

The Main Antenna Sample Confirmation

Customer			
Project Name	KF451		Date2026-4-28
Project NO.	SN1595-01	Notes	coaxial line+ FPC
Frequency Range	2400MHz-2500MHz 5150MHz-5850MHz		
Designed By	RF Engineer	Structural Engineer	
Checked By	Engineering Manager		
Client' s Approval			

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1. Specification description

This specification describes the status of the **KF451** internal antenna with a frequency band of **2400MHz-2500MHz 5150MHz-5850MHz**

2. Antenna appearance



3. Electrical performance

3.1. Antenna band

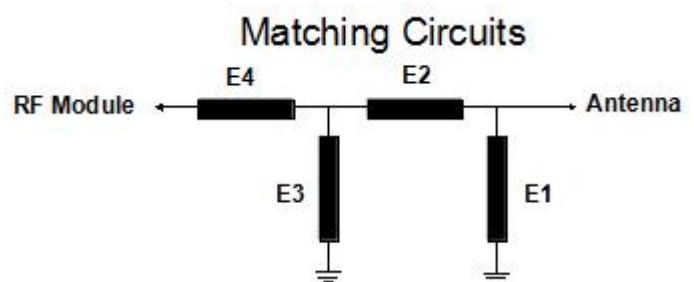
	WIFI
Transmitting band(MHz)	2400MHz-2500MHz 5150MHz-5850MHz

3.2. Matching Circuit

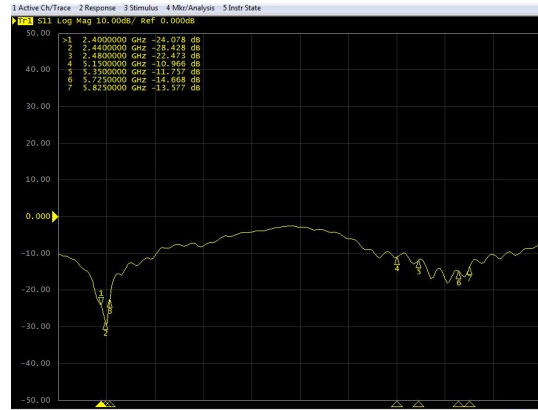
After the test point is at the antenna connector (RF test port), see the figure below.

1. WIFI antenna matching。

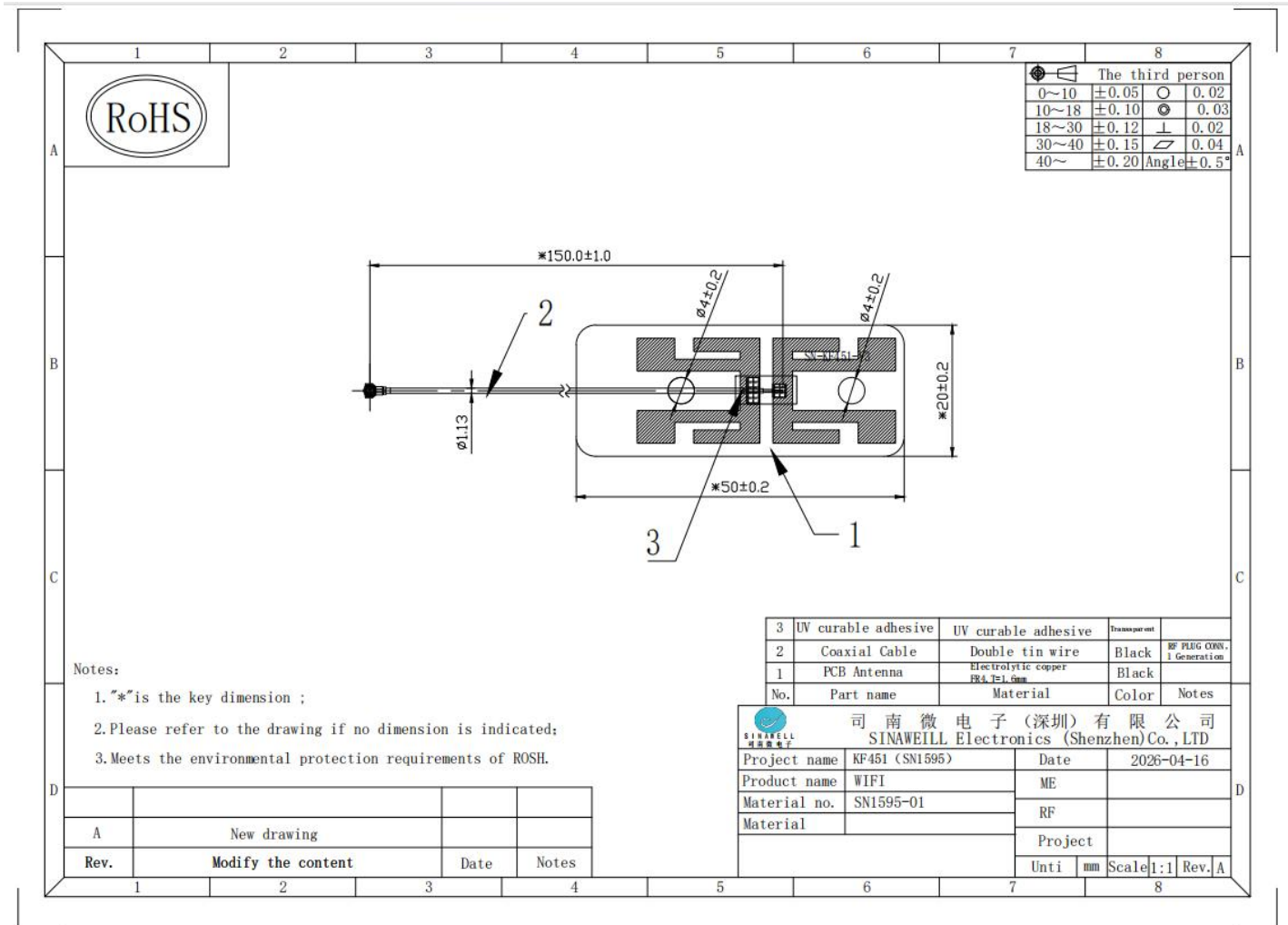
Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4	0 Ω



3.3. Return Loss



Appendix 1: Structural Drawing

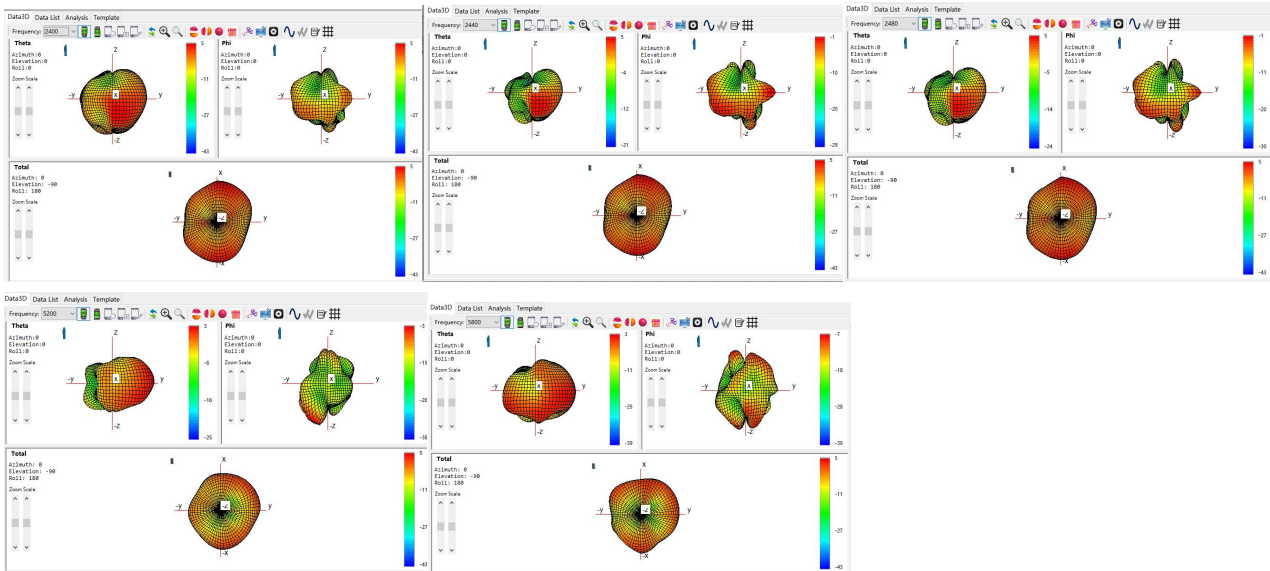


WIFI antenna passive test data

Freq (MHz)	Gain (dBi)	Effi (dB)	Effi (%)	Freq (MHz)	Gain (dBi)	Effi (dB)	Effi (%)
2400	2.42	-2.13	61.24	5580	1.89	-2.15	60.95
2410	2.4	-2.15	60.95	5600	1.8	-2.14	61.09
2420	2.36	-2.18	60.53	5620	1.84	-2.13	61.24
2430	2.39	-2.15	60.95	5640	1.91	-2.17	60.67
2440	2.37	-2.16	60.81	5660	1.88	-2.25	59.57
2450	2.39	-2.14	61.09	5680	1.86	-2.35	58.21
2460	2.21	-2.31	58.75	5700	1.75	-2.41	57.41
2470	2.25	-2.28	59.16	5720	1.69	-2.5	56.23
2480	2.25	-2.27	59.29	5740	1.59	-2.62	54.70
2490	2.22	-2.31	58.75	5760	1.55	-2.61	54.83
2500	2.18	-2.35	58.21	5780	1.5	-2.6	54.95
5150	1.29	-2.76	52.97	5800	1.42	-2.58	55.21
5160	1.31	-2.69	53.83	5820	1.46	-2.48	56.49
5180	1.23	-2.67	54.08	5840	1.36	-2.47	56.62
5200	1.44	-2.64	54.45	5850	1.39	-2.5	56.23
5220	1.66	-2.58	55.21				
5240	1.81	-2.57	55.34				
5260	1.78	-2.66	54.20				
5280	1.69	-2.73	53.33				
5300	1.62	-2.76	52.97				
5320	1.64	-2.74	53.21				
5340	1.7	-2.73	53.33				
5360	1.82	-2.65	54.33				
5380	1.97	-2.51	56.10				
5400	2.12	-2.35	58.21				
5420	2.07	-2.39	57.68				
5430	2.19	-2.3	58.88				
5440	2.06	-2.43	57.15				
5450	2.02	-2.5	56.23				
5460	1.96	-2.52	55.98				
5480	1.9	-2.63	54.58				
5500	1.82	-2.71	53.58				
5520	1.84	-2.54	55.72				
5540	1.94	-2.38	57.81				
5560	1.97	-2.28	59.16				

Field intensity pattern

3D



2D

