



Wireless Communication Co. , Ltd

Sample Approval Form



Shenzhen Sanhao Wireless
Communication Co., Ltd.

guest household	Yidao		
Customer Model	IS 19N		
Material coding	YD - IS 19N		
WIFI 1 Antenna coding	YD - IS 19N-03		
version Book	T:A		
Production date	2025.5.9		
Editor system	RF Review	Structural review	Approval/Stamp
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Customer confirmation signature:			



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1. Basic project information and images:

1.1 Basic Project Information

Complete machine type	flat
Antenna material	FPC
Antenna frequency band	WIFIB WIFIA
Operating frequency	2400MHz-2500MHz 5150MHz-5850MHz

1.2 Mobile phone appearance and antenna sample images



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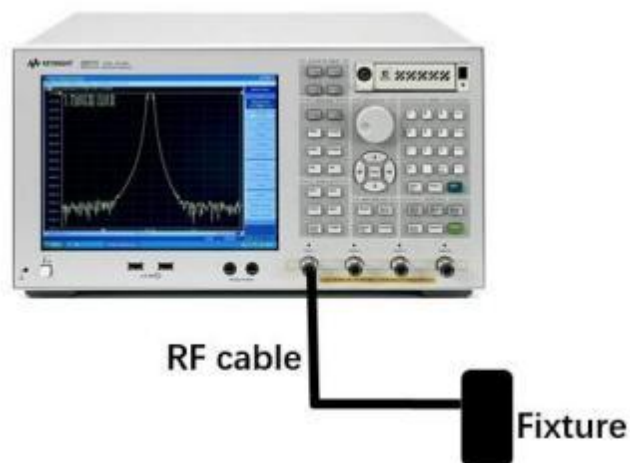
2. Electrical performance

2.1 Electrical performance items

Passive Test	S11	VSWR/RL/Simth Chart
	S21	Isolation
	S21	Effi./Gain
Active Test	TRP	Total Radiated Power
	TIS	Total Istropic Sensitivity

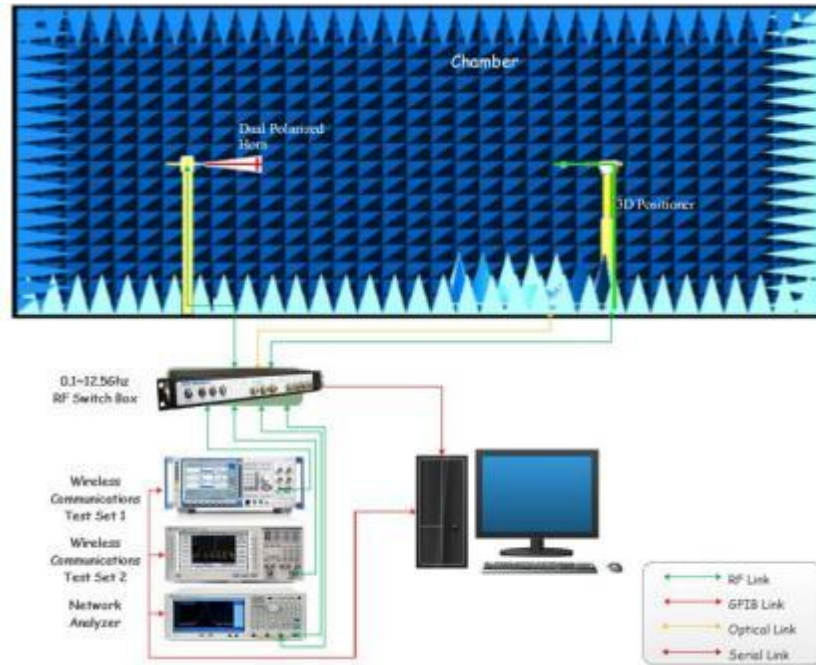
2.2 Test methods and test equipment

2.2.1 S11 test

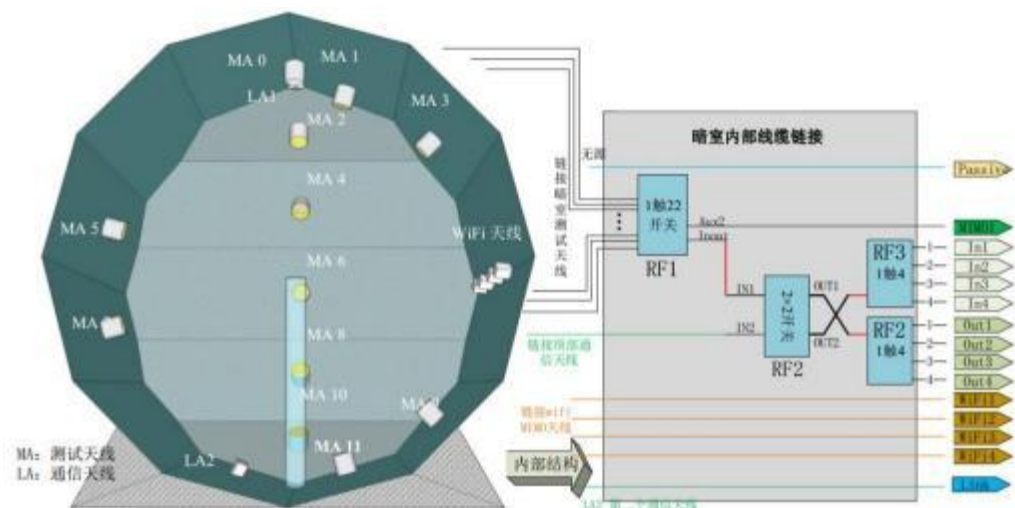


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2.2.2 Gain/Efficiency (Effi./Gain) & Active (Trp/Tis)



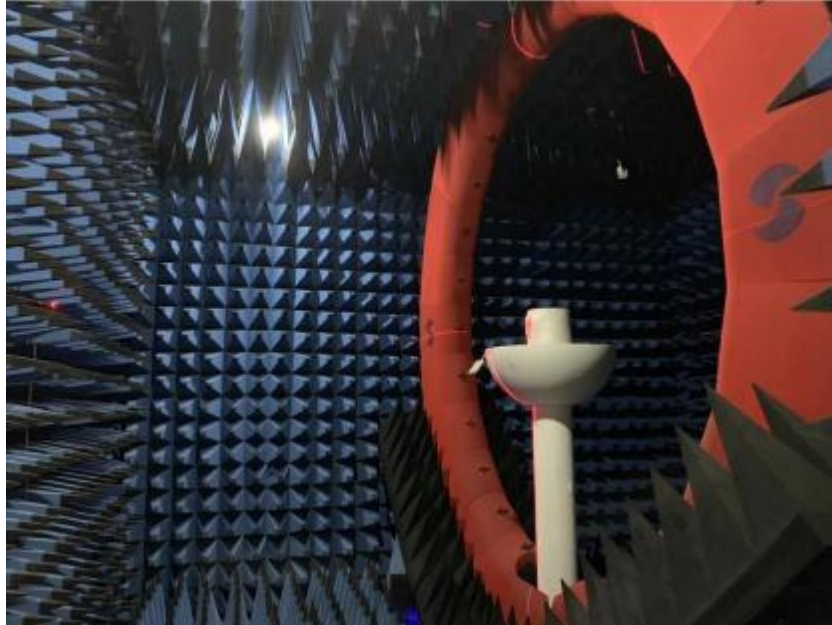
Single probe measurement system



Multi-probe measurement system

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2.2.3 Test images in the darkroom



Internal diagram of a multi-probe microwave anechoic chamber system





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External view of the microwave anechoic
chamber (anechoic chamber + cabinet equipment)

Antenna gain

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	-2.25	-2.29	-2.52	-2.38	-1.82	-1.70	-1.82	-1.69	-1.58	-1.37	-1.18
	5150	5250	5350	5450	5550	5650	5750	5850	5900		
	-0.03	0.12	1.64	1.72	1.57	1.04	2.16	1.42	1.95		

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3. Overall environmental processing and antenna matching circuit

3.1 Whole machine environmental treatment



3.2 Antenna matching circuit

Existing machine matching



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4. Test Data

4.1 Passive testing

4.1.1 S11 (VSWR/RL/Simth Chart) test

data NC

4.1.2 S21 (Effi./Gain) test data

NC

4.2 Active test data (trp/tis)

	WiFi-B		
CH	1	7	13
TRP	9.45	10.49	10.82
TIS	-77.9	-79.34	-79.02
	WiFi-B		
CH	36	149	165
TRP	8.35	9.88	9.35
TIS	-65.02	-65.74	-72.72

4.3 Test Conclusion

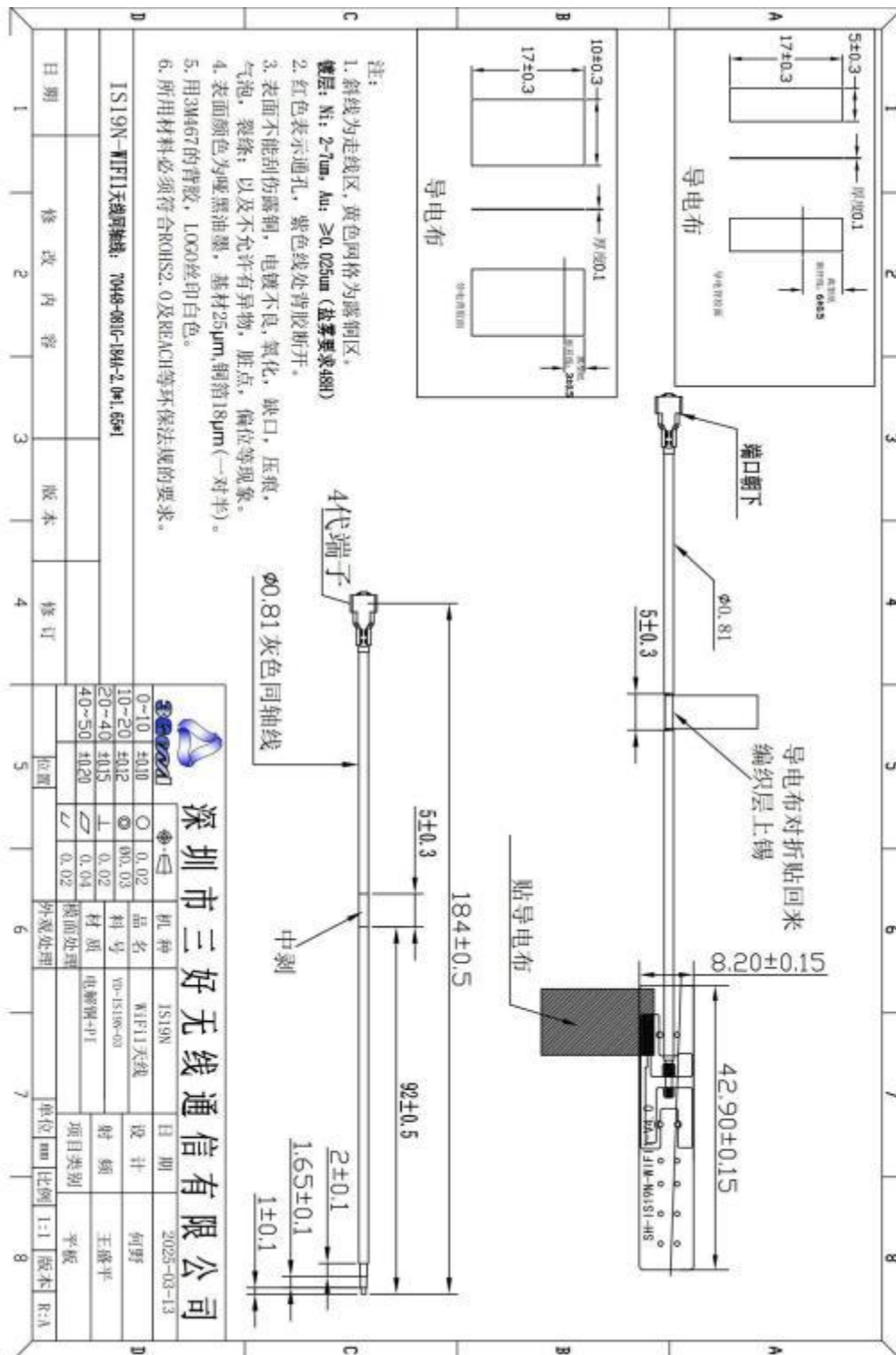
Indicators meet WIFI/BT Actual test performance OK

Note: This antenna is only suitable for testing prototypes. Any changes to the motherboard version, RF components, or phone accessories (such as microphones, screens, speakers, motors, etc.) must be tested and verified by our company before use.

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5. Engineering drawings

5.1 WIFI1 antenna



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