



深圳市美禾嘉科技有限公司

Shenzhen Meihejia Technology Co., Ltd.

天线测试报告
Antenna Test Report



客户名称 Customer	英卡	项目名称 Project	LAT-019-A
调试频段 Frequency	WIFI/GPS/BT	结构方式 Structure	FPC
射频工程师 RF enginner	韦工	结构工程师	梁工
天线类型 Antenna type	同轴线+FPC	Date	2025-05-30

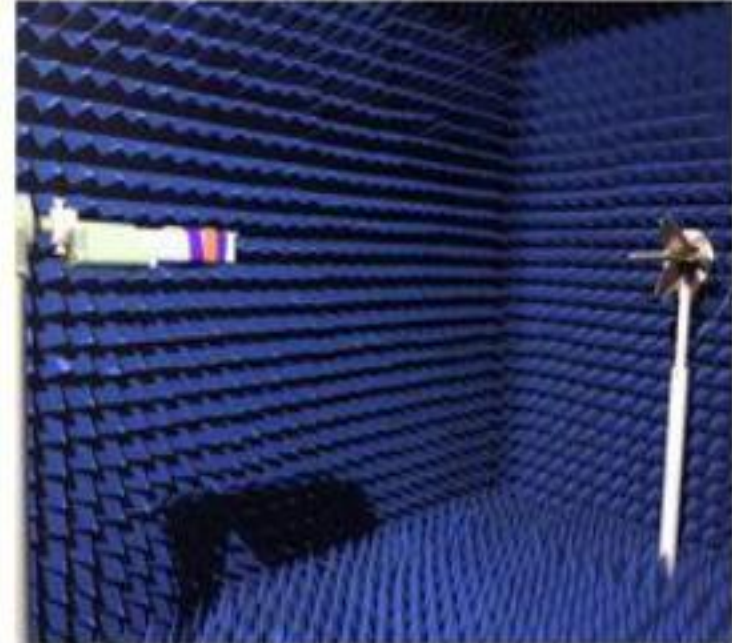
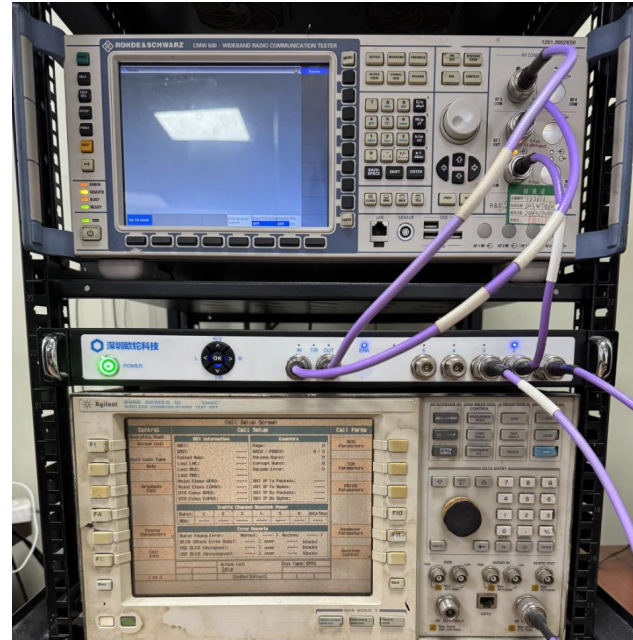
Manufacturer: Shenzhen Yingka Technology Co., Ltd.

Address: Building 8, 18th Floor, Zhongxi Xiangbin Mountain Garden, Fenghuanggang Community, Xixiang Street, Bao'an District, Shenzhen

测试环境
Test environment

	测试项目 Test item	设备 Device
1. S参数 (S-parameter)	1. 回波损耗 (Return Loss) 2. 电压驻波比 (VSWR)	网络分析仪: Agilent E5071B HP 8753D
2. 有源测试 (Active)	1. 发射功率 (TRP) 2. 接收灵敏度 (TIS)	1. 暗室: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2.综合测试仪: Agilent 8960 E5515B × 2 StarPoint SP6011
3.无源测试 (Passive)	1.天线增益 (Gain) 2.天线效率 (Efficiency)	1. 暗室: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 网络分析仪: Agilent E5071B HP 8753D

测试设备 Test Equipment



天线位置 Antenna position

W/G/B天线

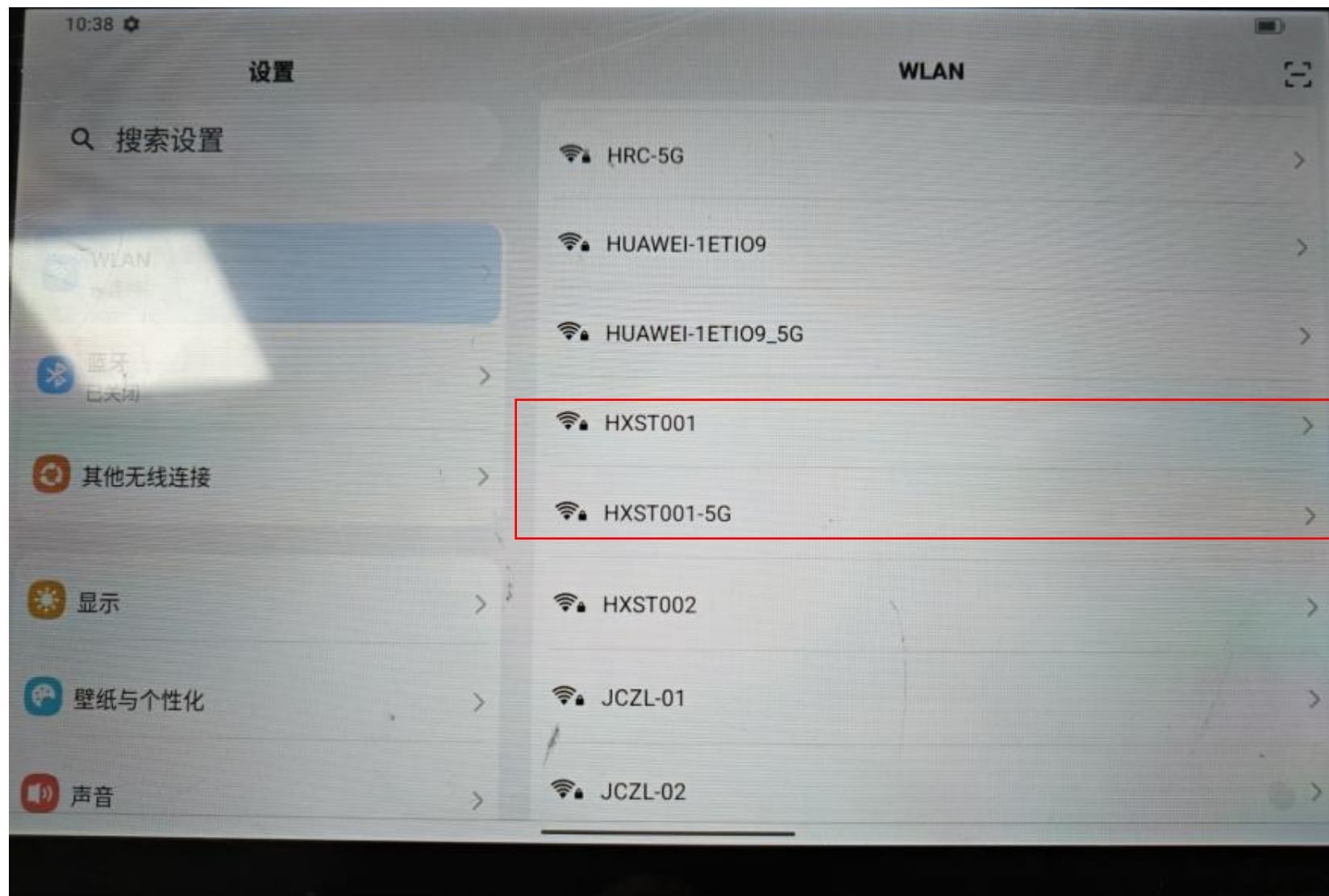


Wifi天线实测

Wifi Antenna test

测试环境：
办公室内
距离路由器距离：
约15米

Test environment:
Office interior
Distance from the
router:
Approximately 15
meters





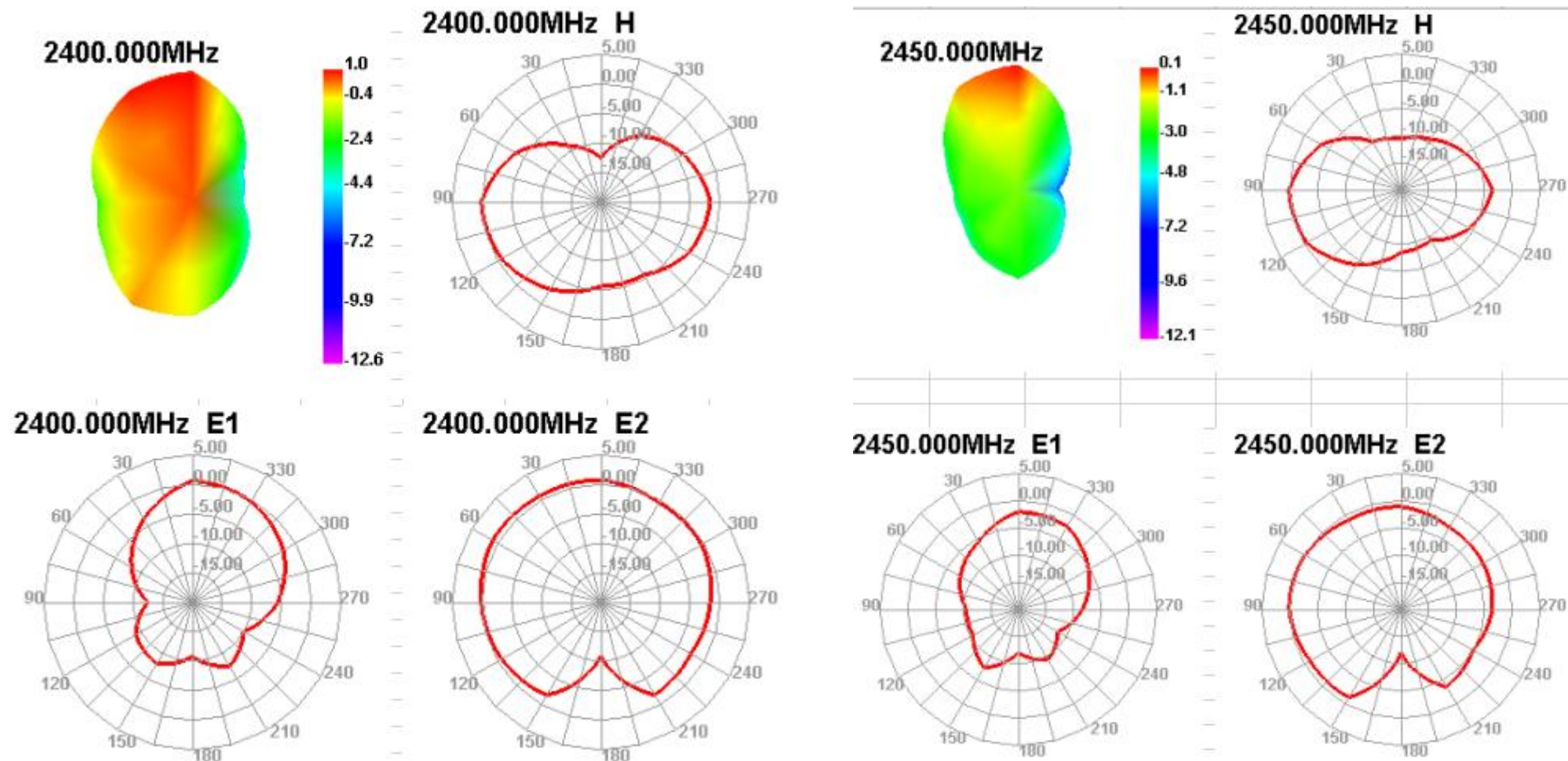
效率与增益 Efficiency and Gain

2.4G WIFI

Passive Test For WIFI2.4										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	52.06	-2.83	1	-1.15	32.642	19.423	1	-12.61	52.03	53.99
2410	46.26	-3.35	0.57	-1.58	28.572	17.685	0.57	-12.06	51.99	53.84
2420	41.43	-3.83	0.33	-1.82	25.274	16.152	0.33	-13.22	52.04	53.98
2430	40.23	-3.95	0.09	-2.06	24.535	15.697	0.09	-12.41	52.23	54.02
2440	39.28	-4.06	0.42	-1.73	23.407	15.875	0.42	-12.49	52.54	54.25
2450	36.8	-4.34	0.08	-2.07	21.593	15.211	0.08	-12.07	52.64	54.11
2460	34.69	-4.6	-0.06	-2.21	19.793	14.9	-0.06	-12.92	52.59	54.02
2470	35.1	-4.55	-0.74	-2.89	20.229	14.87	-0.74	-15.77	52.66	54.04
2480	41.17	-3.85	-0.09	-2.24	23.828	17.337	-0.09	-17.93	53.06	54.43
2490	50.31	-2.98	0.62	-1.53	29.718	20.592	0.62	-18.62	53.33	54.57
2500	47.38	-3.24	0.88	-1.27	28.67	18.709	0.88	-21.26	53.11	54.29

效率与增益 Efficiency and Gain

2.4G WIFI





有源数据
Active data

Application Information					
04Version	5. 218. 327				
TotalTime	9m 18s 425ms				
AdditionalInfor	802.11b : 11Mbps				
Test	Wifi 2G TRP			Test	Wifi 2G TIS
Result	1	6	11	Result	11
Txp Ave (dBm)	13. 8	12. 9	13. 1	Sens Ave (dBm)	-79. 1

环境处理 Environmental treatment



1: 主板背面贴导电绒与屏接地
The back of the motherboard is covered with conductive fibers and is grounded to the screen.



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