Dongguan Lingdu Electronic Technology Co., Ltd.
Components Acknowledgment

File No.		Version	
Part number	1124-0005090-011	Component Name	WIFI antenna
Supplier Name	Sinan Microelectronics (Shenzhen) Co., Ltd	Agent Name	SINAWEILL Electronics (Shenzhen)Co.,LTD
Supplier Part No			
Description	WiFi antenna coaxial line length: 50 (mm), wire diameter: 0.81 (mm), with third-generation IPEX plug, silk screen: SN-LS09-V2		
Sample Qty		Sample No.	
Type of Approval	■New Component ☐New Supplier ☐Update Approval sheet	Type of component	☐universal component ■ (Proprietary component)

S/N	Inspection Item	Test Result	Operator	Inspection item of IQC
1	Size	☐pass ☐fail		☐
2	Function	☐pass ☐fail		☐
3	Silk screen	☐pass ☐fail		☐
4		☐pass ☐fail		☐
5		☐pass ☐fail		☐
6		☐pass ☐fail		☐
7		☐pass ☐fail		☐
8		☐pass ☐fail		☐
9		☐pass ☐fail		☐
10		☐pass ☐fail		☐
11		☐pass ☐fail		☐
12		☐pass ☐fail		☐

Approve Result:

■ Qualify ☐ can use in pre-pilot run sample production _____pcs ☐ Unqualify

☐ re-send sample ☐ no need to re-send sample

Remark:

Prepared By:	Checked By:	Approved By:

Distribution Dept.: ■ Purchasing Dept.__1__Protion ■ Quality Dept.__1__Protion

The Main Antenna Sample Confirmation

Customer	Shenzhen Lingdu Auto Electronics Co., Ltd.			
Project Name	LS09		Date	2022-3-08
Project NO.	SN0875	Notes	FPC	
Frequency Range	WIFI2.4G (2400MHz-2500MHz)			
Designed By	RF Engineer		Structural Engineer	
Checked By	Engineering Manager			
Client’ s Approval				

Catalogue

1. Specifications overview

This specification describes the condition of the LS09 built-in antenna with a frequency band of 2.4G.

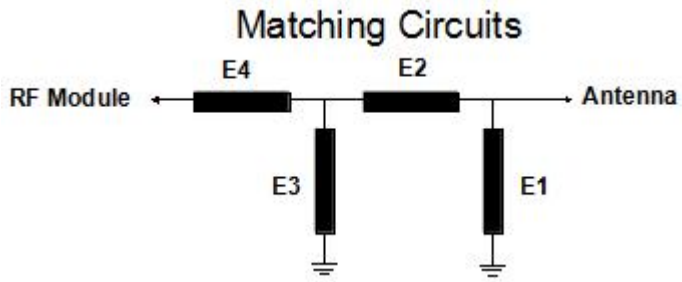
2. Electrical performance

2.1. Antenna band

	2.4G
Transmitting frequency band (MHz)	2400MHz-2500MHz

2.2. Matching circuit

The test point is behind the antenna connector (RF test port), see 2.4G antenna matching in the figure below, and the original motherboard antenna matching circuit remains unchanged.



3. Appearance structure

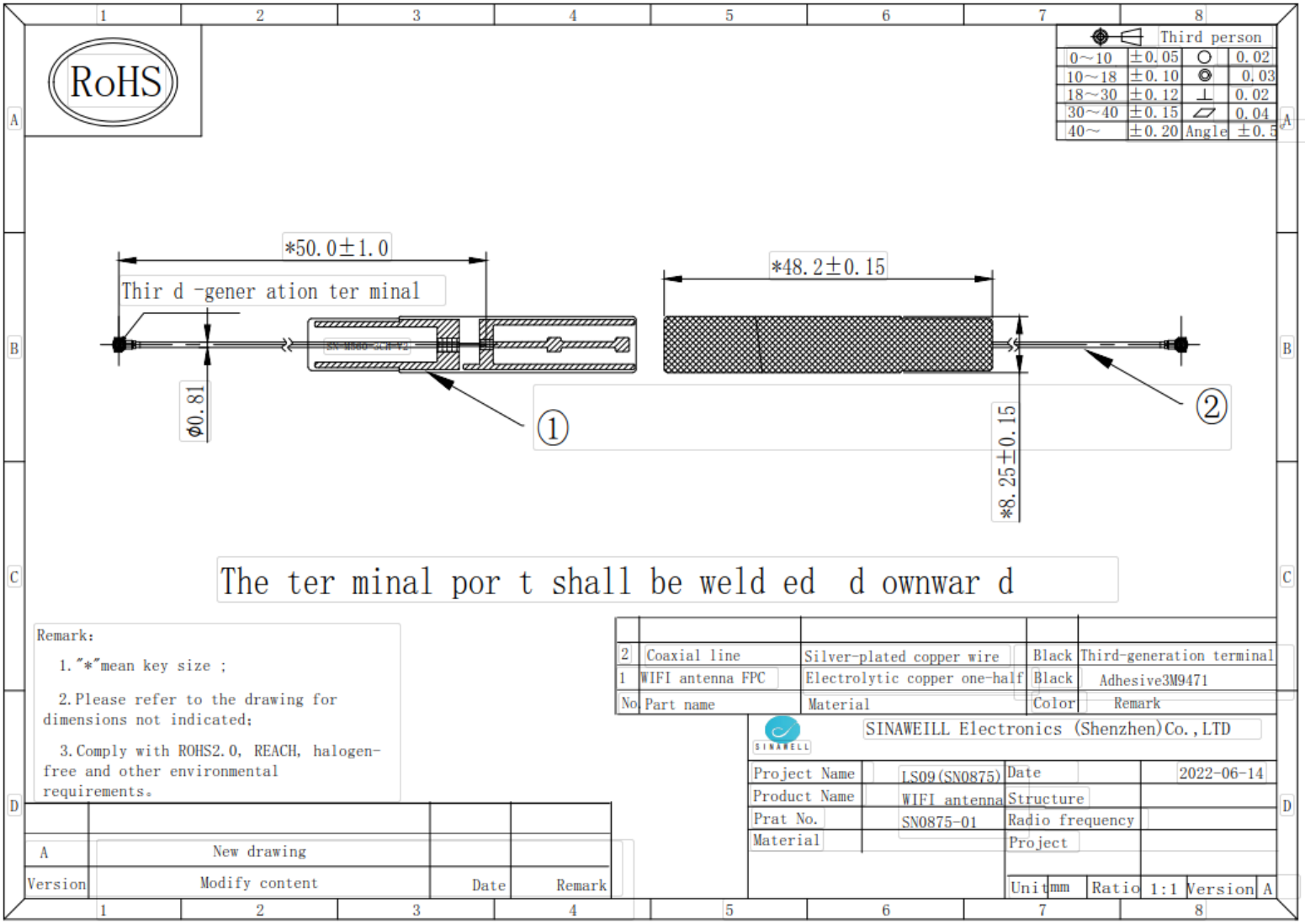
3.1. Antenna material

FPC

Appendix I (Structural Drawing)

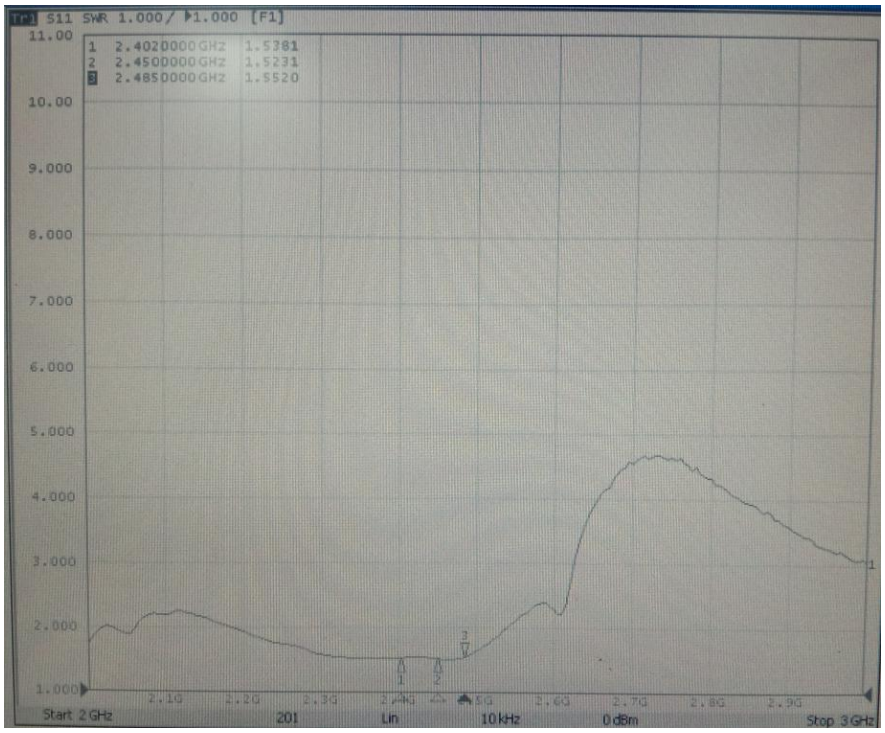
Appendix II (Performance Report)

Structural drawing (Annex I)



Test report (Annex II)

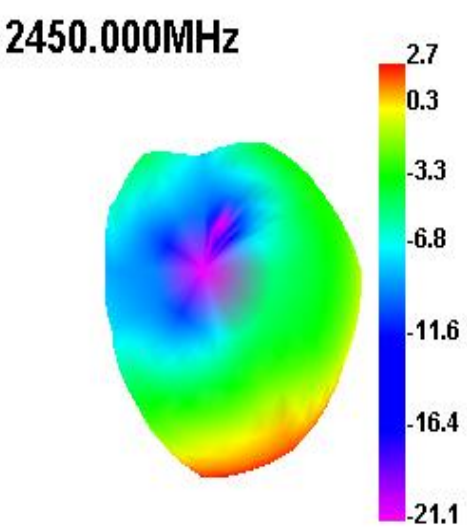
Return loss

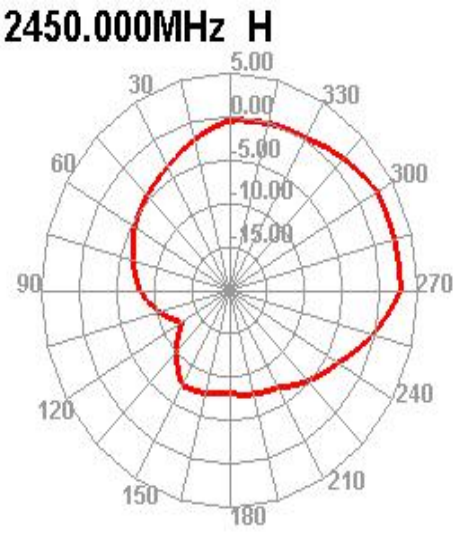


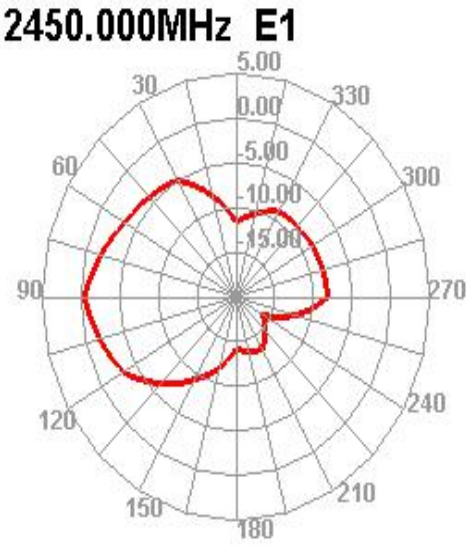
Efficiency test data

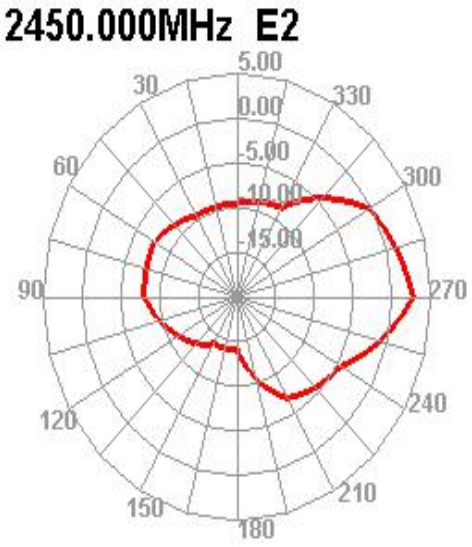
Freq (MHz)	Effi (%)	Gain (dBi)
2400	45.04	2.5
2410	44.43	2.43
2420	43.68	2.24
2430	44.73	2.29
2440	45.09	2.16
2450	45.6	2.66
2460	47.57	2.49
2470	47.09	2.35
2480	48.54	2.37
2490	49.53	2.38
2500	49.73	2.12

Directional pattern

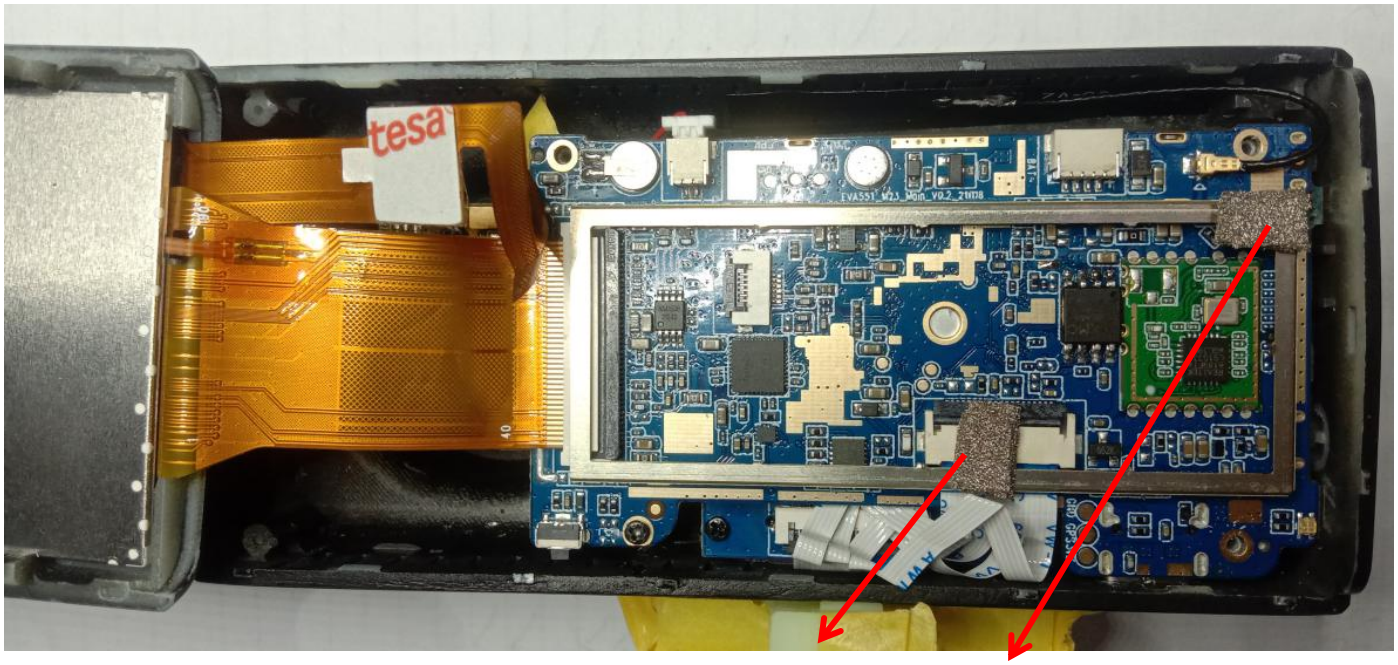




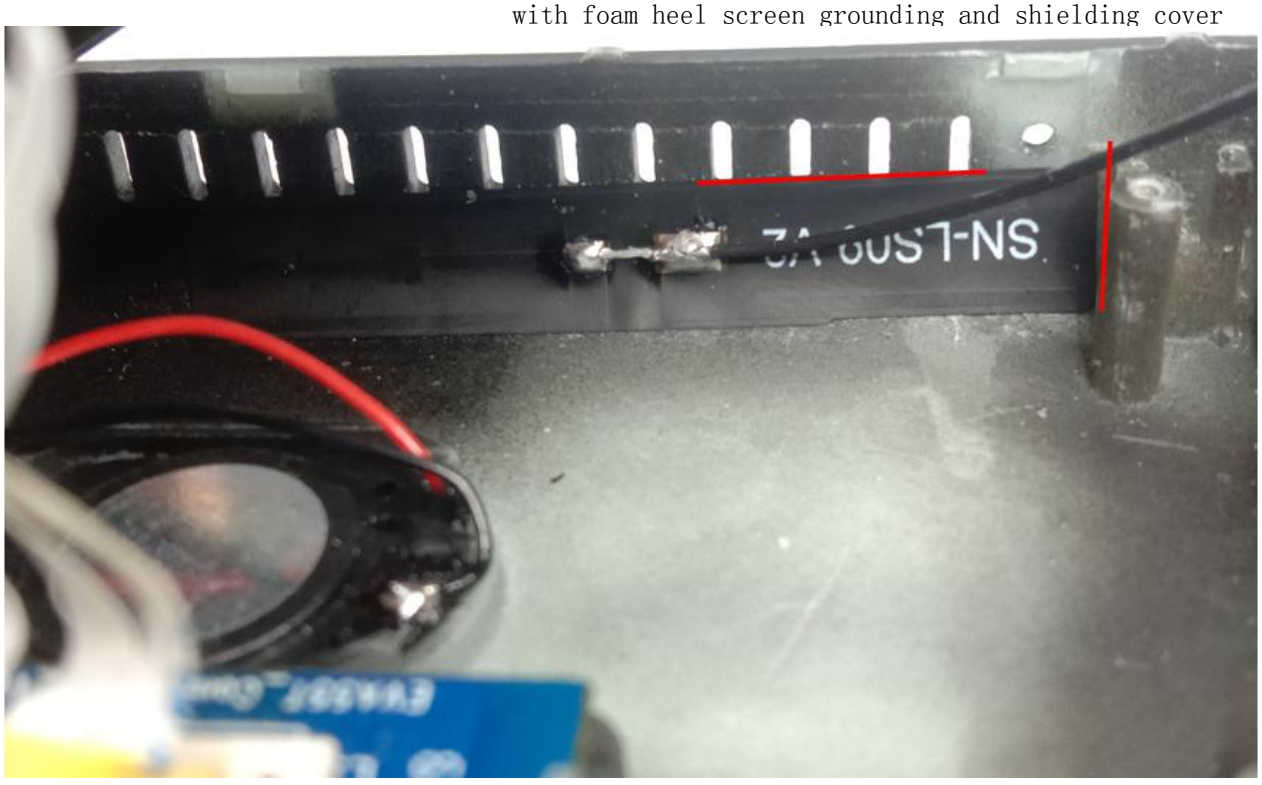




Antenna assembly drawing (complete machine drawing, detail drawing)



The complete machine is as shown in the figure above, with foam heel screen grounding and shielding cover



The WIFI antenna is pasted at the position indicated by the red line above