

规格承认书

Approval Sheet

客户名称 Tianyin

(Customer Name)

产品名称 G4 (WIFI Antenna)

(Specification)

客户料号 _____

(Customer P/N)

产品料号 _____

(O/I)

送样日期 2025-03-25

(Date)

Frequency band			
Version	A		
RF	Chen Meidui	Confirm	
Structural Engineer	Yang Guojun		
Customer confirmation			
Date			

Catalogue

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1. Project image (for reference only)

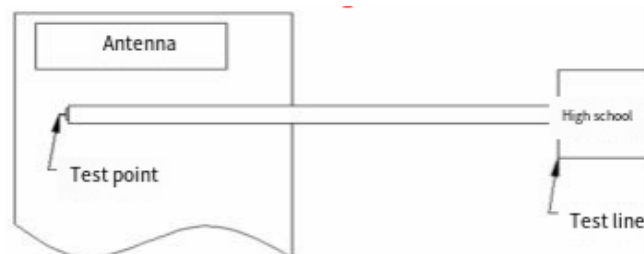


WIFI Antenna

2. Passive Test

Purpose: To test the passive parameters of the antenna as accurately as possible.

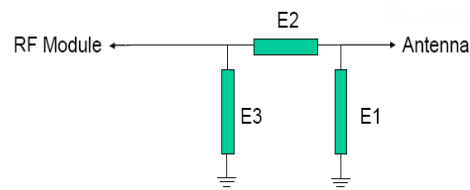
Method: This fixture uses a 50 ohm coaxial cable, with one end connected to the test point at the back end of the matching circuit (RF test hole front section) of the mobile phone motherboard, and the other end connected to the SMA connector. As shown in the following figure:



The following table shows the performance test indicators for G4 mass-produced antennas:

G4-WIFI 天线				
	Frequency (MHz)	VSWR	Frequency (MHz)	VSWR
Frequency band	Transmitting end		Receiving end	
2.4G WIFI	2400-2550	≤ 3.0	2400-2550	≤ 3.0
5.8G WIFI	5150-5850	≤ 3.0	5150-5850	≤ 3.0

3. Matching circuit



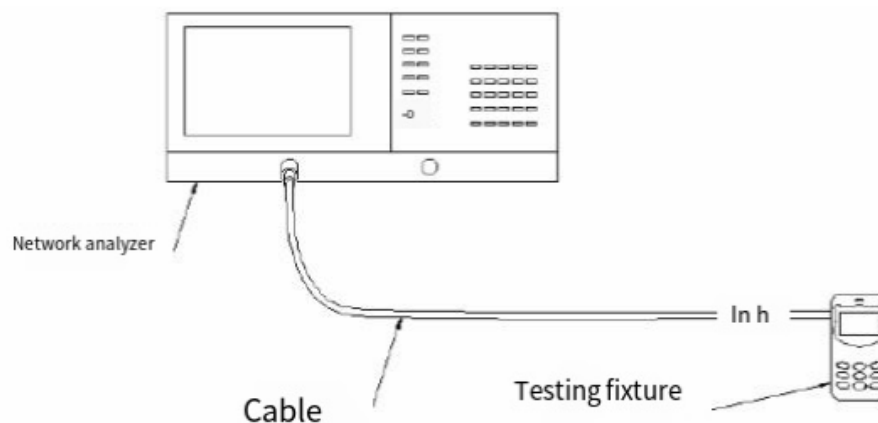
Element	Matching Value
E1	
E2	
E3	

4. S11Test

4.1 S11Test Method Description Specification Standards

VSWR The testing devices are sequentially connected as follows :
E5071B Network analyzer → 50Ω Coaxial line → 120mm Copper tube → Test fixture.

Treatment of testing 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 a copper pipe with a choke ring, and then connect other devices in sequence.



Test diagram

4.2 S11 Parameter image



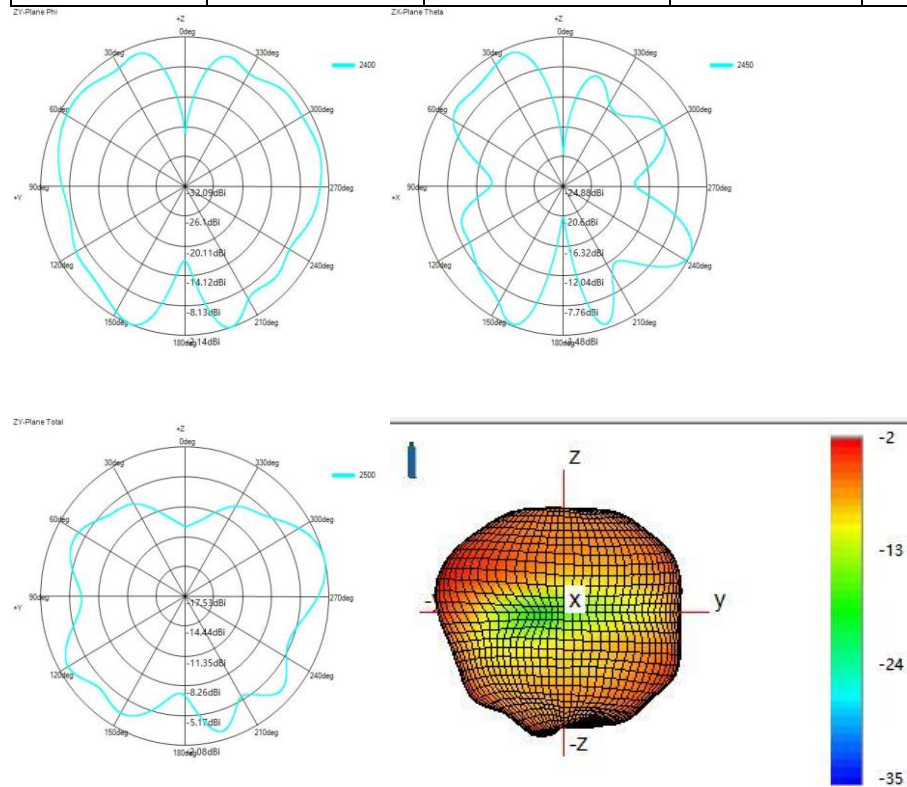
5. Antenna Test

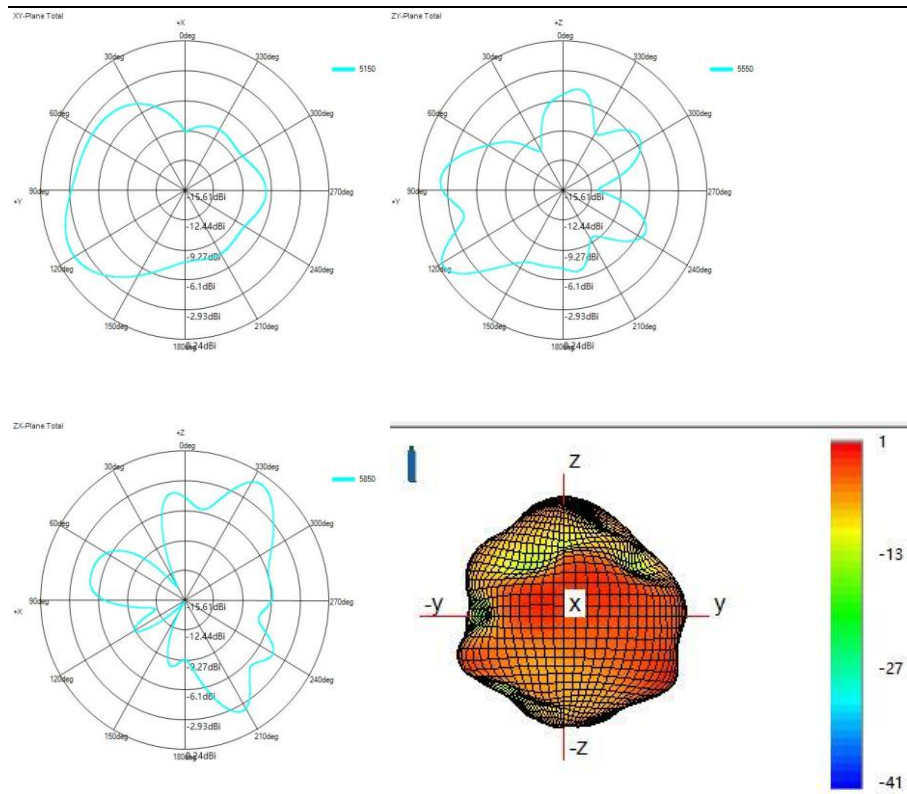
5.1 OTA data

Channel	11B			11A		
	CH1	CH6	CH11	CH36	CH60	CH165
TRP	10.1	10.16	10.34	10.05	10.40	10.31
TIS	-78.66	-79.04	-79.12	-66.55	-66.03	-66.57

5.2 Passive data

Passive Test For 2400-2500			Passive Test For WIFI5.8		
Freq	Effi	Gain	Freq	Effi	Gain
(MHz)	(%)	(dBi)	(MHz)	(%)	(dBi)
2400	28.52	0.5	5150	29.7	0.7
2410	27.61	0.35	5200	39.3	1.5
2420	28.12	0.35	5250	42.1	1.5
2430	27.44	0.03	5300	33.3	0.2
2440	26.92	-0.24	5350	35.7	0.1
2450	27.27	-0.04	5400	51.3	1.4
2460	27.89	0.05	5450	42.6	0.8
2470	28	0.26	5500	31.3	-0.4
2480	27.68	0.51	5550	34.9	0.6
2490	27.26	0.6	5600	43.3	1.6
2500	28.01	0.68	5650	35.2	0.7
			5700	25.9	-0.6
			5750	29.1	0.1
			5800	29.9	0.4
			5850	22.4	-1





6. Structural drawings

