



Shenzhen Yingfeng Antenna Technology Co., Ltd.

FM209

Antenna Test Report

Customer	Finemold
Products	Thermometer
Engineer	Xu
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Date	2025-07-02
Editor	ZXY



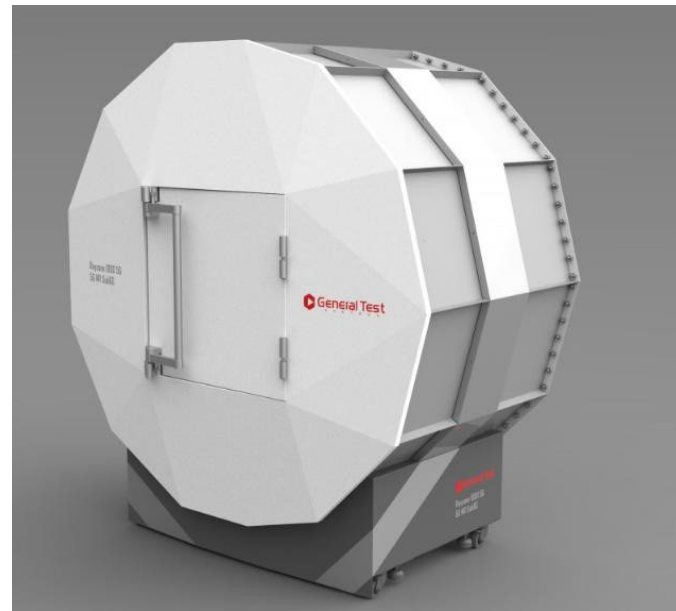
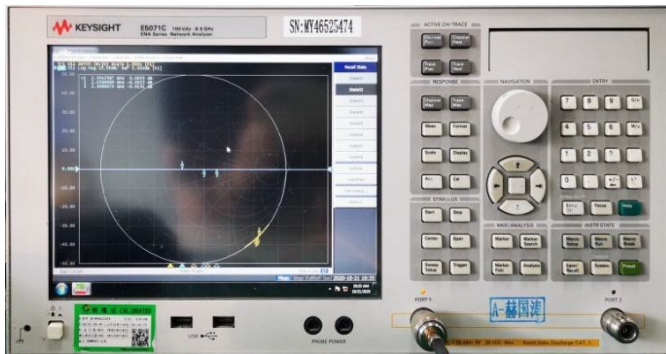
Report contents

- ▶ **Test Equipment**
- ▶ **Matching circuit**
- ▶ **Antenna assembly position**
- ▶ **Electrical Parameter**
- ▶ **Antenna Passive Data**
- ▶ **Antenna Gain/Efficiency/3D Apple Chart**



Test Equipment

- 1. S-parameter measurement
- 2. Equipment: Network analyzer (Agilent E5062A), anechoic chamber, MT8852B
- 3. Items: Impedance, Return Loss, VSWR, Efficiency, Gain, Radiation Pattern, Sensitivity, Power, Frequency Deviation; Active Data: TRP, TIS





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Prototype Appearance



Manufacturer:

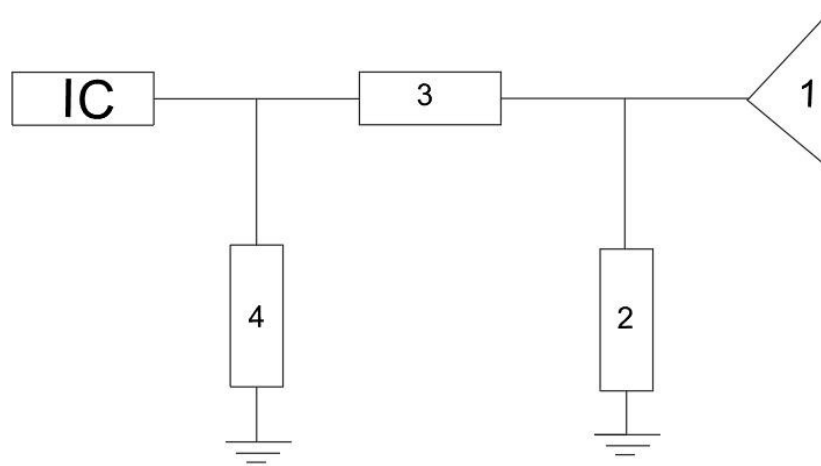
Shenzhen Yingfeng Antenna Technology Co., Ltd.

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Taoyuan Subdistrict, Nanshan District, Shenzhen City



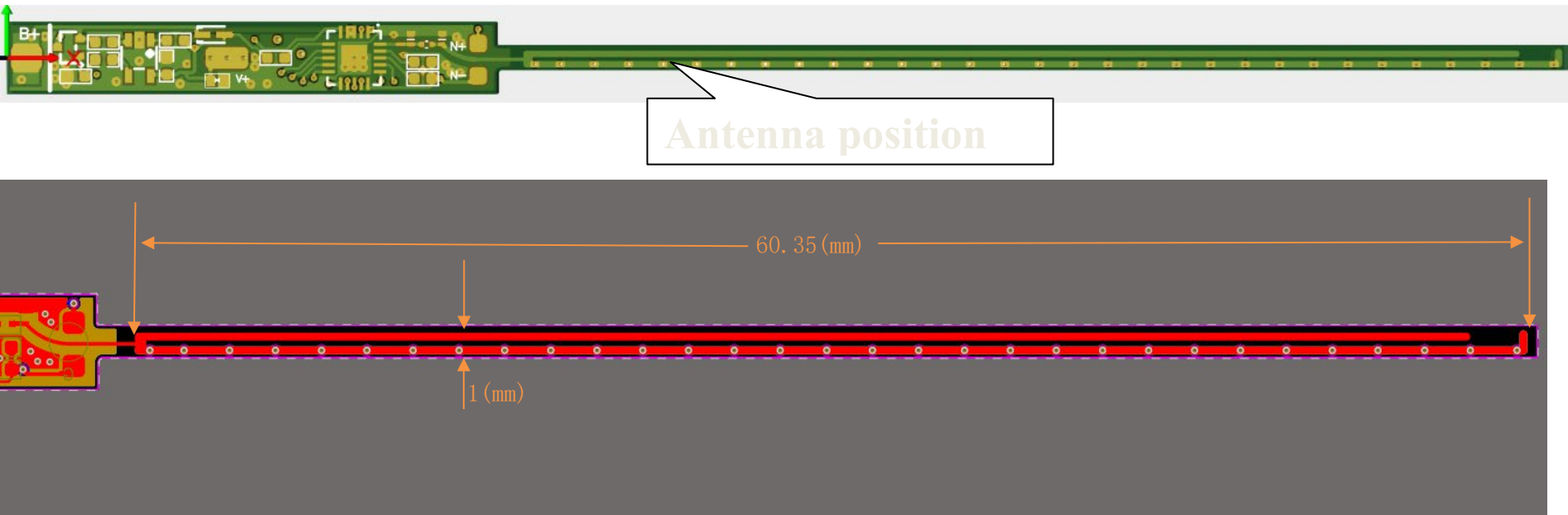
Matching circuit



No.	Model	Specifications	Manufacturer	Part Number	tolerance	
1	On-board antenna					
2	NC					
3	Capacitor	3PF/0201	Murata		$\pm 0.1\text{PF}$	
4	Inductor	3.6NH/0201	Murata		$\pm 0.1\text{NH}$	



Antenna assembly position





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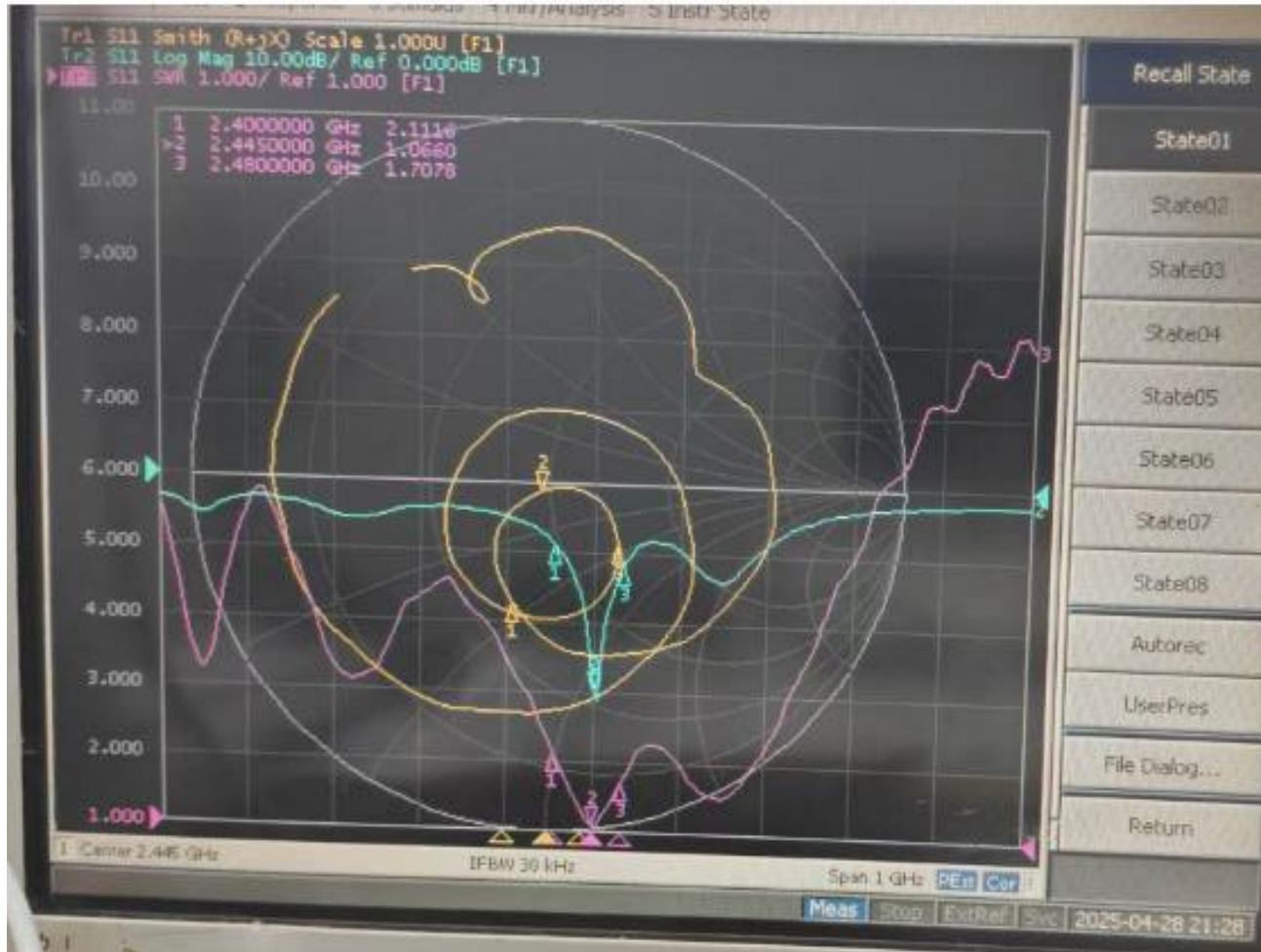
4. Electrical Parameter

Electrical Parameter

Electrical Parameter	
Frequency Range (MHz)	2400~2500
VSWR	≤ 2.0
Input Impedance(Ω)	50
Gain(dBi)	-0.06
Polarization($^{\circ}$)	vertical
Max power(W)	0
Antenna Type	PCB Antenna
Working Temperature($^{\circ}\text{C}$)	-40~+80



Antenna Passive Data





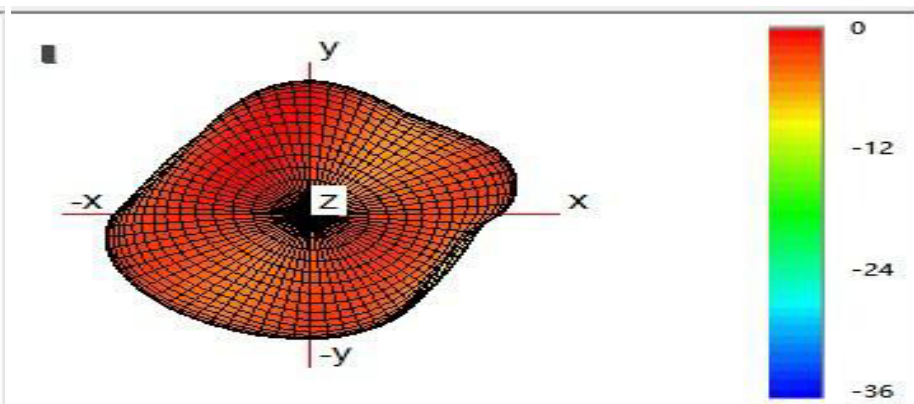
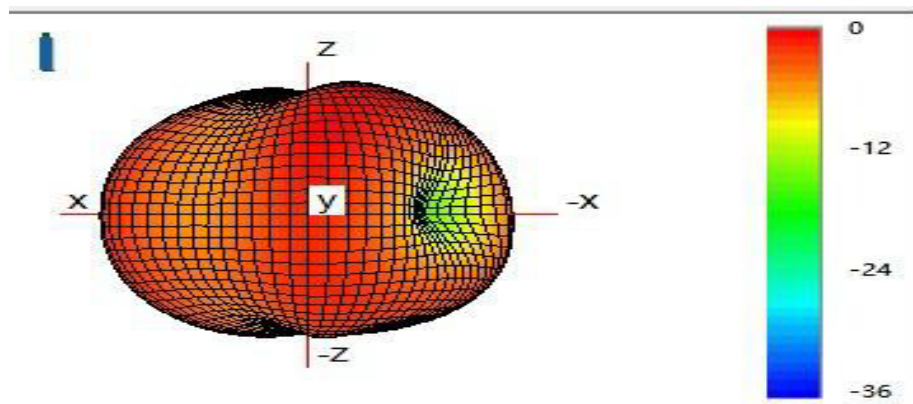
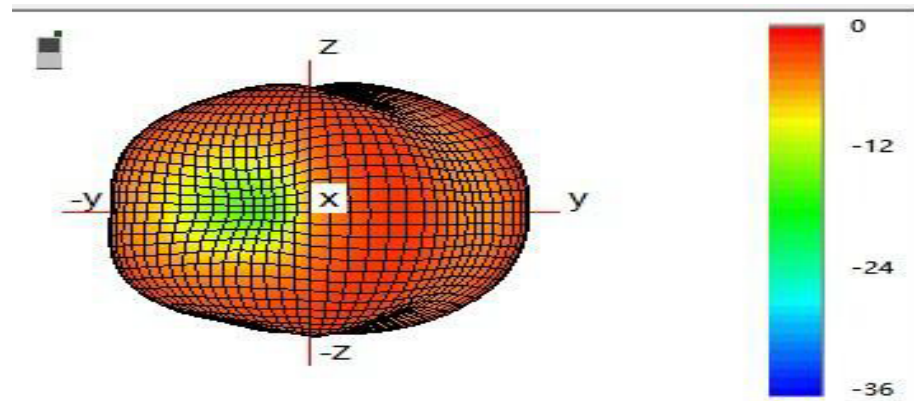
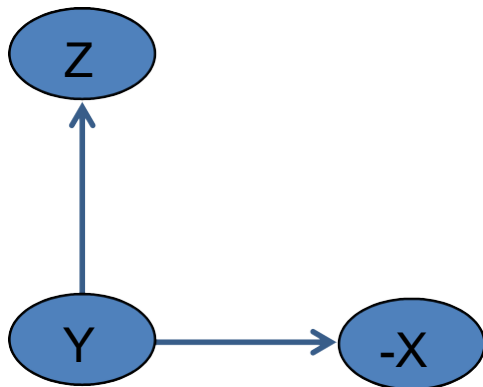
Antenna Gain/Efficiency/3D Apple Chart

Freq (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-0.688875211	-3.909483165	40.64917011
2410	-0.486157386	-3.753567451	42.1350249
2420	-0.420636259	-3.696996178	42.6874667
2430	-0.378103041	-3.649938884	43.15251494
2440	-0.22077634	-3.49131707	44.75775483
2450	-0.059875958	-3.510376447	44.56176205
2460	-0.242595533	-3.781144682	41.8683197
2470	-0.219967666	-3.840459649	41.30037881
2480	-0.512547507	-4.044317845	39.40653194
2490	-1.258295083	-4.681831261	34.02646823
2500	-2.223445821	-5.484738052	28.28304697



Antenna Gain/Efficiency/3D Apple Chart

场型图





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Thanks for Your Attention