



Kaidishi DK027 Antenna Test Report

Antenna Debugging Report

Room 4406, New Factory Building of Airmate, Huangf-engling Industrial Zone, Luzu Community, Shiyan Subdistrict, Bao'an District, Shenzhen City, Guangdong Province, P.R.China

ShenzhenHamyWeTechnologyCo.,Ltd.

Shenzhen HamyWe Technology Co., Ltd.

Engineer: Su Xinyang

Phone: 1 8 5 8 6 9 4 6 2 9 0

Mailbox:su x in yang @ s z u hot. com

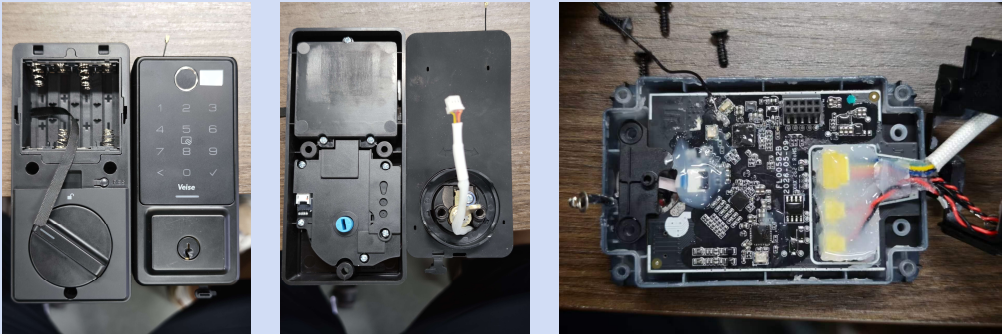
Date: 2 0 2 6 . 0 7 . 1 3



- 01 | **Project Overview**
- 02 | **Antenna Performance Evaluation and Debugging**
- 03 | **conclusion and suggestion**

>>> Project Overview



Device Type	Intelligent door lock	
Drawing of complete machine		
Antenna Information	Types and Materials of Antennas	Board-mounted antenna
	Debugging Band	BT: 2.4GHz
	Antenna Type	Pi fa

>>> Project Overview

- **Device Size:** 130*130*30mm
- **Mainboard Size:** 120*120 mm
- **Number of Antennas:** 1
- **Antenna Type:** FPC
- **Network Standards and Frequency Bands:**
 - ✓ BT 2.4GHz

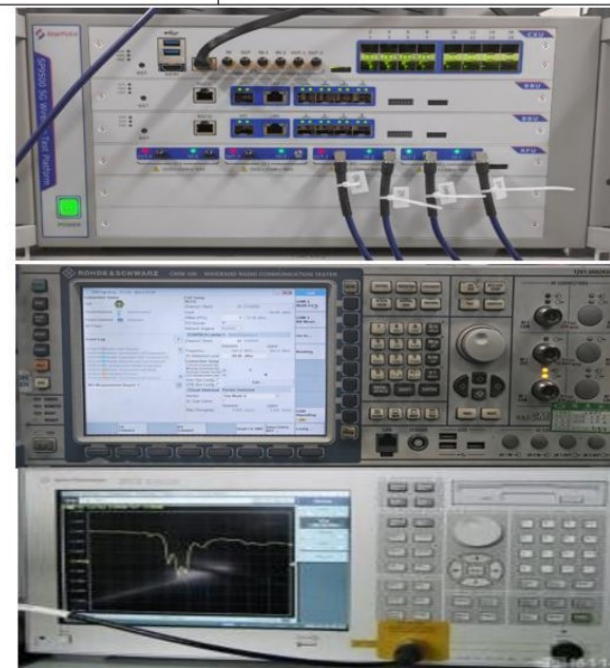
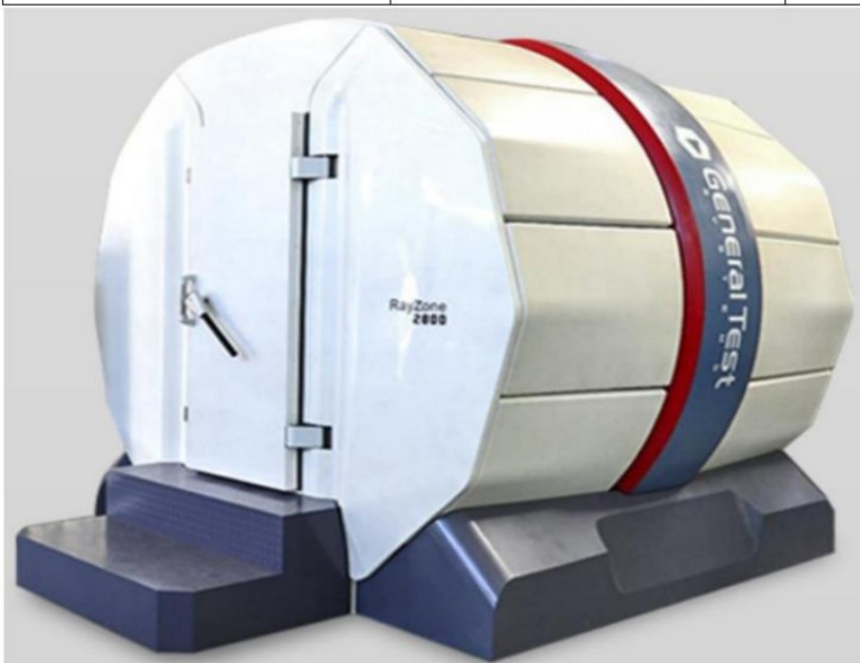




Testing Facility

无源及有源测试—5G微波暗室

◆ 测试系统	◆ 测试环境	◆ 有源测试	◆ 无源测试
GTS2800	温度: $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 湿度: $50\% \pm 15\%$	支持5G/4G/3G/2G 支持BT/WIFI/GPS	600MHZ——6G



Prototype Diagram

Company Introduction | Honesty · Proactivity · Resilience



01 | Project Overview

02 | **Antenna Performance Evaluation and Debugging**

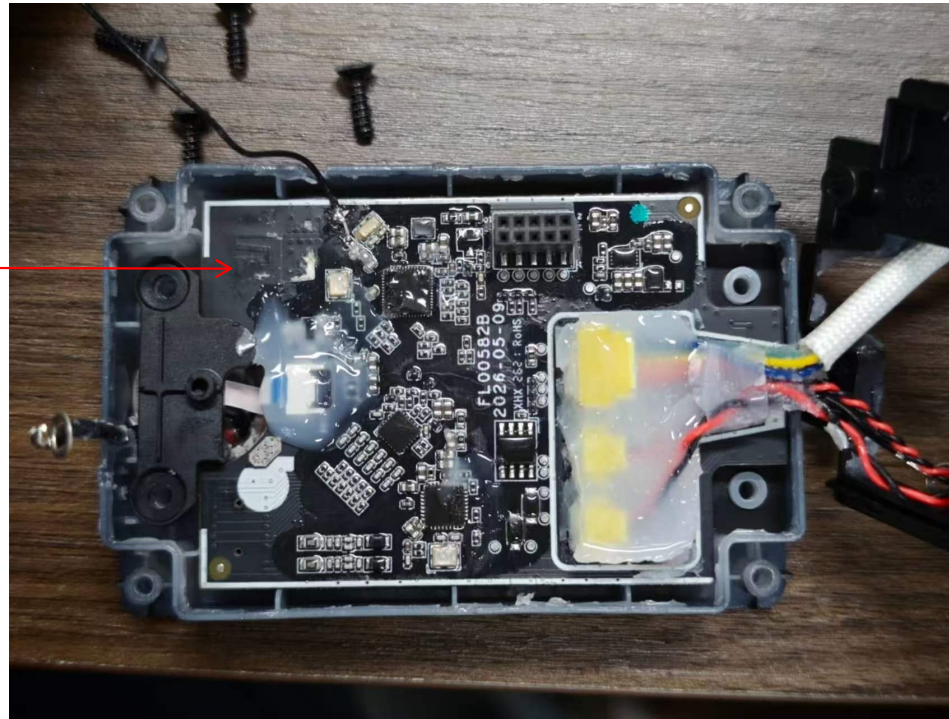
03 | conclusion and suggestion

Company Introduction | Honesty · Proactivity · Resilience

>>> Antenna Position and Environmental Considerations

Environment Processing: Keep the original machine environment unchanged

Board-Mounted Bluetooth Antenna

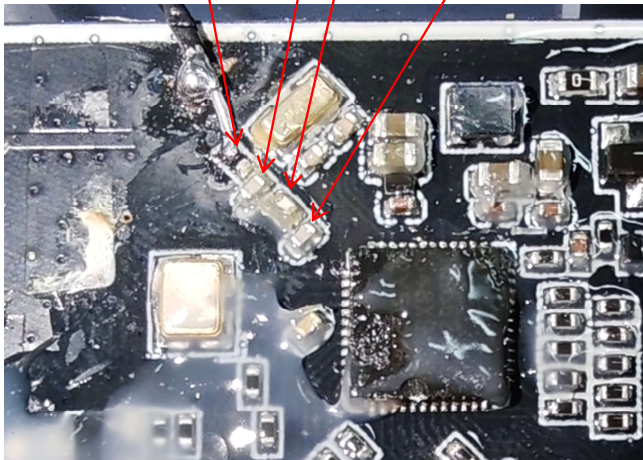
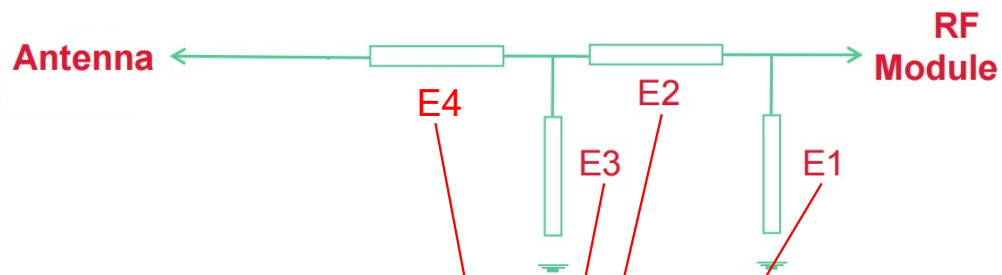


Prototype Diagram

Company Introduction | Honesty · Proactivity · Resilience

>>> Matching Circuit

- Schematic diagram of the ANT1 matching circuit



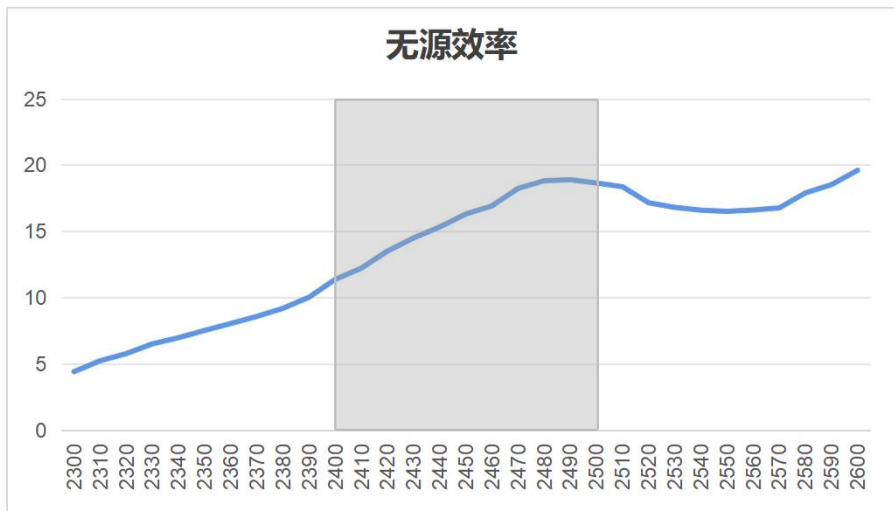
Prototype Diagram

- Match Value:

Element	Value
E1(0402)	Keep Original Match
E2(0402)	Keep Original Match
E3(0402)	Keep Original Match
E4(0402)	Keep Original Match

Passive Testing

- ANT1 Passive Efficiency

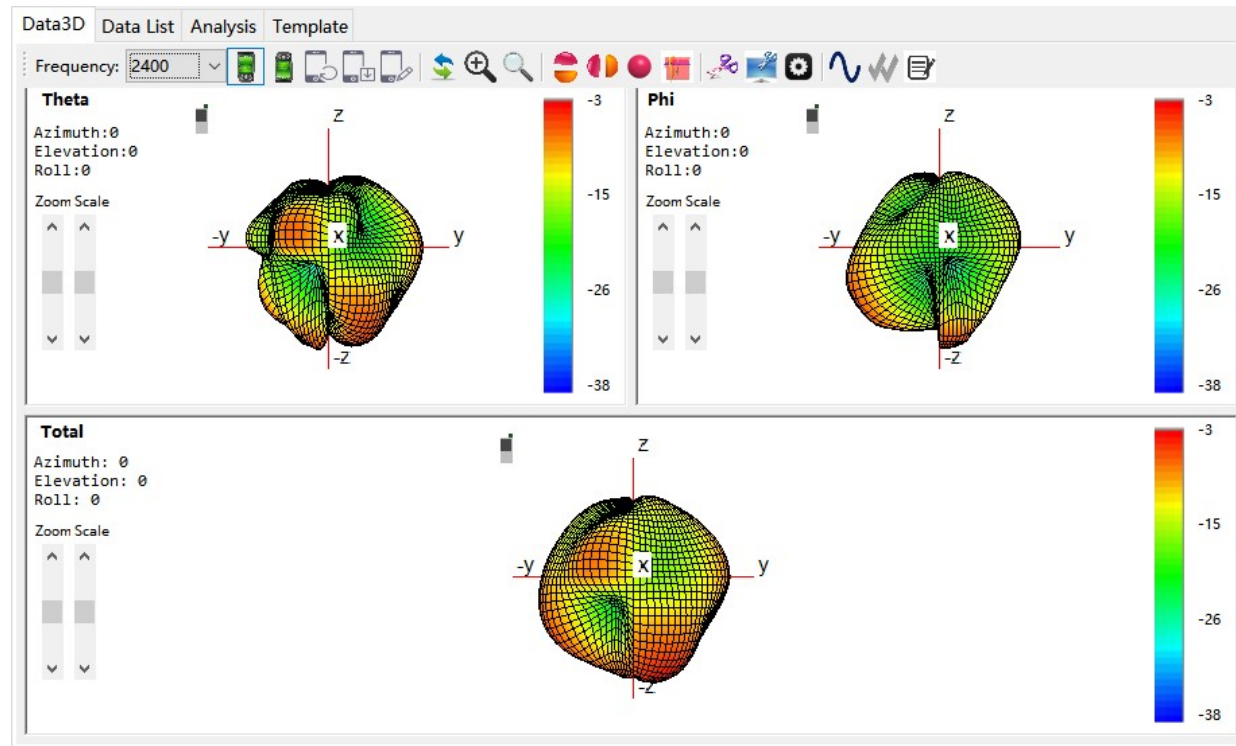


Frequency	Productiveness (dB)	Gain (dB)	Productiveness (%)
2300	-13.57	-8.81	4.4
2310	-12.83	-8.05	5.22
2320	-12.39	-7.59	5.76
2330	-11.87	-6.9	6.5
2340	-11.58	-6.53	6.96
2350	-11.24	-6.02	7.51
2360	-10.95	-5.54	8.03
2370	-10.67	-5.1	8.57
2380	-10.37	-4.85	9.18
2390	-9.99	-4.39	10.02
2400	-9.45	-3.81	11.36
2410	-9.13	-3.39	12.21
2420	-8.7	-2.98	13.5
2430	-8.39	-2.62	14.49
2440	-8.15	-2.42	15.32
2450	-7.88	-2.25	16.3
2460	-7.72	-2.27	16.91
2470	-7.39	-2.07	18.23
2480	-7.26	-1.85	18.81
2490	-7.24	-1.67	18.89
2500	-7.29	-1.68	18.64
2510	-7.36	-1.69	18.36
2520	-7.66	-1.87	17.15
2530	-7.75	-1.91	16.8
2540	-7.8	-1.84	16.59
2550	-7.83	-1.81	16.5
2560	-7.8	-1.59	16.6
2570	-7.76	-1.4	16.76
2580	-7.47	-0.87	17.89
2590	-7.32	-0.68	18.52
2600	-7.08	-0.47	19.6



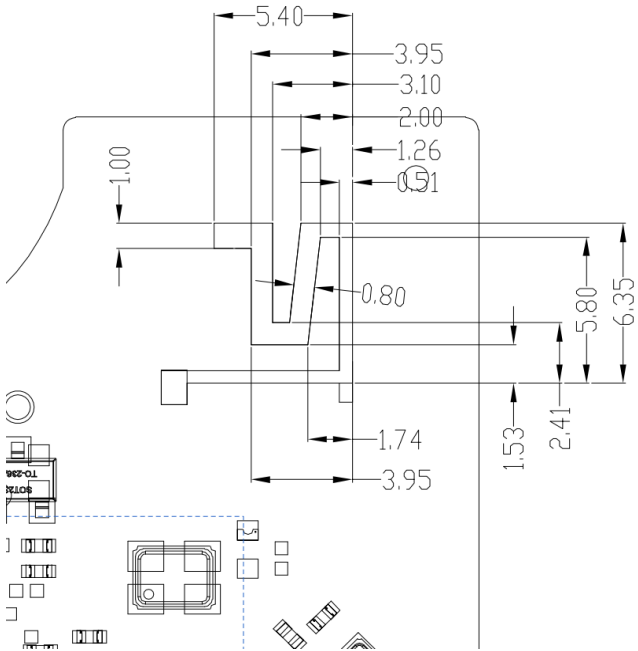
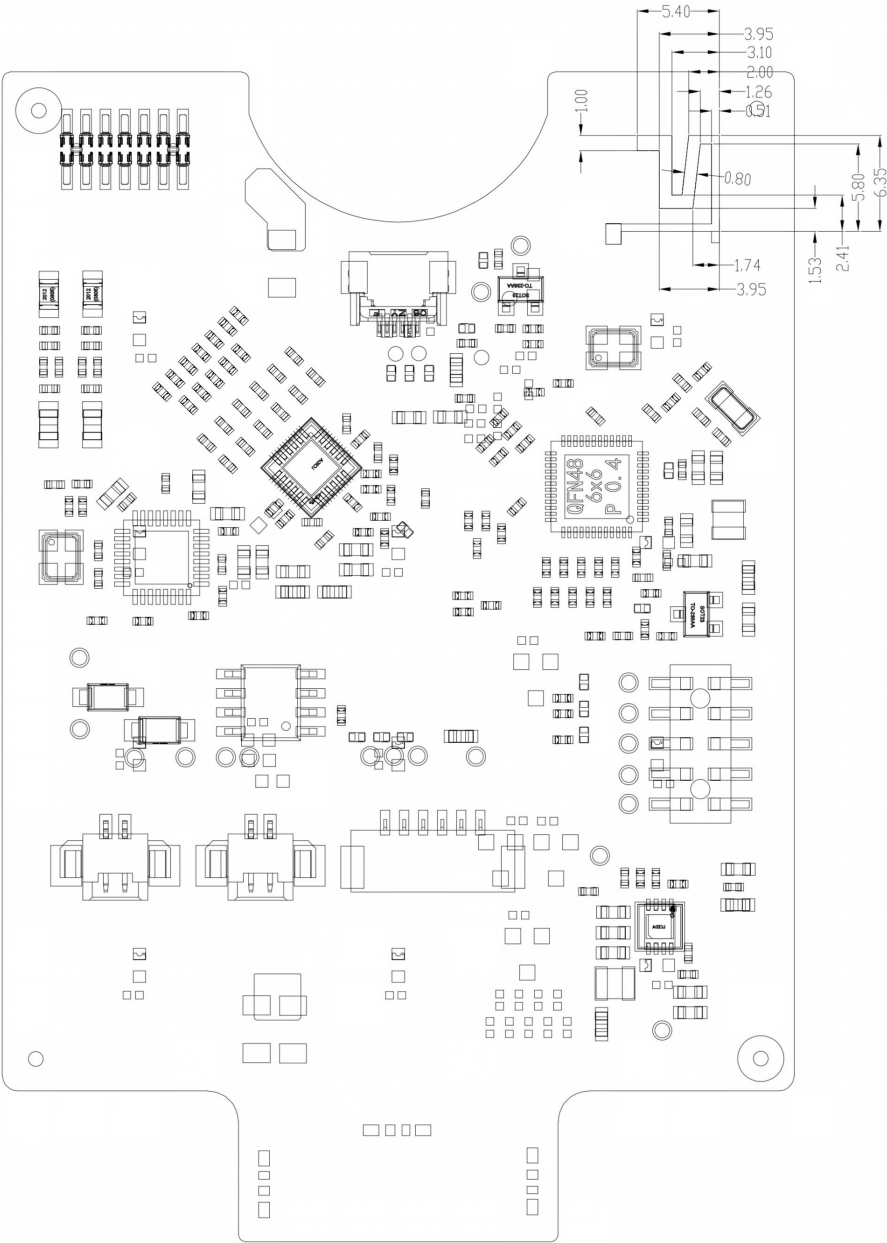
Passive Testing

- ANT1 Direction Diagram





天线尺寸





- 01 | Project Overview
- 02 | Antenna Performance Evaluation and Debugging
- 03 | **conclusion and suggestion**

conclusion and suggestion

- **Antenna Performance Conclusion**

(1) From the Perspective of Passive Performance:

Low efficiency with some frequency deviation.

- **Next Steps**

Confirm the next step plan.



Thank You for Watching.

SHENZHEN UHOT ELECTRONICS CO., LTD

general head-
quarters

Address: 4th Floor, Jinghang Building, Liuxian Second Road, Zone 71, Bao'an District, Shenzhen

TEL:075523088181

East China Branch

Address: Hong Kong Branch, Room 502, Building B, Honghui
Lianhua Plaza, No.1308 Lianhua Road, Minhang District, Shanghai

Tuen Mun, Hong
Kong