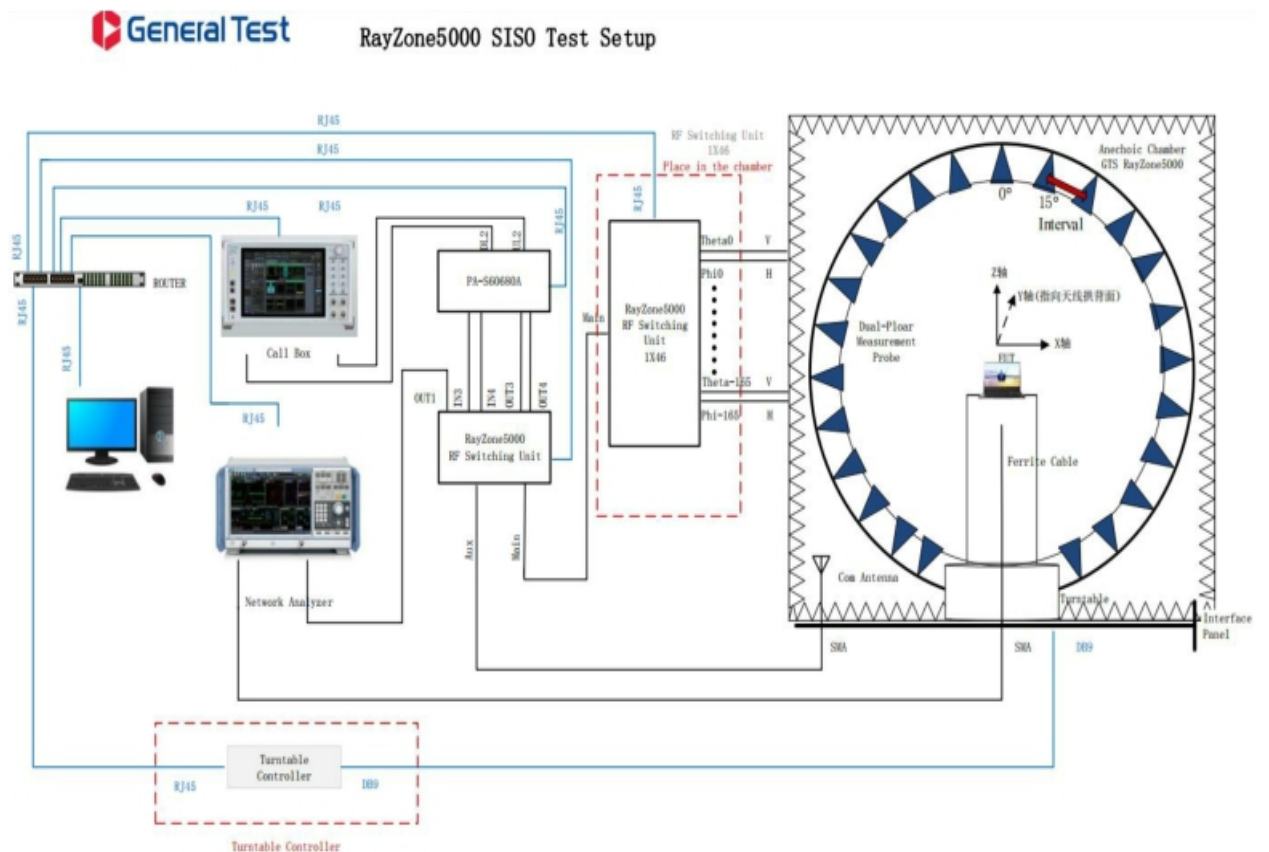




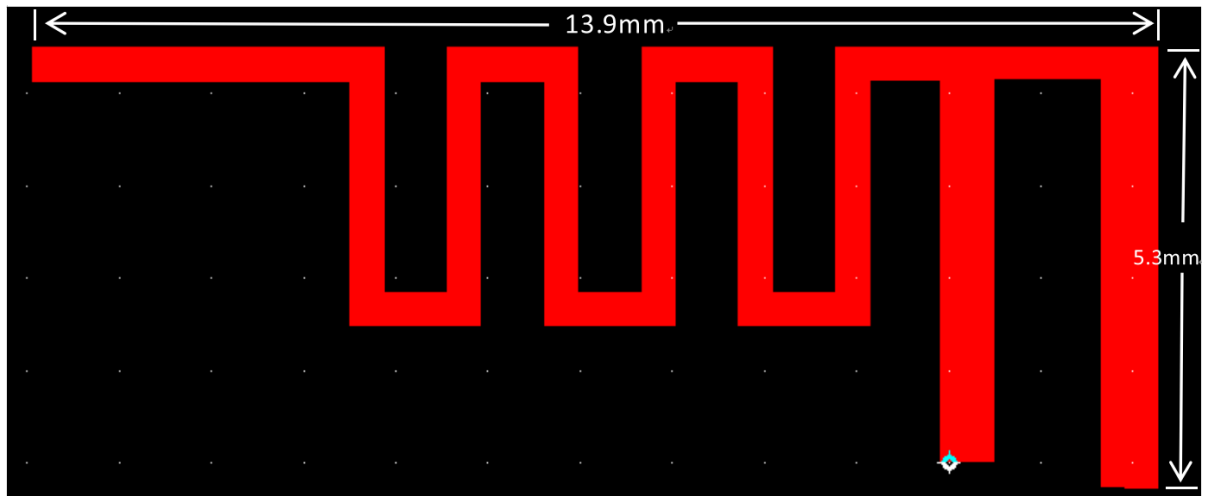
2. Test equipment

Name	model	Equipment number	Manufacturer	Calibration date	next calibration date
OTA Test system	RayZone-5000	RFI-LAB-RF-D00	GTS	2021.3.22	2023.3.21
Network analyzer	E5071C	RFI-LAB-RF-C02	KEYSIGHT	2022.5.13	2023.5.12
Network analyzer	E5071C	RFI-LAB-RF-D01	KEYSIGHT	2022.5.13	2023.5.12

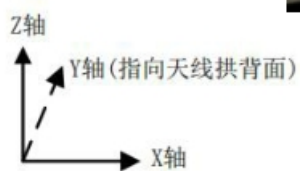
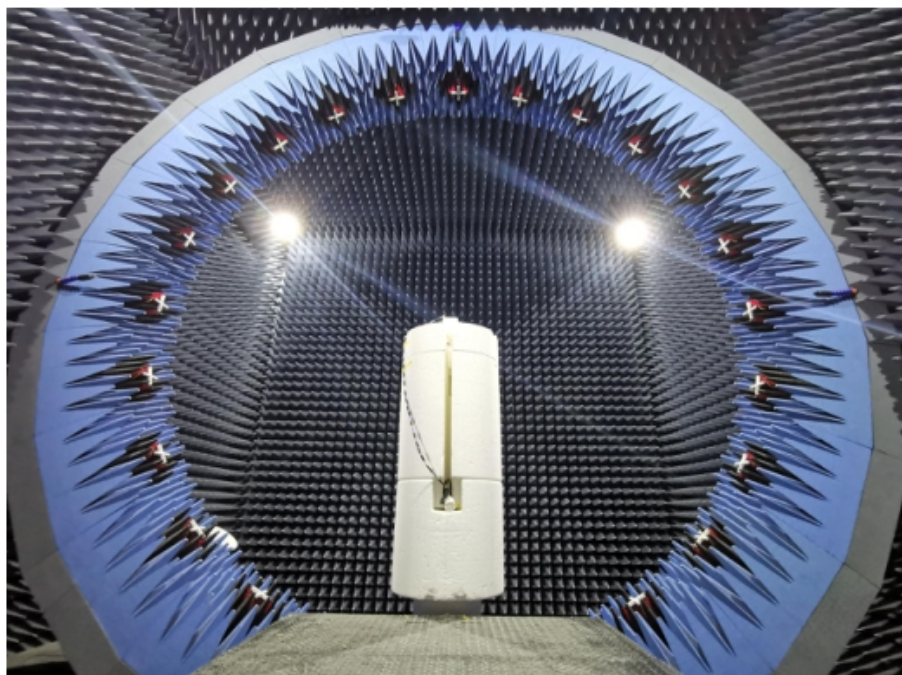
3. Testing environment

Environment temperature	23.6°C
Relative humidity	58%RH
Atmospheric pressure	100.14kPa

4. Samples



5. Sample placement diagram for actual measurement



6.Test result

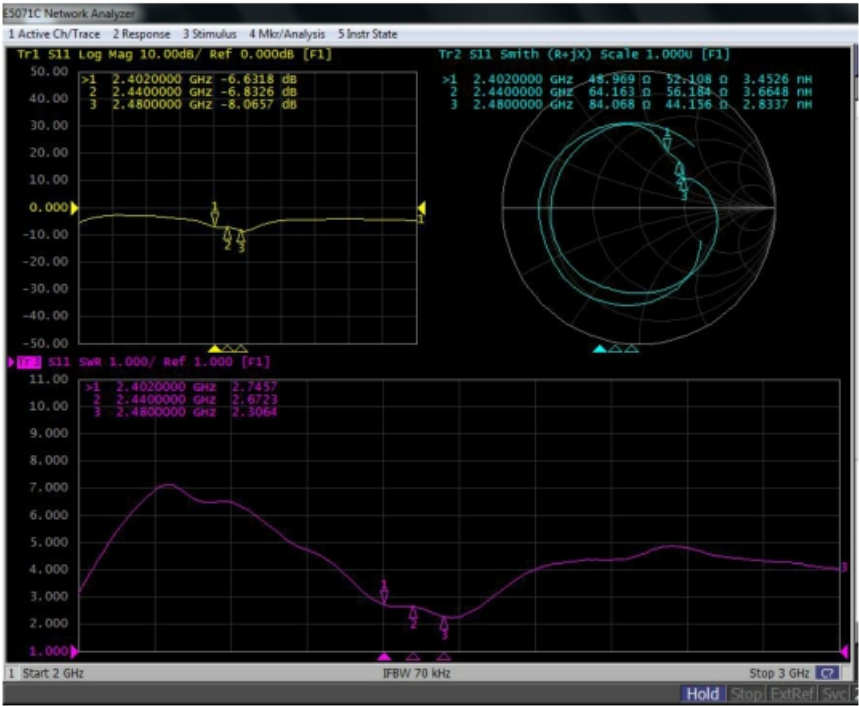
6.1 Test standard

Object name	Name of parameter	Public string function name	Standard number
Mobile communication antenna	Radiation pattern	General Technical Specification for Mobile Communication Antennas	GB/T 9410-2008
	Antenna gain		
	VSWR		
	Roundness of the direction map		
Antenna	Gain and directionality	IEEE Standard procedure for antenna testing	ANSI/IEEE Std 149-1979
	Radiant efficiency		
	Impedance		

6.2 Test uncertainty

Project	Test uncertainty
VSWR	±0.3
Gain, efficiency	±0.72dB

Test data



VSWR

Frequency/MHz	2402	2440	2480
VSWR	2.7457	2.6723	2.3064

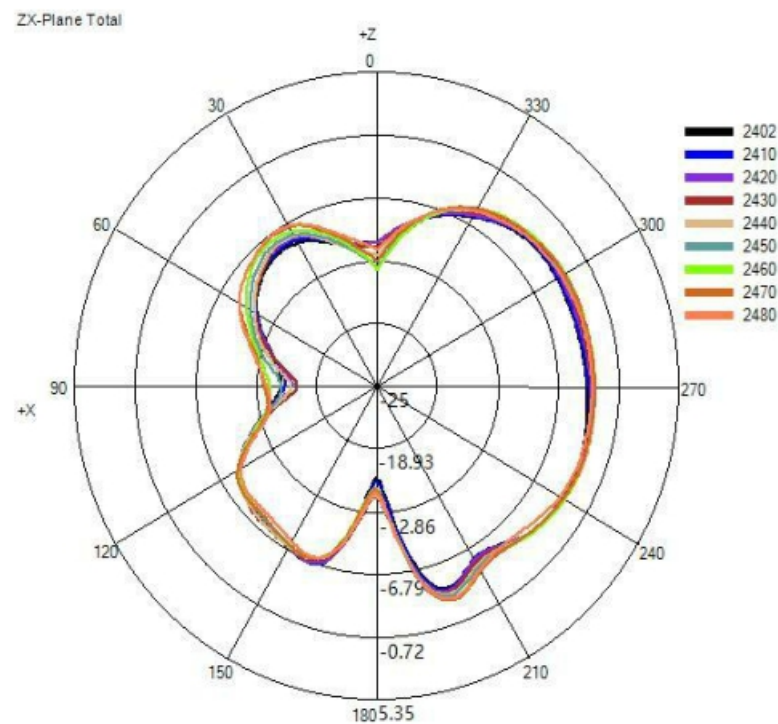
Gain and Frequency

Frequency/MHz	2402	2410	2420	2430	2440	2450	2460	2470	2480
Peak Gain/dBi	-1.97	-1.95	-1.63	-1.49	-1.27	-1.06	-0.89	-0.71	-0.95
Efficiency/%	17.88	18.34	19.20	19.89	20.58	20.86	21.78	22.18	21.03

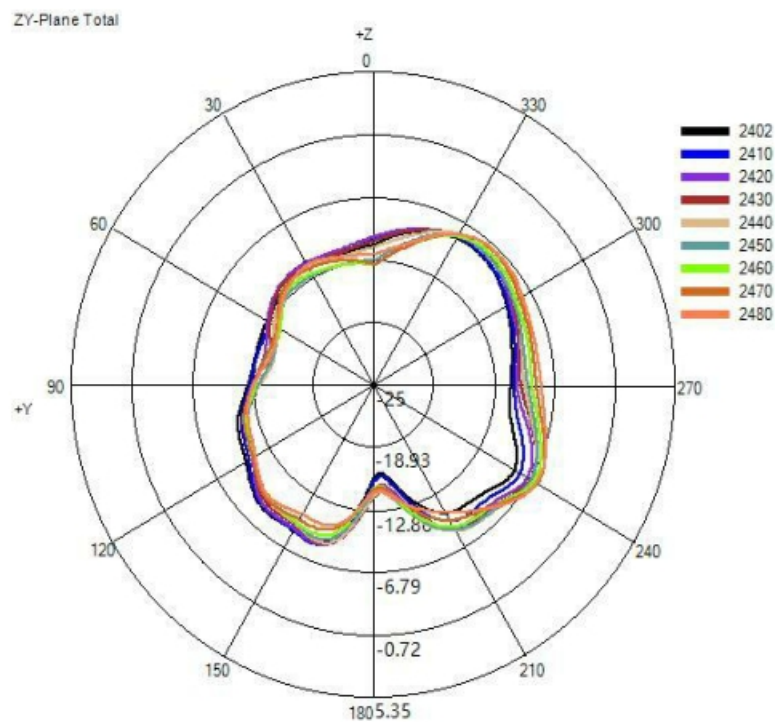
Roundness of the direction map

Frequency/MHz	2402	2410	2420	2430	2440	2450	2460	2470	2480
H Theta=90/dB	20.55	20.57	20.15	19.12	18.93	20.11	20.49	19.26	16.51

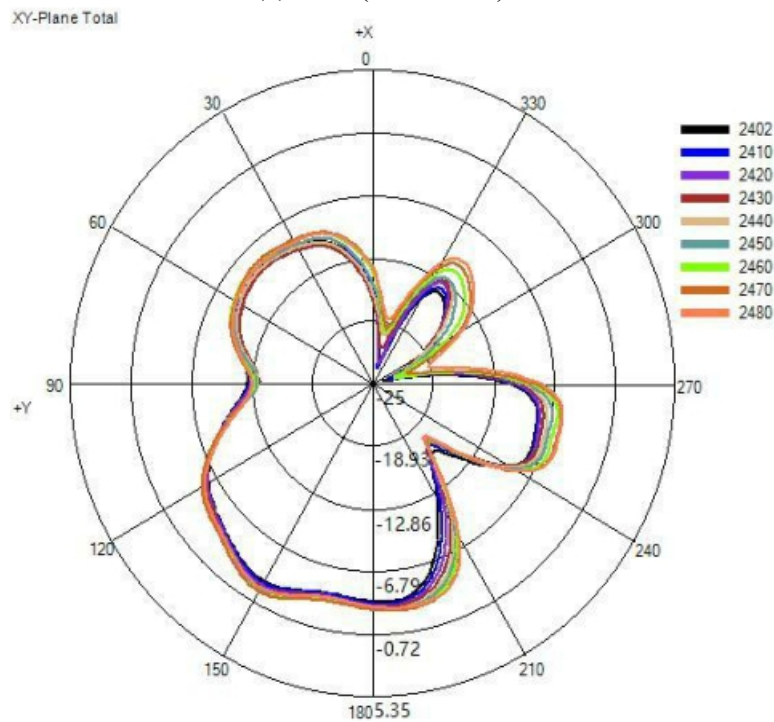
Directional diagram



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



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



(4) 2470MHz :

