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PASSIVE SYSTEM ALLIANCE

INPAQ TECHNOLOGY CO., LTD.

银星智能 RPS11-扫地机器人
Antenna test report

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INPAQ Technology Co., Ltd.

Last updated in Apr.07th, 2025

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Revision History

Released Date	Version	Record
Apr.07th,2025	V0.1	天线测试报告

Requirements of Antenna Design and Measurement

Requirements of Antenna Design

RF Function	Frequency Band	Remark
WIFI	2400-2500MHz	

Requirements of Measurement

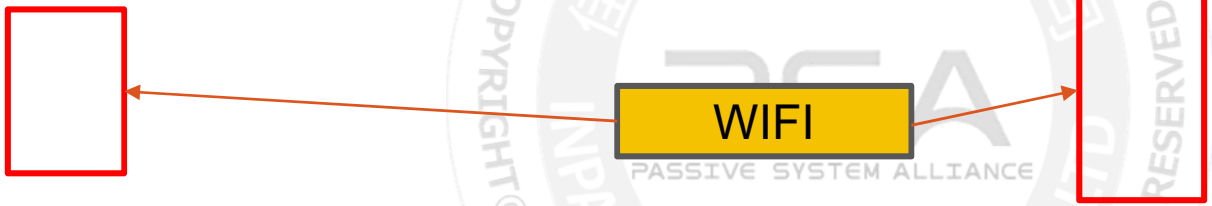
Test Item	Specification	Remark
VSWR	N/A	
Efficiency(%)	N/A	
Peak gain	N/A	

Antenna Placement & Solution

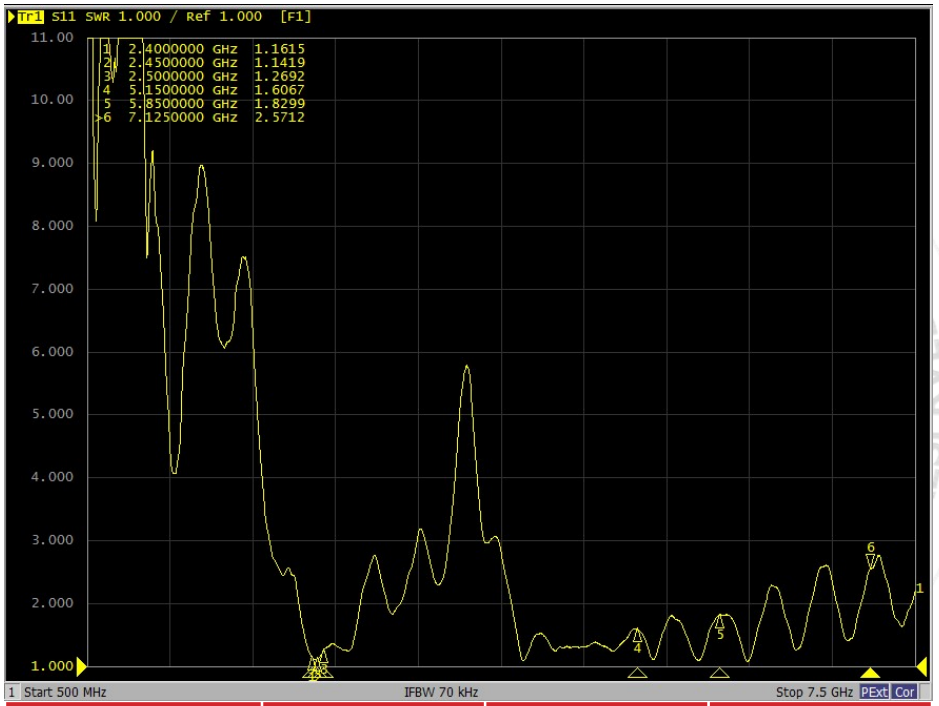
external

Internal

Antenna Placement & Solution



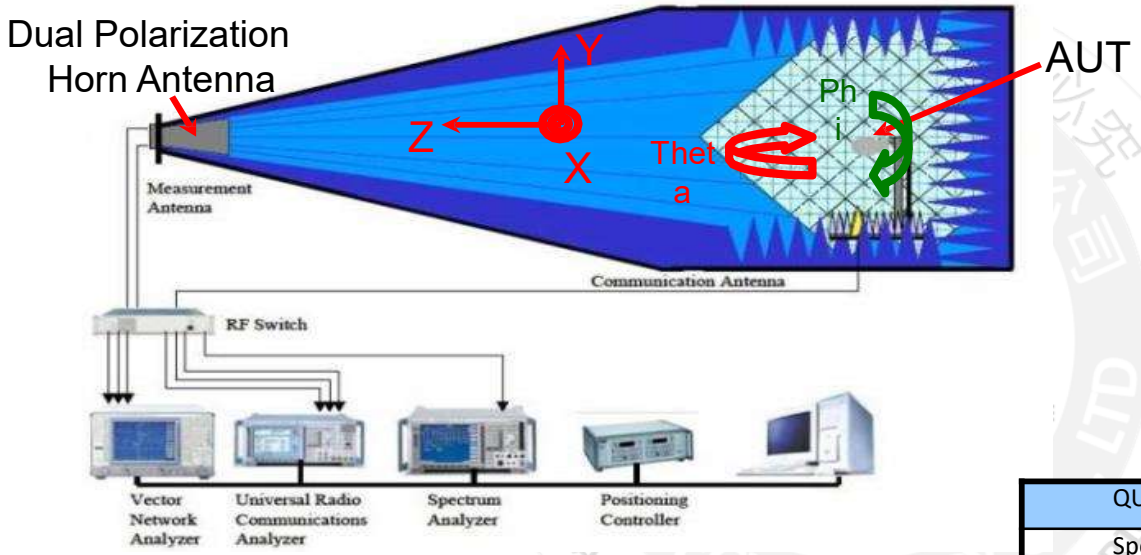
VSWR Results WIFI



Frequency (MHz)	2400	2450	2500
VSWR	1.16	1.14	1.26

Test Setup for Radiation Pattern Measurement

ETS Ams-8600 12.91x3.05x3.05 m3 Tapered Chamber



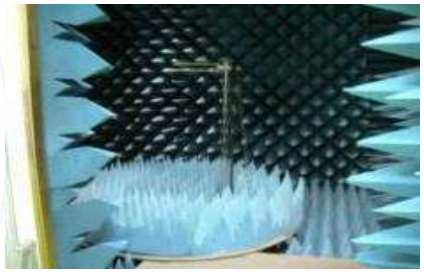
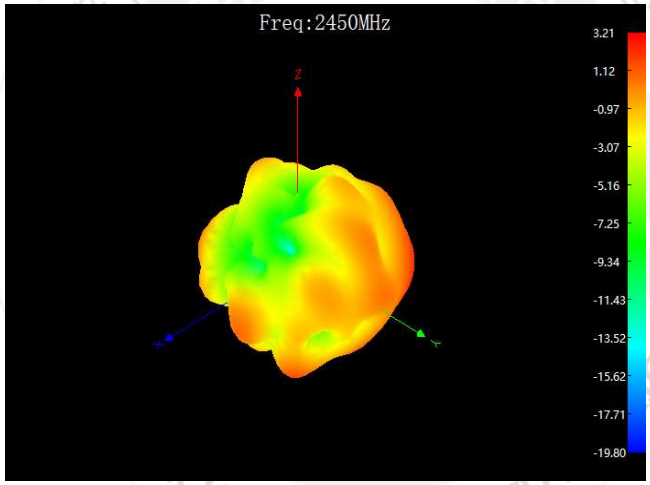


Figure 1: System diagram for test system including compact-size tapered anechoic chamber and optional test instrumentation

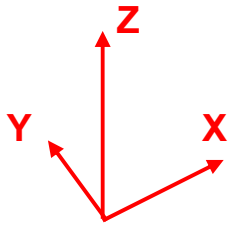
QUIPMENT	BRAND	MODULE TYPE
Spectrum	Agilent	E4402B
Signal Generator	Agilent	8960
Switch	Agilent	3499A
Switch	ETS	2090
Network Analyzer	Agilent	N5230A

3D Radiation Pattern Results

2450MHz

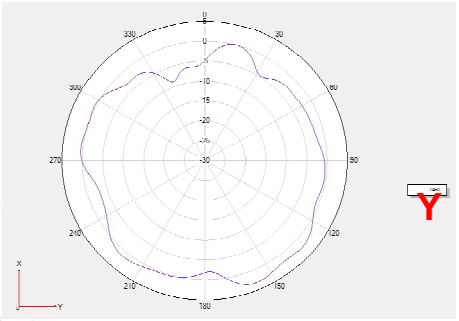


2D Radiation Pattern Results

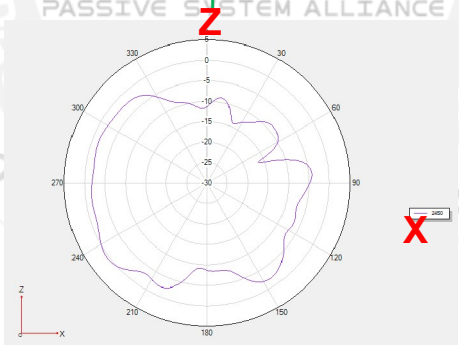


2450MHz

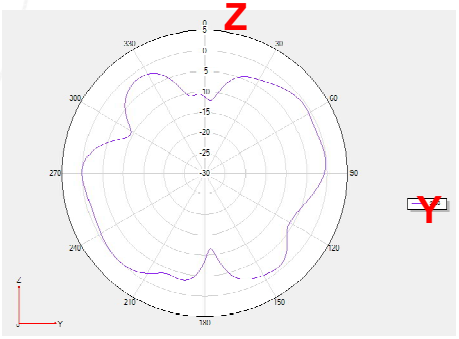
XY-H-plane



XZ-E1-plane



YZ-E2-plane



Results Summary-Peak Gain & Efficiency

Frequency (MHz)	Efficiency (dB)	Efficiency (%)	Peak Gain (dBi)
2400	-2.28	59.16	2.67
2410	-2.35	58.21	2.39
2420	-2.25	59.57	2.79
2430	-2.22	59.98	2.63
2440	-2.28	59.16	2.82
2450	-2.19	60.39	3.21
2460	-2.32	58.61	3.31
2470	-2.18	60.53	3.34
2480	-2.34	58.34	3.15
2490	-2.2	60.26	3.18
2500	-2.33	58.48	3.39

OTA

Band	Channel	Frequency	TRP	TIS
WIFI_B (11M/11M)	1	2412	17.28	
	6	2437	15.48	
	11	2462	16.26	-73.95
WIFI_G (6M/54M)	1	2412	13.6	
	6	2437	12.97	
	11	2462	12.51	-67.72
WIFI_N_ISM (6.5M/65M)	1	2412	15.81	
	6	2437	14.16	
	11	2462	13.75	-65.81

Conclusion

1.以上数据为整机环境下的测试数据；

2.从以上测试数据看，天线性能可以满足需求。

以上请知悉，感谢！

Thank you