

深圳市云希科技有限公司

ShenZhen Yunxi Technology Co.,Ltd.

Antenna test Report

Customer: 同集

Project Name: 魔方

RF Engineer: 向工

Testing Date: 2025-06-23

Operating band: WIFI

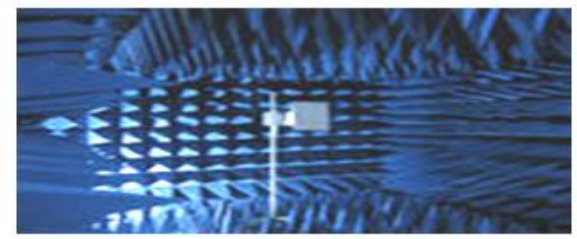
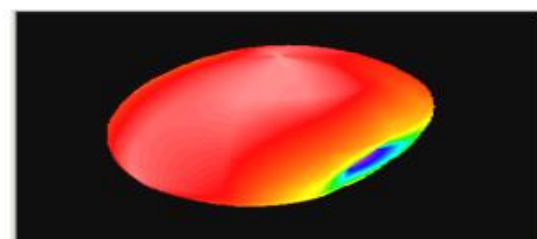
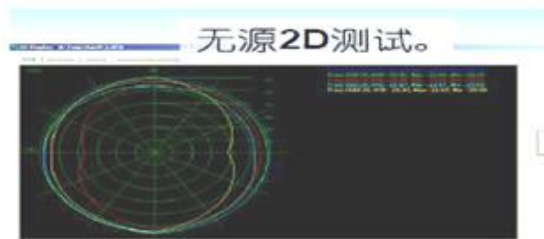


Project brief

NO.	ITEMS	DETAILS
1	工作频段 Operating band	WIFI
2	频率范围 Frequency range	2400~2500MHz
3	天线类型 Antenna Type	内置
4	天线材质及实现形式	贴片天线
5	天线料号 Antenna part number	F245M01ZYL-3216-1.2
	天线料号 Antenna part number	
6	输入阻抗 Input Impedance	50（Ω）
7	增益 Gain	
	RF	向工
	ME	张工

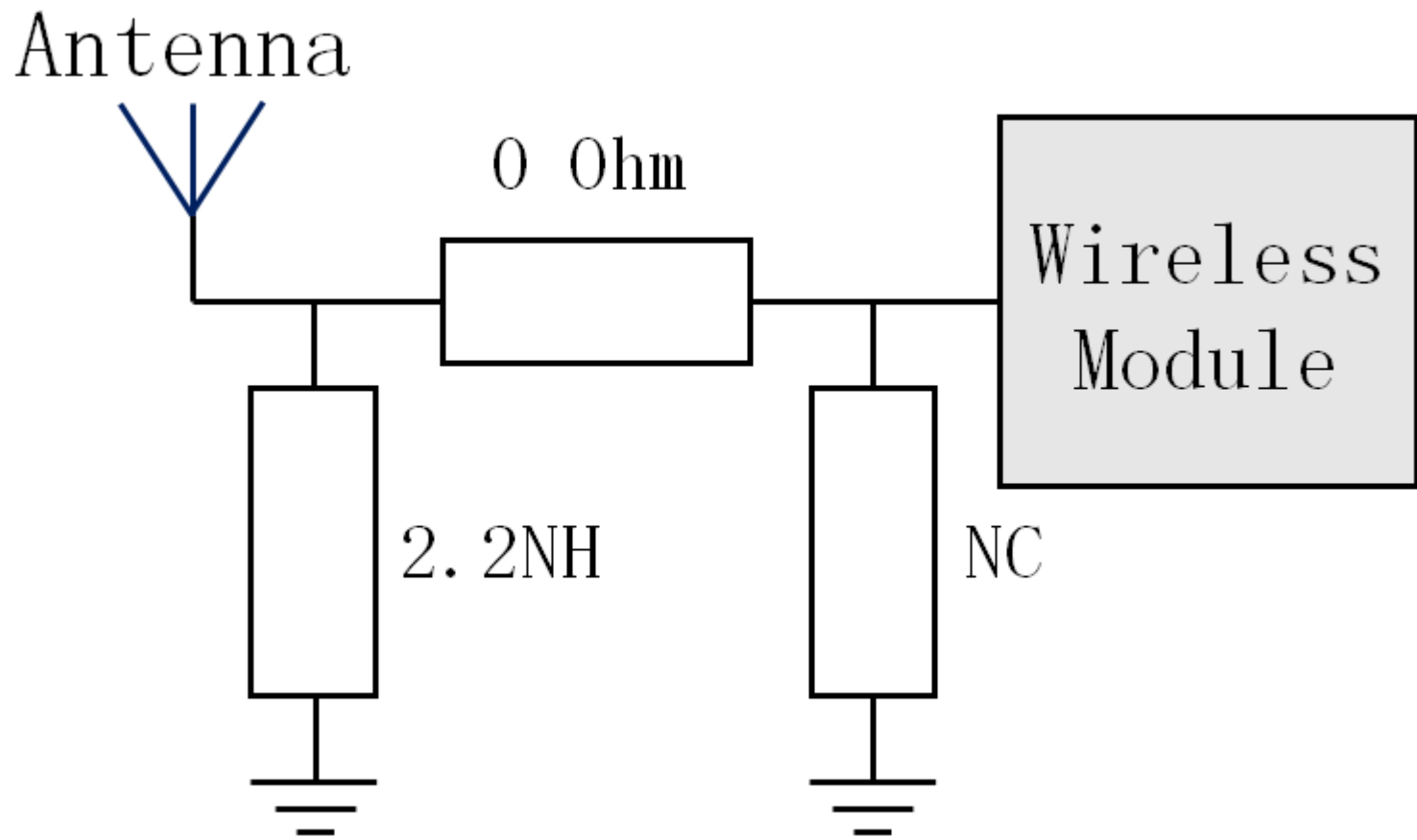
Test system and equipment

	测试项目	设备
1. S参数	1. 回波损耗 2. 驻波比	网络分析仪: HP E5071C/Agilent8753D
2. 耦合功率测试	1. 发射功率 2. 接收灵敏度	GSM 测试仪: Agilent 8960 LTE 测试仪: CMW500
3. 辐射模式与增益	1. 辐射模式 2. 天线增益	1. 暗室: 7x4x3 m (ETS-3D) 2. 网络分析仪: HP Agilent8753ES



Matching Circuits

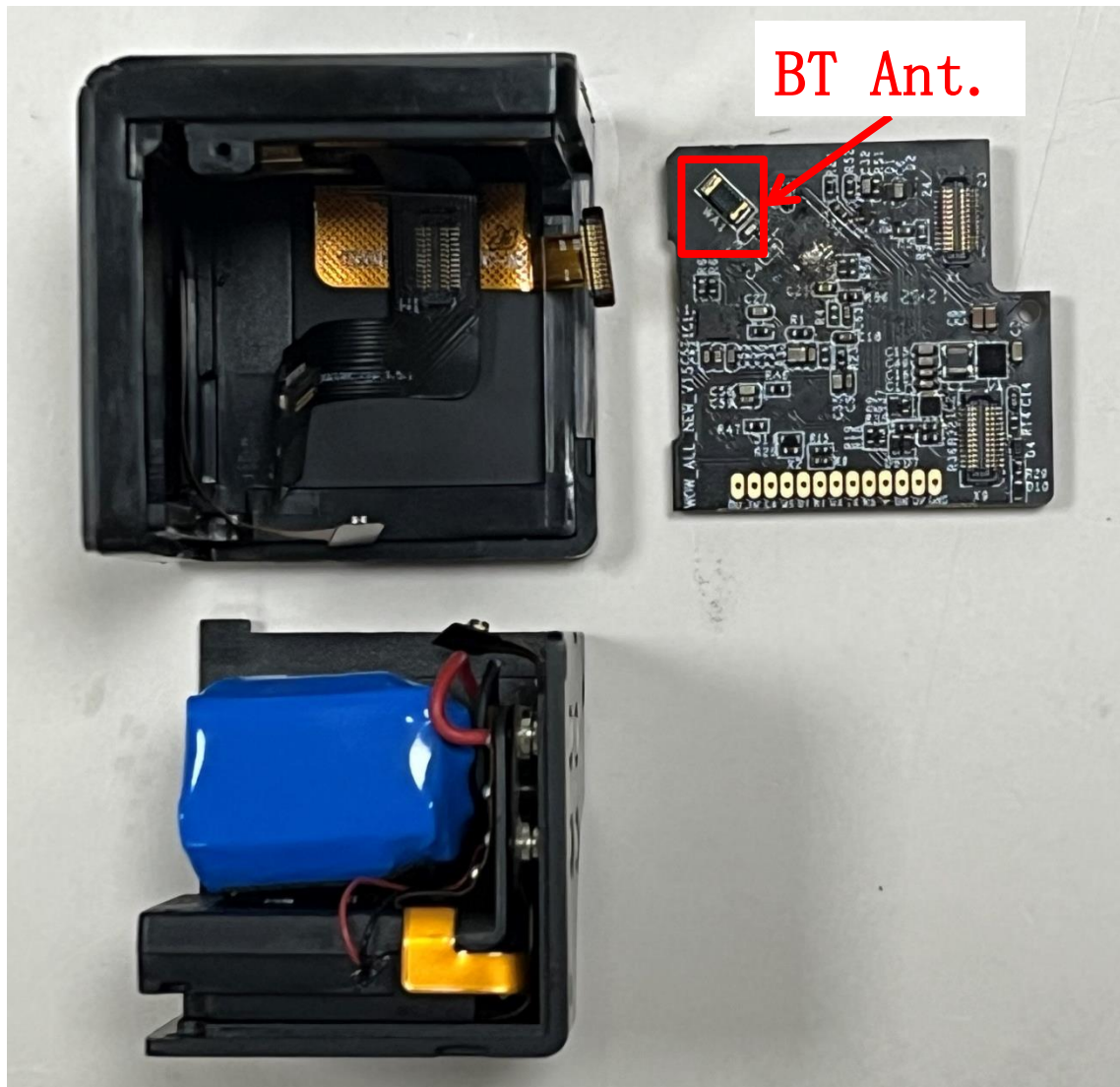
天线匹配



Antenna assembly environment processing diagram

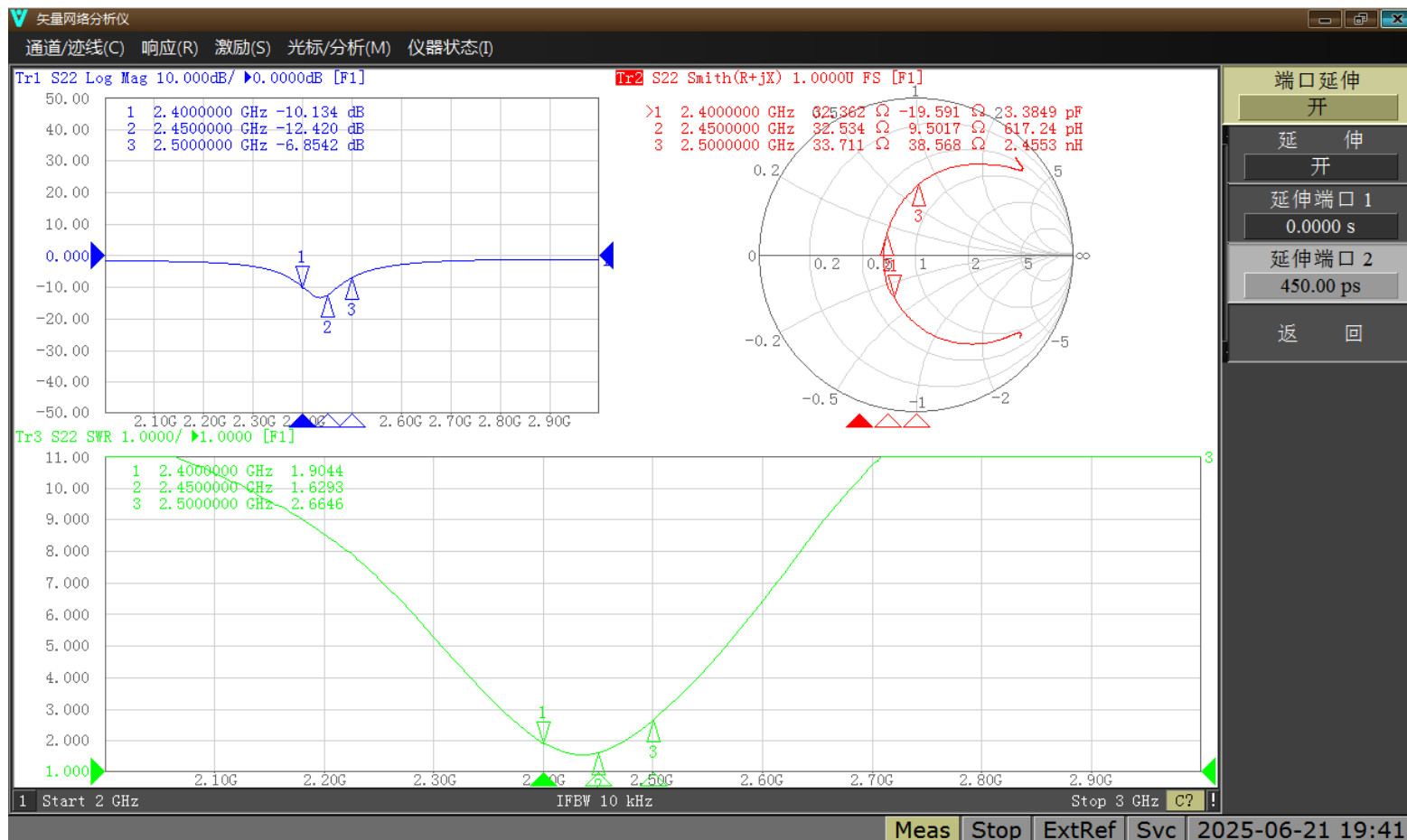
Size Code

1.6x0.8mm(± 0.1 mm)



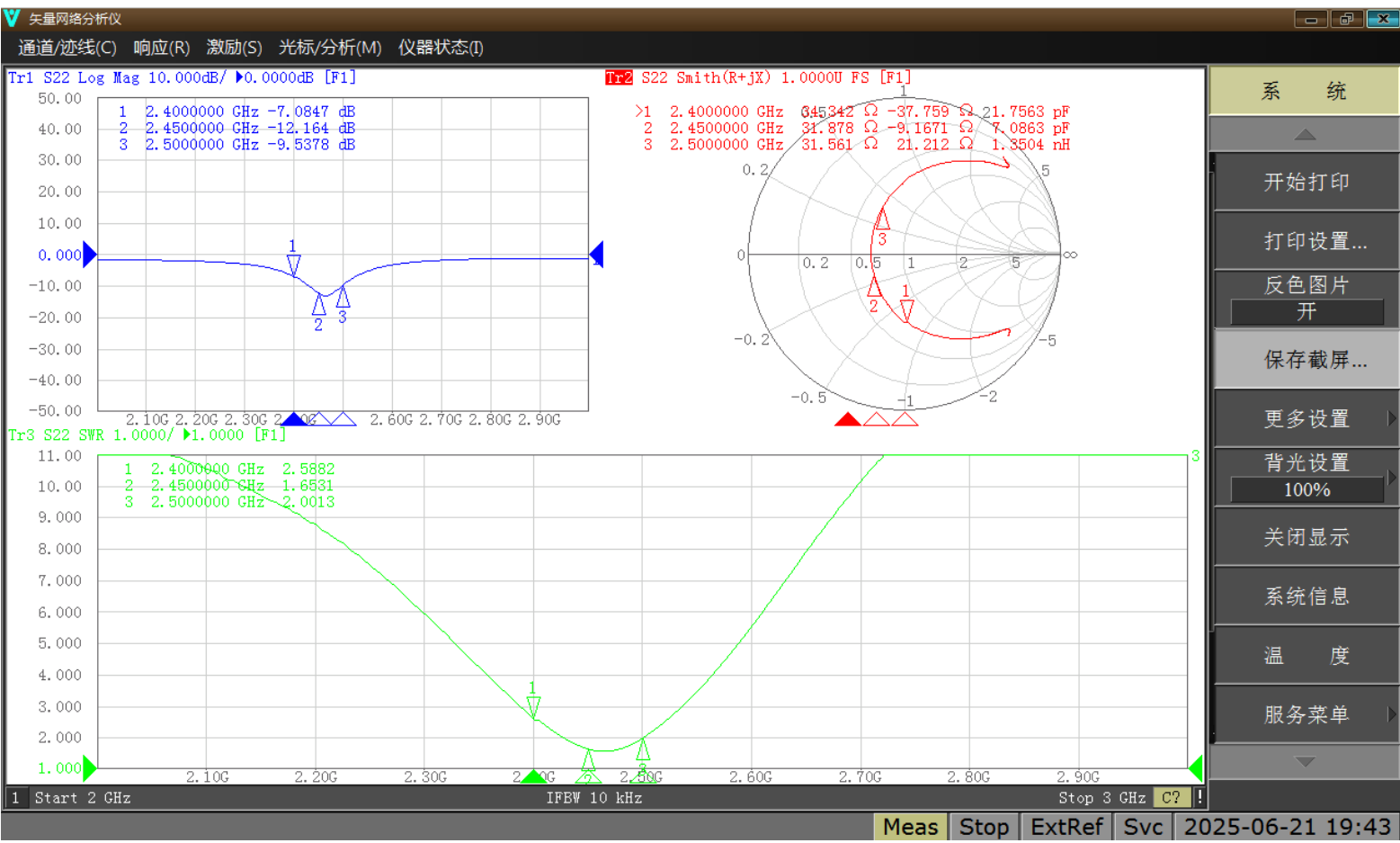
Antenna Performance Test

整机



Antenna Performance Test

裸板



Antenna Passive Test

Passive Test For BT(整机)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	8.7	-10.6	-11.4
2410	8.5	-10.7	-11.5
2420	8.4	-10.7	-11.5
2430	8.5	-10.7	-11.4
2440	8.4	-10.7	-11.4
2450	8.7	-10.6	-11.2
2460	8.7	-10.6	-11.1
2470	8.7	-10.6	-11.1
2480	8.3	-10.8	-11.6
2490	8.2	-10.9	-11.7
2500	8.4	-10.7	-11.3

Antenna Passive Test

Passive Test For BT(裸板)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	22.0	-6.6	-4.9
2410	22.7	-6.4	-4.3
2420	24.0	-6.2	-3.5
2430	25.3	-6.0	-3.4
2440	26.2	-5.8	-3.4
2450	26.3	-5.8	-3.6
2460	26.7	-5.7	-3.6
2470	26.3	-5.8	-3.7
2480	28.4	-5.5	-3.5
2490	26.8	-5.7	-2.9
2500	25.4	-5.9	-2.8