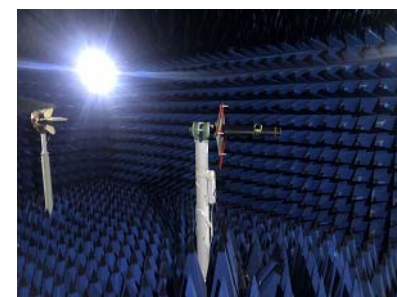


Guanglian intelligent passive test report

Radio frequency: He Lei

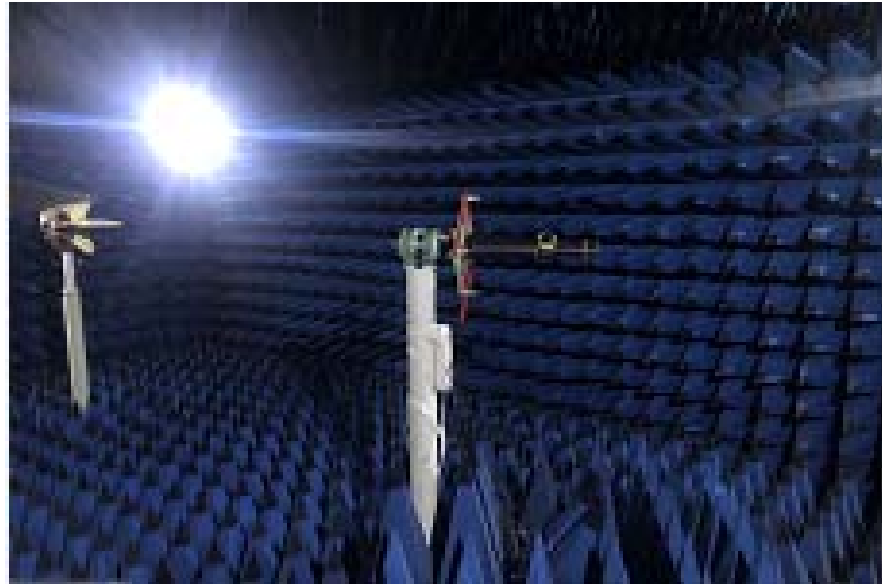
Date: August 8-30, 2022

Contact information:



Project development environment

We are moving from the Internet era to the intelligent era, and the country is building a digital society and a smart city. In the next 5-10 years, both there is huge development potential in the consumer electronics market and the Internet of Things market. The field of wireless communication is very diversified. In the future, relying on the customer platform advantages of the main antenna business and its own comprehensive strength, Yusheng will strive to provide customers with professional product solutions with market competitiveness.



RenSheng communication products cover almost all wireless terminal equipment antenna applications, including car antenna, high precision surveying and mapping aerial, drone ground and satellite data navigation, high precision positioning antenna, medical equipment wireless transmission, consumer antenna (mobile phone antenna, PAD, laptop antenna), base station / indoor distribution antenna, smart wearable antenna (smart watch, TWS headphones), security home antenna and a variety of wireless data transmission and wireless control of smart equipment antenna, etc.

- 1 Project commissioning brief
- 2 Outline of the report version
- 3 The WIFI passive diagram
- 4 Antenna active parameters
- 5 Antenna environment treatment and improvement
- 6 Summary & Additional Notes

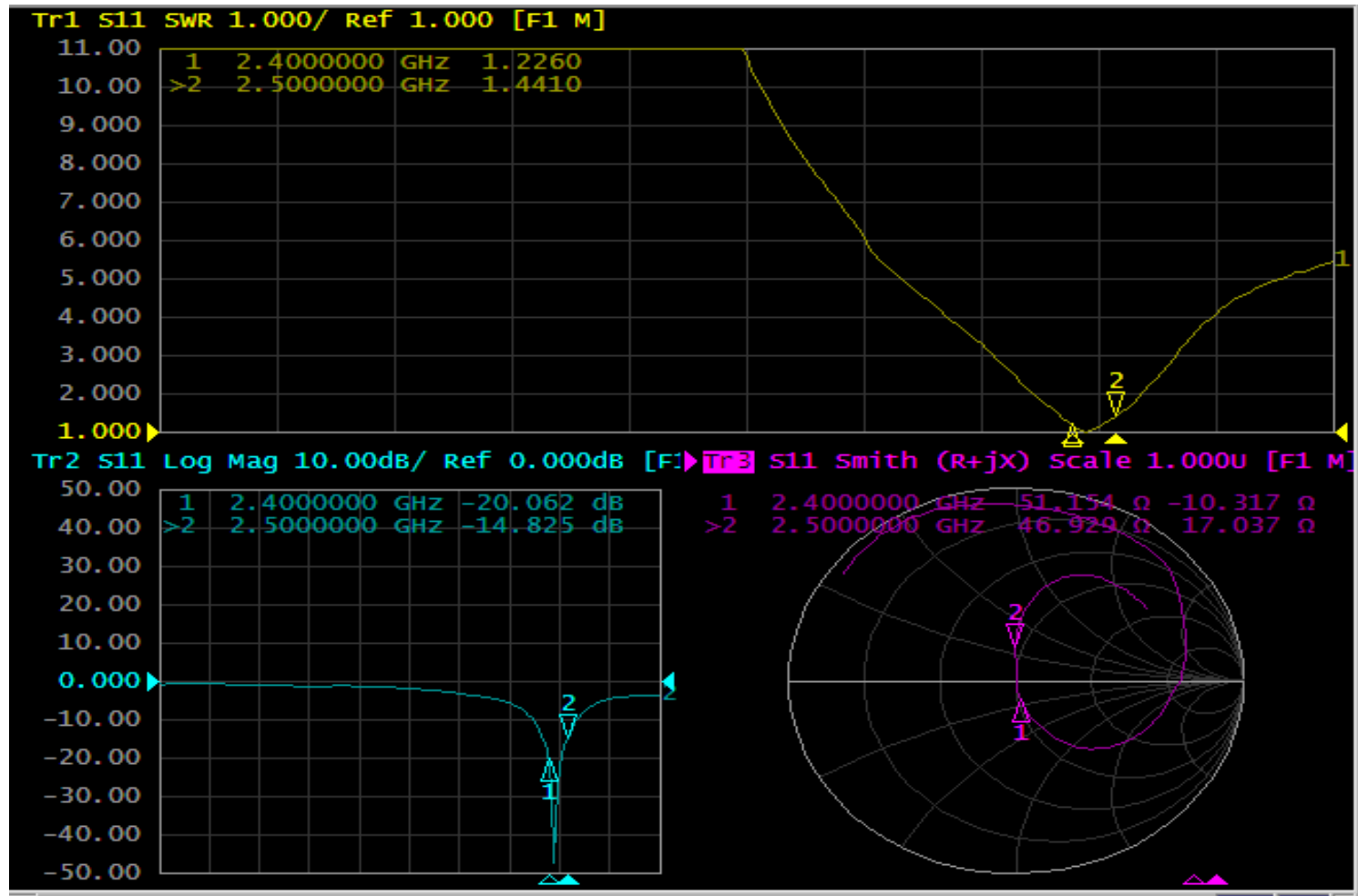
Project commissioning brief

The machine type	intellectual products			
The plate type	mainboard			
Frequency band and antenna material	Antenna form	Frequency band and antenna form		Material is qualitative
		PIFA		onboard
	antenna	WiFi	2.45G	onboard
		/	/	/
performance requirement	Execute as required by customer			

Outline of the report version

Report version	Report time	The problem solved by the antenna development
V0.1	2022-8-30	Passive test report

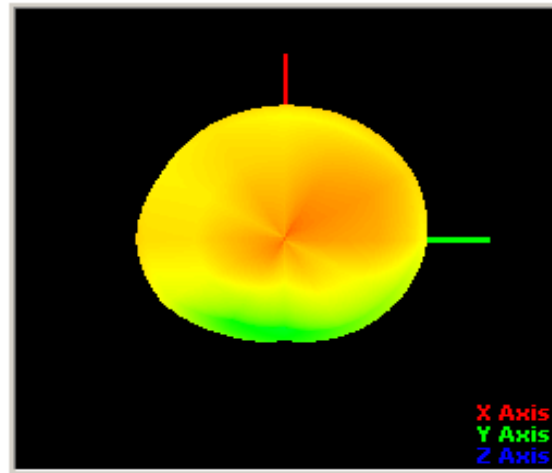
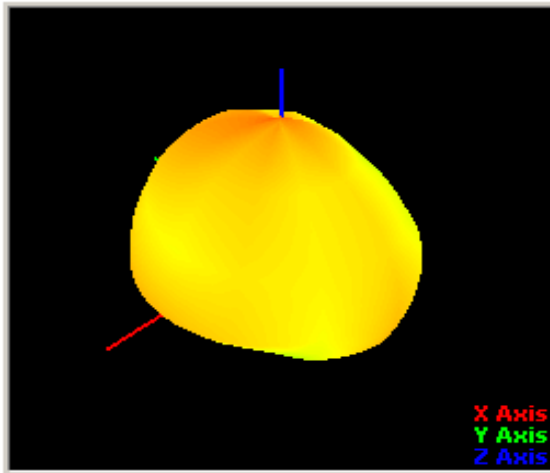
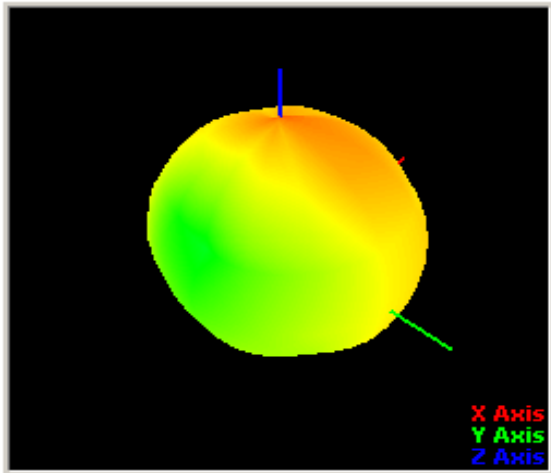
Antenna passive parameter-2.4G



Antenna passive parameter-2.4GWIFI

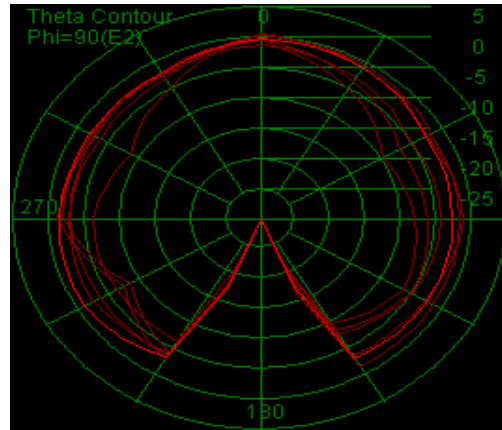
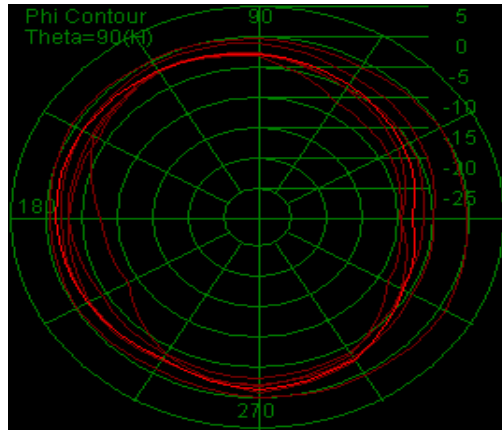
Test Point ID	1	2	3	4	5	6	7	8	9	10	11
Freq.(MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	1.89	2.13	2.40	2.51	2.69	2.68	2.75	2.49	2.38	2.23	2.04
Efficiency (%)	48.1%	48.5%	49.4%	49.8%	50.6%	51.4%	50.9%	49.7%	49.2%	48.0%	46.9%

Radiation Pattern For WIFI Antenna (2450MHz) , Peak Gain : 2.68dbi

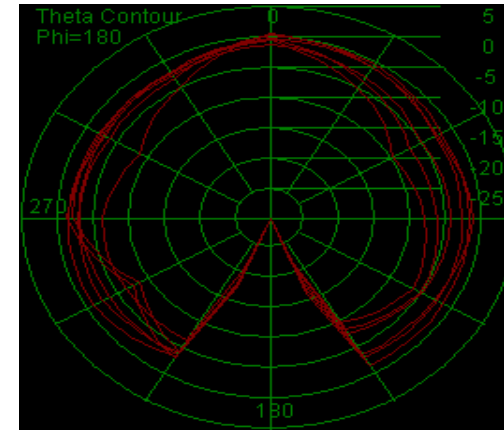


Antenna passive parameter-2.4G direction diagram

Theta =90 (Phi=270° is straight ahead) Phi=90°



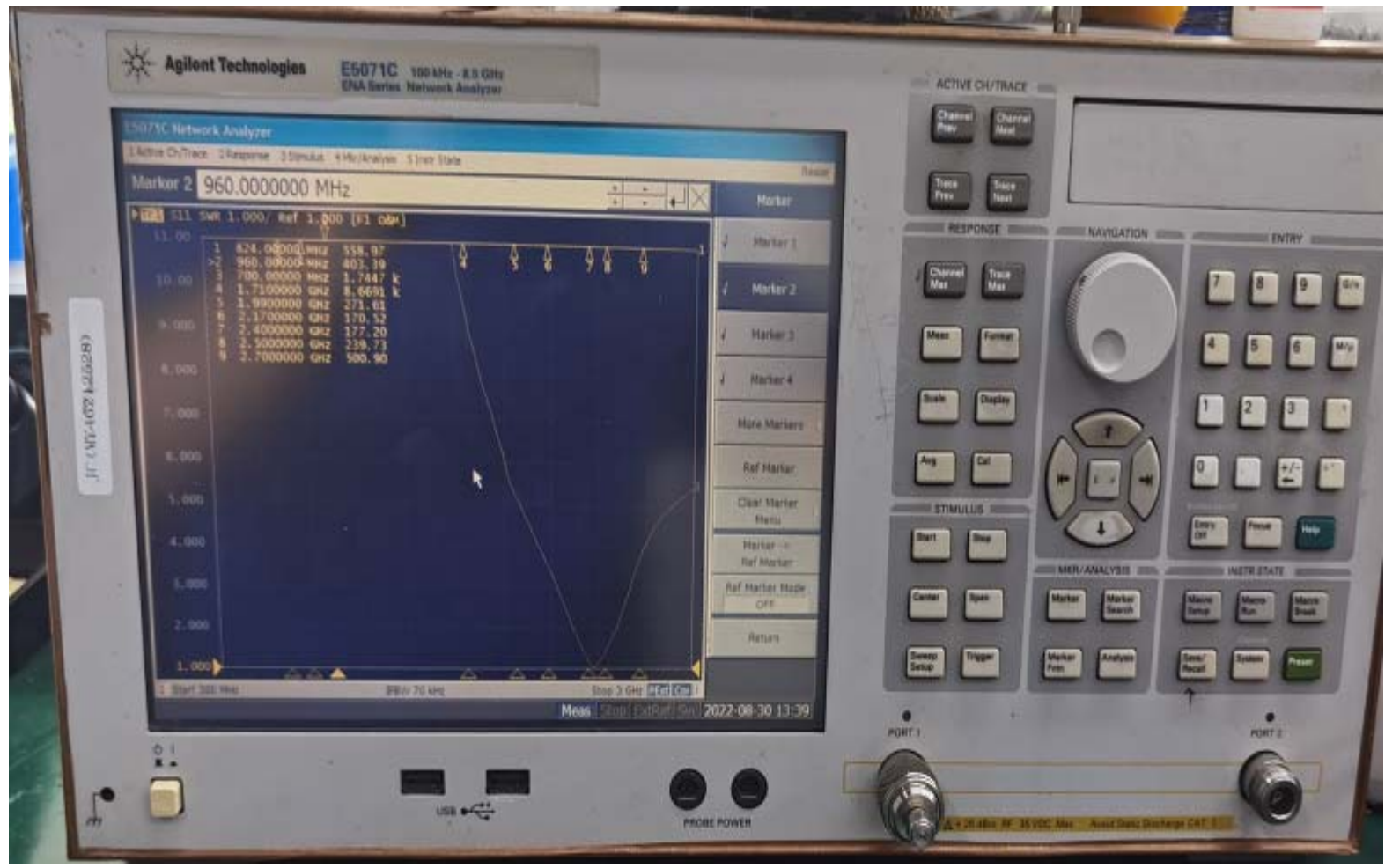
Phi=180°



Complete machine passive test



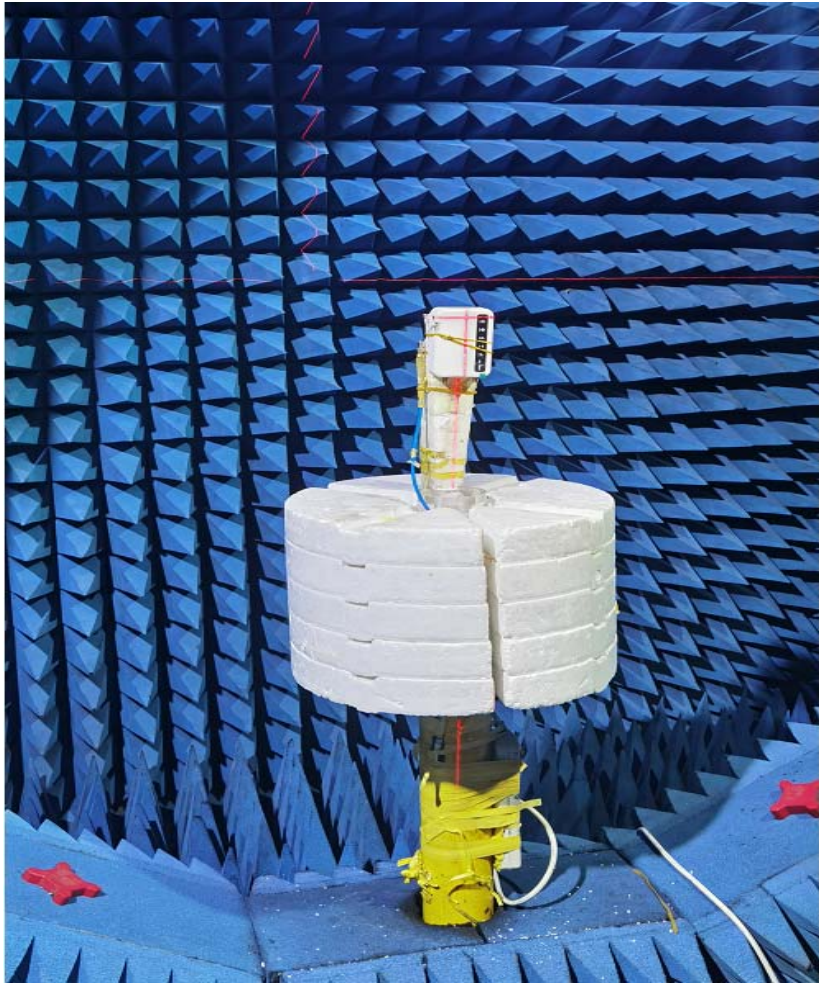
The Network Analyzer--E5071C



**Test Instrument Network Analyzer-
E5071B**



laboratory



Summary & Additional Notes

sum up

Active test report

explain

Carefully confirm that the match mentioned in the report is modified and that the environment is imported, which will directly affect antenna performance.

explain

The parameters provided in this report are only those given to our testing prototype, and do not represent the final project of your company Mass production status.

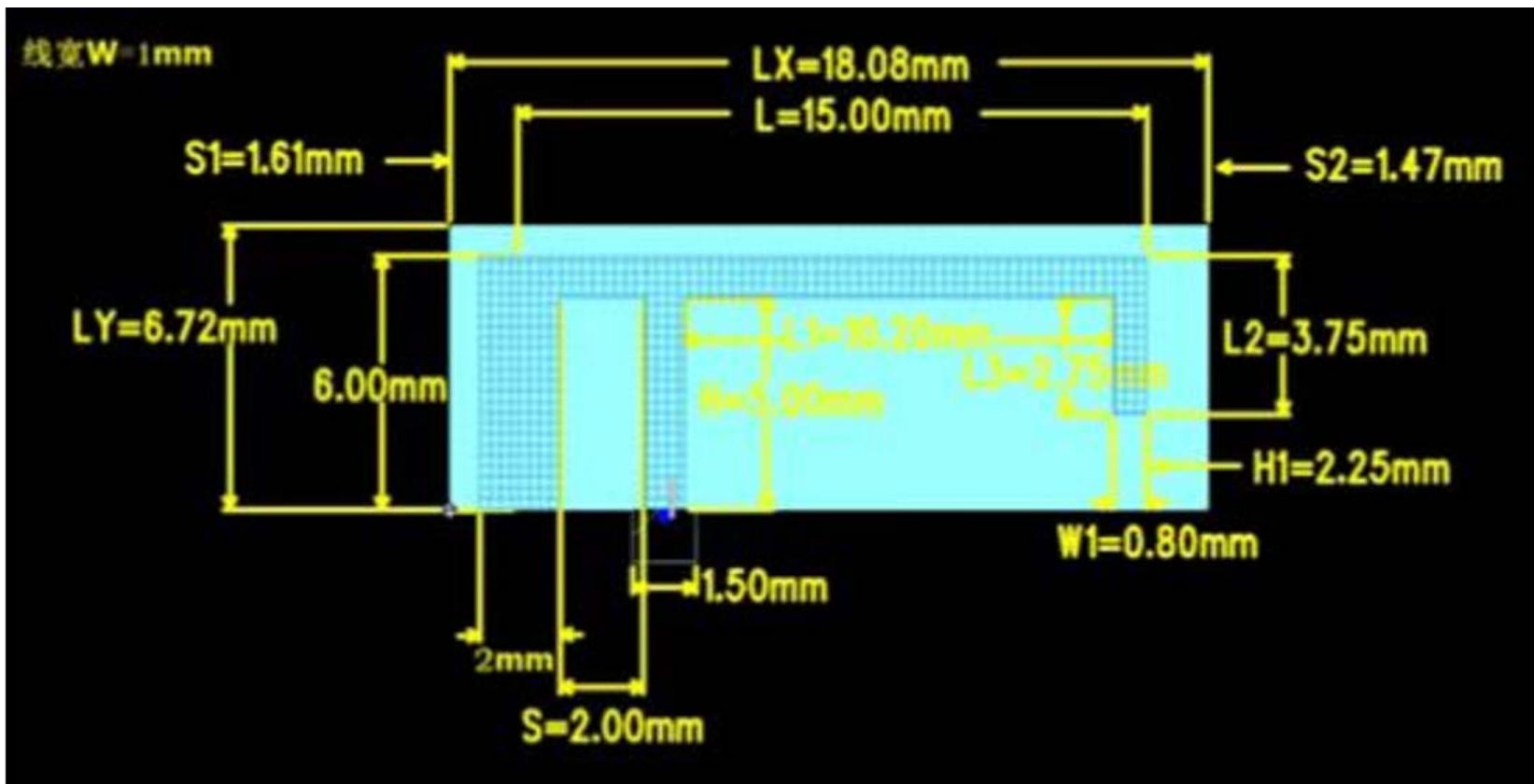
explain

If you have a prototype of updated status (replacement materials, software, environmental treatment, etc.), please submit it to us as soon as possible Verify to verify that the antenna performance is affected.

explain

If you need to send it to a third party or to a customer for testing, please be sure to test the machine
For various factors (motherboard, assembly consistency, antenna assembly differences)
Causes the deviation of the antenna parameters

antenna size



Thank you!



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