

SHENZHEN J Y COMMUNICATION CO.,LTD.

S22

Guests	Anxinxianghe	Frequency band Range	2.4-2.5GHz 5.85GHz
Model	DA-P70-Pro	Version	New version
Enginee ring code	TLT4713	Approval	
RF Designer	Maohangzhou	RD Designer	Tangchunzheng
Date	2024-12.28	Date	2024-12-28
Customer Information: WIFI 2.4G			

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1. Antenna Parameters

This report mainly provides the test conditions and results of various electrical and structural properties in mobile phone testing

1.1 Electrical parameters

1.1.1 Electrical Performance Assessment

The band range of the antenna is 2.40 G. The following table is the basic parameter of the electrical performance of the antenna.

BT/WIFI Frequency Range			
Frequency Range	Frequency (MHz)	VSWR	Gain (dBi)
	TX		Free Space
BT/WIFI	2.40GHz	≤2	2.05dBi
	5.85GHz	≤3	2.21dBi

1.1.2 Matching circuit

A matching circuit diagram on the PCB board

1.2 Structural parameters

The structure file is shown below

1.2.1 Antenna assembly

Composition FPC antenna coaxial connection

1.2.2 Performance testing requirements

Test project	Description	Acceptance criteries
1.Low temperature test	Temperature: -20 °C Hours : 24 hours	1. No apparent damage 2. Electrical performance up to standard
2. High temperature test	Temperature: 80 °C Hours : 24 hours	1.No apparent damage 2.Electrical performance up to standard
3. Salt spray test	5±0.1% Salt spray PH : 6.5-7.2 Temperature: 35±1 °C Hours::24 hours	1. no color change 2. No apparent damage
4.Environmental adaptability test	Total value of Pb、Hg、Cr+6、Cd in packing materials is smaller thall 50PPM Pb、Hg、Cr+6、PBBs、PBDEs in components are smaller than 500PPM, Cd is smaller than 50PPM	

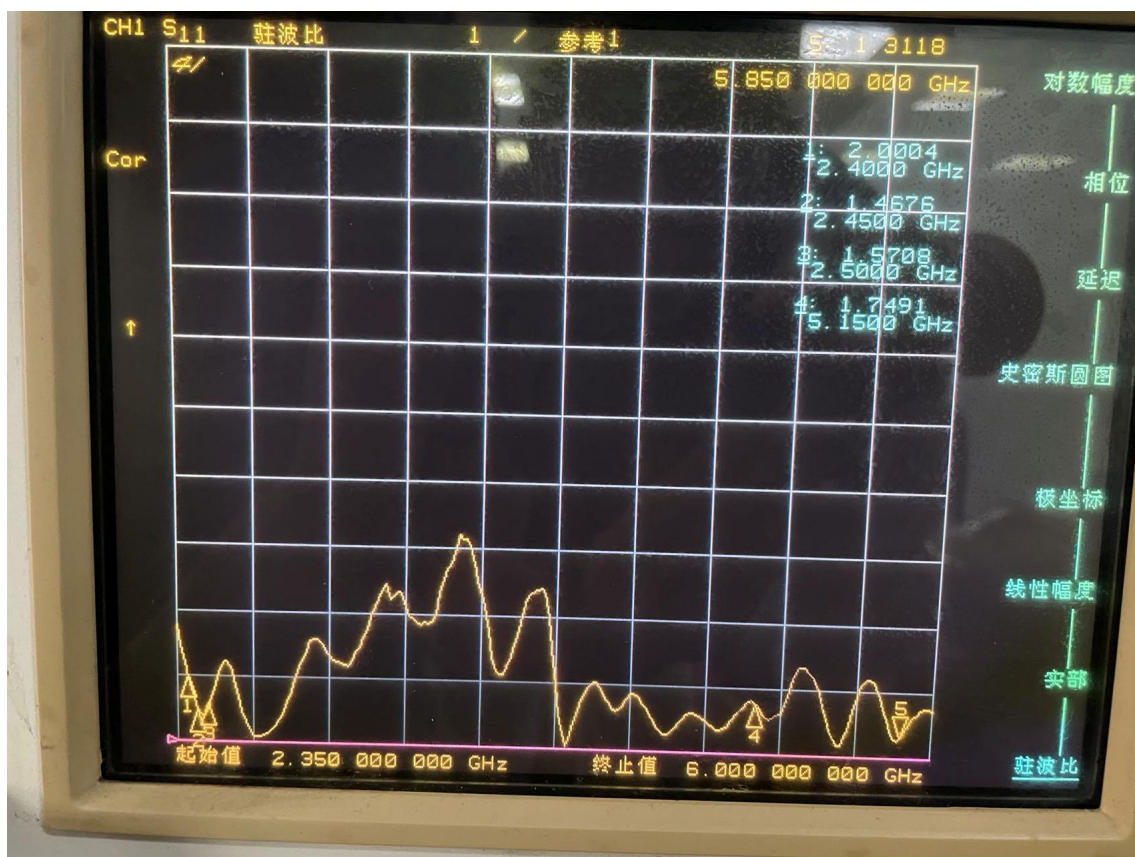
2. Test

The antenna is installed in the equipment provided by the customer for testing. Figure 3 describes the electrical performance of the antenna as installed in the device.

2.1 VSWR Test

2.1.1 Test connection

Test VSWR equipment connection sequence: AgilentE5062A network analyzer → test connection line and prototype provided by customer



2.1.2 Voltage Standing Ratio

the table below describes the value of the voltage standing wave ratio of the antenna at the two endpoints of the frequency band, involving the figure regarding the return loss and standing wave ratio.

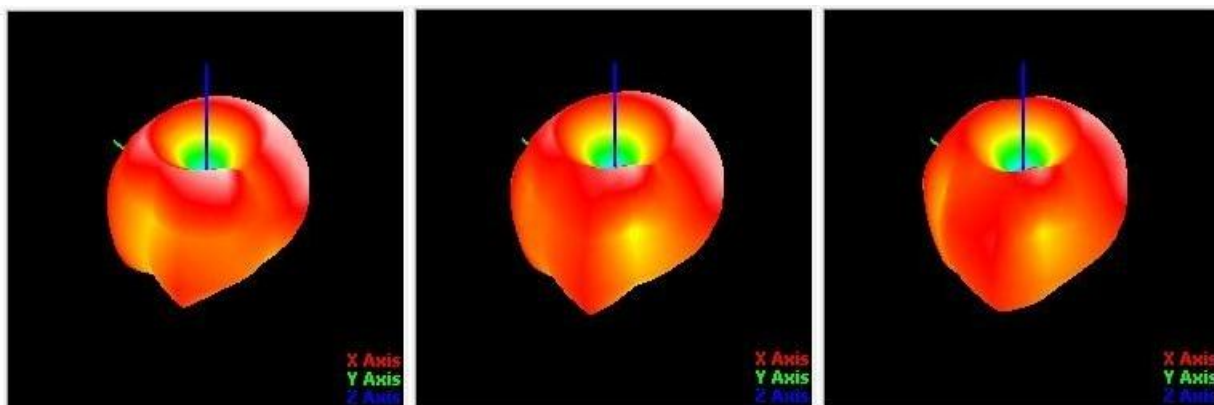
	GPS	BT/WIFI-2.4G		WIFI-5.85GHz	
Frequency (MHz)	1.575G	2.4G	2.48G	5.85GHz	
VSWR		1.32	1.30	1.30	
Return Loss		-17.2	-17.8	-17.8	

2.2 Gain and Power Testing

Frequency (GHz)	1.575G	2.40G	2.48G	5.85GHz	
Gain (dBi)		2.00	2.05	2.21	
Efficiency (%)		41.7	41.5	48.3	

Tianlu Tong microwave darkroom: test frequency range from 800 MHz to 6GHz, in 50 cm diameter spherical area, darkroom reflection from 800 MHz—6GHz ,reflection less than - 50 dB.

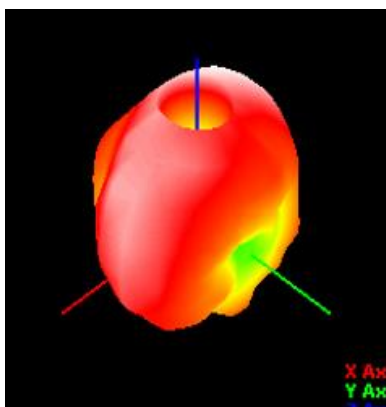
2.2.1 GPS&WIFI Efficiency gain 3D pattern WIFI 2.4G



2400MHz

2450MHz

2480MHz



5.85GHz

