

The Main Antenna Sample Confirmation

Customer			
Project Name	CS-MS1		Date2025-11-21
Project NO.	SN1492-04	Notes	coaxial line+ FPC
Frequency Range	2400MHz-2500MHz		
Designed By	RF Engineer	Structural Engineer	
Checked By	Engineering Manager		
Client' s Approval			

Manufacturer: SINAWELL Electronics(Shenzhen) Co., Ltd.

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Table of Contents

1. Specification description.....	1
2. Summary of specifications	2
3. Appearance	3
3. Electrical performance.....	3
3.1. Antenna band.....	3
3.2. Matching circuit	3
3.3. Return Loss.....	4
4. Appearance structure.....	5
4.1. WIFI antenna passive test data.....	6
5 Field intensity pattern.....	7、8

1. Specification description

This specification describes the status of the CS-MS1 internal antenna with a frequency band of 2400MHz-2500MHz.

2. Antenna appearance



3. Electrical performance

3.1. Antenna band

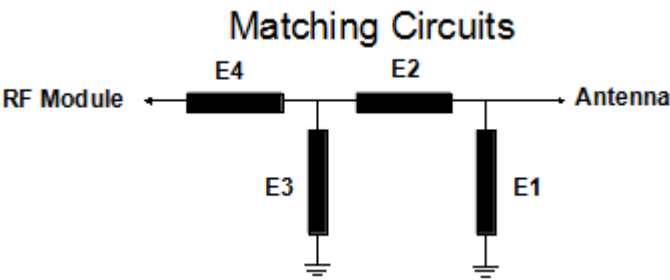
	WIFI
Transmitting band(MHz)	2400MHz-2500MHz

3.2. Matching Circuit

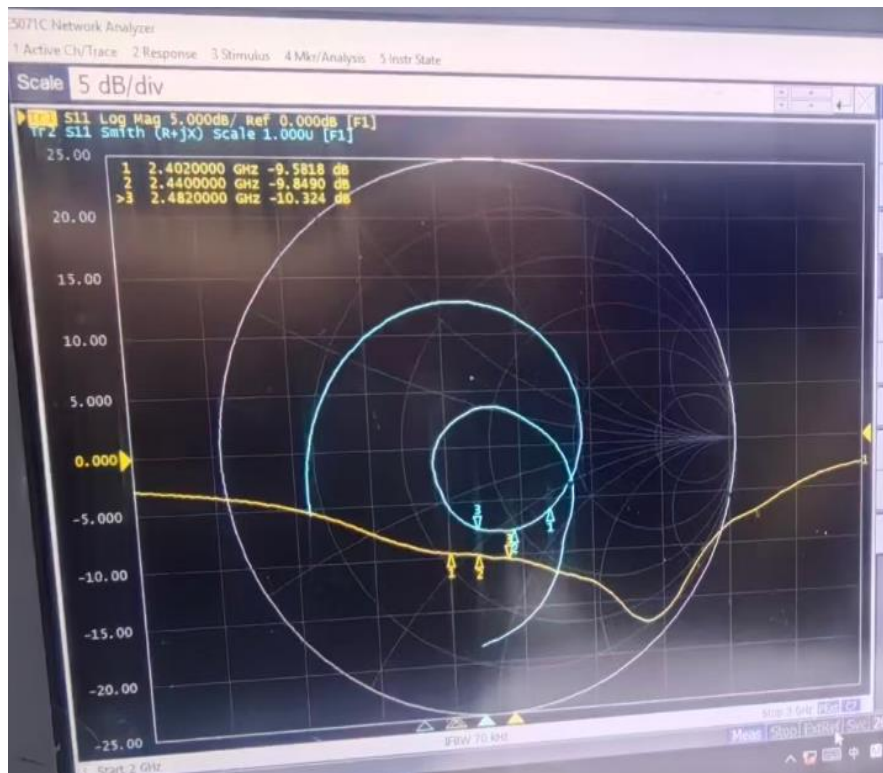
After the test point is at the antenna connector (RF test port), see the figure below.

1. WIFI antenna matching。

Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4	0 Ω



3.3. Return Loss



Appendix 1: Structural Drawing

1	2	3	4	5	6	7	8
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RoHS

The third person			
0~10	±0.05	○	0.02
10~18	±0.10	◎	0.03
18~30	±0.12	⊥	0.02
30~40	±0.15	◊	0.04
40~	±0.20	Angle	±0.5°

①

②

Φ0.81

①

2	Coaxial Cable	Double tin wire	Black	RF PLUG CORD, II Generation
1	FPC Antenna	Electrolytic copper a pair and a half substrate	Black	
No.	Part name	Material	Color	Notes

司南微电子(深圳)有限公司

SINARELL Electronics (Shenzhen) Co., LTD

Project name	CS1 (SN1492)	Date	2025-11-21
Product name	MS1 antenna	ME	
Material no.	SN1492-04	RF	
Material		Project	
		Unit	mm
		Scale	1:1
		Rev.	A

Notes:

- "*" is the key dimension ;
- Please refer to the drawing if no dimension is indicated;
- Meet rohs2.0, reach environmental protection requirements.

A	New drawing		
Rev.	Modify the content	Date	Notes

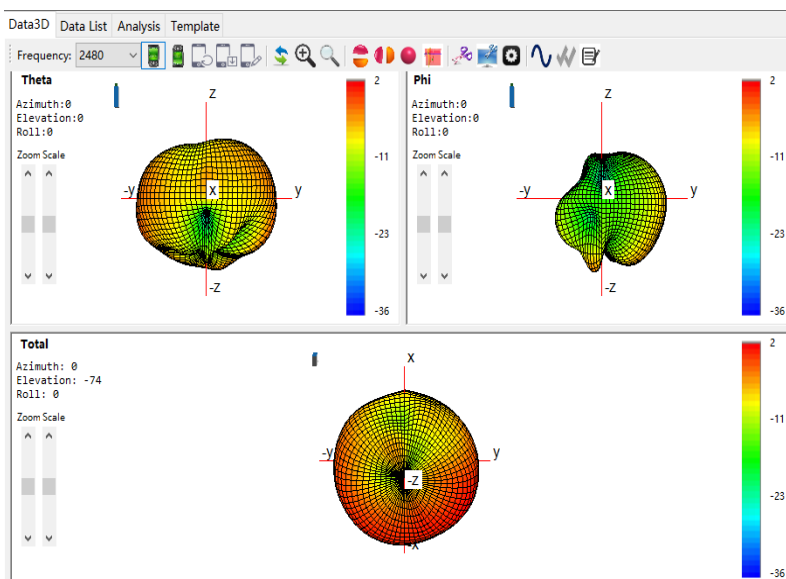
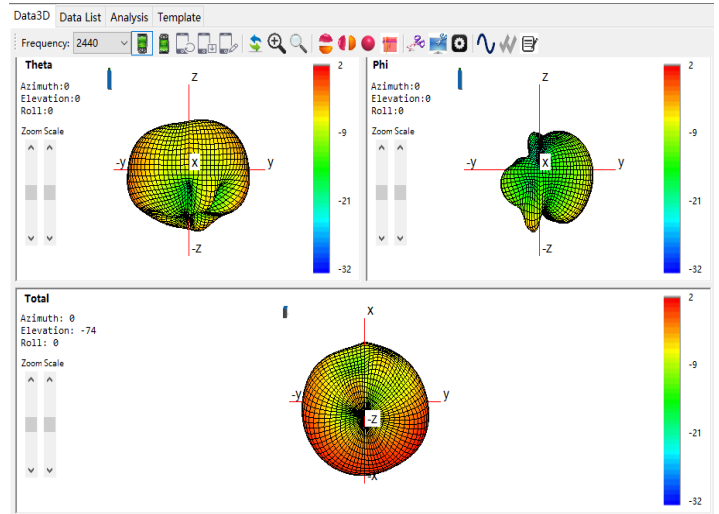
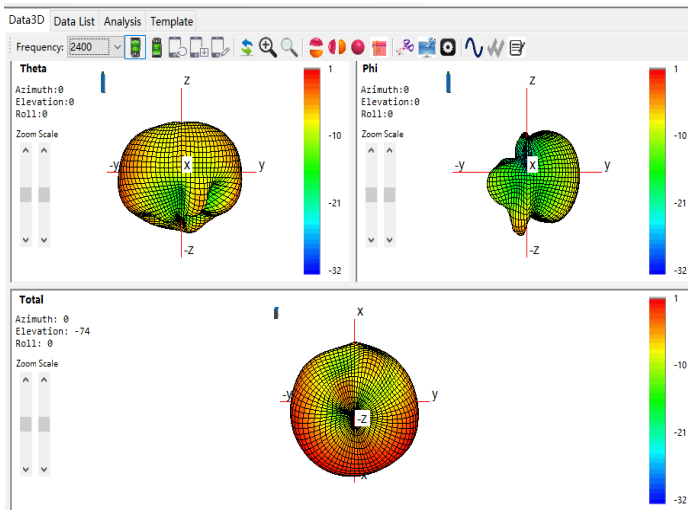
1	2	3	4	5	6	7	8
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WIFI antenna passive test data

Freq (MHz)	Gain (dBi)	Effi (dB)	Effi (%)
2400	0.57	-3.69	42.72
2410	0.81	-3.49	44.79
2420	0.81	-3.57	43.94
2430	0.94	-3.55	44.17
2440	1.14	-3.48	44.91
2450	1.36	-3.35	46.23
2460	1.4	-3.37	46.03
2470	1.62	-3.27	47.1
2480	1.71	-3.24	47.45
2490	1.81	-3.21	47.72
2500	1.84	-3.23	47.52

Field intensity pattern

3D



2D

