



深圳市星通无线技术有限公司

Shenzhen Xingtong Wireless Technology Co., Ltd

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Product specification

Project name: S8

Product name: S8- dual frequency WiFi antenna

Product Part number:

制作	审 核	日 期
黄加俊 	吴延龙	2025-1-8

客户确认

客户名称:	鸿顶
批准:	
时间:	
注释:	

请贵司承应签字盖章后返回一份给我司存档, 多谢合作!



深圳市星通无线技术有限公司

Shenzhen Xingtong Wieress Technology Co., Ltd

日期

2025-1-8

版本

A0

文件编号

XT-YF-004

产品名称

S8-WIFI

版本编号

XT-APP-RA

1.产品结构 (Product Constrution)

1. Antenna material: FPC
 2. Adhesive type: 3M9471
 3. Antenna size: 43*6.5 (tolerance $\pm 0.5\text{mm}$)
 4. Product description: FPC- dual frequency wifi antenna, coaxial line specification
1. 13- total length 70MM.

3.基本信息 (parameters)

Scope of use: customer machine

Antenna frequency: 2402-2484Mhz 5150-5850Mhz

Antenna voltage standing wave ratio: $2.4\text{G} < 1.69$

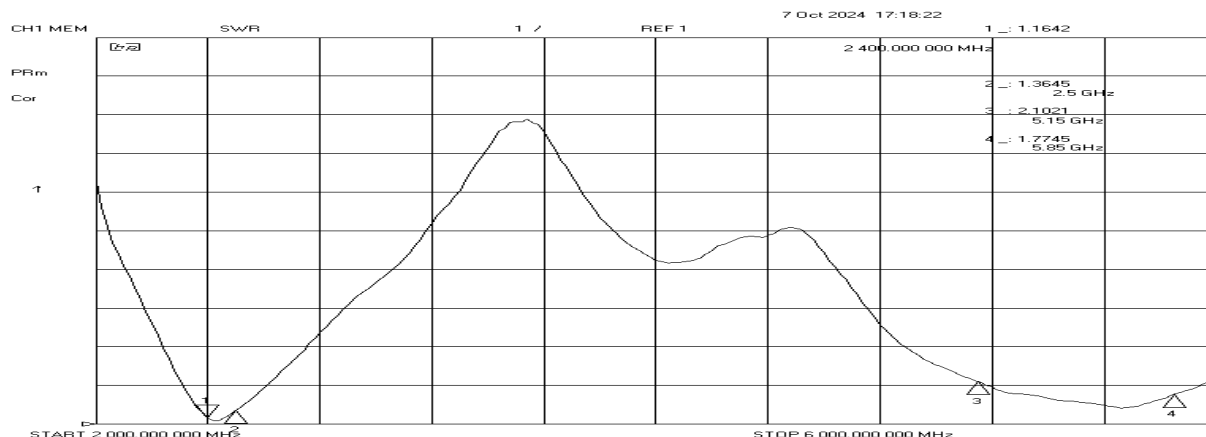
· Antenna free space maximum gain: $2.4\text{G} \geq 2.35\text{dbi}$

· Antenna impedance: 50Ω

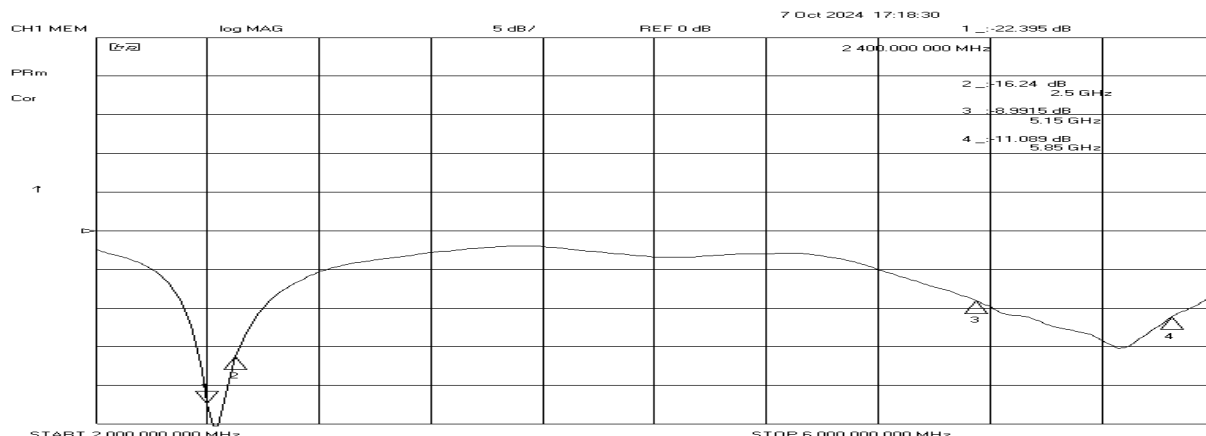
Polarization mode: horizontal/vertical

3.天线 S11 值 (S11)

3.1: 天线驻波比

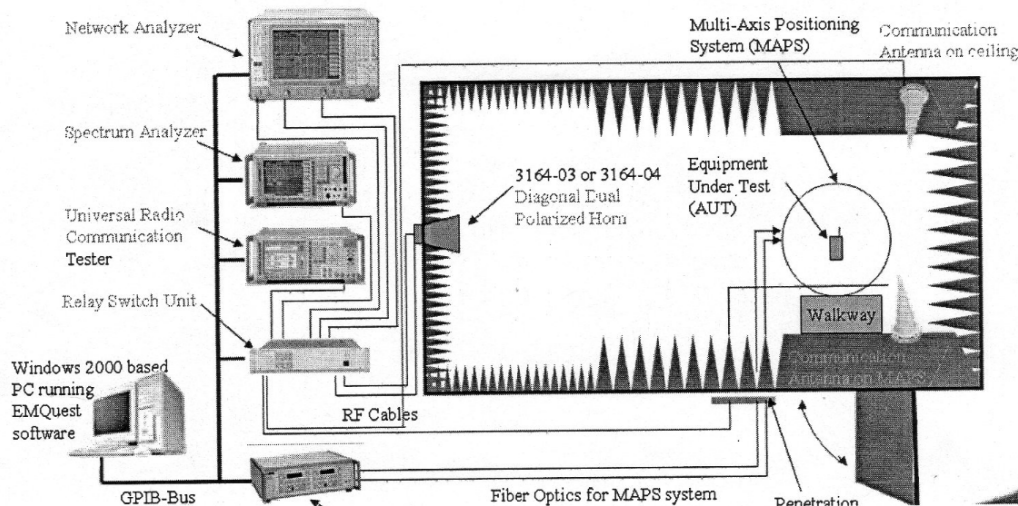


3.2: 天线回损值



4.天线(OTA)测试环境

- 4.1: 测试环境及仪器: 3D微波暗室, 网络分析仪、PC测试软件、工程样品、10db衰减器等



- 4.2: 天线效率/增益

- 4.2.1 2.4G-OTA

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-3.81	-3.66	-3.69	-3.42	-3.51	-3.65	-3.73	-3.67	-3.86	-3.92	-3.96
Gain (dBi)	1.54	2.35	2.29	1.43	1.34	2.18	0.97	2.20	2.01	1.50	1.68
Efficiency (%)	41.58	43.02	42.79	45.49	44.63	43.12	42.37	42.94	41.13	40.53	40.14
Directivity (dB)	6.02	6.01	5.98	5.93	5.94	5.84	5.87	5.87	5.87	5.87	5.98
Peak Gain Position (Theta)	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00
Peak Gain Position (Phi)	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	180.00	165.00
Efficiency ThetaPol (%)	22.41	26.90	26.93	22.36	21.80	26.81	20.06	26.84	25.60	22.67	22.95
Efficiency PhiPol (%)	13.17	16.13	15.86	13.13	12.83	16.31	12.31	16.11	15.52	13.86	14.16
Upper Hem. Efficiency (%)	13.25	16.12	16.04	13.34	13.11	16.52	12.60	16.91	16.33	14.55	14.77
Lower Hem. Efficiency (%)	22.33	26.90	26.75	22.15	21.52	26.60	19.77	26.03	24.79	21.99	22.34

- 4.2.2 5G-OTA

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	5150.0	5220.0	5290.0	5360.0	5430.0	5500.0	5570.0	5640.0	5710.0	5780.0	5850.0
Efficiency (dBi)	-4.34	-4.02	-4.11	-4.22	-4.00	-3.99	-4.15	-4.26	-4.37	-3.55	-4.06
Gain (dBi)	0.29	1.23	1.21	1.04	1.01	1.24	0.75	1.61	0.53	1.96	1.27
Efficiency (%)	36.77	39.65	38.82	37.87	39.86	39.88	38.47	37.52	36.56	44.13	39.30
Directivity (dB)	4.63	5.25	5.32	5.26	5.01	5.23	4.90	5.87	4.90	5.52	5.33
Peak Gain Position (Theta)	105.00	75.00	75.00	75.00	30.00	60.00	45.00	60.00	30.00	60.00	45.00
Peak Gain Position (Phi)	285.00	315.00	315.00	315.00	150.00	315.00	150.00	315.00	150.00	315.00	150.00
Efficiency ThetaPol (%)	17.13	22.00	18.03	18.19	18.72	18.40	18.22	16.76	17.29	20.07	18.32
Efficiency PhiPol (%)	19.64	17.65	20.78	19.68	21.13	21.48	20.24	20.76	19.27	24.06	20.98
Upper Hem. Efficiency (%)	21.75	21.12	20.59	22.04	23.10	21.66	22.30	20.84	20.70	25.43	22.10
Lower Hem. Efficiency (%)	15.02	18.53	18.23	15.83	16.75	18.22	16.17	16.68	15.86	18.70	17.20



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XT-YF-004

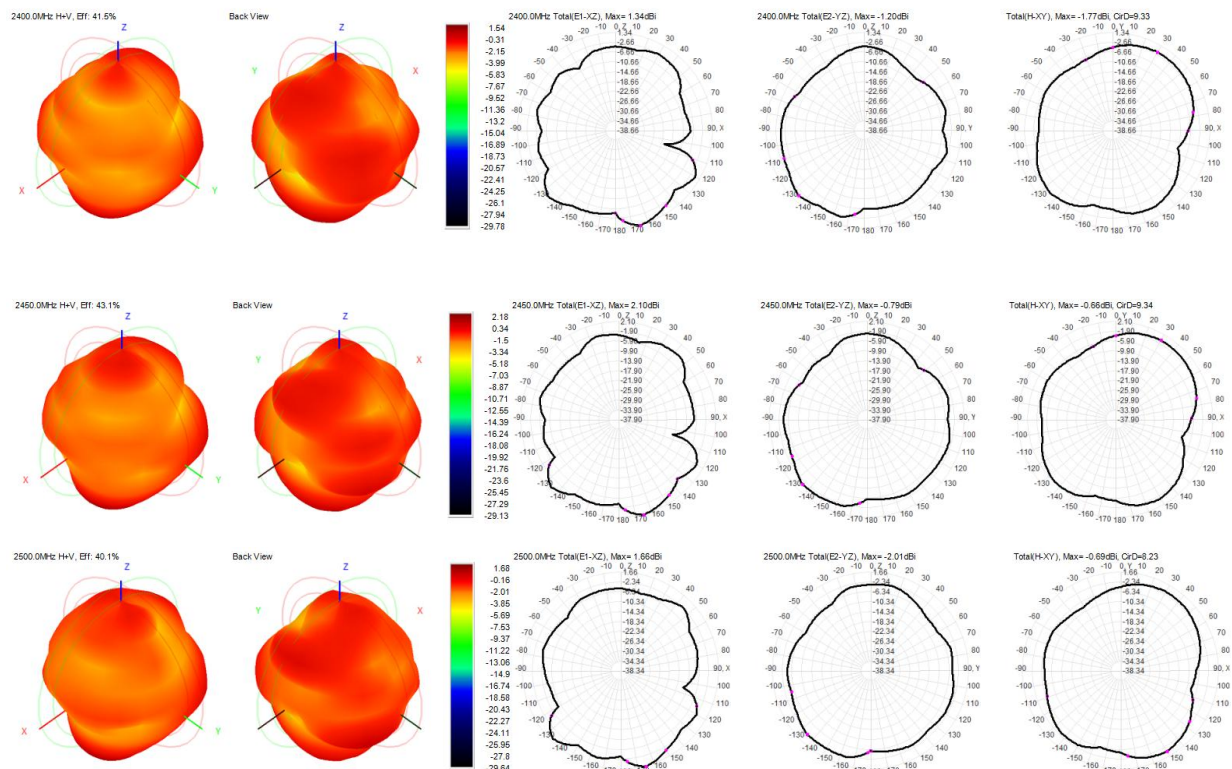
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S8-WIFI

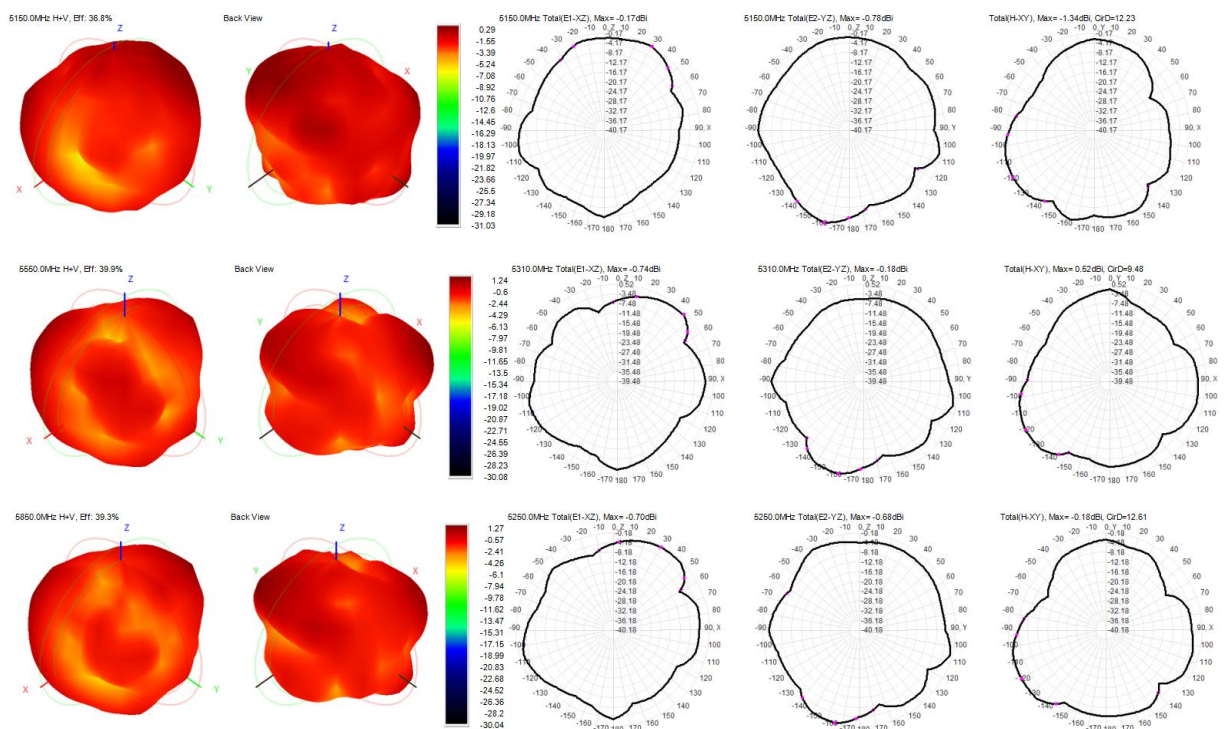
版本编号

XT-APP-RA

4.2.3 天线OTA-2.4G-3D



4.2.4 天线OTA-5G-3D



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5. 附图：

■ 5.1：天线工程图

