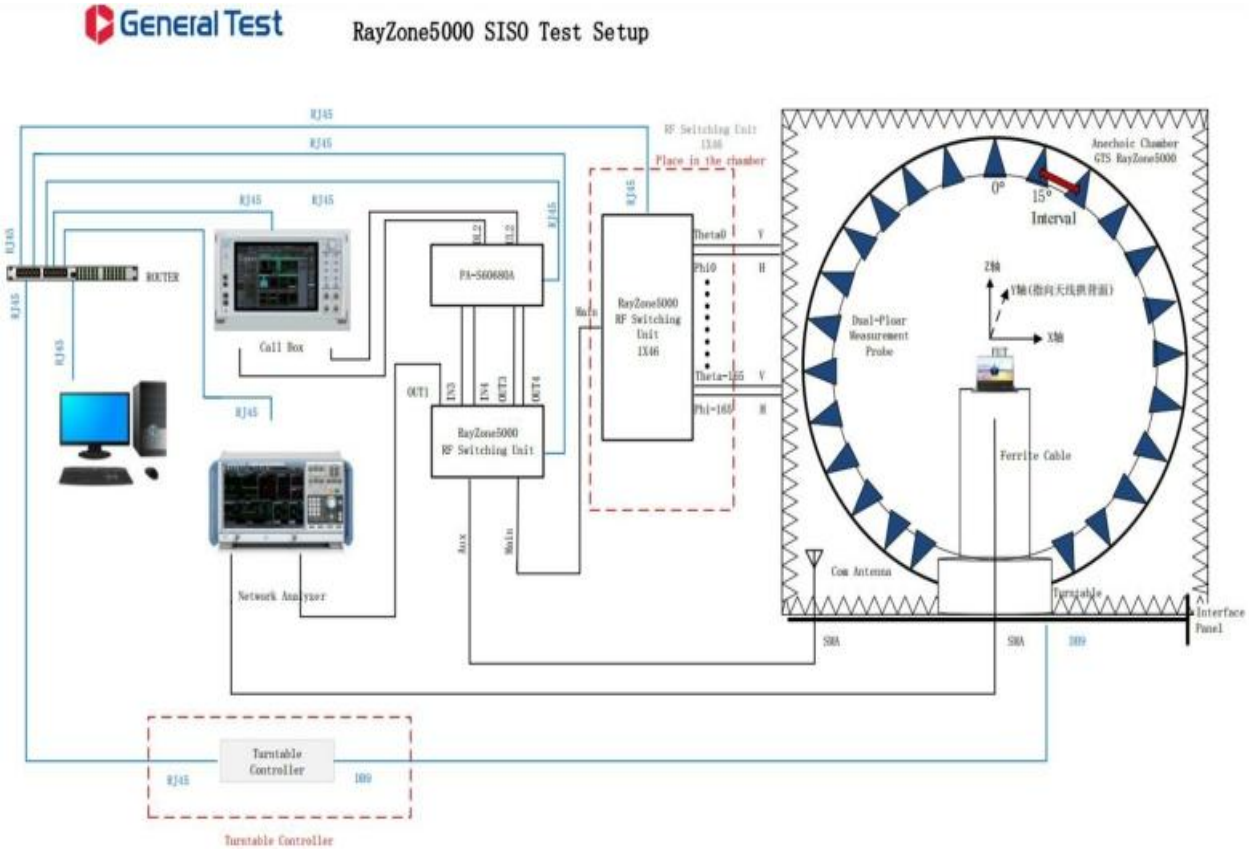
ShanWan

antenna report

1.Test principle



Manufacture Name：Shenzhen Meyatek Technology Co. LTD
Address:3F,Building B1, MaoYuan Industrial park, GuanLan, LongHua district, shenzhen

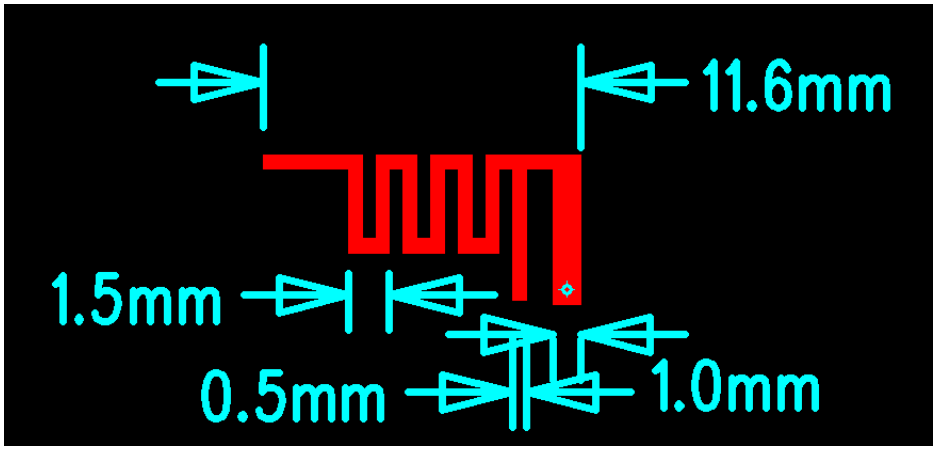
2.Test Equipment

name	model	device ID	Manufacturer	Calibration date	next time Calibration date
OTAtest 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.test environment

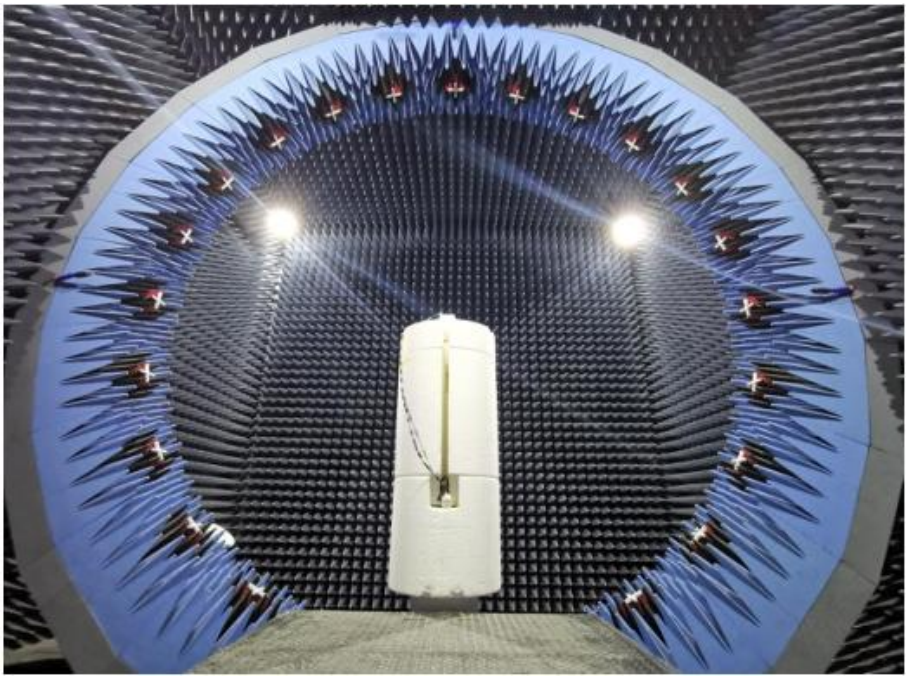
ambient temperature	23.6℃
Relative humidity	58%RH
atmospheric pressure	100.14kPa

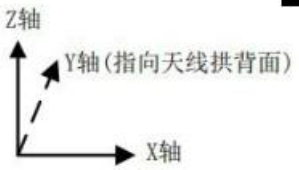
4.Samples



5.Sample actual measurement placement diagram

Main view





6.Test Results

6.1testing base

object name	parameter name	method name	According to standard number
mobile communication antenna	radiation pattern	General technical specifications for mobile communication antennas	GB/T 9410-2008
	Antenna gain		
	voltage standing wave ratio		
	Directional pattern roundness		
antenna	Gain and Directivity	IEEEAntenna test standard process	ANSI/IEEE Std 149-1979
	radiation efficiency		
	impedance		

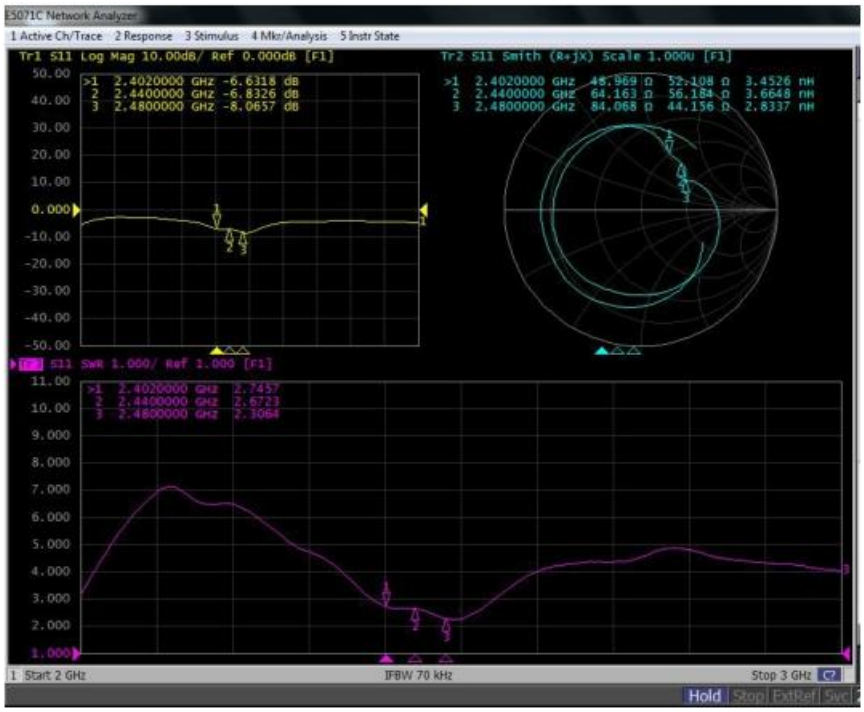
6.2Test uncertainty

The uncertainty is calculated asISOPublished"Guide to the Expression of Uncertainty in Measurement" (GUM)as a basis, useK=2inclusion factors and95%Confidence level to express expanded uncertainty.

project	uncertainty
standing wave ratio	±0.3
Gain, efficiency	±0.72dB

7.Test Data

7.1Network analyzer testing



7.2standing wave ratio

Frequency/MHz	2402	2440	2480
voltage standing wave ratio	2.7457	2.6723	2.3064

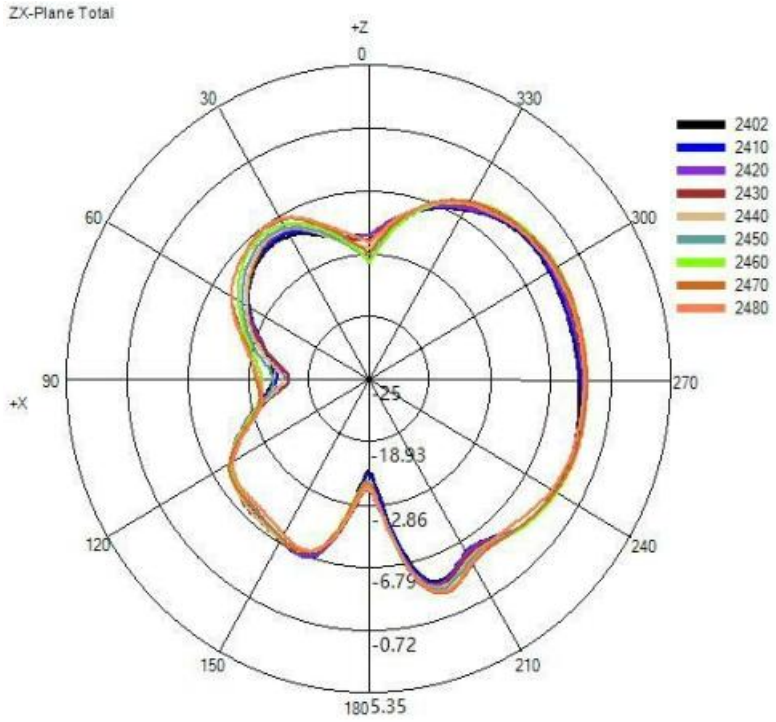
7.3gain and efficiency

Frequency/MHz	2402	2410	2420	2430	2440	2450	2460	2470	2480
Maximum 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

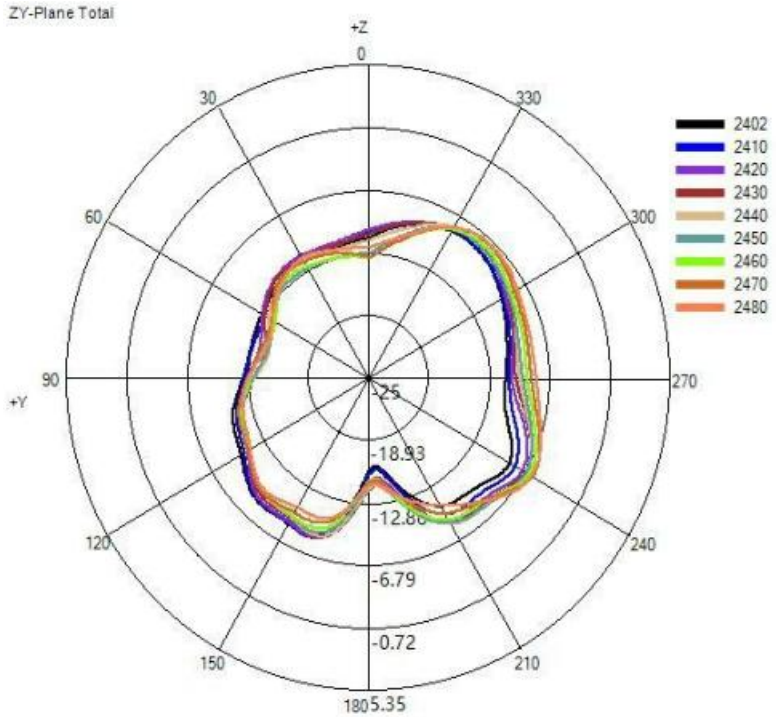
7.4Directional pattern roundness

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

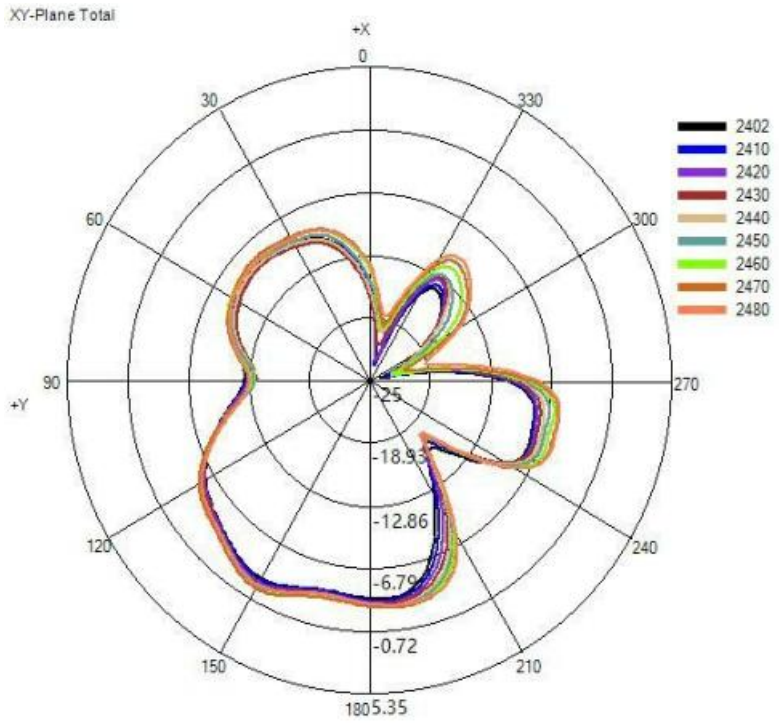
7.5direction map



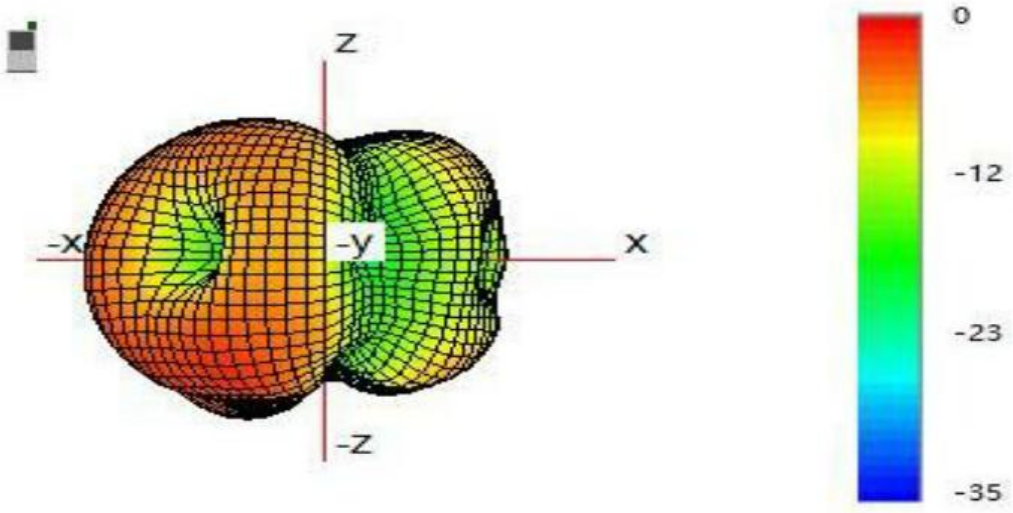
(2)YZFace (unit:dBi):



(3)XYFace (unit:dBi):



(4) 2470MHzof3DDirection map (unit:dBi):



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