

深圳市安威无线科技有限公司

Shenzhen Anwei Wireless Technology Co., Ltd

客户 Customer	思必拓	规格型号 Specs	CT80
安威料号 Part Number	AW006-CT80-021-A0 AW006-CT80-022-A0 AW006-CT80-023-A0	频 段 Frequency Band	BT/WIFI
颜 色 Color	绿色	版 本 Edition	REV:A0
销 售 Salesperson	林星星 Lin xing xing	类 型 Type	PIFA 天线
结 构 Structure	覃云林 Qin yun lin	确 认 Confirm	吴希 Wu xi
日 期 Date	2024.4.7	签字日期 Signing Date	

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1.Product Specifications:

The report mainly provides parameter tests of the performance of the CT80 antenna. The CT80 antenna is a 4G antenna. (as shown in Figure 1 below)

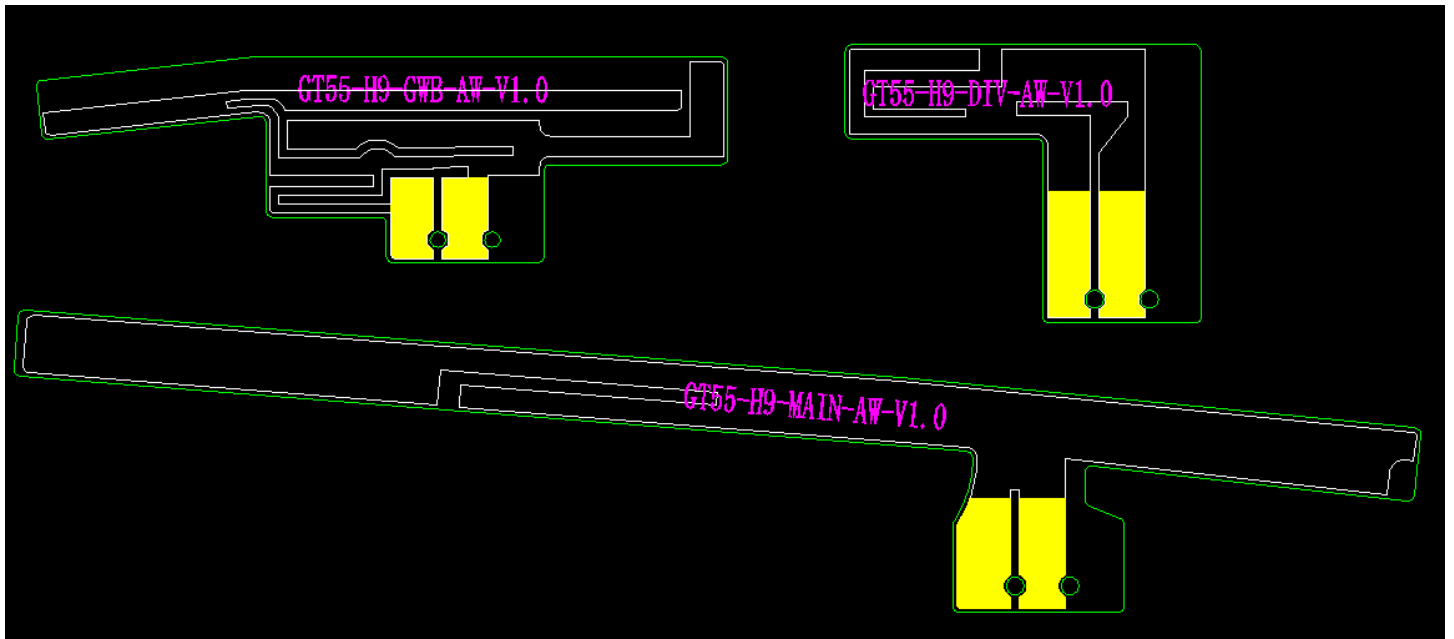


Figure 1 CT80 antenna

Second, the performance of electrical appliances

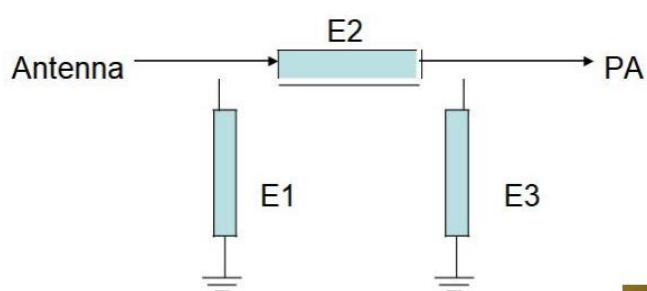
1. Specifications and standards

The CT80 antenna operates in the frequency band of 824-2690mhz, which produces resonance in this frequency band.

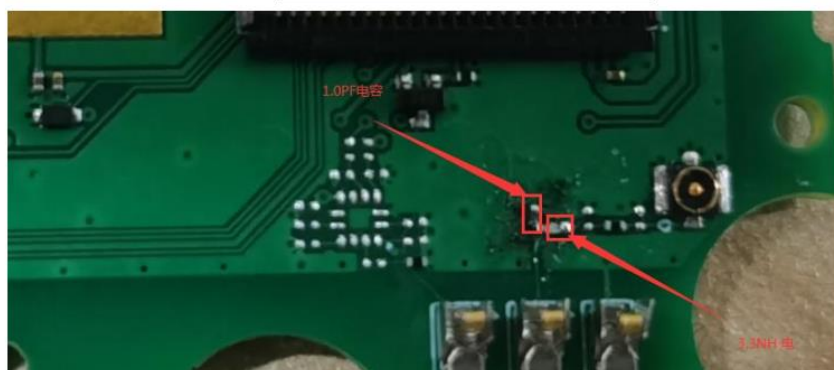
2. Matching circuit of the antenna

The structure of the antenna: FPC

主天线匹配电路



Element	Value
E1	1pf
E2	3.3NH
E3	N/A
E4	0 Ω



匹配电路 (Matching circuit)

3. Parameter testing

1. Test settings

The VSWR test setups are connected sequentially as follows:

The E5071B Network Analyzer → 50 ohm coaxial cable → 110mm copper tube → test fixture

Handling of test fixtures:

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

2. Test results

Fourth, the setting of active testing

The active test devices are connected in the following sequence:

The Agilent 8960 → 50 ohm coaxial Cable → Satimo SG16 test system → the phone to be

tested

1. The site of the test

2. AW Anechoic chamber: The test frequency range is 400MHz-6GHz, the quiet area range is 40cm circumference, and the reflectivity is less than -90 dB.

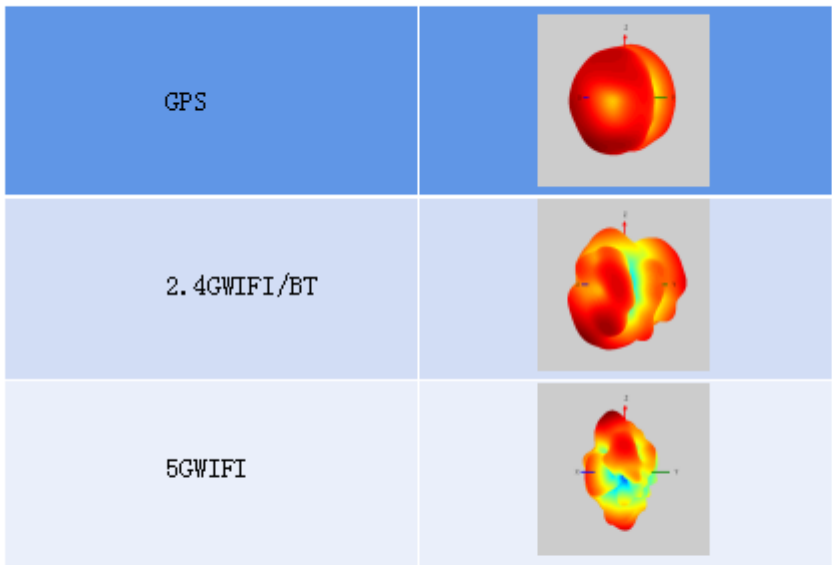
2. Test results

The maximum radiated power and maximum received sensitivity reflect the maximum power radiation value and the best reception performance of the antenna in the entire radiation space. TRP and TIS reflect the average radiated power and average receive sensitivity of the antenna, i.e., the overall reception performance of the antenna.

The following are the active test results of CT80 mobile phone GSM antenna:

Antenna Gain									
Band	Gain(dbi)	Band	Gain(dbi)	Band	Gain(dbi)	Band	Gain(dbi)	Band	Gain(dbi)
FDD B1	1.2	TDD B34	1.5	WCDMA B1	1.2	GSM 900	-0.5	GPS	1.8
FDD B2	1.5	TDD B38	0.8	WCDMA B2	1.5	GSM 850	-3.5	WIFI 2.4G	1.5
FDD B3	0.8	TDD B39	1	WCDMA B5	-3.5	DCS 1800	0.8	WIFI 5G	0.6
FDD B5	-3.5	TDD B40	1.5	WCDMA B8	-0.5	PCS 1900	1.5	BT	1.5
FDD B7	0.5	TDD B41	0.5						
FDD B8	-0.5								

天线辐射方向图



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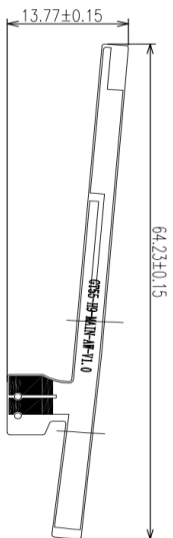
WIFI测试效果：

BAND	2.4GWIFI			5GWIFI		
CHANNEL	low	medium	high	low	medium	high
TRP (dBm)	9.54	9.40	9.15	11.2	11.42	11.13
TIS (dBm)	-81.5	-81.2	-81.6	-70.2	-71.5	-71.35

V. Recommendations and Conclusions

This report is based on the performance of the antenna electrical appliances measured by the machine provided by the customer, please check it carefully.

6.Structural drawings



Material: A pair of semi-electrolytic copper substrates, using environmentally friendly manufacturing process, in line with RoHS requirements.

Gold plating: Ni:1-2um Al: min0.5u" Ink: Halogen-free ink.


Duct tape: 3M9471.

With "*" dimensions as the key dimensions.

The surface has no defects such as crushing, scratches, oil stains, spots, etc.

The drawing size is used to check the appearance, function and assembly.

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Shenzhen Anwei Wireless Technology Co., Ltd.				
	unit: MM	Model: GT55-H9	date: 2024-04-06	
	General tolerance: λ .X .XX .XXX ANGULAR	±0.5 ±0.25 ±0.10 ±0.05 ± 0.5°	Part No: AM005-GT55-H9-021-A0	M D. QYL
		Material: FPC	R F: WX	
		Surface treatment: clean		
Color: matt black	proportion: 1:1	version: A1		

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