

Report No: SZ240701YF02

Testing Report

Sample name: WIFI antenna

Model: 2.4/5.8GHZ-SMA straight head 3m medium suction cup antenna

Standard Test : GB/T 9410-2008

Release date: July 1, 2024

Version: A0

编写 Prepared By	审核 Reviewed By	批准 Approved By
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变更记录		
Version	date	Reason for change
A0	2024/07/01	

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1. 测试目的Testing purposes:

根据客户项目需求，对WIFI天线的电性能技术要求及试验标准，提供符合客户要求的试验报告。

According to customer project requirements, we provide test reports that meet customer requirements for the electrical performance technical requirements and test standards of WIFI antennas.

2. 样品信息Sample Information:

Product name: built-in antenna

Product model: 2.4/5.8GHZ-SMA straight head 3m medium suction cup antenna

Material code: 55027-51A1X4099

3. 参考文献References

Main reference documents for testing:

Serial number	Document Name	Document Title
1	GB/T 9410-2008	General technical specifications for mobile communication antennas

4. 测试WIFI天线的OTA无源参数 Test the OTA passive parameters of the WIFI antenna:

4.1 Test system connection

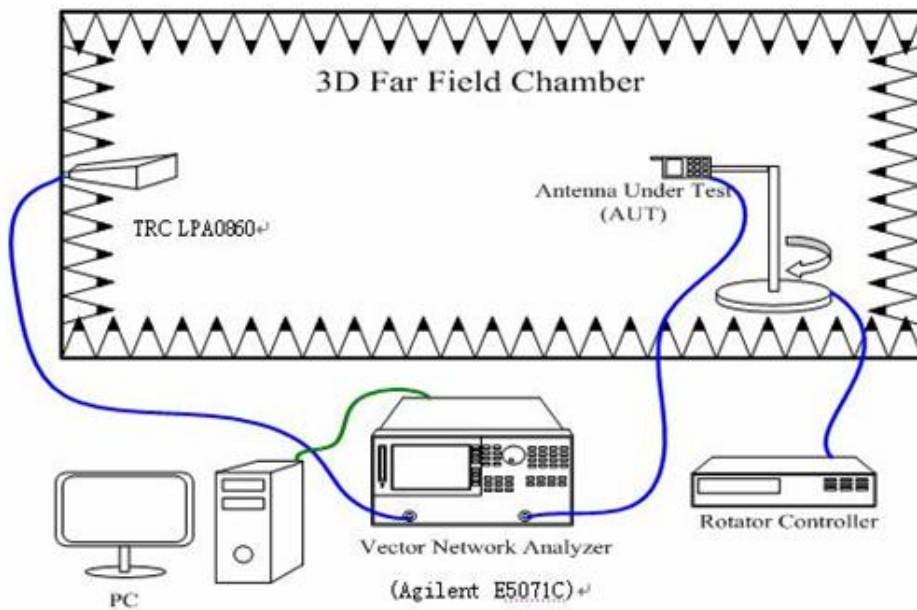


图. 1. 微波暗室内部仪器设置 r.

4.2 Test equipment

Network analyzer E5071C

WIFI antenna

Computer

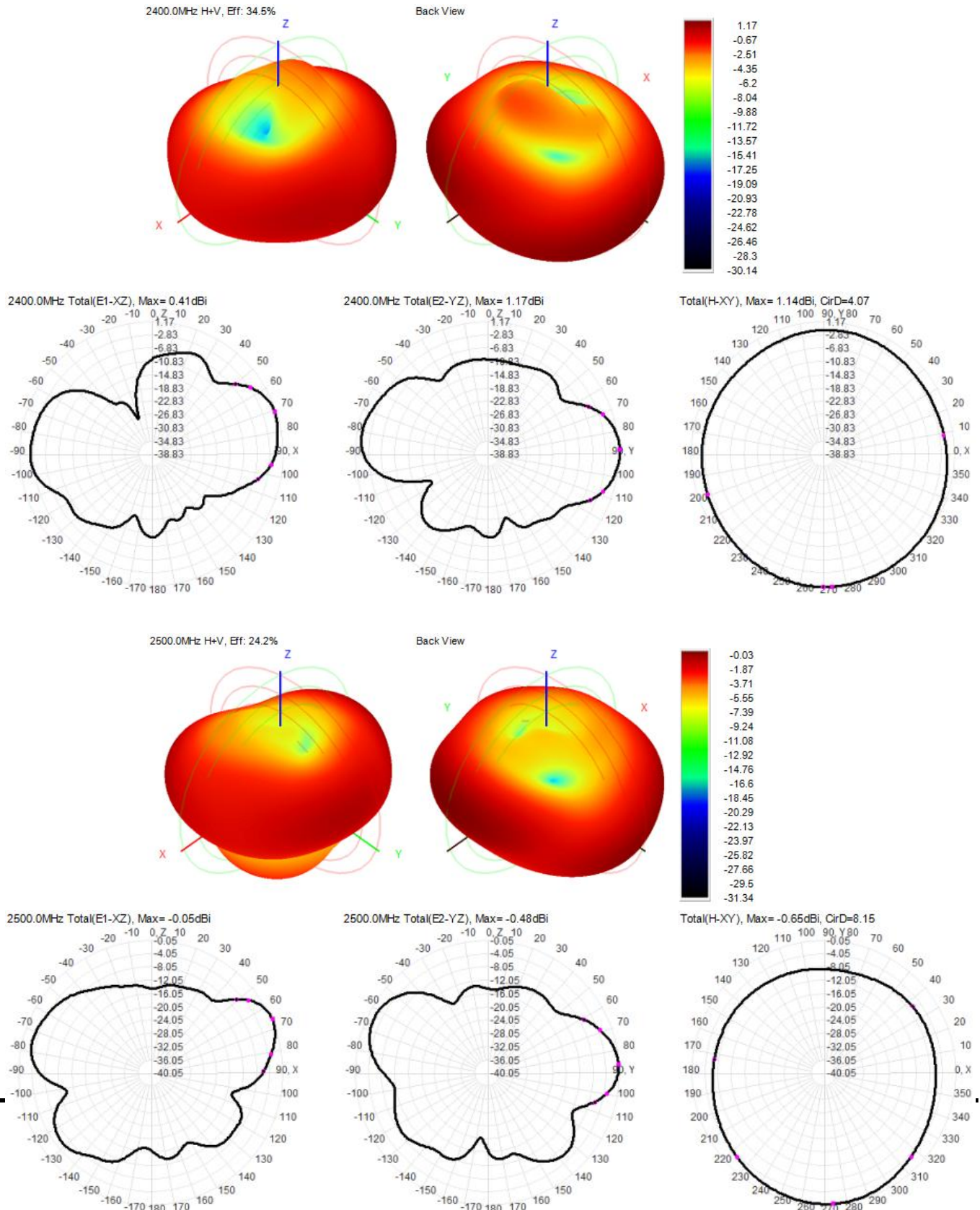
Microwave darkroom



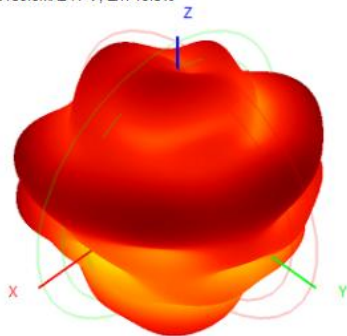
4.3 OTA Passive test data:

Frequency (MHz)	Gain (dBi)	Efficiency(%)	Frequency (MHz)	Gain (dBi)	Efficiency(%)
2400.0	1.17	34.51	5150.0	-1.81	19.32
2410.0	1.40	35.02	5200.0	-1.43	19.17
2420.0	1.82	36.78	5250.0	-1.40	16.76
2430.0	1.42	32.85	5300.0	-1.57	12.61
2440.0	1.40	33.59	5350.0	-0.70	14.99
2450.0	1.17	32.38	5400.0	-1.36	13.83
2460.0	0.91	30.48	5450.0	-1.19	15.72
2470.0	0.63	28.96	5500.0	-0.82	18.35
2480.0	0.73	29.80	5550.0	-1.25	15.75
2490.0	0.83	30.06	5600.0	-2.18	13.58
2500.0	-0.03	24.19	5650.0	-2.12	14.00
			5700.0	-3.42	10.58
			5750.0	-2.97	13.17
			5800.0	-2.73	14.56
			5850.0	-3.20	12.30

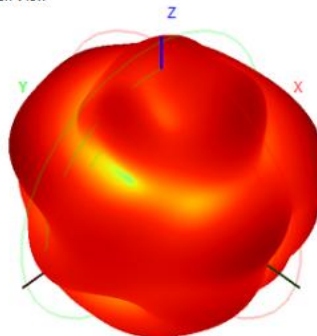
4.4 OTA Direction diagram



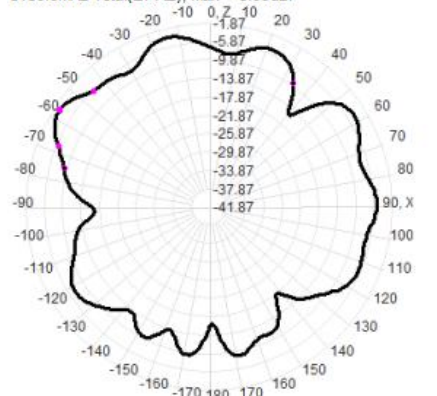
5150.0MHz H+V, Eff: 19.3%



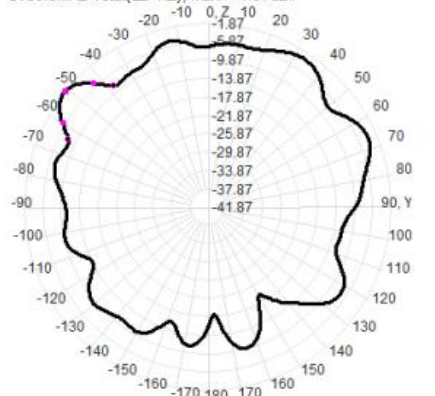
Back View



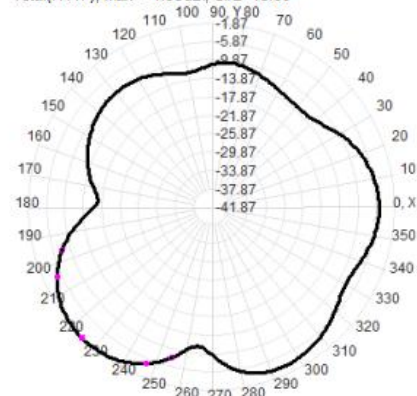
5150.0MHz Total(E1-XZ), Max=-3.00dBi



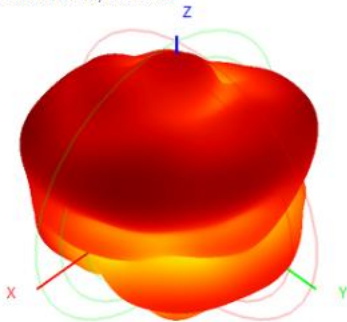
5150.0MHz Total(E2-YZ), Max=-1.87dBi



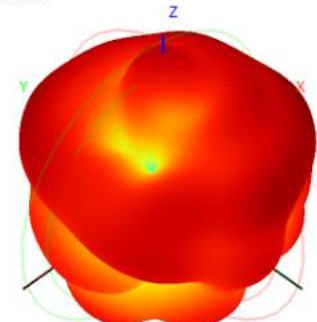
Total(H-XY), Max=-1.95dBi, CirD=15.08



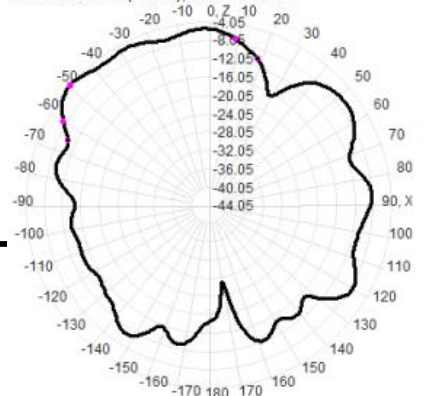
5850.0MHz H+V, Eff: 12.3%



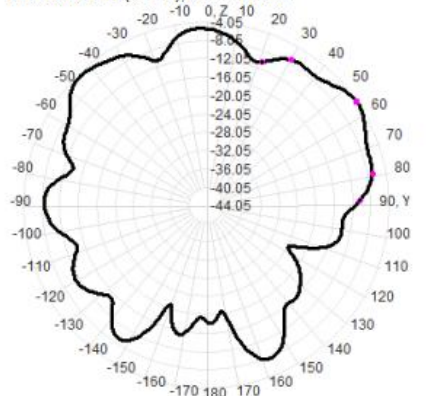
Back View



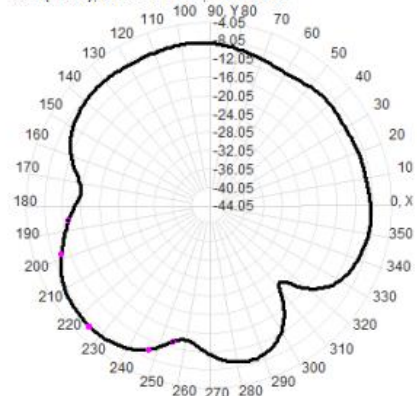
5850.0MHz Total(E1-XZ), Max=-4.05dBi



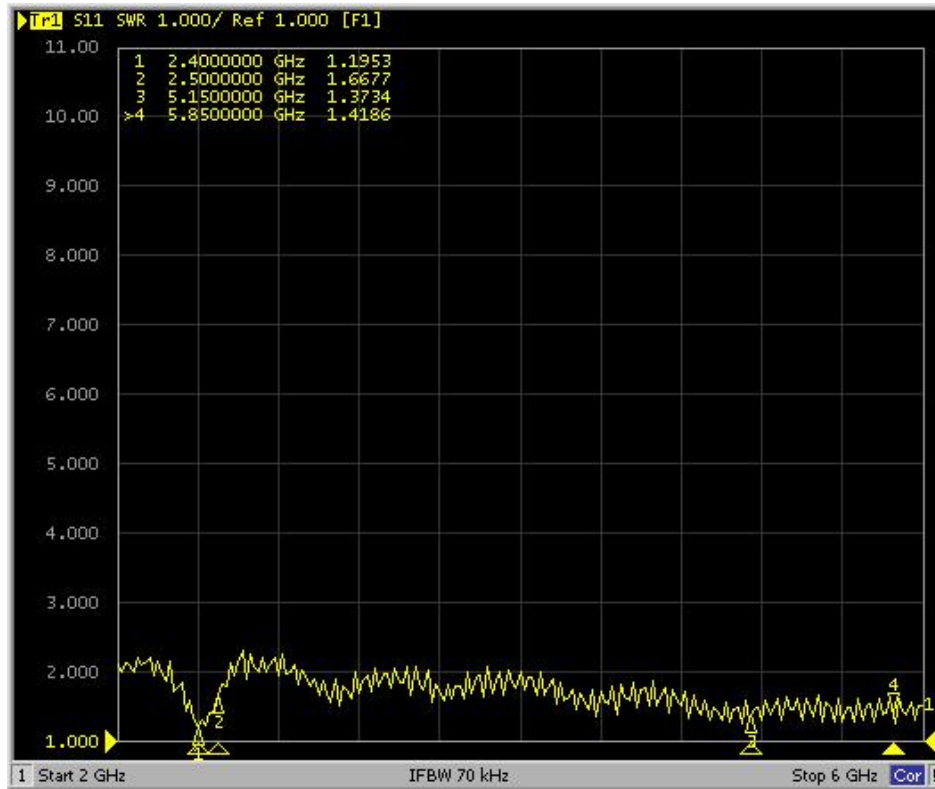
5850.0MHz Total(E2-YZ), Max=-4.28dBi



Total(H-XY), Max=-7.10dBi, CirD=14.32



4.5 VSWR test chart



Frequency (MHz)	VSWR
2400	1.19
2500	1.66
5150	1.37
5850	1.41