

The Main Antenna Sample Confirmation

Customer			
Project Name	KF531	Date	20260429
Project NO.	SN1603	Notes	Onboard Antenna
Frequency Range	2400MHz-2500MHz		
Designed By	RF Engineer	Structural Engineer	
Checked By	Engineering Manager		
Client' s Approval			

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

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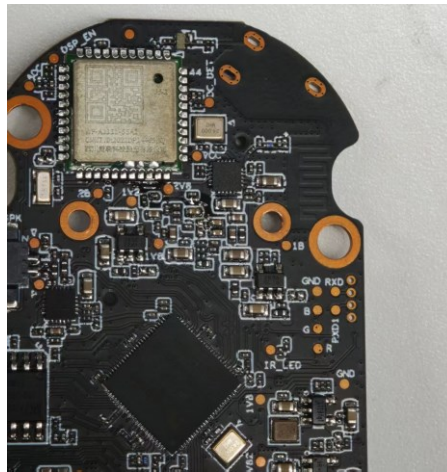
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1. Specification description

This specification describes the status of the **KF531** antenna with a frequency band of 2400MHz-2500MHz.

2. Antenna appearance



3. Electrical performance

3.1. Antenna band

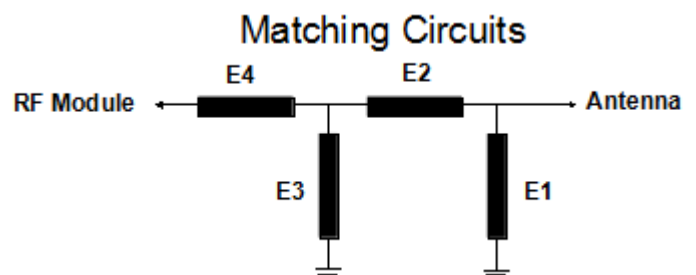
	WIFI
Transmitting band(MHz)	2400MHz-2500MHz

3.2. Matching Circuit

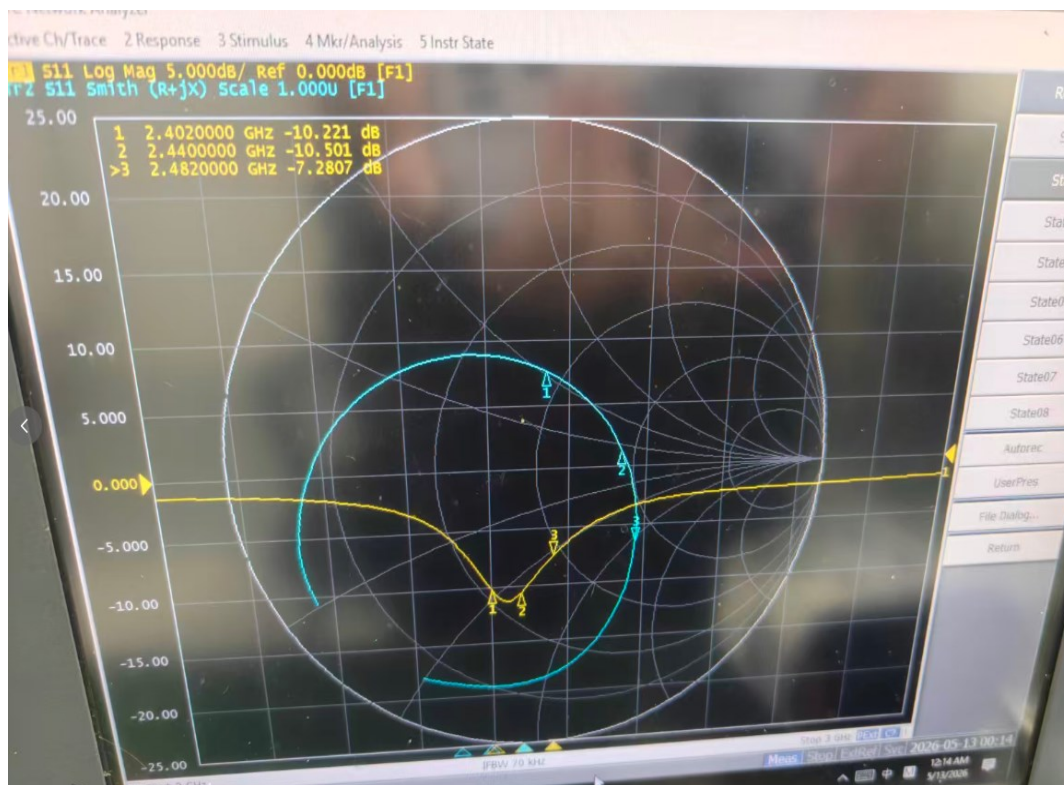
After the test point is at the antenna connector (RF test port), see the figure below.

1. WIFI antenna matching。

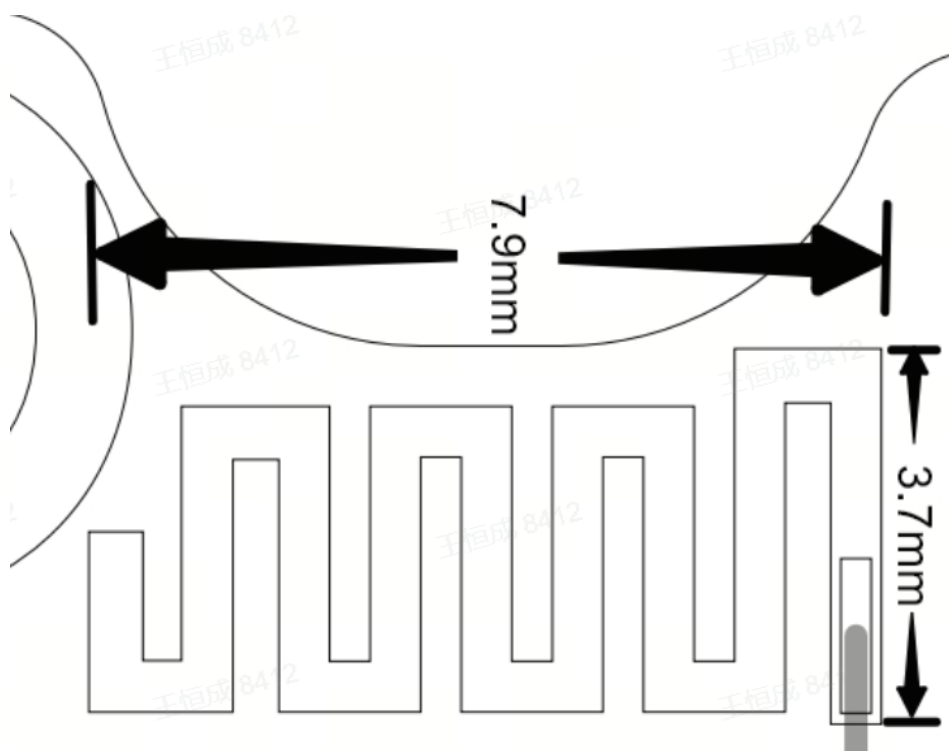
Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4	0 Ω



3.3. Return Loss



Appendix 1: Structural Drawing

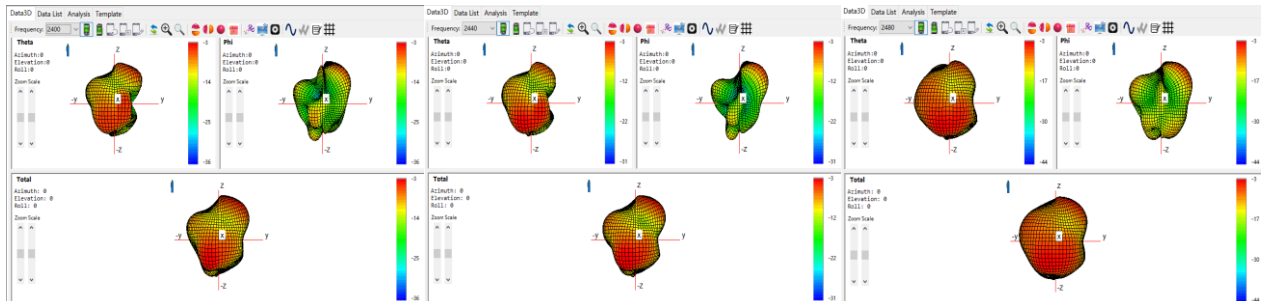


WIFI antenna passive test data

Freq (MHz)	Gain (dBi)	Effi (dB)	Effi (%)
2400	-3.25	-10.09	9.8
2410	-3.13	-9.84	10.38
2420	-3.12	-9.64	10.86
2430	-3.06	-9.41	11.45
2440	-3.12	-9.24	11.93
2450	-3.19	-9.07	12.39
2460	-3.2	-9.08	12.35
2470	-3.18	-9.07	12.4
2480	-3.2	-9.11	12.27
2490	-3.33	-9.26	11.87
2500	-3.62	-9.48	11.26

Field intensity pattern

3D



2D

