



WASION AMERICAS BLE ANTENNA TEST REPORT

Version:V1.0

TEST REPORT

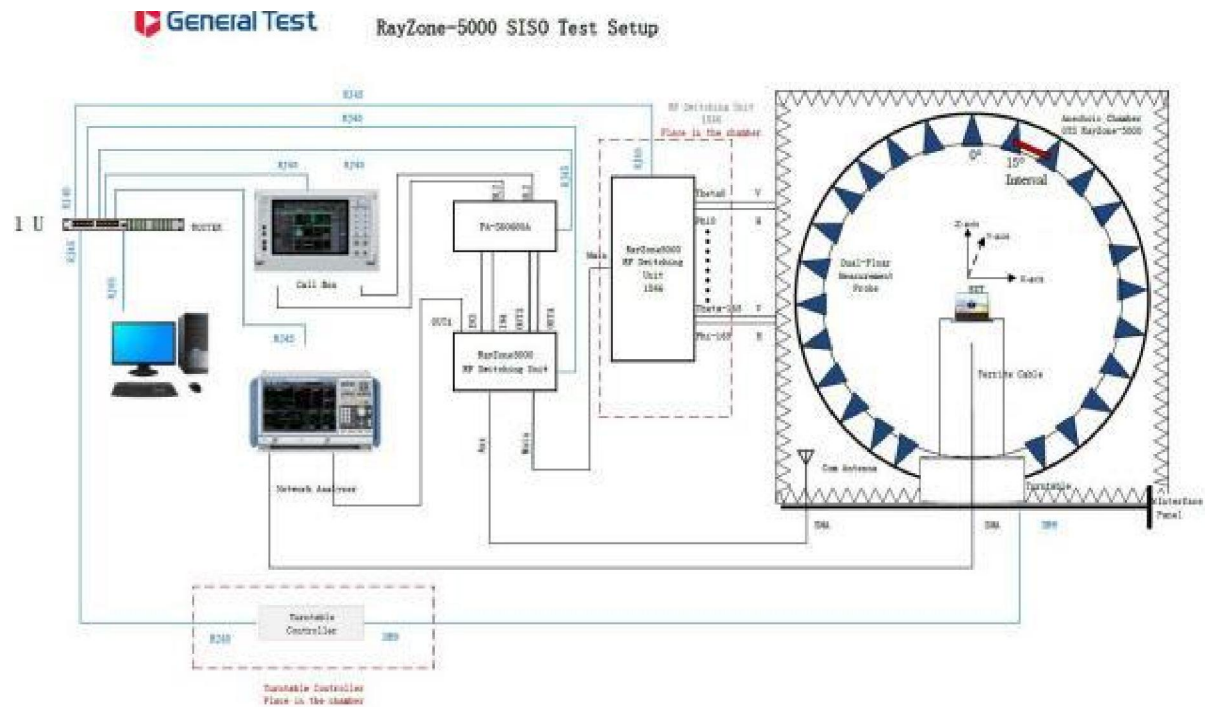
Product Name	: BLE Module
Model/Type Reference	: WAIAVM
Report Number	: XH20260103025
Date of Issue	: Feb 6,2026
Test Standards	: ANSI/IEEE Std149-2021
Tester	: LongLiujing

Version

Version No.	Date	Description
01	Feb 06, 2026	Original

1. General Information

1.1 Testing principle



1.2 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date
OTA Test System	RayZone-5000	A0011	GTS	2026.01.08
Network Analyzer	E5071C	C0017	KEYSIGHT	2026.01.08

1.3 Test environment

Temperature	23.6°C
Humidity	82%RH
Pressure	100.12 kPa

1.6 Statement

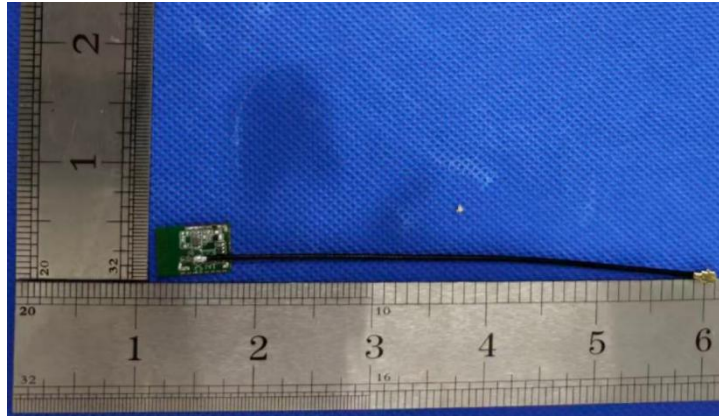
- (1) The test results in the report are only applicable to the tested samples and the tested samples work under the environment described in the report.
- (2) Only Wasion Americas Inc. has the right to modify the report, and the modification information shall be annotated in the revision form.

2. Sample Information

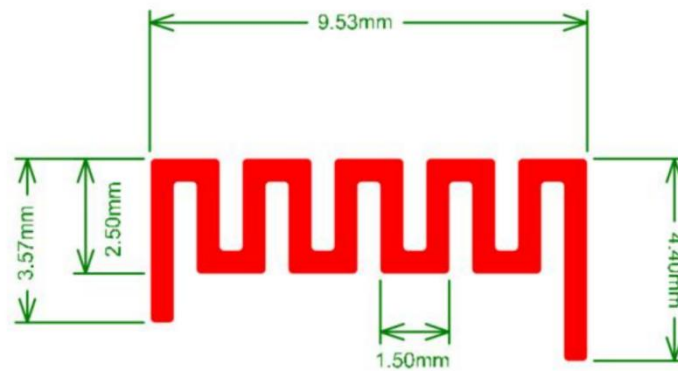
2.1 Description of EUT(s)

Test Item	VSWR; Antenna gain; Efficiency; Radiation pattern
Frequency Range	2400-2500MHz
Received Date	Feb 3, 2026
Test Date	Feb 4, 2026

2.2 EUT appearance

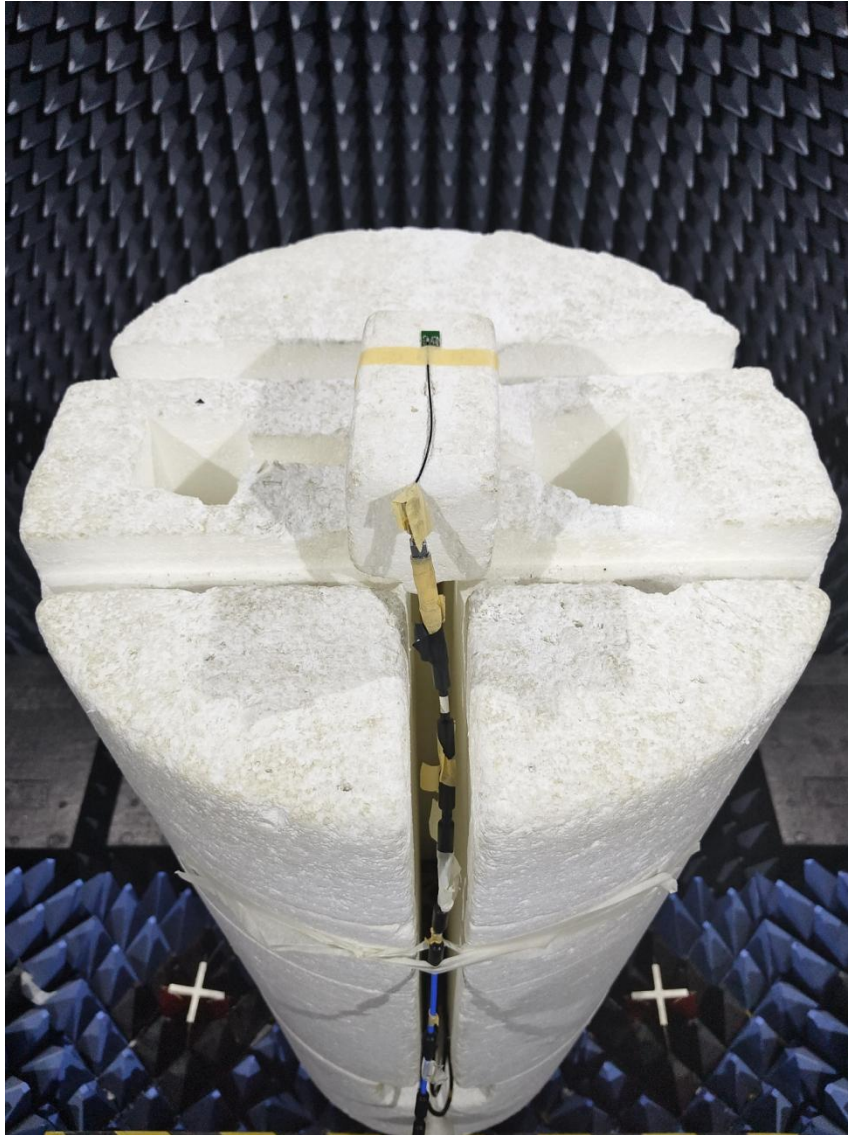


View Of Product-01



Antenna Dimensions

2.3 EUT setup photo of free space OTA testing



3. Test Results

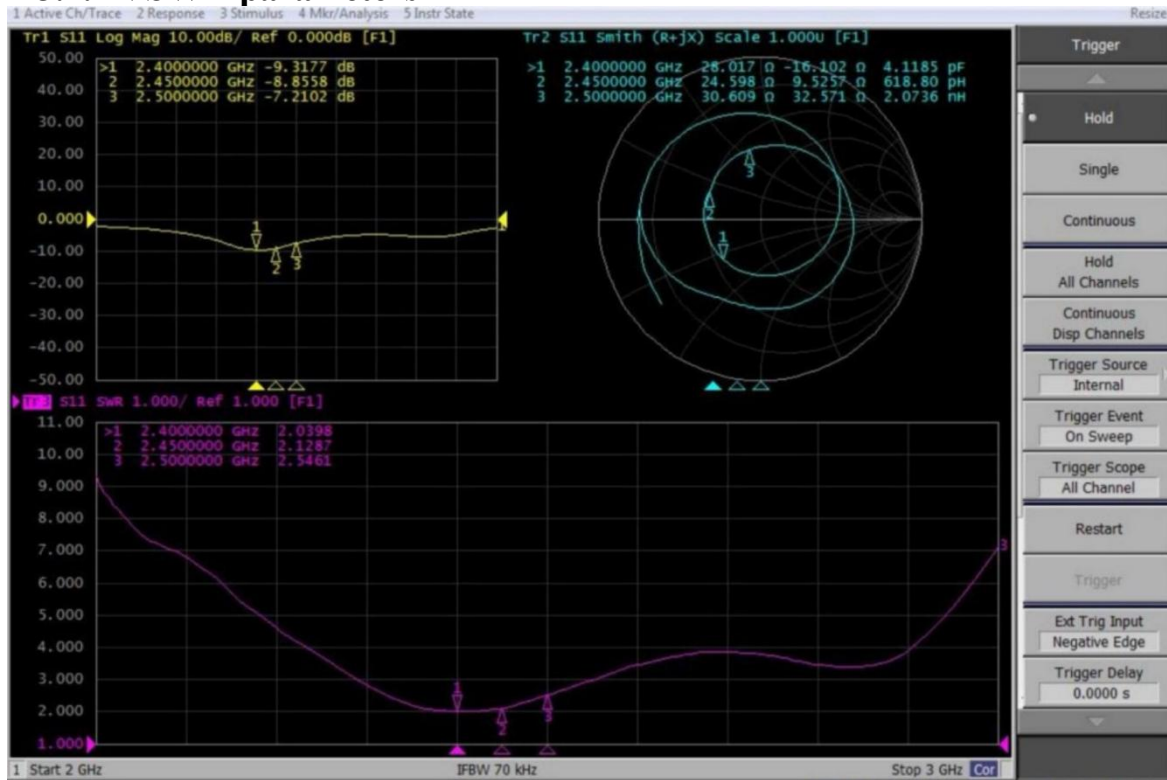
3.1 Test uncertainty

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

Item	Uncertainty
VSWR	± 0.3
Antenna gain	$\pm 0.72\text{dB}$
Radiation efficiency	$\pm 0.72\text{dB}$

3.2 Test data

3.2.1 VSWR parameters



3.2.2 VSWR data

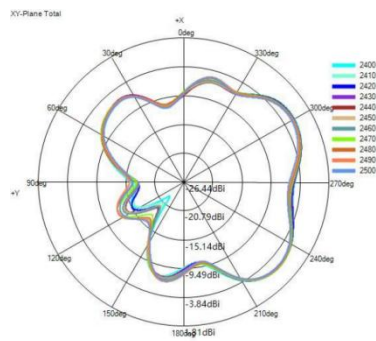
Frequency/MHz	2400	2450	2500
VSWR	2.0398	2.1287	2.5461

3.2.3 Typical free space efficiency and gain

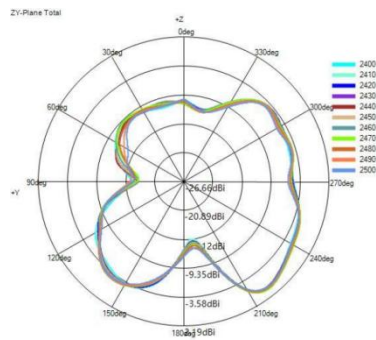
Frequency ID	Freq(MHz)	Gain(dBi)	Efficiency(%)
1	2400	1.45	30.84
2	2410	1.44	31.24
3	2420	1.54	31.66
4	2430	1.51	31.33
5	2440	1.33	30.99
6	2450	1.42	31.57
7	2460	1.58	32.57
8	2470	1.68	32.74
9	2480	1.53	31.57
10	2490	1.36	30.79
11	2500	1.22	29.68

3.2.4 Radiation pattern

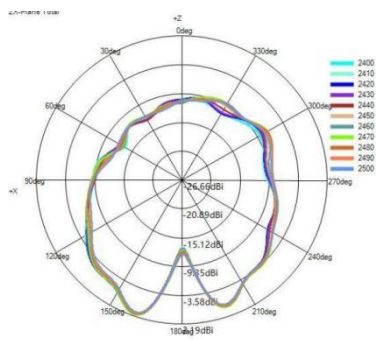
(1) XY-Plane Total:



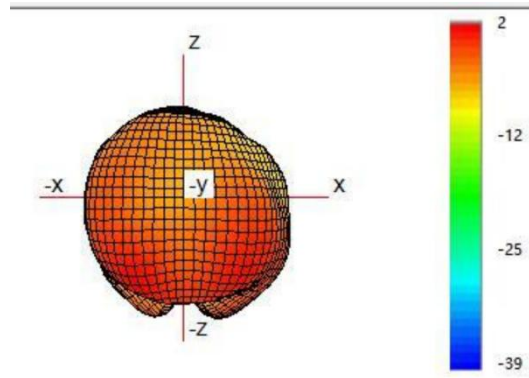
2) ZY-Plane Total:



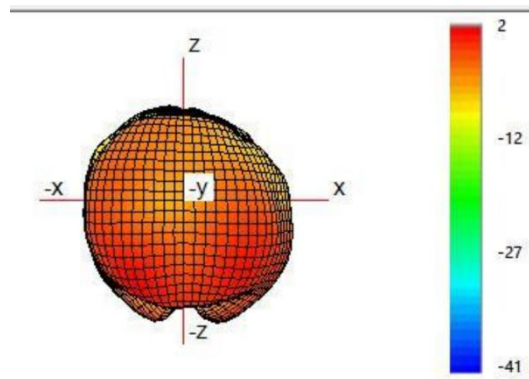
3) ZX-Plane Total:



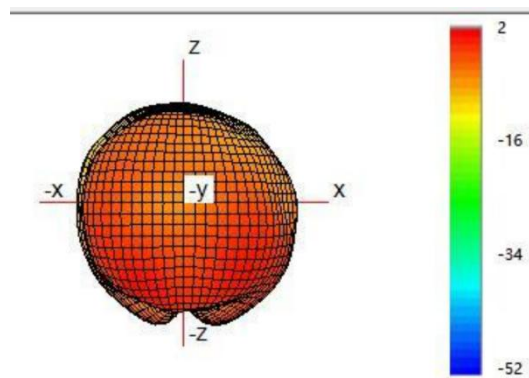
4) Typical Free Space 3D Radiation Pattern at 2400 MHz (unit: dBi)



5) Typical Free Space 3D Radiation Pattern at 2450 MHz (unit: dBi)



6) Typical Free Space 3D Radiation Pattern at 2500 MHz (unit: dBi)



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