Testing Report

Manufacture Name: Shenzhen Sunricher Technology Limited

Product Name: Wireless Remote

Sample Model: SR-ZG9001K17-CCT

Reference Standard: *GB/T 9410-2008; ANSI/IEEE Std149-1979* Issue Date: 2025.9.23

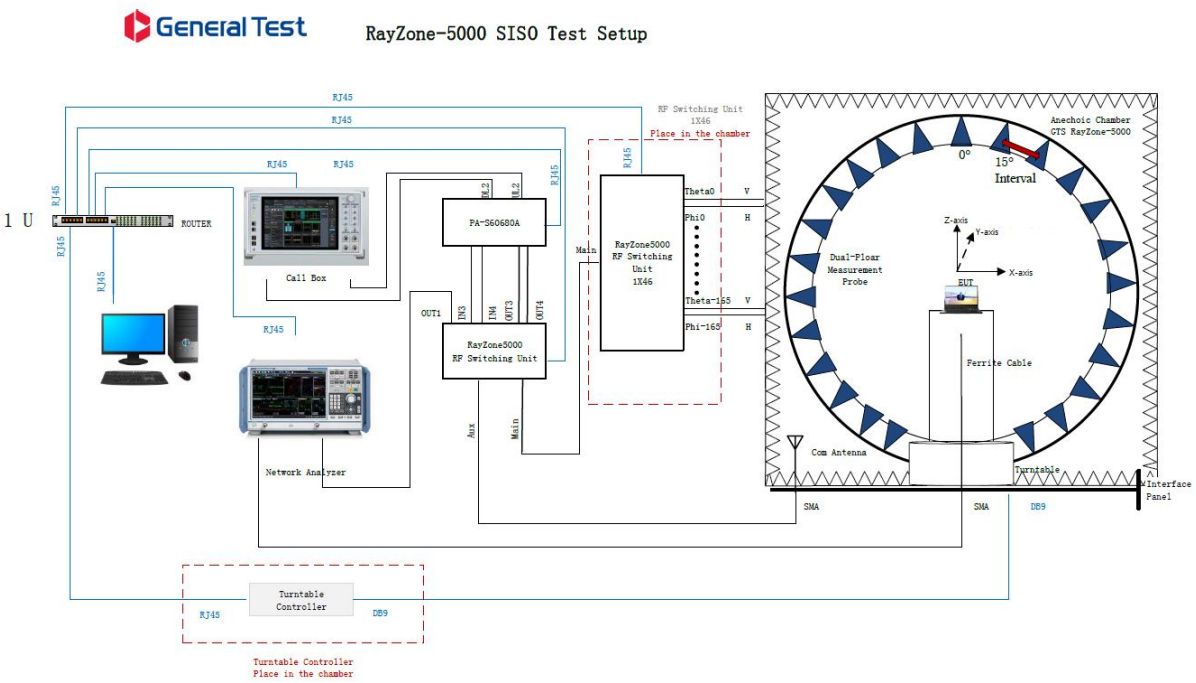
Engineer: Zkris	Date: 2025.9.23
Auditor: Eason	Date: 2025.9.23
Approver: Aaron	Date: 2025.9.23

Version

Version No.	Date	Description	Formulate	Approval
A0	2025.9.23	For the first time, formulate	Zkris	Eason

1.General Information

Testing principle



Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
OTA Test System	RayZone-5000	RFI-LAB-RF-D00	GTS	2025.3.14	2027.3.13
Network Analyzer	E5071C	RFI-LAB-RF-D01	KEYSIGHT	2025.5.11	2026.5.10
Network Analyzer	E5071C	RFI-LAB-RF-C02	KEYSIGHT	2025.5.11	2026.5.10

Test environment

Temperature	24.2℃
Humidity	58%RH
Pressure	100.21kPa

2.Sample Information

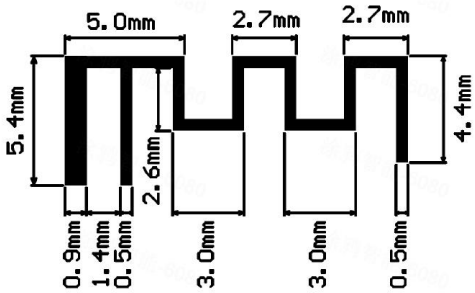
Client information

Name	Shenzhen Sunricher Technology Limited
Address	/
Contacts	/
Tel	/
E-mail	/
Manufacturer	Shenzhen Sunricher Technology Limited

Description of EUT(S)

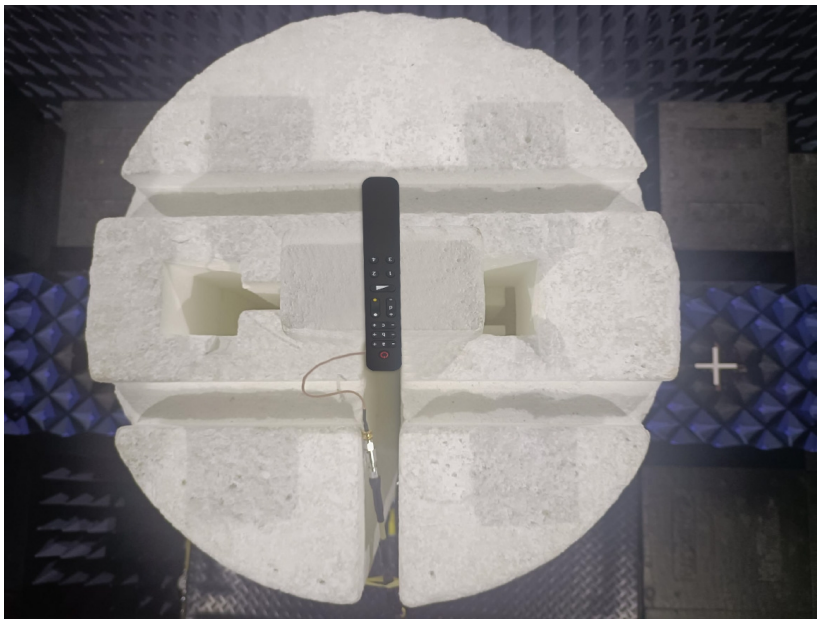
Product Name	Wireless Remote
Sample Model	SR-ZG9001K17-CCT
Serial No.	/
Antenna Size	/
Antenna Type	PCB Antenna
Test Item	VSWR;Antenna gain; Efficiency; Radiation pattern
Frequency Range	2400-2500MHz
Received Date	2025.9.22
Test Date	2025.9.23
Remark	/

EUT appearance

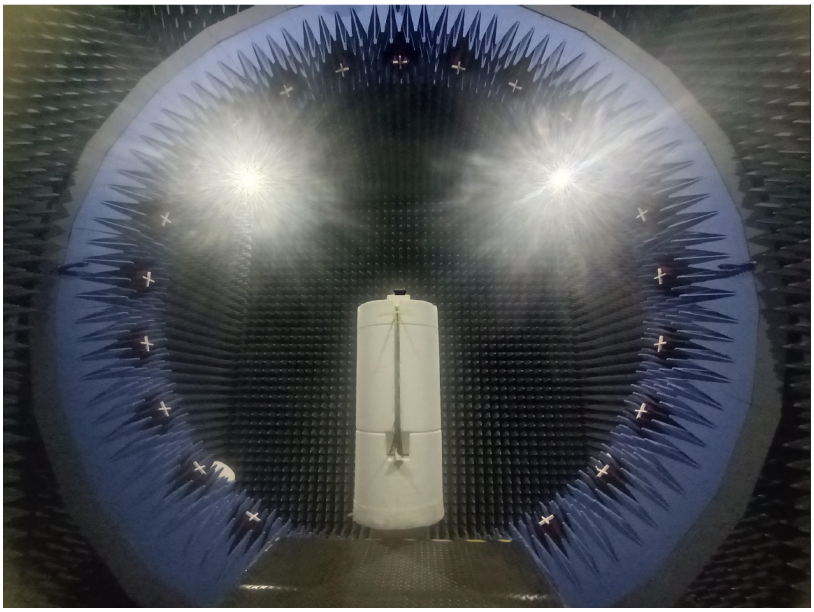


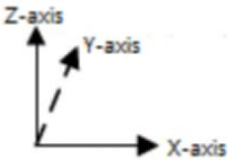
EUT setup photo of free space OTA testing

Planform



Front view





3. Test Results

Test standard

Name	Parameter	Method	Standard no.
Mobile communication antenna	Antenna gain	Generic specification for antennas used in the mobile communications	GB/T 9410-2008
	Radiation pattern		
	VSWR		
Antenna	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979
	Gain and directivity		

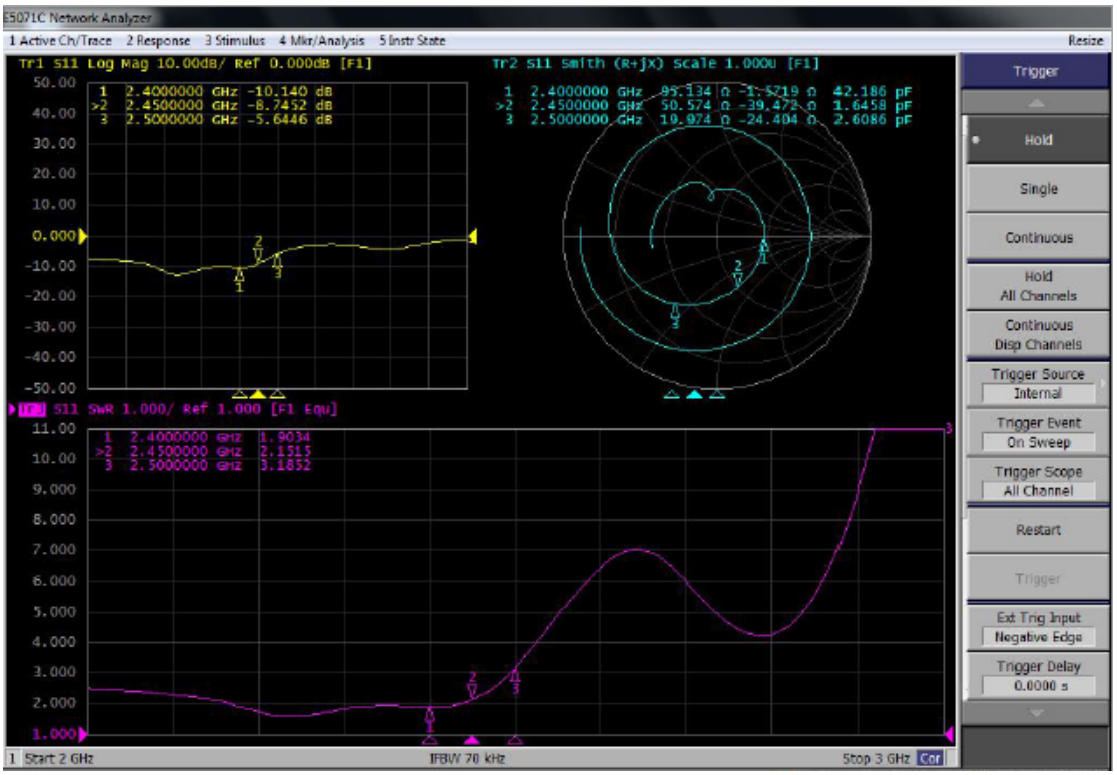
Test uncertainty

The uncertainty was calculated on the basis of the GUM published by ISO, using the inclusion factor of K=2 and the 95% confidence level to express the extended uncertainty.

Item	Uncertainty
VSWR	±0.3
Antenna gain	±0.72dB
Radiation efficiency	±0.72dB

3.3 Test data

VSWR parameters



VSWR data

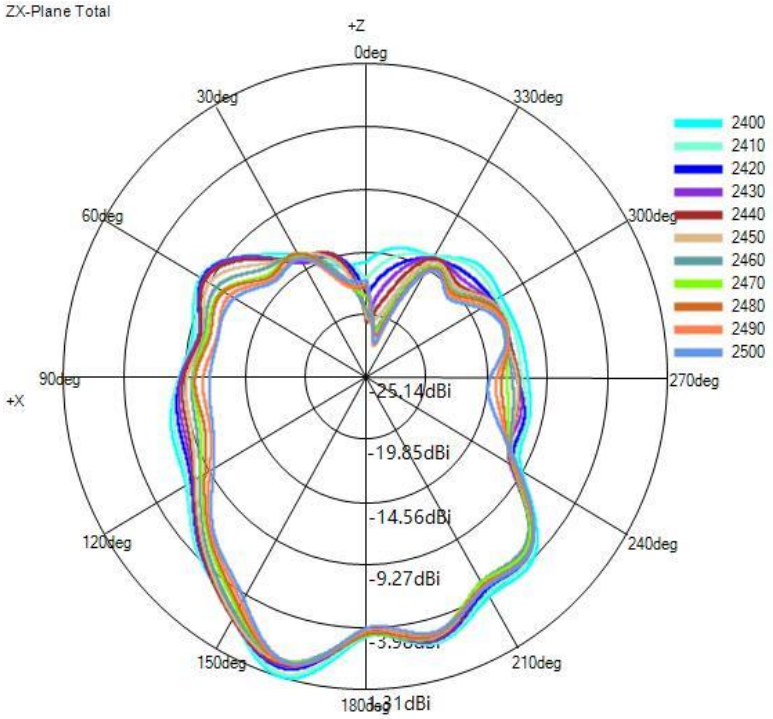
Frequency/MHz	2400	2450	2500
VSWR	1.9034	2.1515	3.1852

Typical free space efficiency and gain

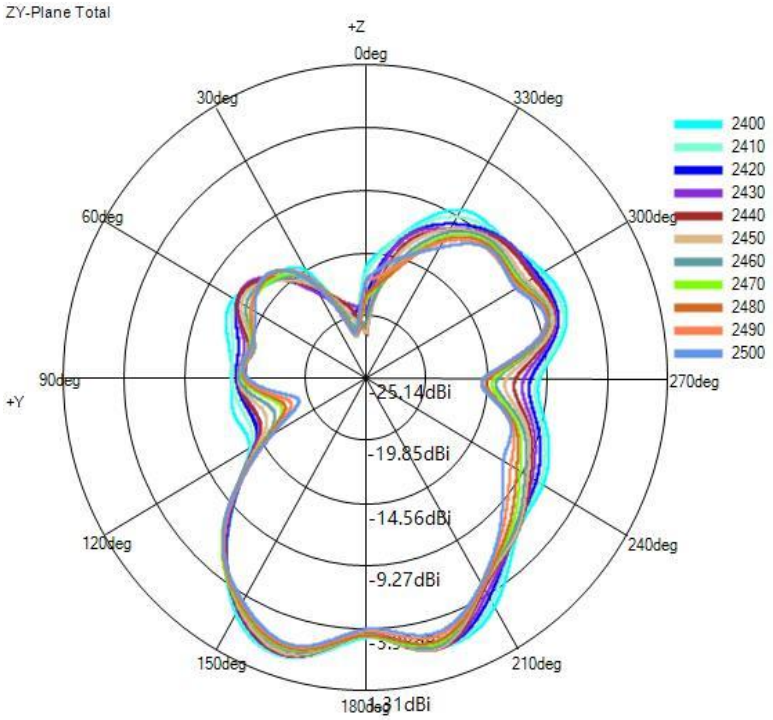
Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain/dBi	1.23	0.91	0.63	0.57	0.58	0.56	0.44	0.25	0.15	-0.01	-0.06
Efficiency/%	18.65	17.83	16.72	16.25	15.83	15.20	14.34	13.74	13.48	12.81	12.35

Typical free space radiation pattern

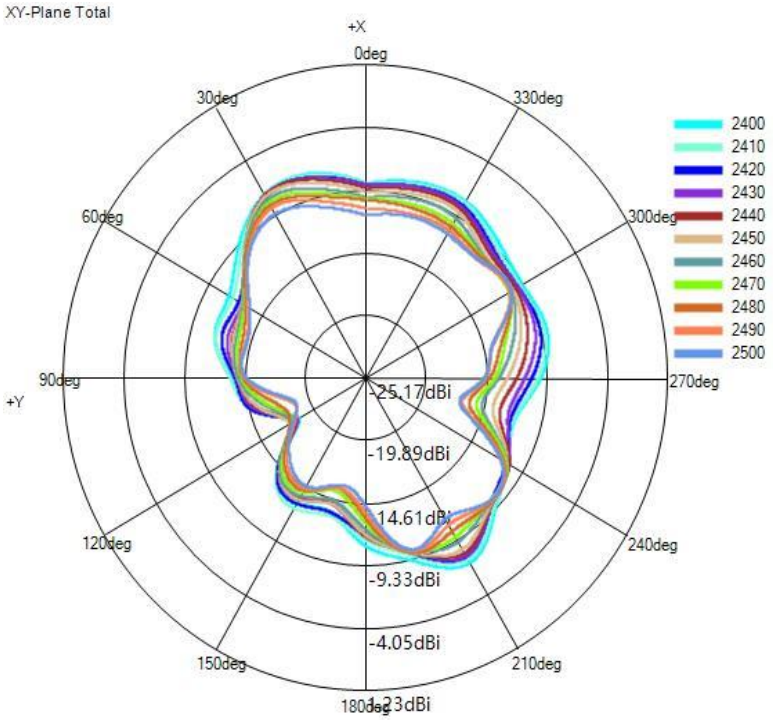
(1) X-Z Plane(unit:dBi):



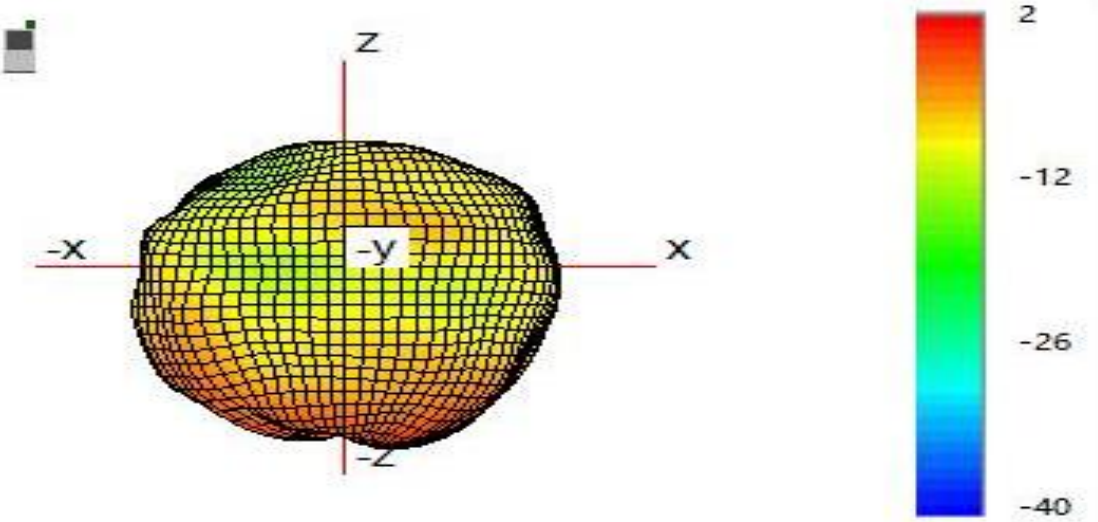
(2) Y-Z Plane(unit:dBi):



(3) X-Y Plane(unit:dBi):



(4) Typical Free Space 3D Radiation Pattern at 2.4GHz(unit:dBi):



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