



好天线 · 优比造

东莞市优比电子有限公司

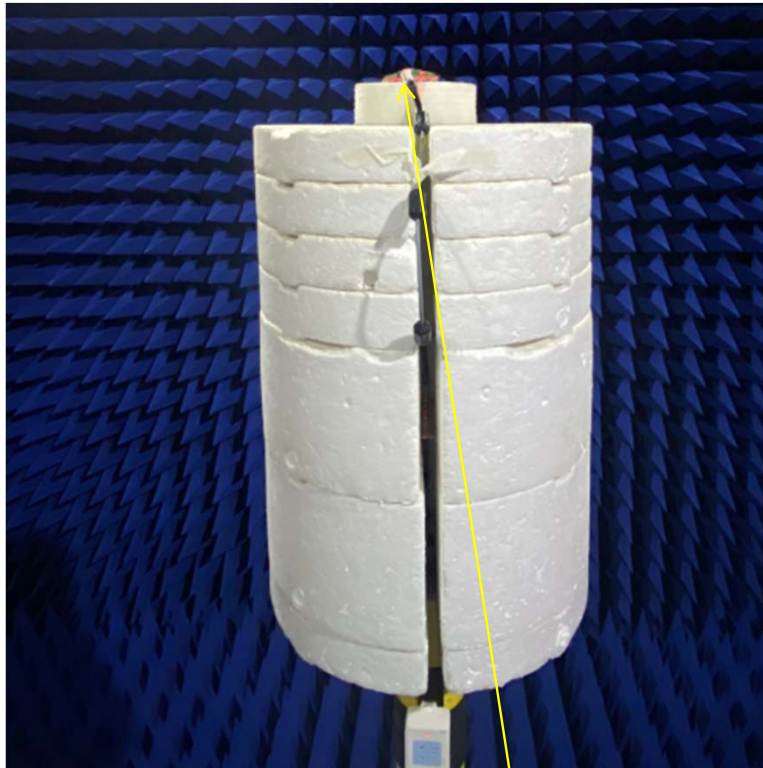
Dongguan UB Electronics Co., Ltd

Antenna Study

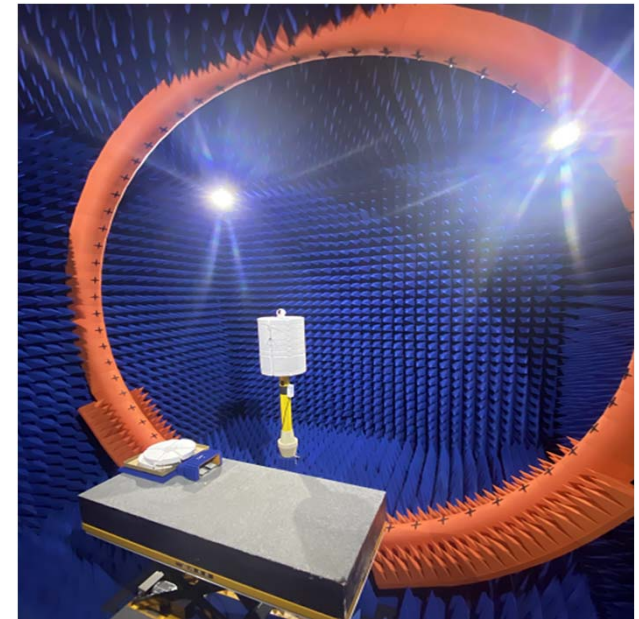
- **Client Name: NINGBO YINZHOU LIJIA CHILDREN PRODUCTS CO., LTD.**
- **Project Name : J588**
- **Debugging frequency band: 2400-2500HMz**
- **Valuation date: 2024.08.08**
- **Linkman contacts: he hai ping 13686295193**

PCB Antenna

Dongguan UB Electronics Co., Ltd



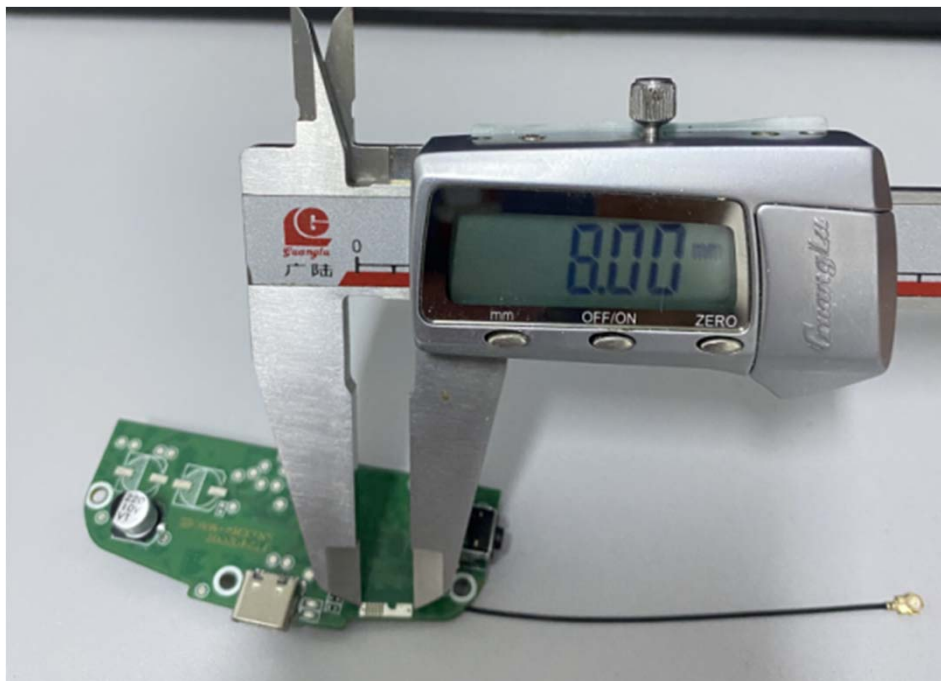
Testing environment



Testing 3D microwave darkroom(6m*6m*6m)

PCB Antenna

Dongguan UB Electronics Co., Ltd

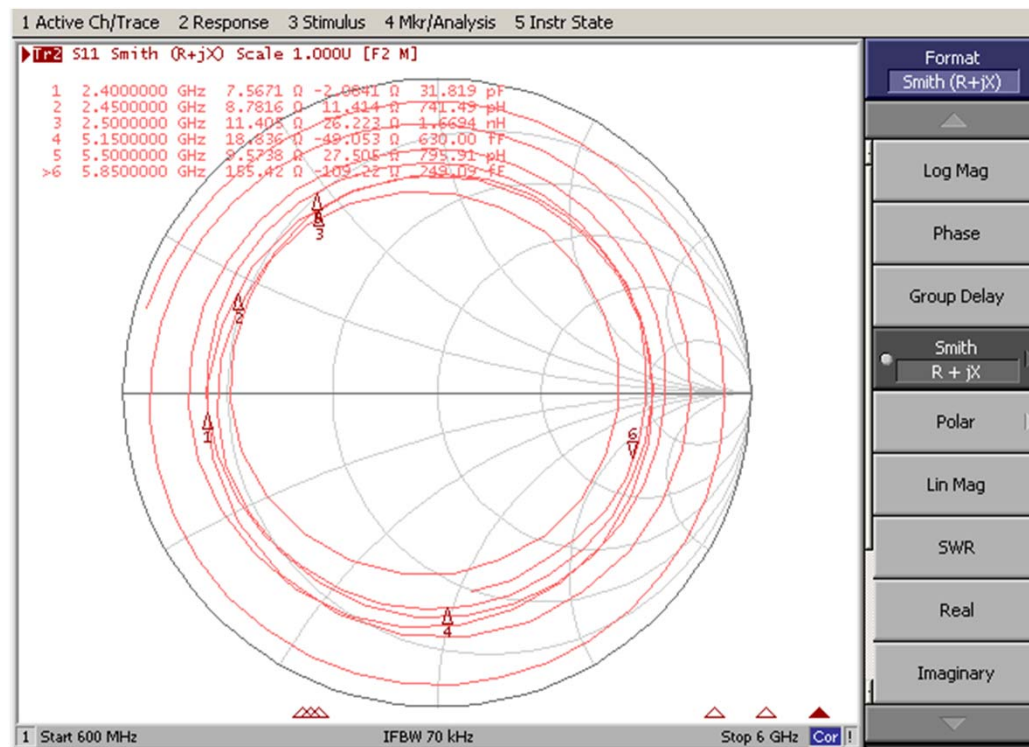
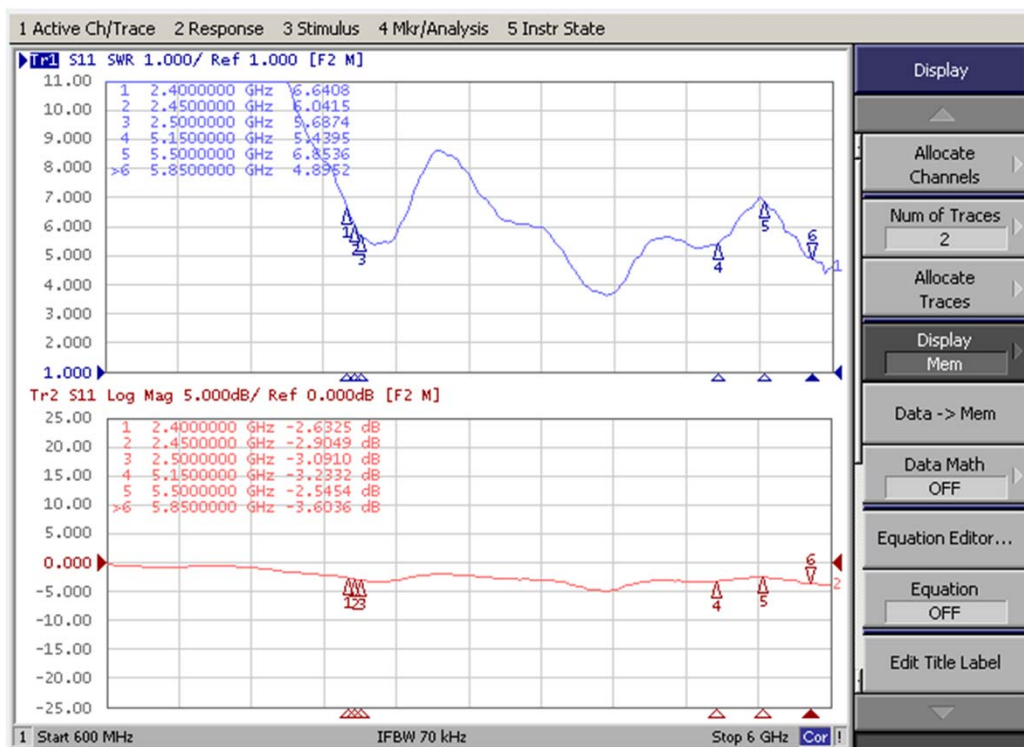


Antenna

- Antenna name: 2.4G
- Antenna Type: PCB
- Covers : 2400/2500MHz

S Parameter_Return Loss&VSWR-Smith

Dongguan UB Electronics Co., Ltd

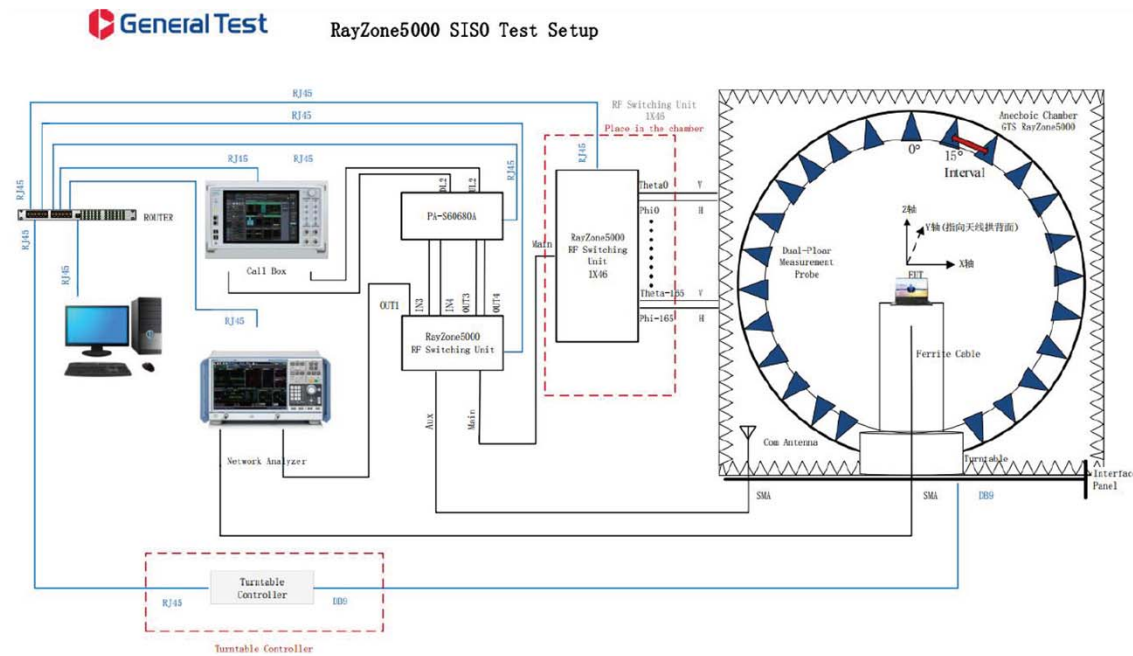


Efficiency and Gain

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (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)	-5.86	-5.62	-5.70	-7.21	-7.45	-7.15	-4.89	-3.99	-2.97	-3.40	-6.86
Efficiency (%)	7.90	8.19	8.48	8.52	8.52	8.67	8.99	9.44	9.63	10.00	9.94

TEST PRINCIPLE

Test Software: TIANJIN FEITU TEST SYSTEM

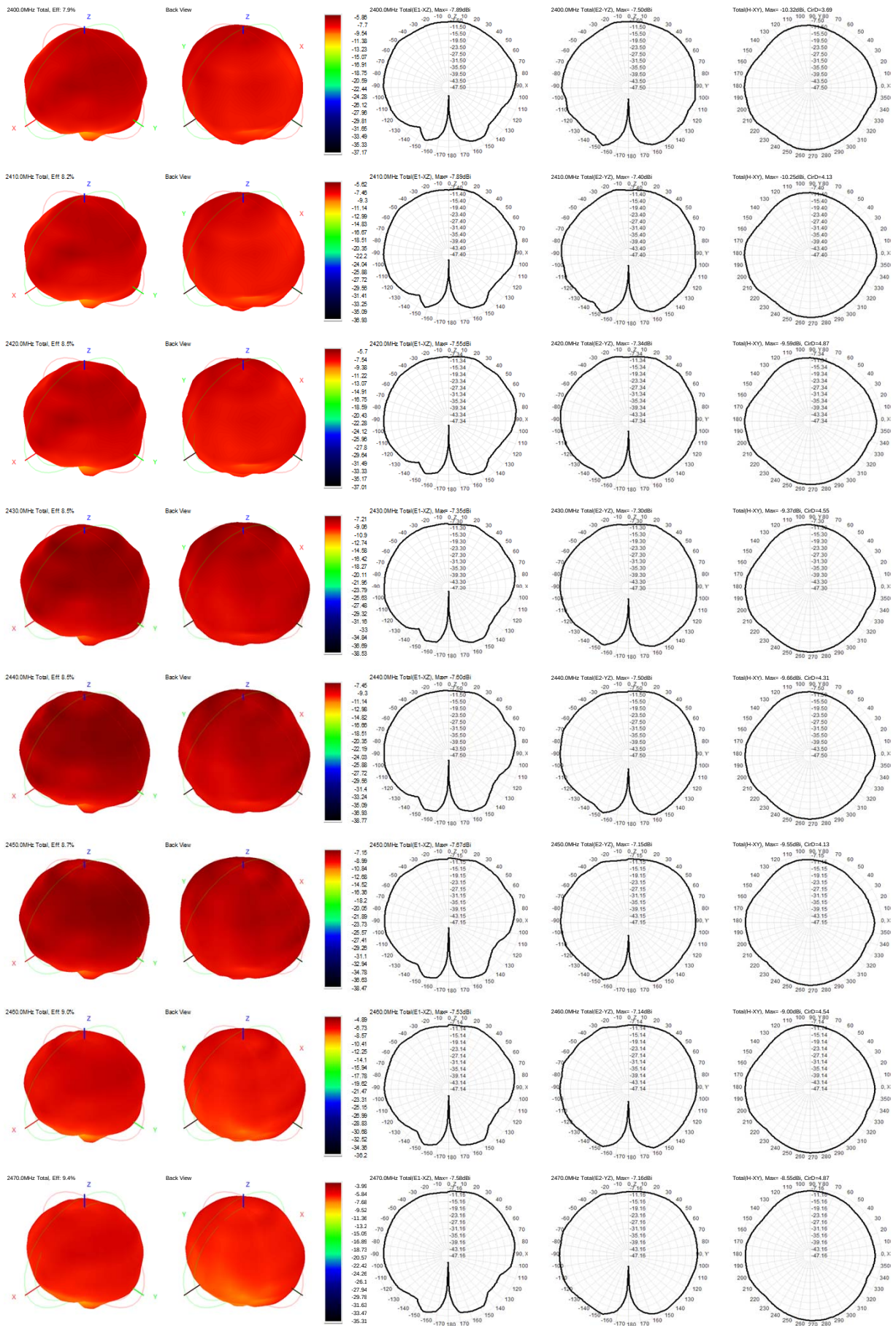


Standard

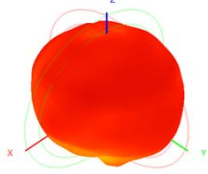
IEEE149-1979 IEEE Standard Test Procedures for Antennas

Test Equipment

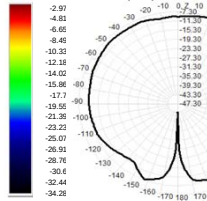
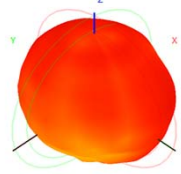
Test Equipment	Type/Mode	Equipment No.	Manufacturer	Cal Date	Due Date
OTA test system	RayZone-5000	RFI-LAB-RF-D00	GTS	2023.3.22	2025.3.21
Network Analyzer	E5071C	RFI-LAB-RF-D01	KEYSIGHT	2023.5.13	2024.5.12



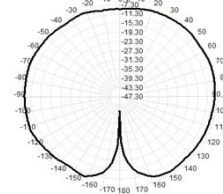
2480.0MHz Total, Eff: 9.6%



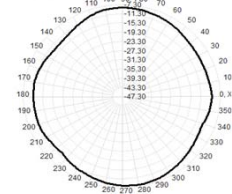
Back View



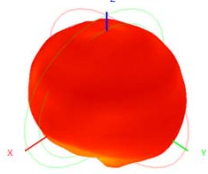
2480.0MHz Total(E2-YZ), Max=-7.30dB



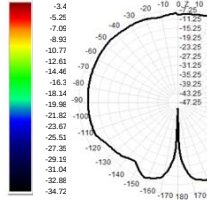
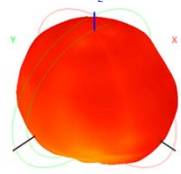
Total(H-XY), Max=-8.43dB, Crd=4.93



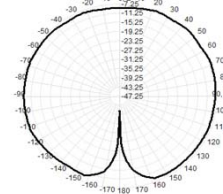
2490.0MHz Total, Eff: 10.0%



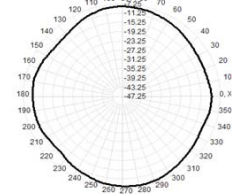
Back View



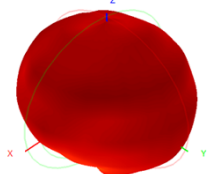
2490.0MHz Total(E2-YZ), Max=-7.25dB



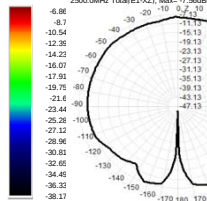
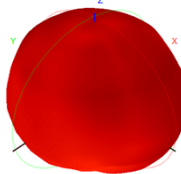
Total(H-XY), Max=-8.19dB, Crd=4.72



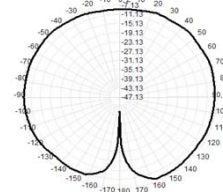
2500.0MHz Total, Eff: 9.9%



Back View



2500.0MHz Total(E2-YZ), Max=-7.13dB



Total(H-XY), Max=-8.12dB, Crd=4.55

