



SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.

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Rev.: 01
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ANTENNA PASSIVE TEST REPORT

Application No. SUOA2510000199HS
Applicant Suzhou Ramond Aroma Technology Co., LTD.
Manufacturer Suzhou Ramond Aroma Technology Co., LTD.
Type Name BLE Onboard antenna
Model No. K26S
Standards ANSI/IEEE Std 149-2021
Date Initial Sample(s) Received 2025-10-15
Testing Start Date 2025-10-17
Testing Finish Date 2025-10-17
Report Issue Date 2025-10-20

*In the configuration tested, the EUT complied with the standards specified above.

Leno Shi

Prepared by: Leno Shi/ Project Manager

Caleb Gao

Approved by: Caleb Gao/ Technical Manager (Title)

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Revision History

Revision	Issue Date	Description
01	2025-10-20	The Final Version of Report

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1 General Information

1.1 Testing Laboratory

Identification of the Responsible Test Laboratory

Test Lab	SGS-CSTC Standards Technical Service (Suzhou) Co., Ltd.
Address	South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone
Contact	Caleb Gao
Tel.	+86 13621559335
Fax	N/A
E-mail	Caleb.Gao@sgs.com

1.2 Details of Applicant

Applicant's Name	Suzhou Ramond Aroma Technology Co., LTD.
Applicant's Address	No. 6 Baoda Road, Industrial Park, Suzhou city, Jiangsu, China
Contact	Ramond Cheng
Tel.	+86 4001601778
Fax	+86 4001601778
E-mail	372751418@qq.com

1.3 Details of Manufacturer

Manufacturer's Name	Suzhou Ramond Aroma Technology Co., LTD.
Manufacturer's Address	No. 6 Baoda Road, Industrial Park, Suzhou city, Jiangsu, China
Contact	Ramond Cheng
Tel.	+86 4001601778
Fax	+86 4001601778
E-mail	372751418@qq.com

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1.4 Description of EUT(s)

Device Description:	BLE Onboard antenna
Device type:	BLE Onboard antenna
Device Manufacturer:	Suzhou Ramond Aroma Technology Co., LTD.
Device Model:	K26S
Hardware Version:	V01
Software Version:	V01
IMEI:	N/A
Air Interface Supported	N/A
Air Interface Tested Device Power Class:	N/A
Antenna type:	PCB Antenna
Configuration of Primary Mechanical Mode:	N/A

1.5 Test Procedure

Testing is performed according to **ANSI/IEEE Std 149-2021**.

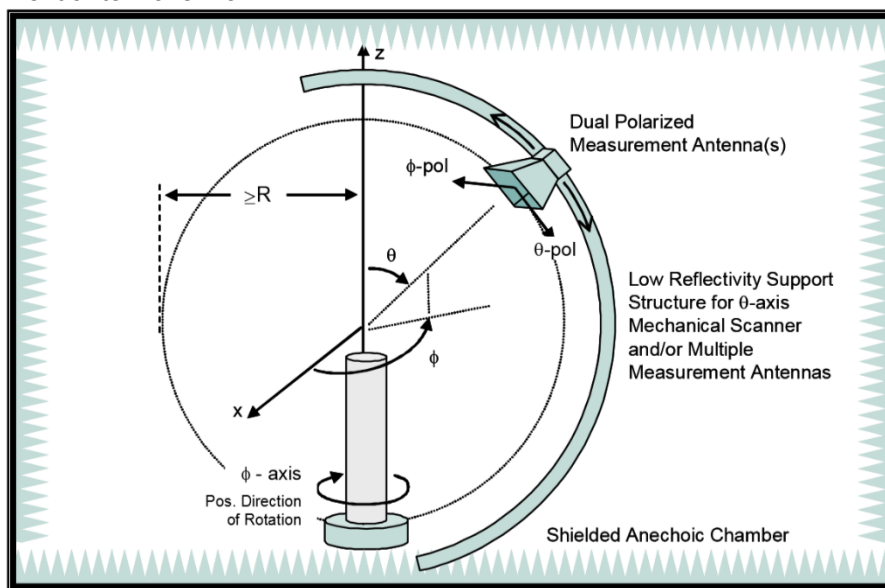
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2 Measurement System Information

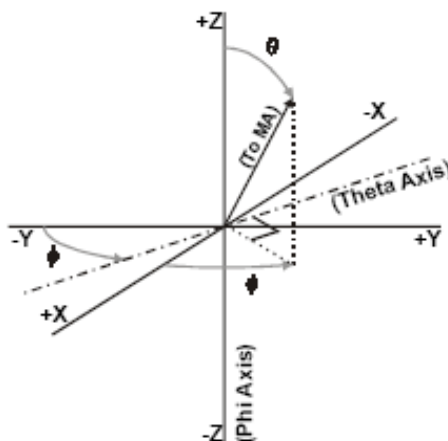
2.1 Test Configuration

Conical-Cut method is used to measure the antenna 3D GAIN of EUT in OTA qualified anechoic chamber. Equipment Under Test (EUT) geometry centre vertical projection at the centre of platform, the distance from EUT to measurement antenna is 1.5m



2.2 Test Measurement

Spherical coordinate system



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3 Equipment List

Inventory No.	Equipment	Manufacturer	Model No.	Calibration Date	Calibration Due Date
SUWI-01-06-01	Network Analyzer	R&S	ZNB8 S/N 103535	2025-01-16	2026-01-15
SUWI-02-06-01	Switch Control System	R&S	OSP 130 S/N 100358	N/A	N/A
SUWI-02-07-01	Test Software	ETS-Lindgren L.P	EMQuest™ REV 1.14 Build 31654	N/A	N/A
SUWI-04-04-01	Full Anechoic Wireless Test chamber	ETS-Lindgren L.P	ETS-Lindgren AMS- 8923 CT000596-1149	2024-05-08	2027-05-07

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4 Measurement Uncertainty

Item	617-698MHz (dB)	699-798MHz (dB)	814-894MHz (dB)	1695-1780MHz (dB)	1850-2020MHz (dB)	2300-2800MHz (dB)	3300-3800MHz (dB)	5150-5925MHz (dB)
Gain	0.75	0.9	0.74	0.84	0.83	0.9	0.84	0.86
Efficiency	0.75	0.9	0.74	0.84	0.83	0.9	0.84	0.86
Measurement Uncertainty (95% CONFIDENCE INTERVAL) K=2								

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5 Test Result(s)

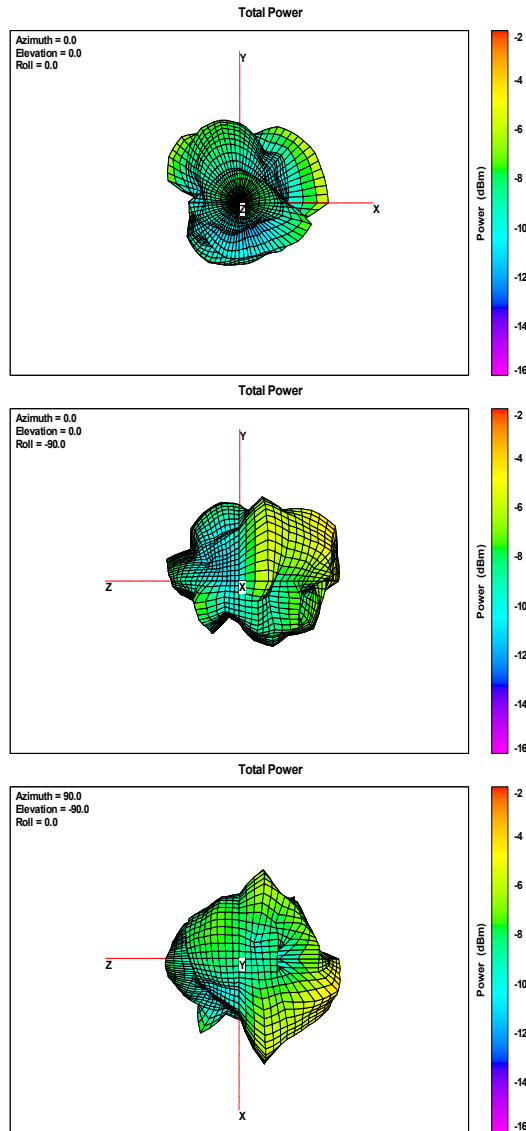
Frequency(MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	-8.64	13.67	-3.81
2405	-9.70	10.71	-4.54
2410	-9.66	10.82	-4.83
2415	-9.54	11.11	-4.64
2420	-9.57	11.03	-4.62
2425	-9.04	12.47	-3.89
2430	-8.62	13.74	-3.37
2435	-8.64	13.66	-3.50
2440	-9.47	11.30	-4.38
2445	-10.01	9.97	-4.76
2450	-9.66	10.81	-4.60
2455	-9.47	11.30	-4.44
2460	-8.95	12.74	-3.92
2465	-8.53	14.04	-3.60
2470	-8.70	13.49	-4.04
2475	-9.21	12.00	-3.40
2480	-9.86	10.32	-5.05
2485	-9.28	11.81	-2.86
2490	-9.00	12.58	-3.88
2495	-8.43	14.35	-3.27
2500	-8.34	14.64	-3.10

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6 3-D Antenna Pattern

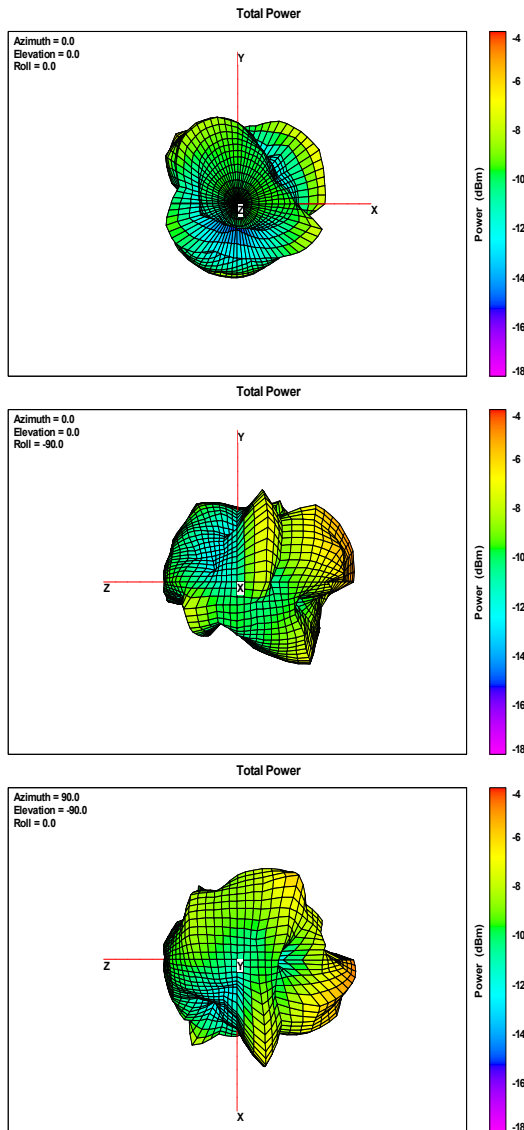
2400MHz



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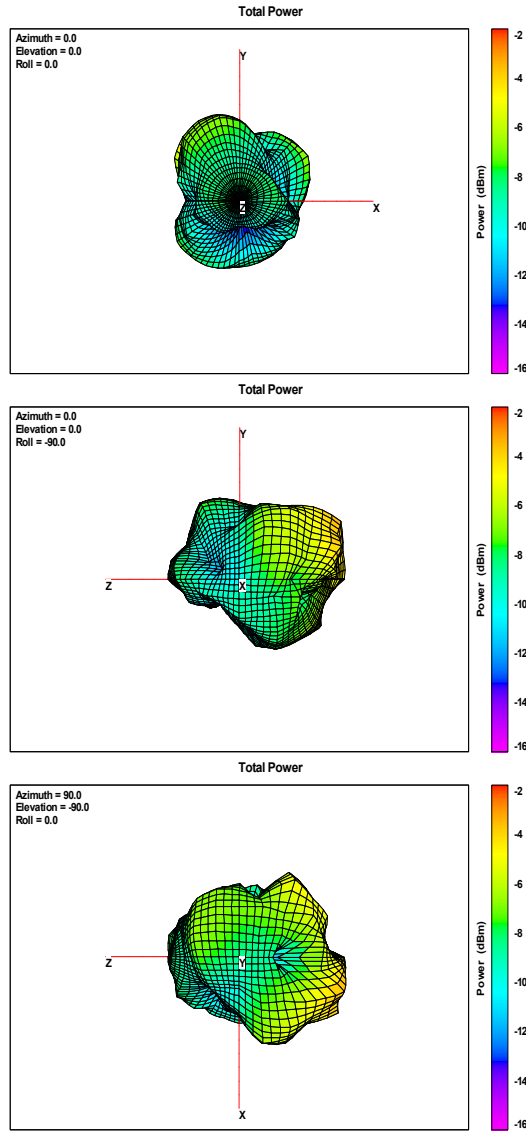
2450MHz



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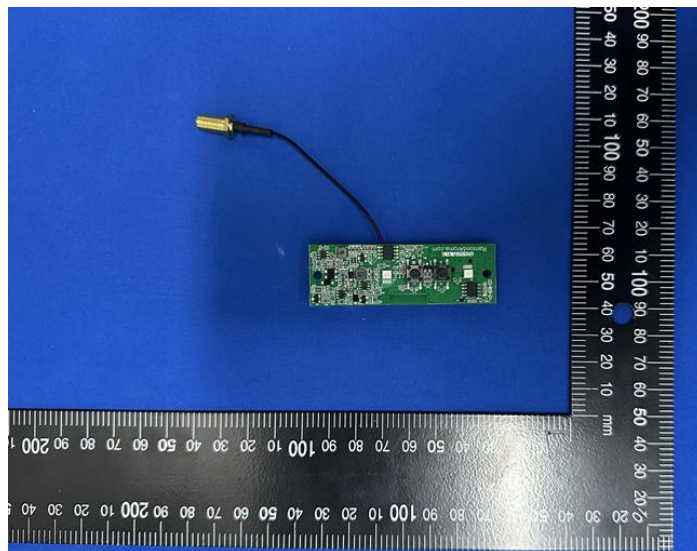
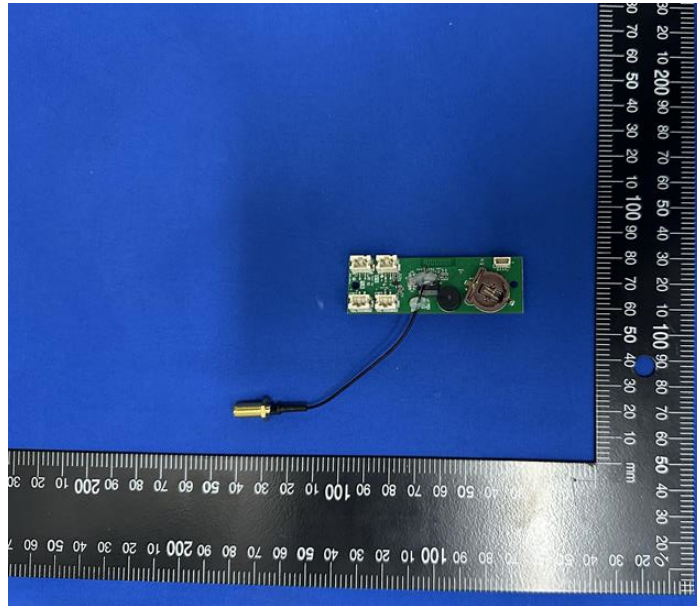
2500MHz



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7 EUT and Test Configuration



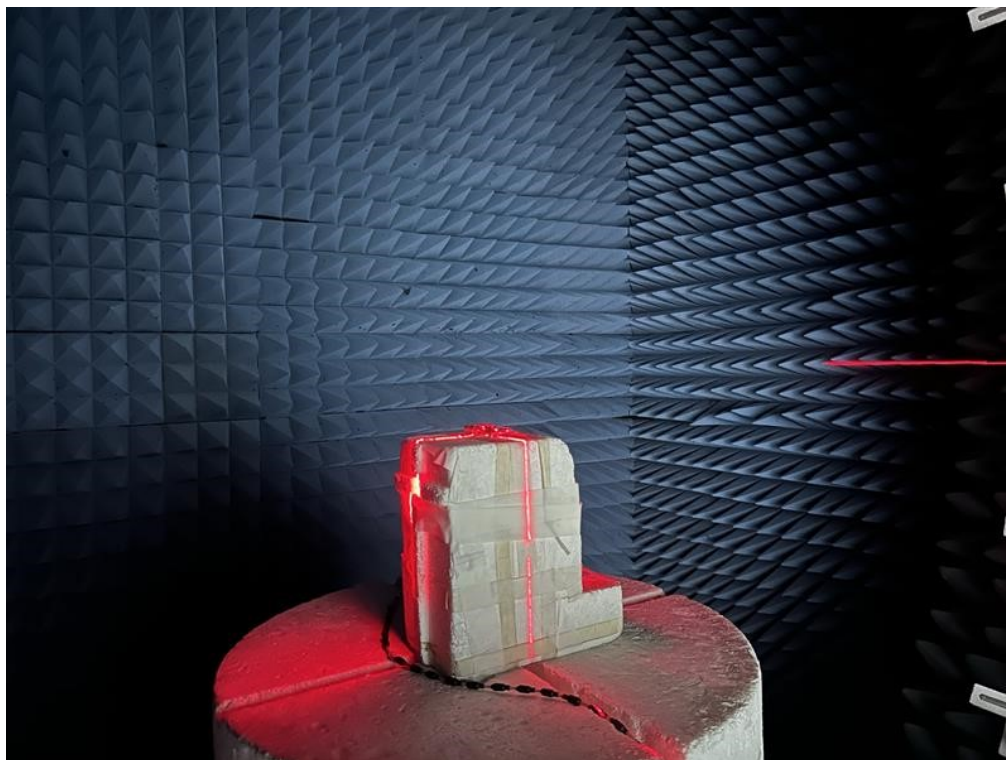
EUT

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View of Free Space Configuration

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