



Sample Recognition Letter



Shenzhen Sanhao Wireless
Communication Co., Ltd.

Customer	R2G PEOPLE CO., Ltd		
Customer Model	B4066		
Item Code	SDW-B4066		
Bluetooth Antenna Coding	SDW-B4066-01		
Version	T:A		
Production Date	2024.01.16		
Compilation	RF Audit	Structural Audit	Approval/Seal
Zhu Kun	Xiong Zhonggui	Li Fulun	Zhou Wu
Customer Confirmation Signature:			



Revision Record

Serial Numbe	Version Number	Change content	Revision	Date of change
1	V1.0	First issue		
2				
3				
4				

1. Basic information and pictures of the project:

1.1 Project Basic Information

Complete machine type	mapper
Antenna material	FPC
antenna band	BT
Operating frequency	2400Mhz-2500Mhz

1.2 overall appearance and antenna sample diagram



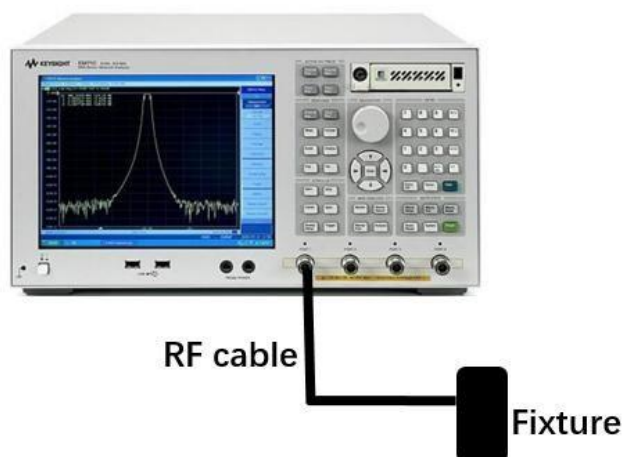
2. Electrical performance items and test environment

2.1 Electrical Performance Project

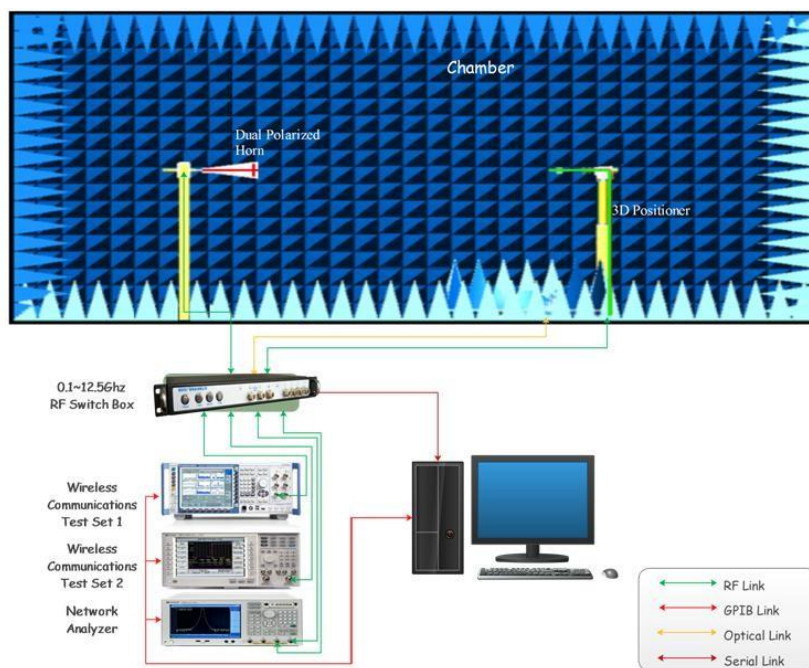
Passive Test	S11	VSWR/R.L/Simth Chart
	S21	Isolation
	S21	Effi./Gain
Active Test	TRP	Total Radiated Power
	TIS	Total Istropic Sensitivity

2.2 test methods and test equipment

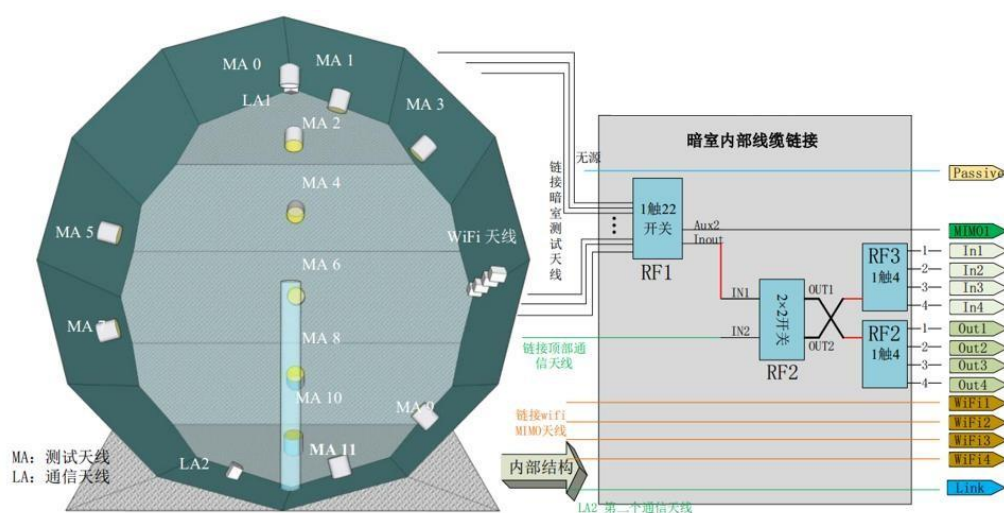
2.2.1S11 test



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

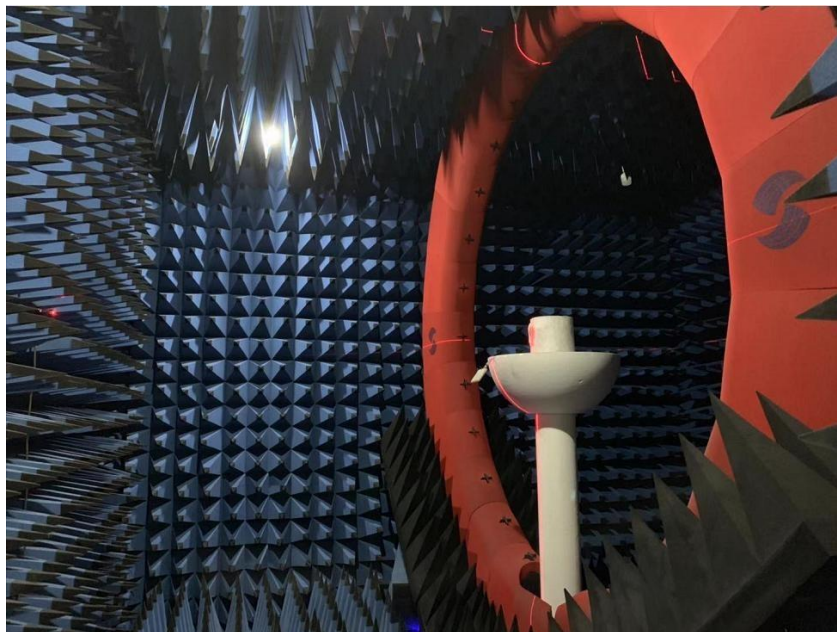


single probe measurement system



multi-probe
measurement
system

2.3 Sanhao Test Darkroom and Environment



Multi-probe microwave anechoic chamber system
internal diagram



External drawing of microwave anechoic chamber
(anechoic chamber + cabinet equipment)

3. The whole machine environment processing and matching circuit

3.1 environmental treatment of the whole machine

Environmental processing is not changed

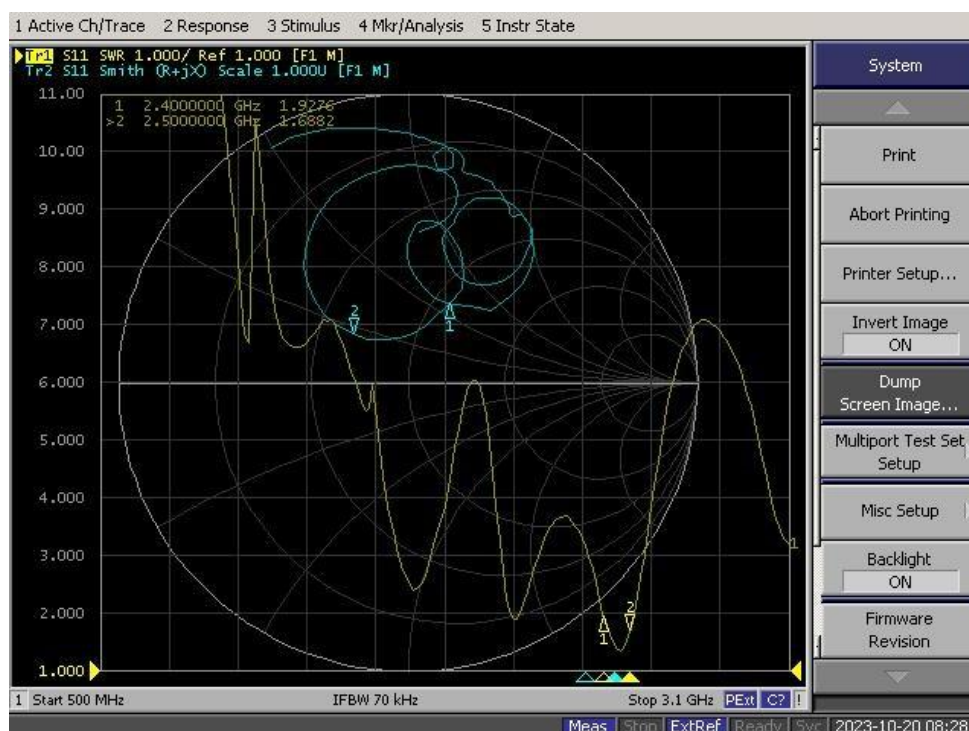
3.2 antenna matching circuit

Original match not modified

4. Test data

4.1 Passive Test

4.1.1 S11 (VSWR/RL/Simth Chart) test data



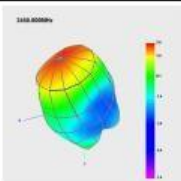
4.1.2S21(Effi./Gain)test data

Fre (MHz)	Gain (dbi)
2400	2.41
2410	2.34
2420	2.32
2430	2.21
2440	2.18
2450	2.4
2460	2.38
2470	2.36
2480	2.29
2490	2.28
2450	2.40

4.2Active test data (trp/tis)

BT	CH	TRP	TIS
	0	4.31	-90.1
	19	4.55	-90.25
	39	3.71	-89.98

Bluetooth is in an open area, and the handheld machine will pull a straight line distance of **25-30m** without dropping the line, and will occasionally drop the line and reconnect automatically at **30-50m**.

SPECIFICATION				
RADIATION PATTERNS 3D&2D (此处增加测试时的参考地面积)				
				
3D方向图		2D方向图		
Electrical Spec.				
No.	Item	Spec	Unit	Remark
1	Operating Frequency	2400-2500MHz	MHz	
2	Gain at Zenith	2.7	dB	
3	Polarization			
4	Axial Ratio	Polarization (极化) Linear, Vertical		
5	Impedance	50Ω	Ω	
6	Operation Temperature	-30-70	°C	

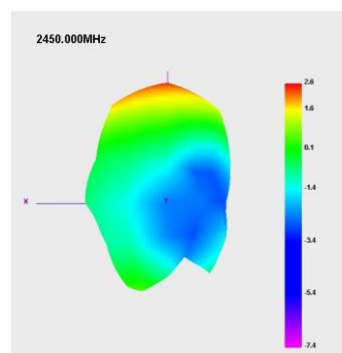
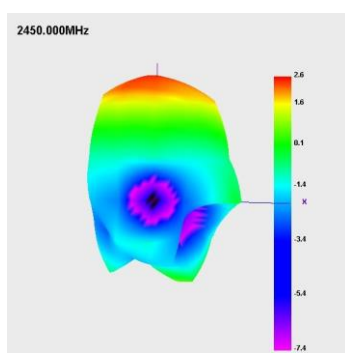
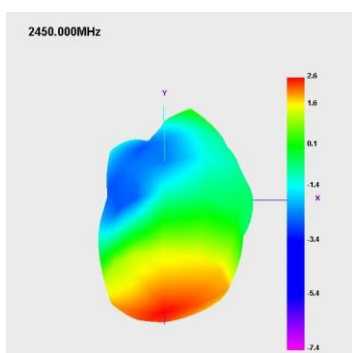
4.3 Test Conclusion

WIFI/BT Actual Test Performance OK Note: This antenna is only suitable for debugging prototypes. Any motherboard version change or radio frequency material change, and accessories (such as microphone, screen, horn, motor, etc.) change must be tested and verified by our company before use.

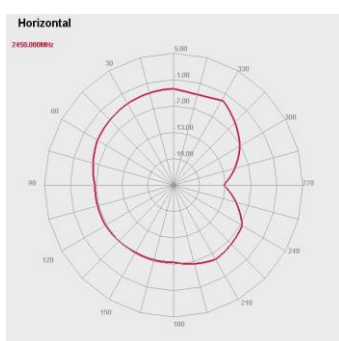
4.4 3D /2D Pattern

BT

H plane E1 plane E2 plane

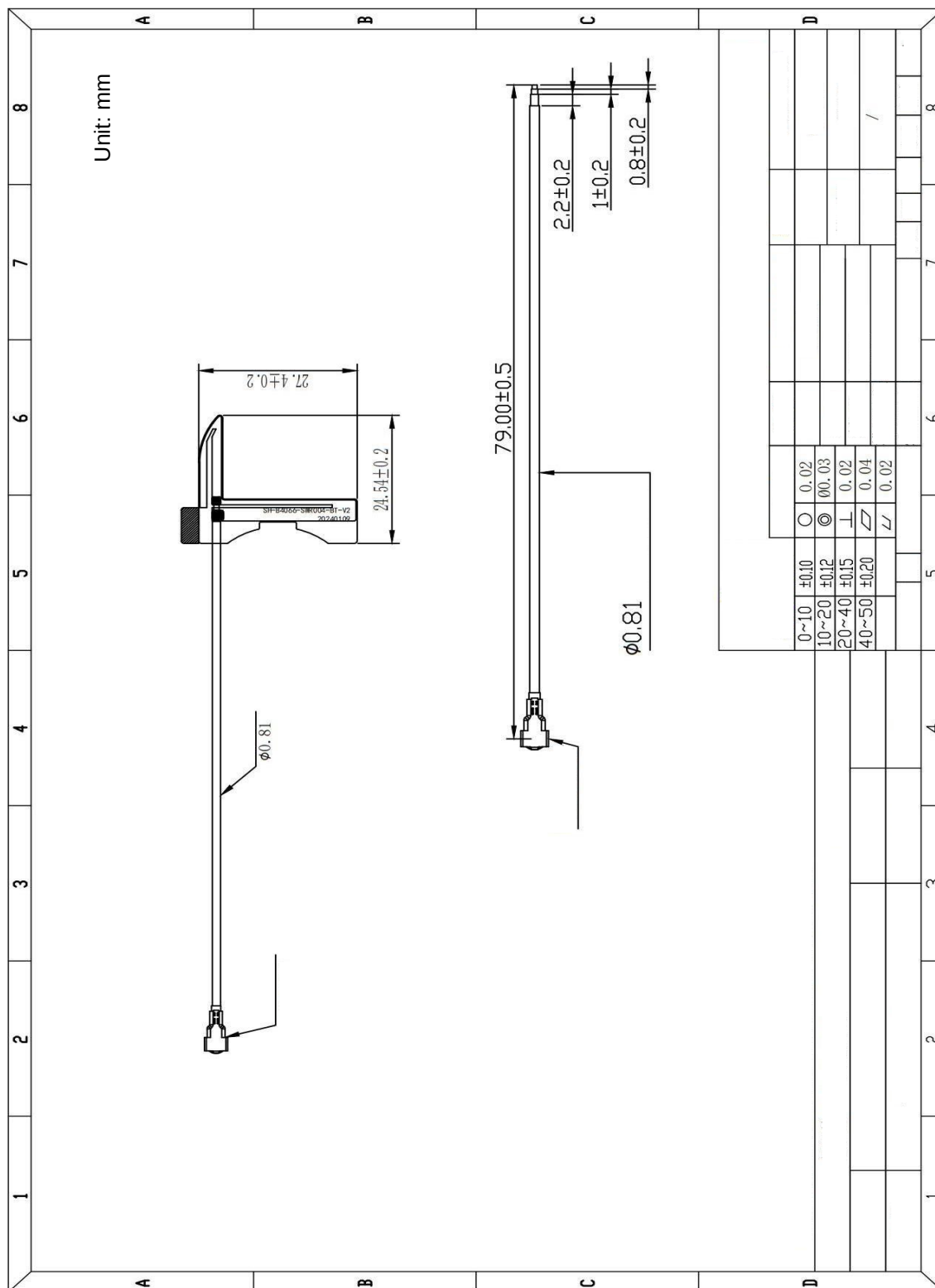


H plane E1 plane E2 plane



5. Drawings of Engineering

5.1 Bluetooth antenna





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