

The Main Antenna Sample Confirmation

Customer			
Project Name	SS121		Date 2024-08-26
Project NO.	SN1219	Notes	coaxial line+ FPC
Frequency Range	WIFI		
Designed By	RF Engineer	Structural Engineer	
Checked By	Engineering Manager		
Client' s Approval			

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

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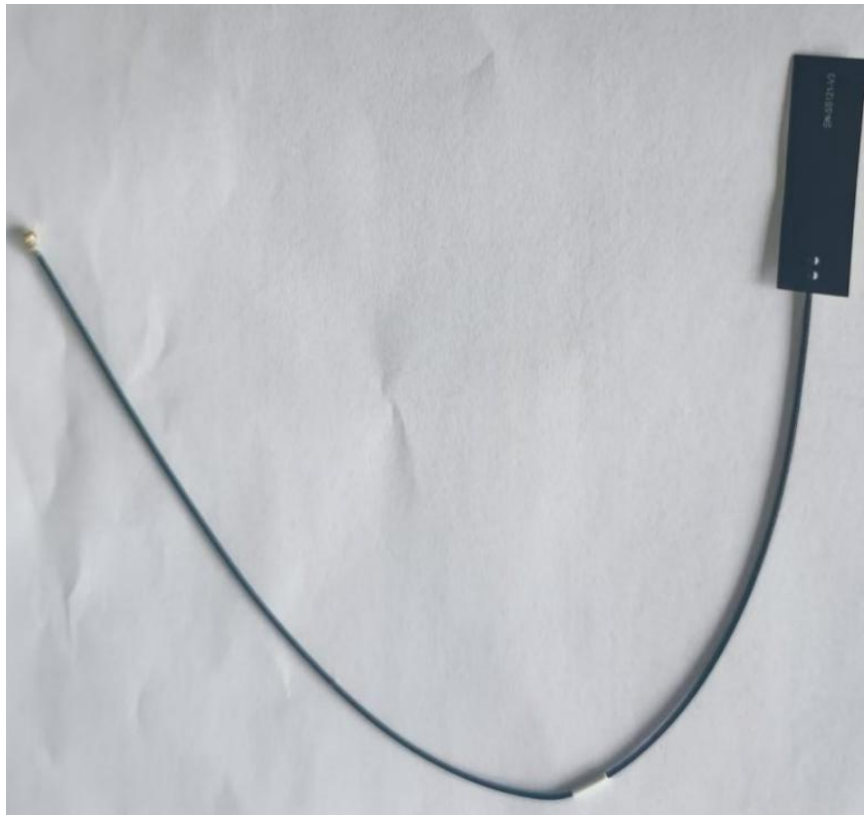
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1. Specification description

This specification describes the status of the SS121 internal antenna with a frequency band of WIFI.

2. Antenna appearance



3. Electrical performance

3.1. Antenna band

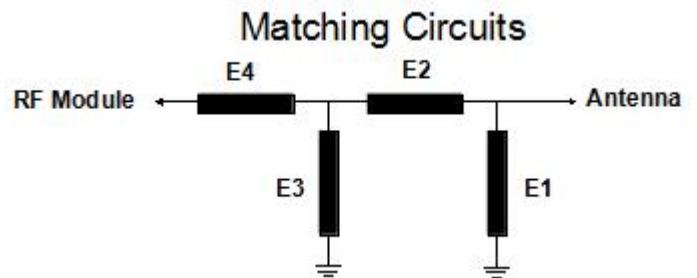
	WIFI
Transmitting band(MHz)	2400MHz-2500MHz

3.2. Matching Circuit

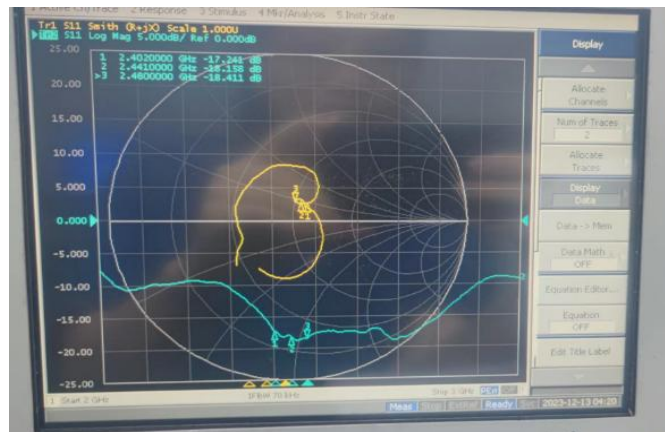
After the test point is at the antenna connector (RF test port), see the figure below.

1. WiFi antenna matching.

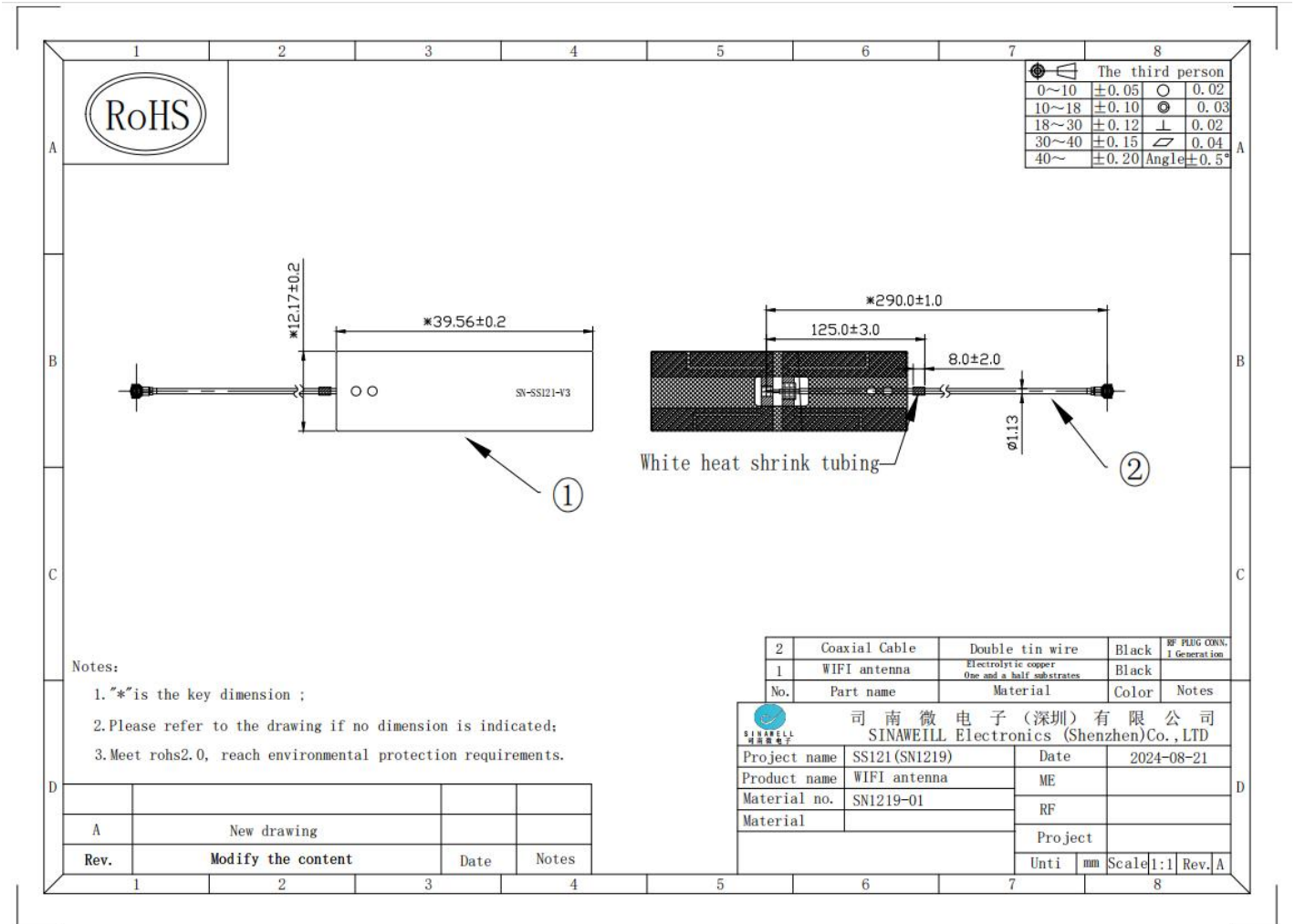
Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4	0 Ω



3.3. Return Loss



Appendix 1: Structural Drawing



Appendix 2: 3D Test Report

WIFI antenna passive test data

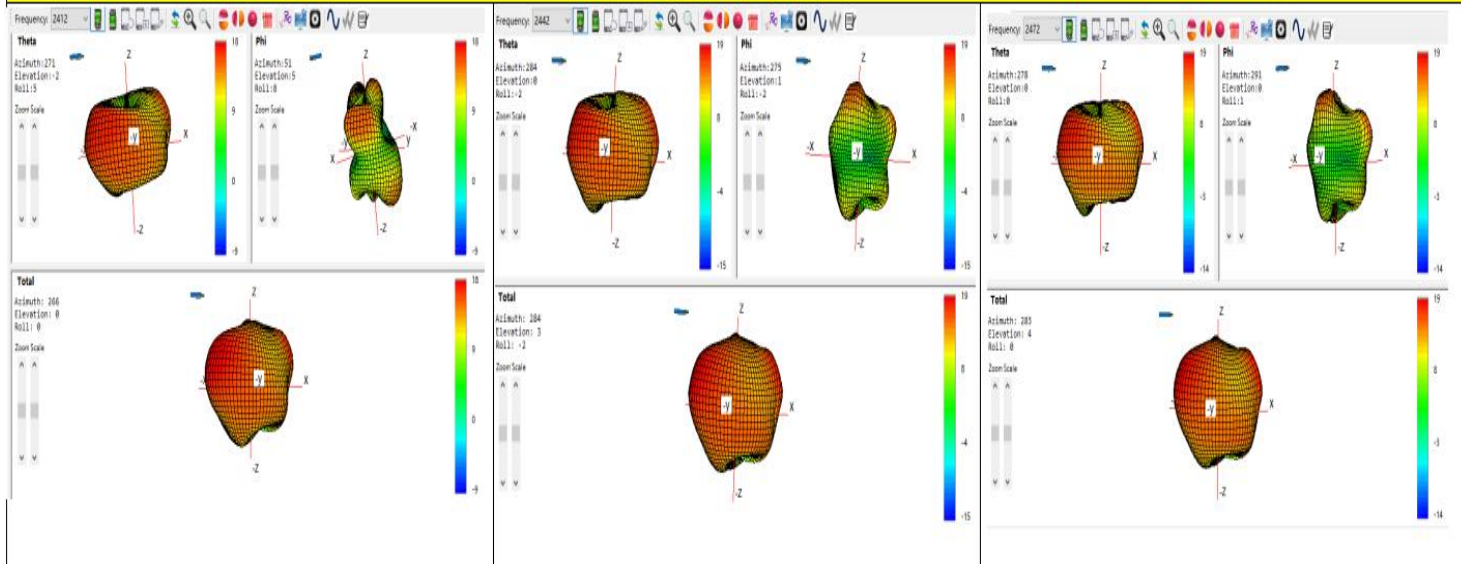
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	45.56	-3.42	-0.19
2410	45.66	-3.41	-0.19
2420	44.4	-3.53	-0.21
2430	45.02	-3.47	-0.45
2440	45.83	-3.43	-0.51
2450	46.66	-3.31	-0.21
2460	46.47	-3.33	-0.18
2470	47.37	-3.24	-0.05
2480	48.22	-3.17	0.04
2490	48.84	-3.11	0.1
2500	46.01	-3.37	-0.06

WIFI antenna active test data

BAND	CHANNEL	TRP	TIS
11B	1	14.14	-86.19
	3	14.91	-86.09
	5	15.18	-85.51
	6	15.13	-85.64
	7	15.03	-85.81
	9	15.09	-83.95
	11	14.38	-84.54
	13	14.52	-85.78

Field intensity pattern

3D



2D

