



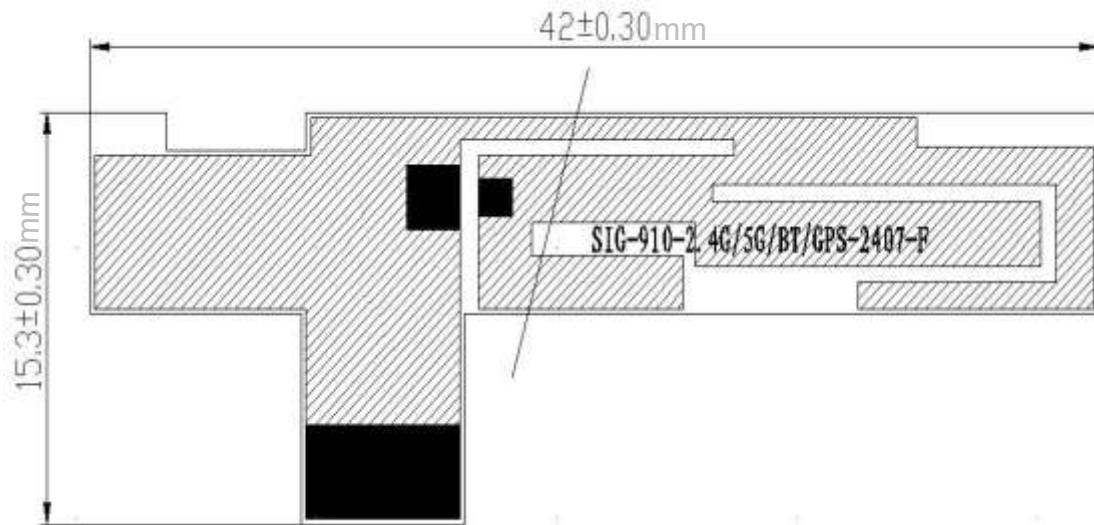
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Antenna Test Report

Project Name:	GP55M	Number :	SIG-104-002	
Antenna material :	FPC	Frequency Band :	WIFI+BT	
Item number :	SIG-910-GP55M-2407-F		Date :	2024-10-21
Material code :	ANT-WI00765			

1. Graphic reference





2. Electrical performance test

2.1 Specifications

The GP55M antenna works at 2400MHz-2500MHz,5150MHz-5850MHz to generate resonance. The following table is the mass production performance test index of the antenna designed by Xinfei for GP55M.

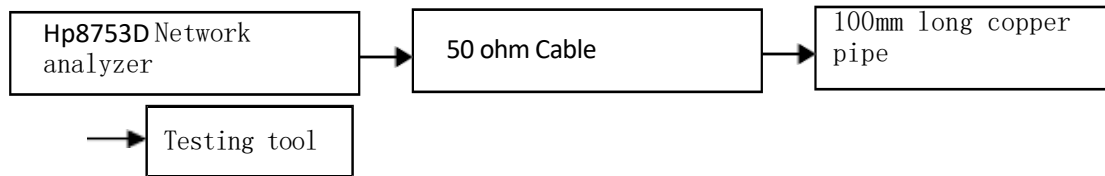
GP55M antennas	Frequency (MHz)	VSWR	Frequency (MHz)	VSWR
Frequency band	Transmitting end		Receiving end	
BT/WIFI 2.4G	2400-2500	≤ 1.33		
WIFI 5G	5150-5850	≤ 1.74		



3.VSWR Test

3.1 Test setup

VSWR testing device:



Test fixture processing: From the antenna 50 ohm test point on the PCB of the mobile phone with a hard cable to lead out the SMA-J connector, connected with the copper tube with a choke, and then connected to other devices in turn.

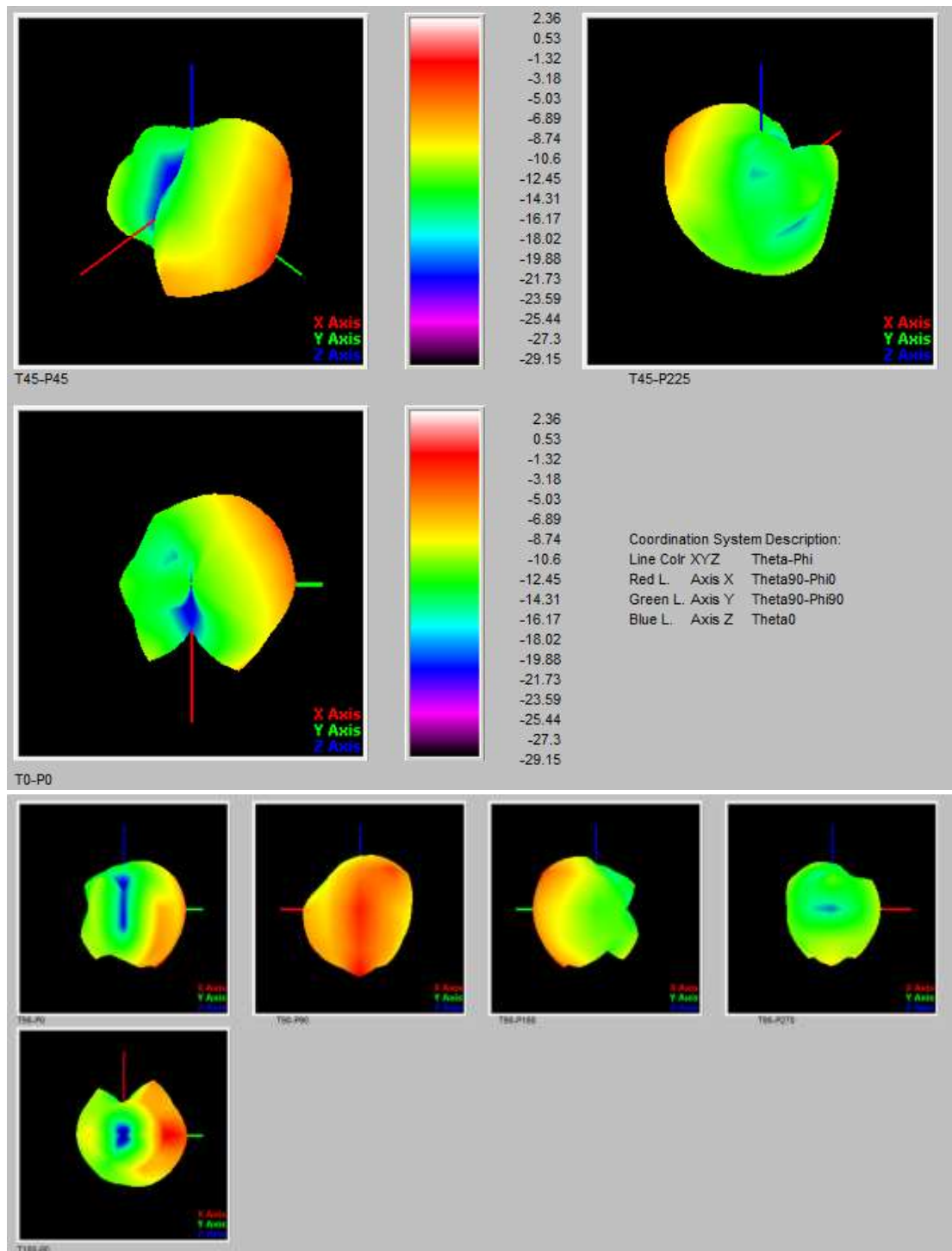


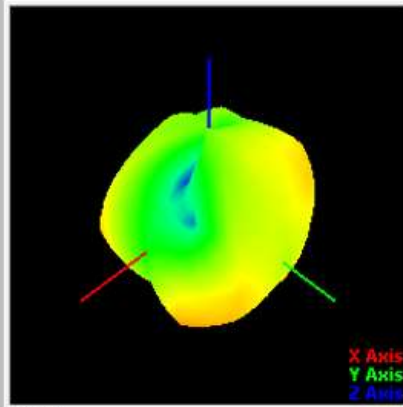
4. Test data

4.1 GP55M WIFI+BT

Freq(MHz)	Efficiency(dB)	Gain(dBi)	Efficiency(%)
2400	-3.59	1.03	44.1
2420	-3.50	1.65	44.6
2440	-3.41	2.10	45.6
2460	-3.34	2.27	46.3
2480	-3.22	2.36	47.6
2500	-3.36	2.03	56.1
5150	-4.51	0.83	35.4
5250	-4.42	1.00	36.1
5350	-4.50	0.87	35.5
5450	-4.18	0.65	38.2
5550	-4.59	0.11	34.7
5650	-5.02	0.02	31.5
5750	-4.95	0.35	32.0
5850	-4.90	0.57	32.3

4.2 Directional diagram

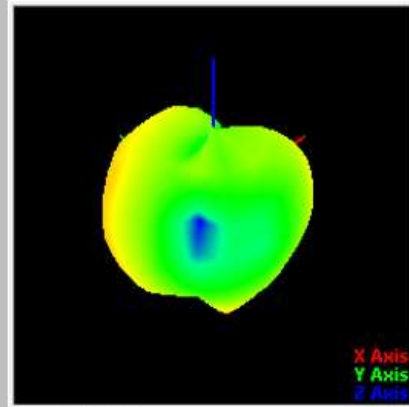




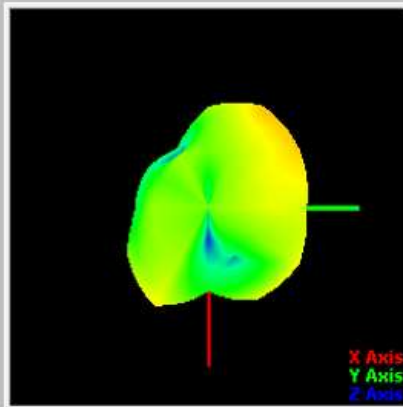
T45-P45



1
-0.7
-2.38
-4.05
-5.73
-7.4
-9.08
-10.75
-12.43
-14.1
-15.78
-17.45
-19.13
-20.8
-22.48
-24.15
-25.83
-27.5



T45-P225



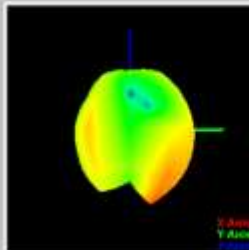
T0-P0



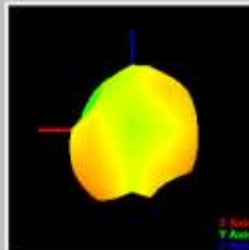
1
-0.7
-2.38
-4.05
-5.73
-7.4
-9.08
-10.75
-12.43
-14.1
-15.78
-17.45
-19.13
-20.8
-22.48
-24.15
-25.83
-27.5

Coordination System Description:

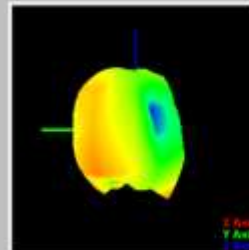
Line Color XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0



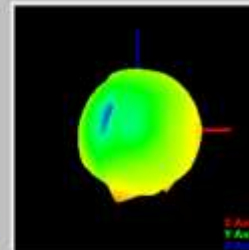
T90-P0



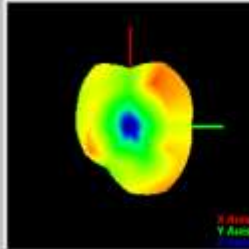
T90-P45



T90-P135



T90-P225



T180-P0