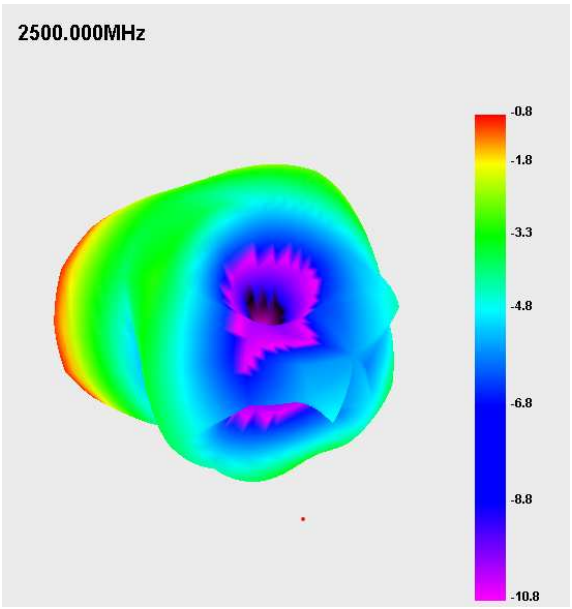

830.000MHz
-2.7
-3.7
-5.2
-6.7
-8.7
-10.7
-12.7

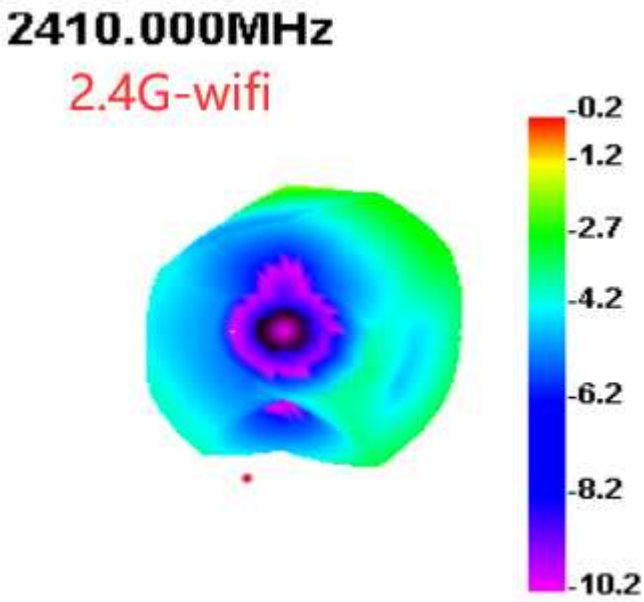

1900.000MHz
0.2
-0.8
-2.3
-3.8
-5.8
-7.8
-9.8

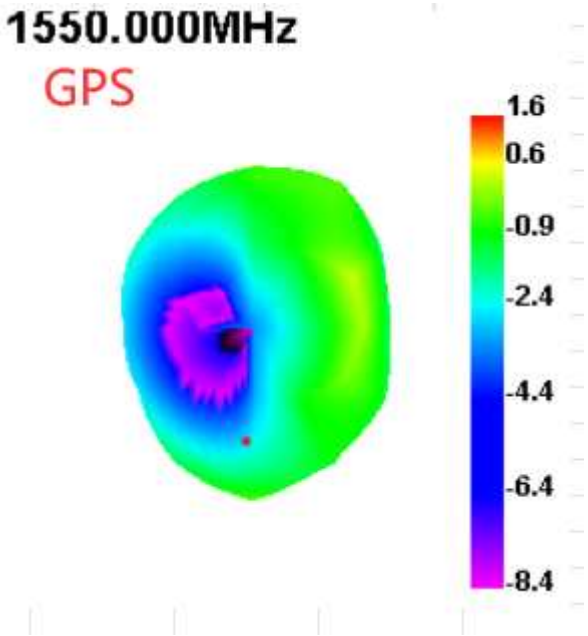

1710.000MHz
0.3
-0.7
-2.2
-3.7
-5.7
-7.7
-9.7


2680.000MHz
-2.0
-3.0
-4.5
-6.0
-8.0
-10.0
-12.0


2100.000MHz
0.5
-0.5
-2.0
-3.5
-5.5
-7.5
-9.5


2500.000MHz
-0.8
-1.8
-3.3
-4.8
-6.8
-8.8
-10.8


2410.000MHz
2.4G-wifi
-0.2
-1.2
-2.7
-4.2
-6.2
-8.2
-10.2


1550.000MHz
GPS
1.6
0.6
-0.9
-2.4
-4.4
-6.4
-8.4

GPS/WIFI/BTPassive parameters of antenna：

Working frequency band：1560~1580MHZ，2400~2500MHZ

2.test result

2G	CH	TRP	TIS
GSM850	128	26.57	
	190	27.5	
	251	27.59	-101.58
EGSM900	1	25.61	
	62	24.25	
	124	22.1	-97.35
DCS1800	512	25.39	
	698	24.11	
	885	23.81	-104.12
PCS1900	512	24.46	
	661	25.29	
	810	25.55	-102.46

3G	CH	TRP	TIS
WCDMA2	9262	17.5	
	9400	18.13	
	9538	17.36	-102.81
WCDMA4	1537	17.31	
	1625	17.22	
	1738	16.67	-102.87
WCDMA5	4132	17.24	
	4183	17.59	
	4233	17.35	-101.65

4G	CH	TRP	TIS
FDD-B2	18650	17.51	
	18900	18.15	
	19150	18.28	-92.32
FDD-B4	20000	17.46	
	20175	17.25	
	20350	16.97	-93.26
FDD-B5	20450	17.56	
	20525	17.14	
	20600	17.92	-90.29
FDD-B12	23060	16.86	
	23095	17.63	
	23130	17.58	-90.85
FDD-B13			
	23230	17.39	-90.19
FDD-B25	26090	17.49	
	26365	17.23	
	26640	17.78	-92.49
FDD-B26	26715	17.52	
	26865	17.04	
	27015	17.64	-91.27
FDD-B66	132022	17.21	
	132322	16.98	
	132622	16.52	-93.69
FDD-B71	133172	17.5	
	133297	17.52	
	133422	16.65	-90.06
TDD-B41	40340	17.51	
	40620	18.2	
	41140	17.03	-88.73

business as usual.

四、Active test setup

The active test devices are sequentially connected as follows：

Agilent8960→50Ohmic coaxialCable→Satimo system→Mobile phone to be tested

1.Test site

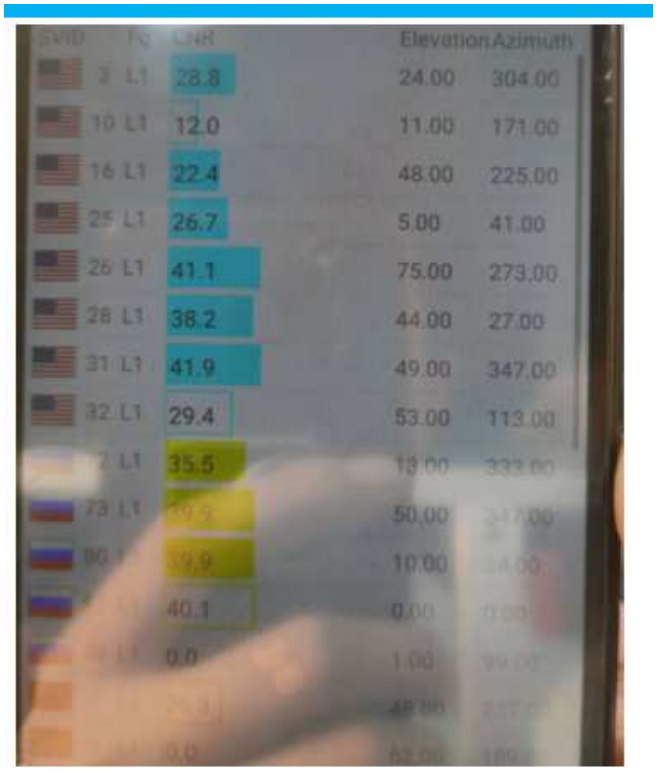
AW microwave anechoic chamber: the test frequency range is 400MHz - 6GHz, the quiet zone range is 40cm circumference, and the reflectivity is less than - 90 dB.

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 K55B1mobile phone main antenna：

2-1.Three in one test results



2-2.Bluetooth Test：

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