



好天线 · 优比造

东莞市优比电子有限公司

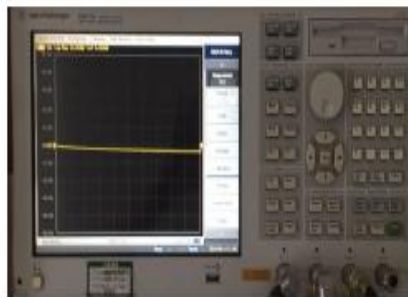
Dongguan UB Electronic Co.,Ltd

Antenna report

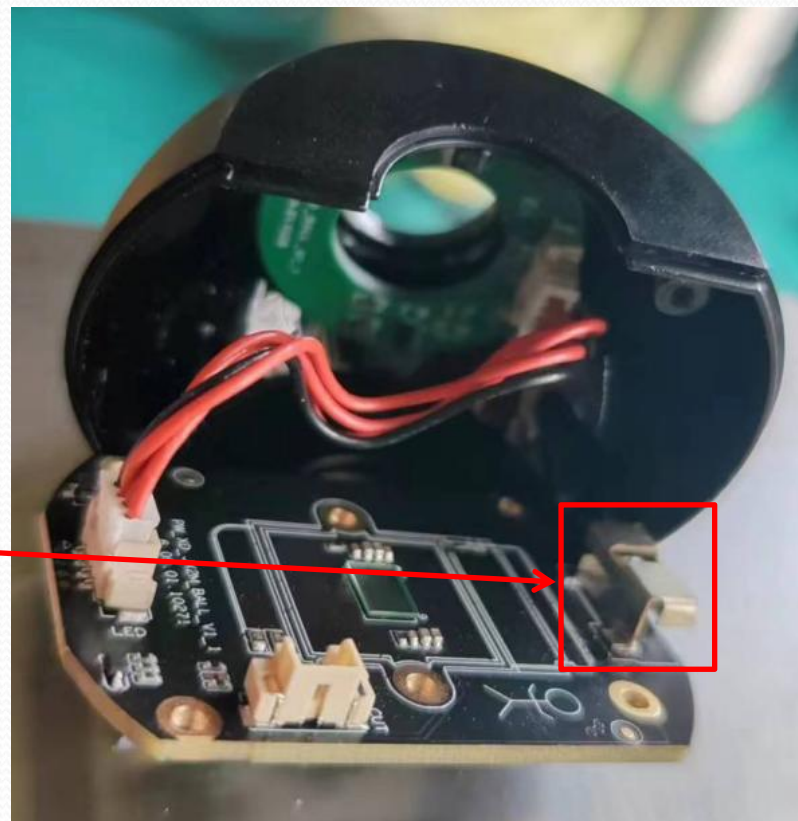
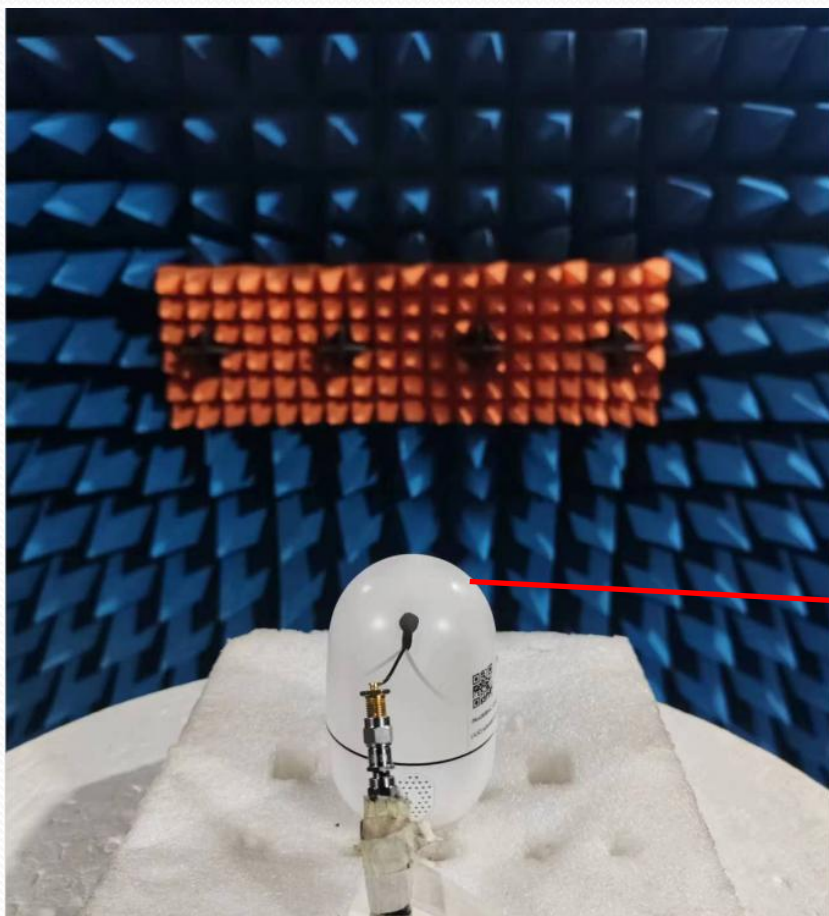
Project Name	small egg machine
Frequency Band	2400-2500MHz
Write	Yunfei Zhang
Version	X1
Report Date	2023.08.22

1.Test items and equipment

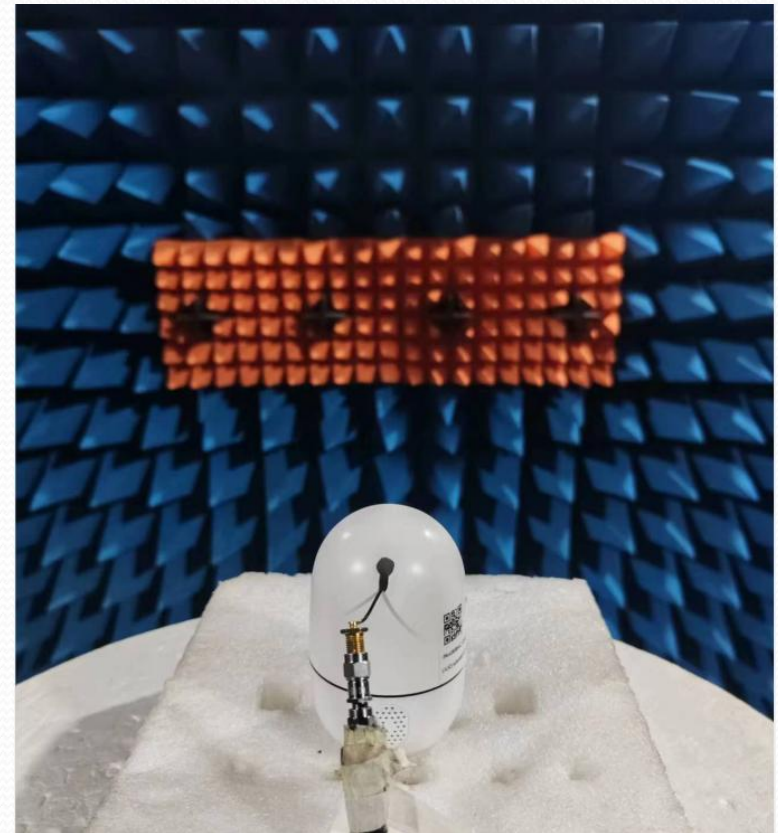
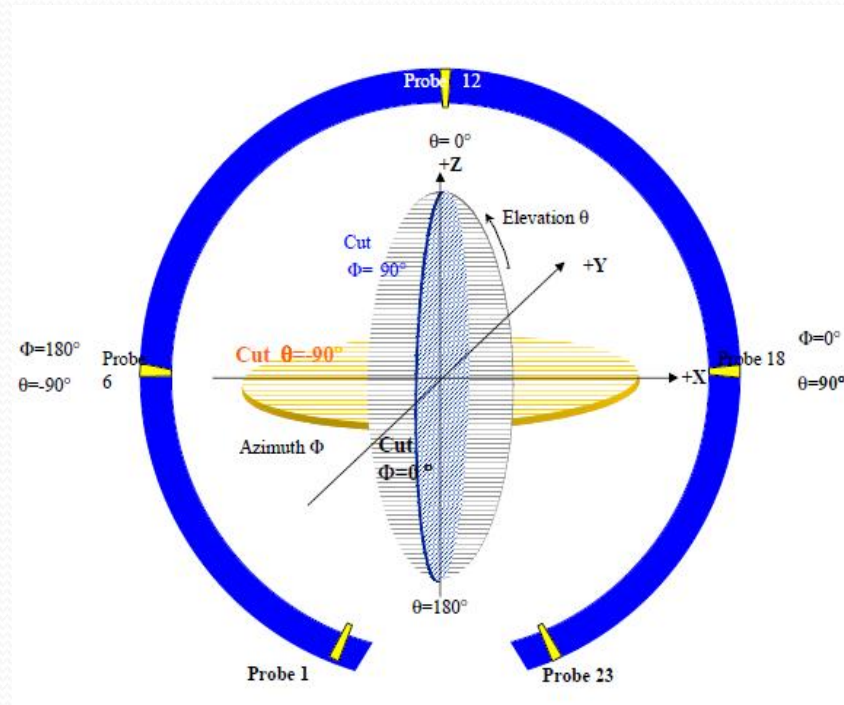
Active indicators	1. Whole machine radiation power	1. Microwave chamber 5M*5M*4M CMW 500
	2. Whole machine receiving sensitivity	
Passive indicators	1. S parameter	1. network analyzer E5071B
	2. Radiation parameters	1. Microwave chamber 5M*5M*4M、 2. network analyzer E5071B



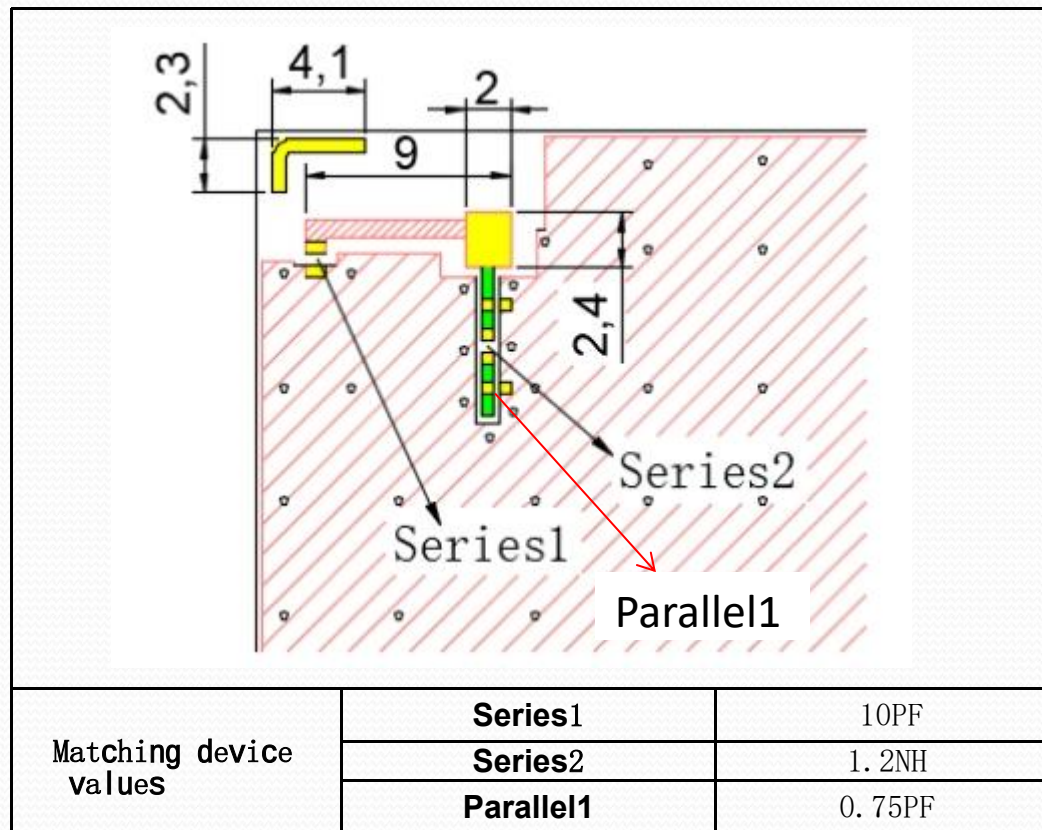
2.Test Information



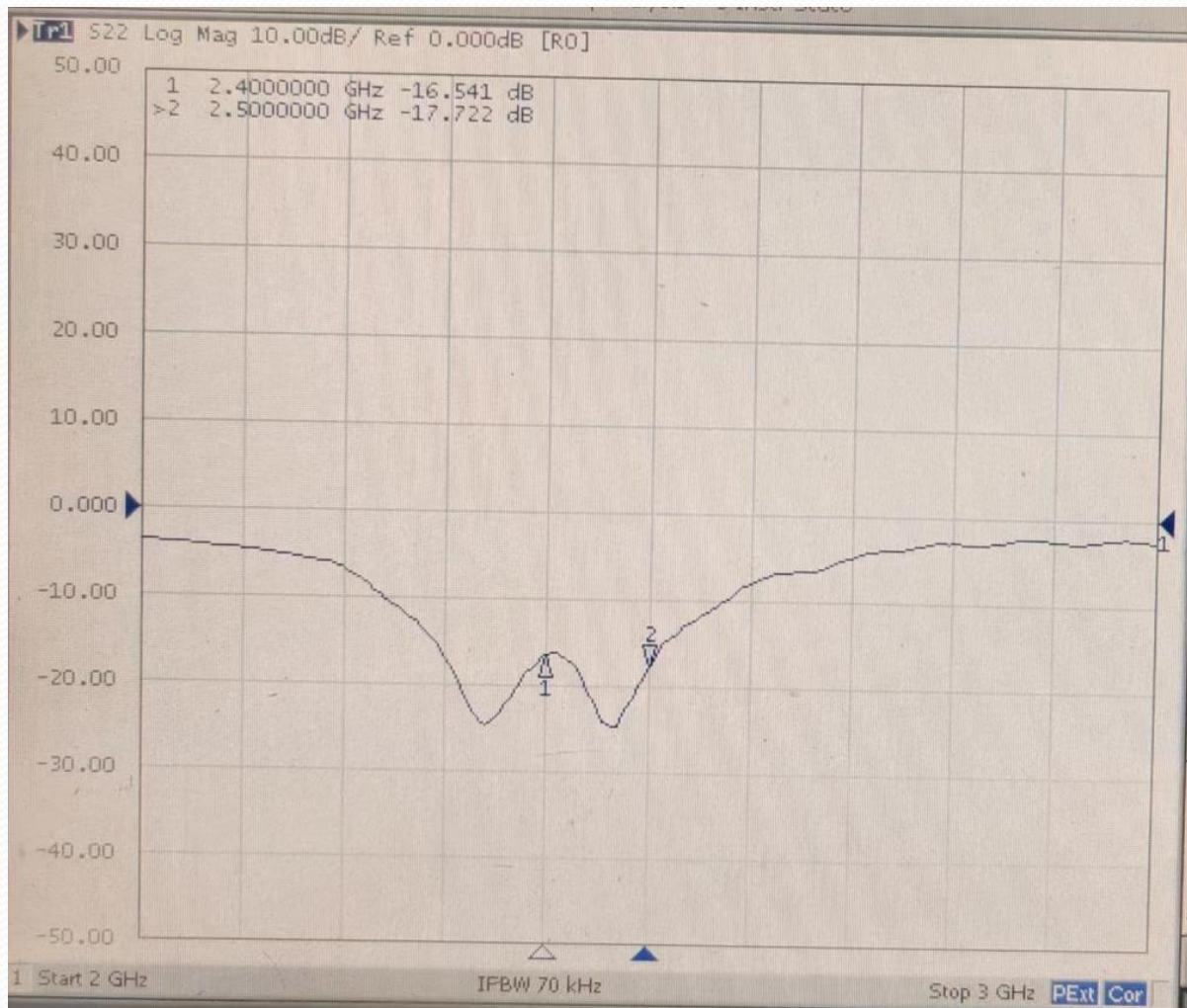
3. testing environment



4.Ant matching



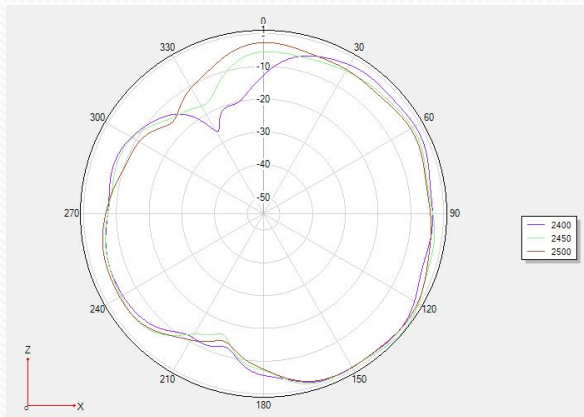
5. Ant parameters---Return Loss



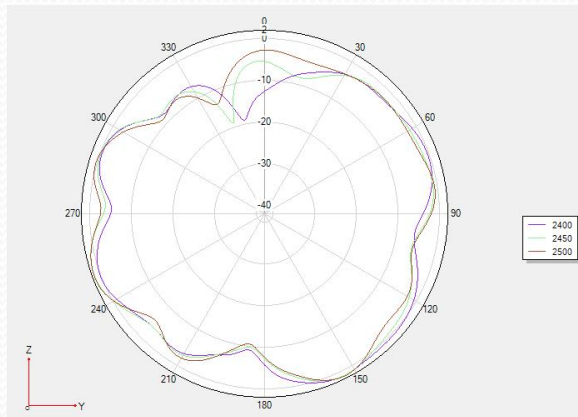
6.1 Passive testing data for the entire machine

Frequency / MHz	Efficiency / dB	Frequency / MHz	Gain/ dBi
2400	-2.78	52.72	1.48
2410	-2.89	51.4	1.3
2420	-3.06	49.43	1.47
2430	-2.81	52.36	1.8
2440	-2.72	53.46	1.94
2450	-2.78	52.72	1.71
2460	-2.77	52.84	1.84
2470	-2.96	50.58	1.96
2480	-2.92	51.05	1.79
2490	-2.66	54.2	2.6
2500	-2.91	51.17	2.11

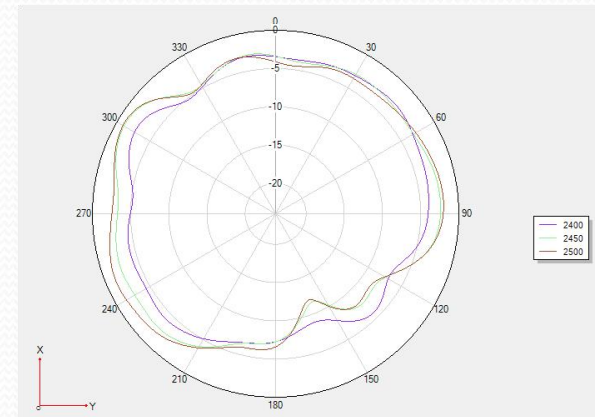
6.2 Machine 2, 3D directional diagram



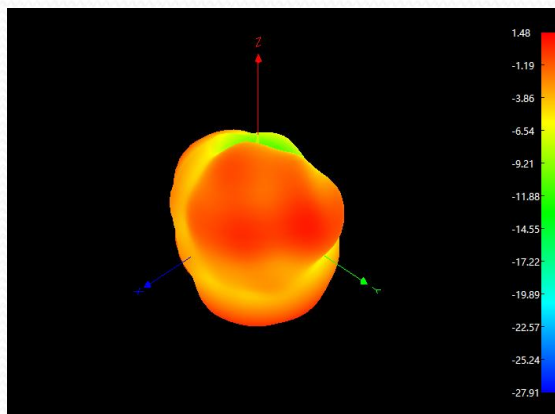
Phi 0



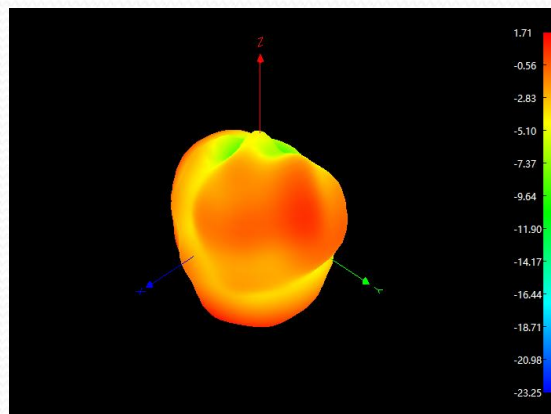
Phi 90



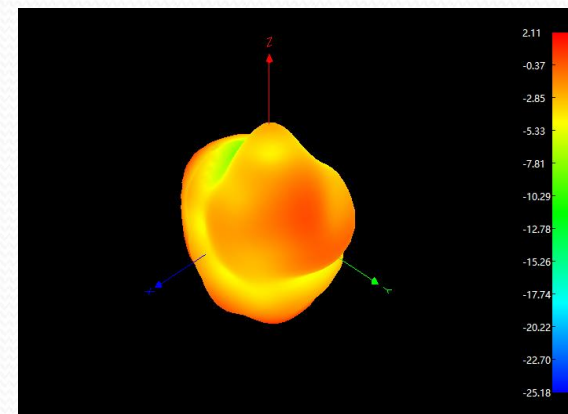
Theta 90



2400MHz



2450MHz



2500MHz

7.0TA test data for the entire machine

Item	Measurement	Standard	Band	Channel	Frequency	Total
1	TRP	WIFI (AP)	WIFI_B (11M)	1	2412	18.51
2	TRP	WIFI (AP)	WIFI_B (11M)	6	2437	19.37
3	TRP	WIFI (AP)	WIFI_B (11M)	11	2462	17.71
4	TIS(EIRP)	WIFI (AP)	WIFI_B (11M)	1	2412	-80.68
5	TIS(EIRP)	WIFI (AP)	WIFI_B (11M)	6	2437	-82.58
6	TIS(EIRP)	WIFI (AP)	WIFI_B (11M)	11	2462	-75.76

8.summary

1. The antenna is generally in good condition;
2. The TIS of 11B is low;

Antenna Structure

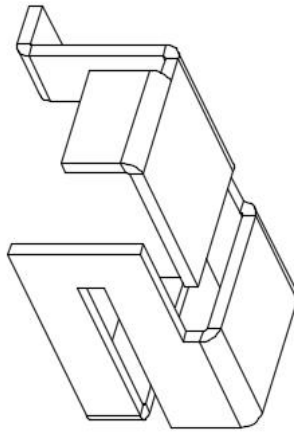
characteristic

1. Steel plate built-in antenna with dimensions of 11.3 X 6.4 X 5 X 0.4 mm³.
2. Low energy loss and high antenna efficiency.
3. High stability under temperature and humidity changes

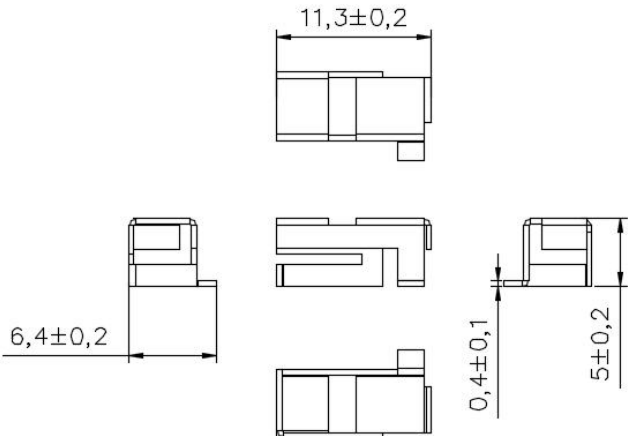
application

1. Antenna applications in the 2.4 GHz frequency band.
2. Bluetooth, wireless, and smart home applications.

structure



size

Three Views	symbol	Size (mm)
	L	11. 3±0. 2
	w	6. 4±0. 2
	H	5±0. 2
	T	0. 4±0. 1