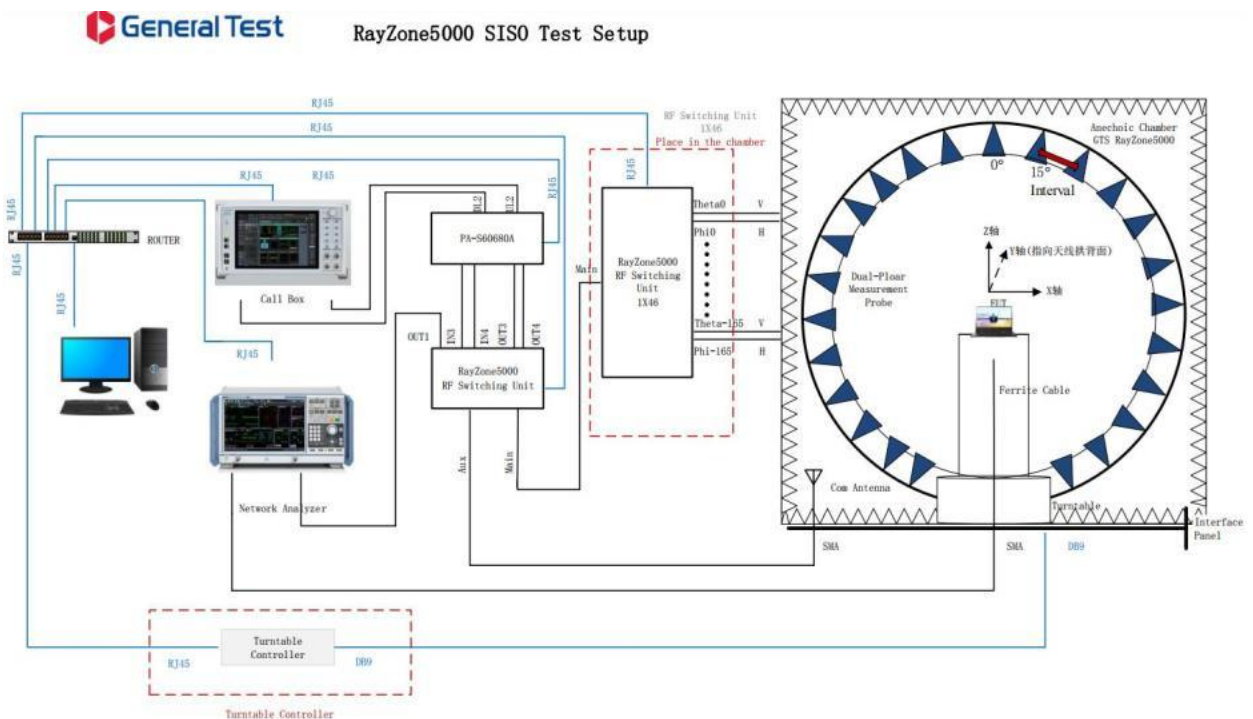


天线报告

Report for Antenna

1、基本信息 Basic info

1.1 测试原理 Testing theory



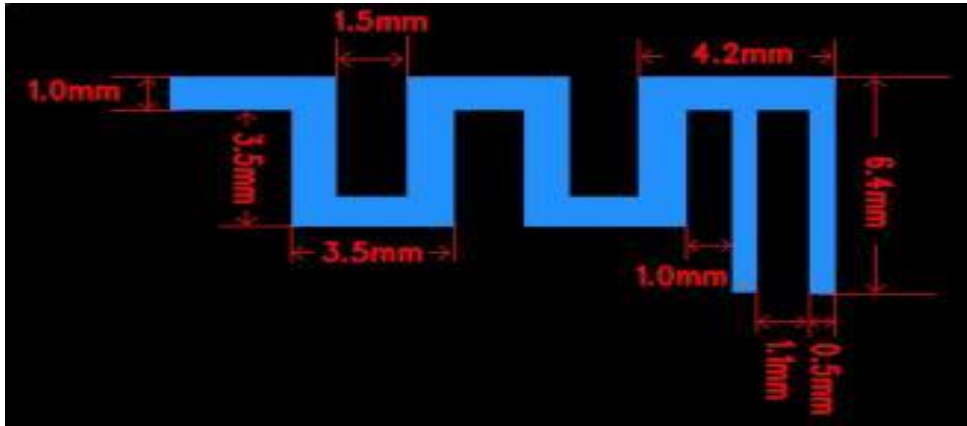
1.2 测试设备 Testing devices

名称 Name	型号 Model	设备编号 Item NO	厂商 Manufacture	校准日期 Calibration Date	下次校准日期 Next Calibration Date
OTA测试系统 OTA Testing System	RayZone-5000	RFI-LAB-RF-D00	GTS	2021.3.22	2023.3.21
网络分析仪 Network Analyzer	E5071C	RFI-LAB-RF-C02	KEYSIGHT	2022.5.13	2023.5.12
网络分析仪 Network Analyzer	E5071C	RFI-LAB-RF-D01	KEYSIGHT	2022.5.13	2023.5.12

1.3 测试环境 Testing Environment

环境温度 Ambient Humidity	23.7℃
相对湿度 Relative Humidity	58%RH
大气压强 Atmospheric pressure	100.14kPa

2.样品实物图 Sample Image



3.样品实测摆放图 Sample Placement Image

主视图
Main Image



3.测试结果 Testing Result

3.1检测依据 Testing Basis

对象名称 Object Name	参数名称 Parameter	方法名称 Method	依据标准号 Standard No.
移动通信天线 Mobile communication antenna	辐射方向图 radiation pattern	移动通信天线通用技术规范 General technical specifications for mobile communication antennas	GB/T 9410-2008
	天线增益 Antenna Gain		
	电压驻波比 VSWR		
	方向图圆度 Directional pattern roundness		
天线 Antenna	增益与方向性 Gain and directionality	IEEE天线测试标准流程 IEEE Antenna Testing Standard Process	ANSI/IEEE Std 149-1979
	辐射效率 Radiation efficiency		
	阻抗 Impedance		

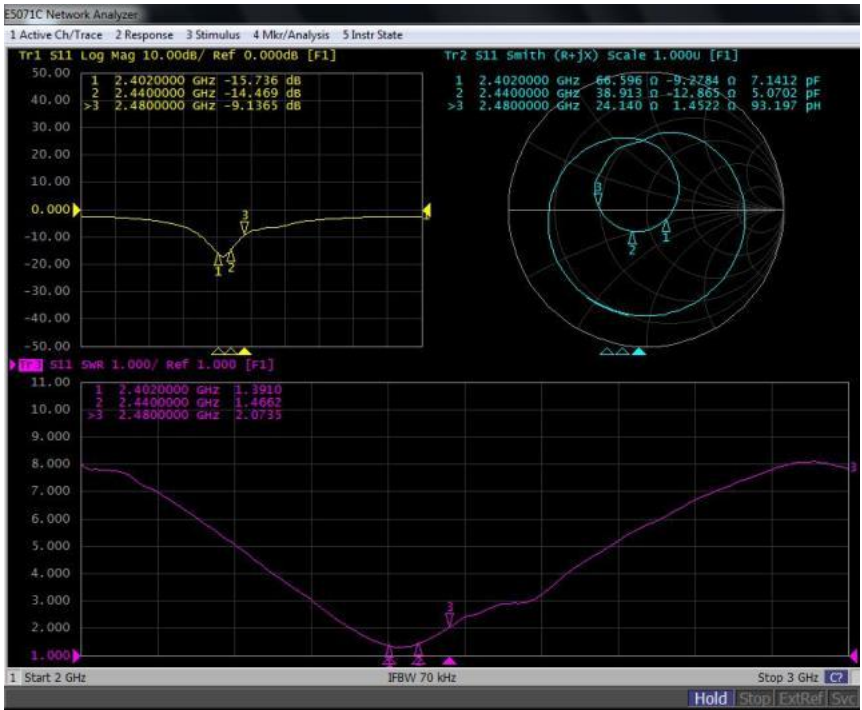
3.2测试不确定度 Testing uncertainty

不确定度的计算以 ISO发布的“Guide to the Expression of Uncertainty in Measurement” (GUM)为依据，使用 K=2的包含因子及 95%置信水平来表示扩展不确定度。
The calculation of uncertainty is based on the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO, using a coverage factor of K=2 and a 95% confidence level to represent the extended uncertainty.

项目 Item	不确定度 Uncertainty
驻波比 Standing-wave Ratio	±0.3
增益、效率 Gain, Efficiency	±0.72dB

3.3测试数据 Testing Data

3.3.1网络分析仪测试 Network Analyzer Testing



3.3.2驻波比 Standing-wave Ratio

频率/MHz Frequency/MHz	2402	2440	2480
电压驻波比 VSWR	1.3910	1.4662	2.0735

3.3.3增益和效率 Gain and Efficiency

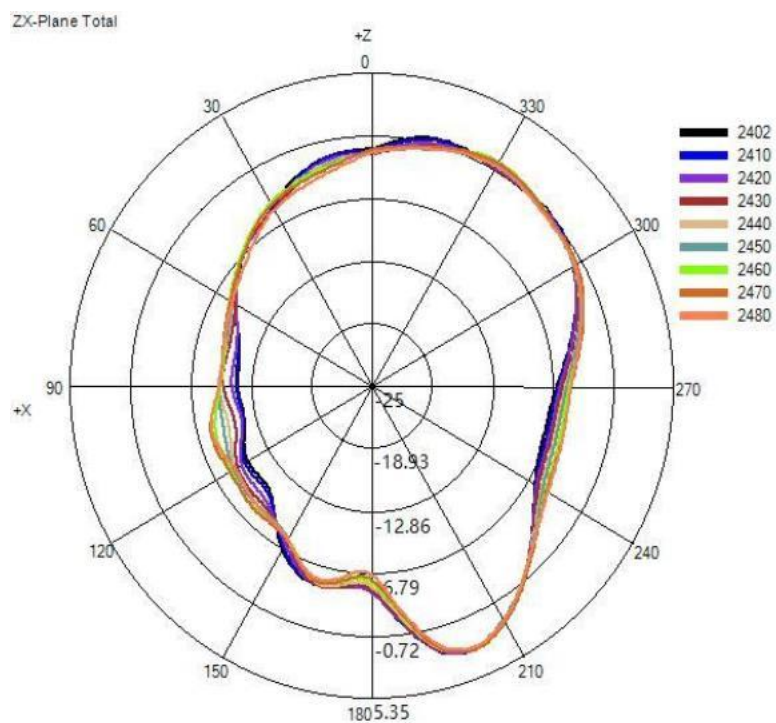
频率/MHz Frequency/MHz	2402	2410	2420	2430	2440	2450	2460	2470	2480
最大增益/% Max Gain/%	2.85	2.88	2.79	2.77	2.69	2.52	2.46	2.41	2.03
效率/% Efficiency /%	44.98	45.34	44.93	45.74	46.00	45.14	45.56	44.49	40.81

3.3.4方向图圆度 Directional Pattern Roundness

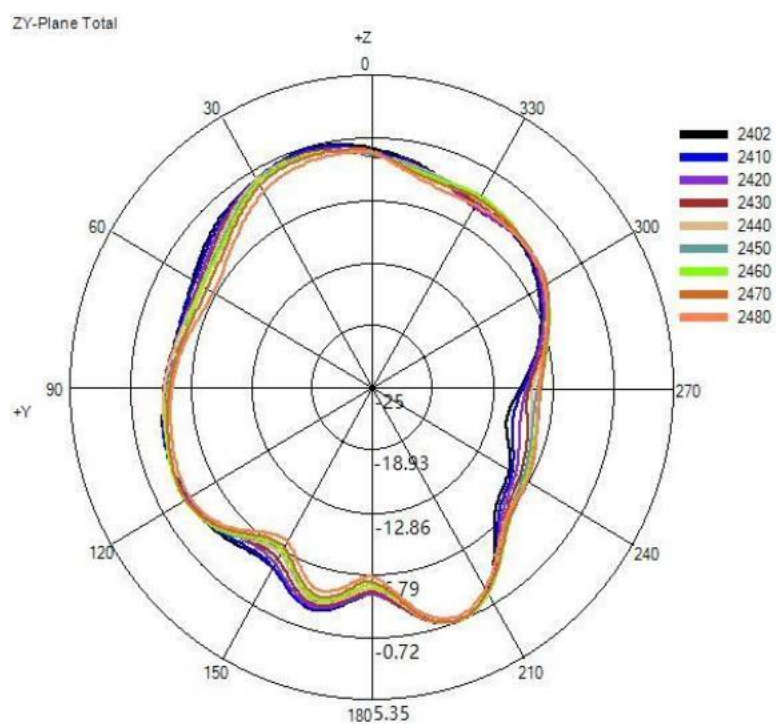
频率/MHz Frequency/MHz	2402	2410	2420	2430	2440	2450	2460	2470	2480
H Theta=90/dB	14.22	14.43	14.31	13.68	13.38	13.30	13.18	13.31	13.58

3.3.5方向图 Directional Pattern

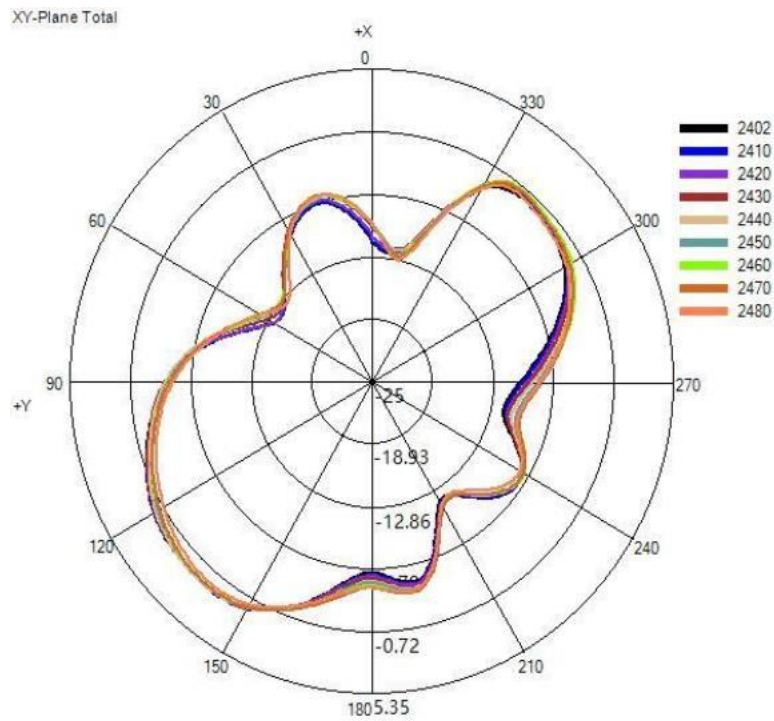
(1) X-Z(Unit: dBi):



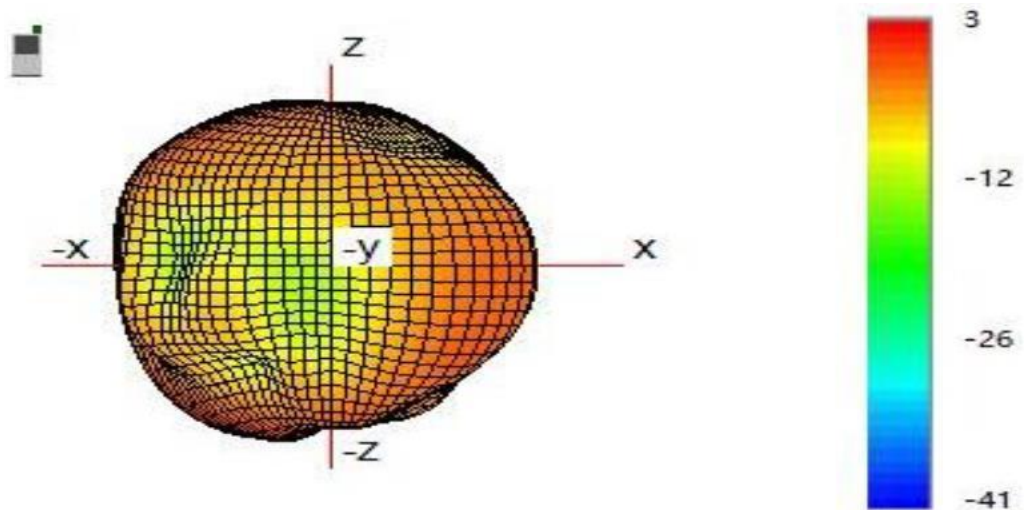
(2) Y-Z(Unit: dBi):



(3) X-Y(Unit: dBi):



(4) 3D directional pattern at 2410MHz (unit: dBi):



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