OTA TEST REPORT

Applicant	Sengled Smart HUB
Product	Sengled BLE HUB
Model	B01-Hub2
Report No.	EFTA25010261-IE-03-T1
Issue Date	March 24, 2025

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **ANSI/IEEE Std 149-2021.** The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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1. Test Laboratory

1.1. Notes of the Test Report

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1.2. Test Facility

A2LA (Certificate Number: 3857.01)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3. Testing Location

Company:	Eurofins TA Technology (Shanghai) Co., Ltd.
Address:	Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City:	Shanghai
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E-mail:	Kain.Xu@cpt.eurofinscn.com

1.4. Laboratory Environment

Temperature	15°C ~ 35°C	
Relative humidity	20% ~ 80%	
Shield effect	0.7-6GHz	> 100dB
Ground resistance	<0.5Ω	

2. General Description of Equipment Under Test

2.1. Applicant and Manufacturer Information

Applicant Name	Sengled Smart HUB
Applicant address	Room 103/02-B, Floor 1, Building 1, No. 498, Guoshoujing Road, Pilot Free Trade Zone Shanghai China
Manufacturer Name	Sengled Smart HUB
Manufacturer address	Room 103/02-B, Floor 1, Building 1, No. 498, Guoshoujing Road, Pilot Free Trade Zone Shanghai China

2.2. General Information

EUT Description	
Product Name:	Sengled BLE HUB
Model	B01-Hub2
HW Version:	V1
SW Version:	V10
Antenna Type:	Internal Antenna
Antenna Manufacturer:	Sengled Smart HUB
Test Frequency:	2402MHz ~ 2485MHz
Note: The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.	

2.3. Test Date

The test is performed from February 19, 2025.

2.4. Received Date

The sample was received on January 17, 2025.

2.5. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test Method: **ANSI/IEEE Std 149-2021**

3. Test Conditions

3.1. Test Configuration

Great-Circle-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 5m.

3.2. Test Measurement

Spherical coordinate system

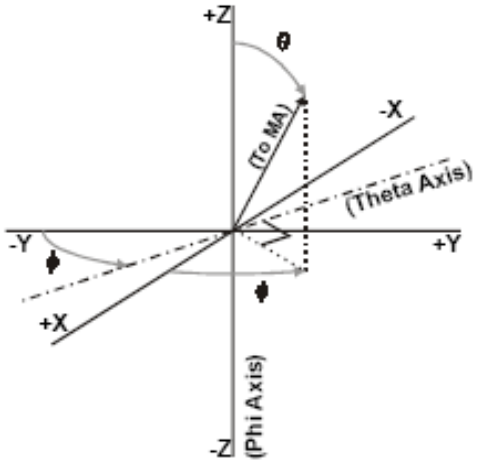
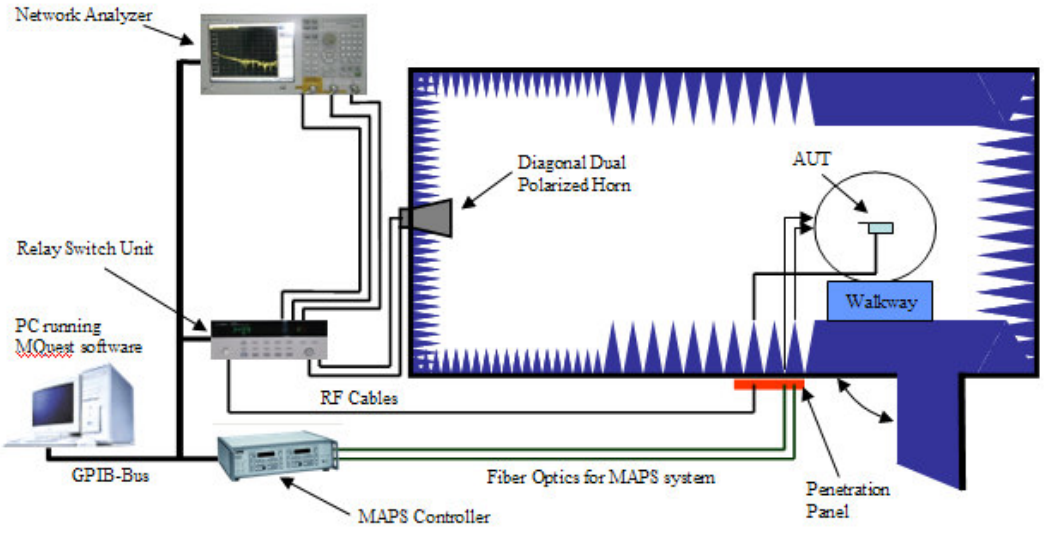


Figure 1 Test coordinate system

Note: Theta is from 0~180 degree. Phi is from 0~360. Rotate the EUT and record the Data, the step of rotation is 15 degree.

Test Setup



4. Test Results

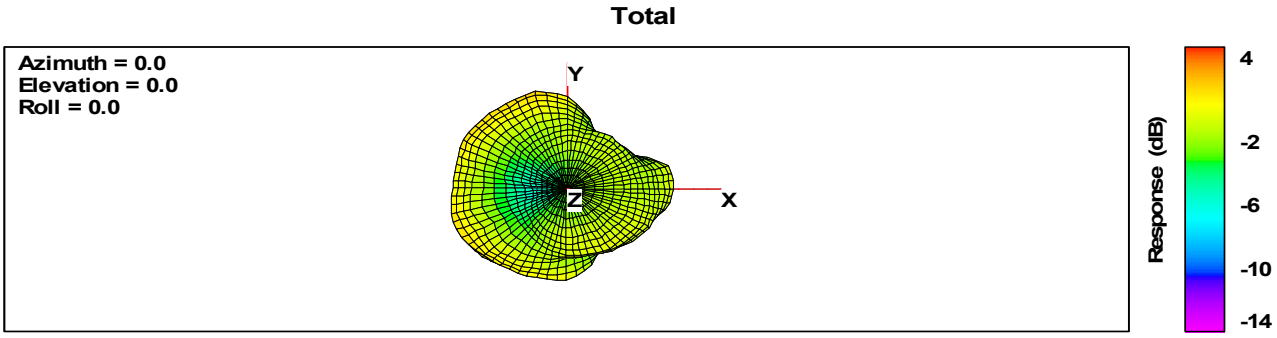
4.1. Gain and Efficiency

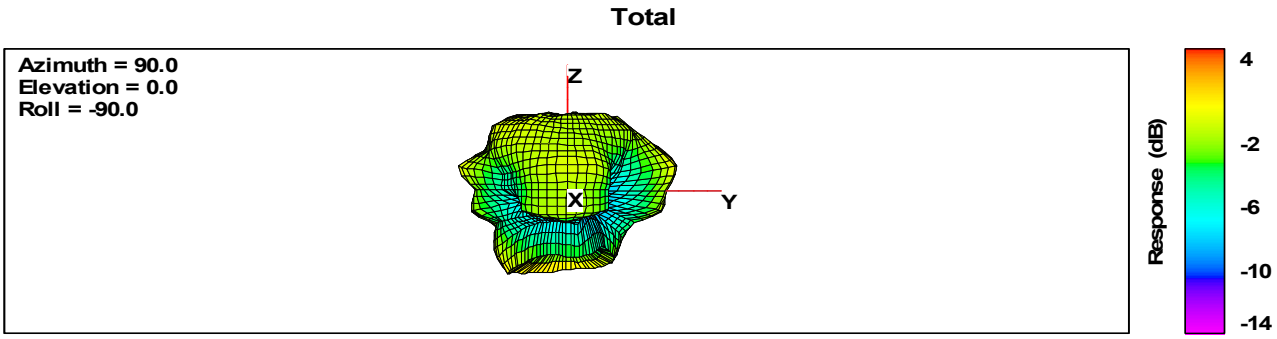
Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
B01-Hub2	Free Space	2402	63.72	2.43	/
		2407	61.87	2.05	
		2412	58.71	1.74	
		2417	54.83	1.64	
		2422	50.98	0.89	
		2427	48.90	0.67	
		2432	48.43	0.62	
		2437	50.48	0.83	
		2442	51.02	0.85	
		2447	51.59	0.96	
		2452	52.70	1.01	
		2457	53.93	1.20	
		2462	54.93	1.17	
		2467	54.53	1.36	
		2472	53.95	1.06	
		2477	55.84	1.10	
		2482	55.66	1.19	
		2485	55.16	1.06	

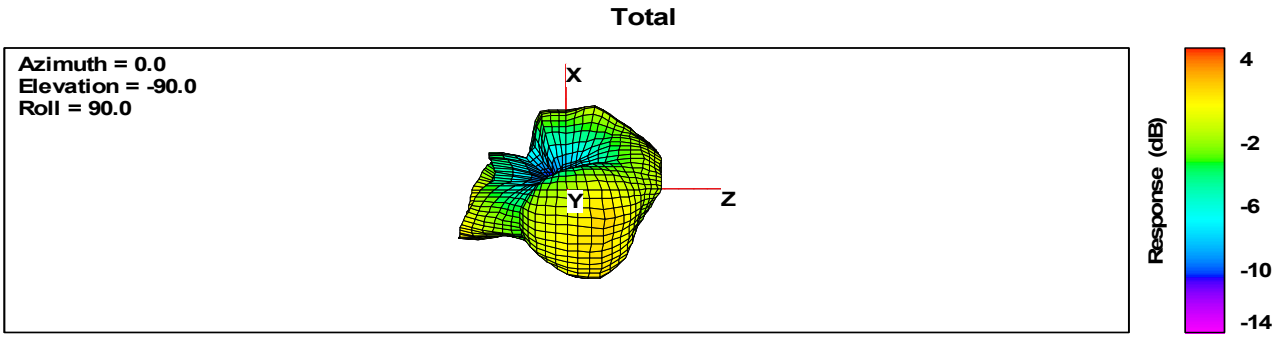
5. Equipment List

·Type of Equipment	Manufacturer	Model	SN	Version	Calibration Date	Expiration Time
Anechoic Chamber	ETS	AMS-8500	CT-001157-1219	/	2020-05-17	2025-05-16
Test Software	ETS	EMQuest™	/	REV 1.17	/	/
EMCenter_Switch Control System	ETS	7006/7001	00059957/ MY42001152	/	/	/
Diagonal Dual Polarized Horn	ETS	ETS 3164-04	00062743	/	2024-03-09	2029-03-08
Network Analyzer	Keysight	E5071B	MY42404014	/	2025-01-06	2026-01-05

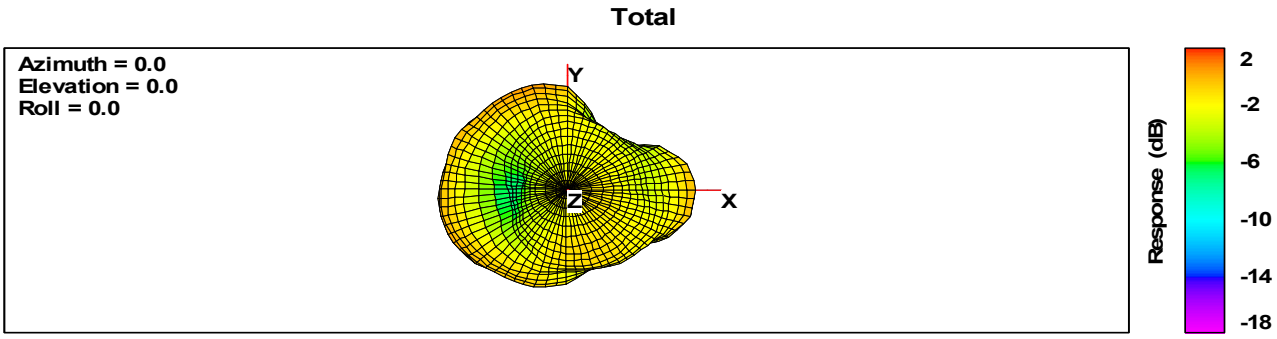
ANNEX A: 3-D Pattern Plots

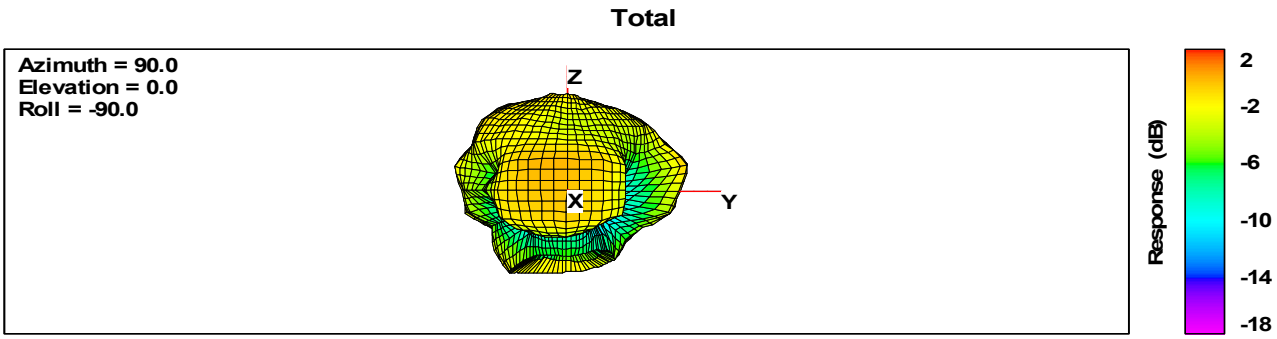


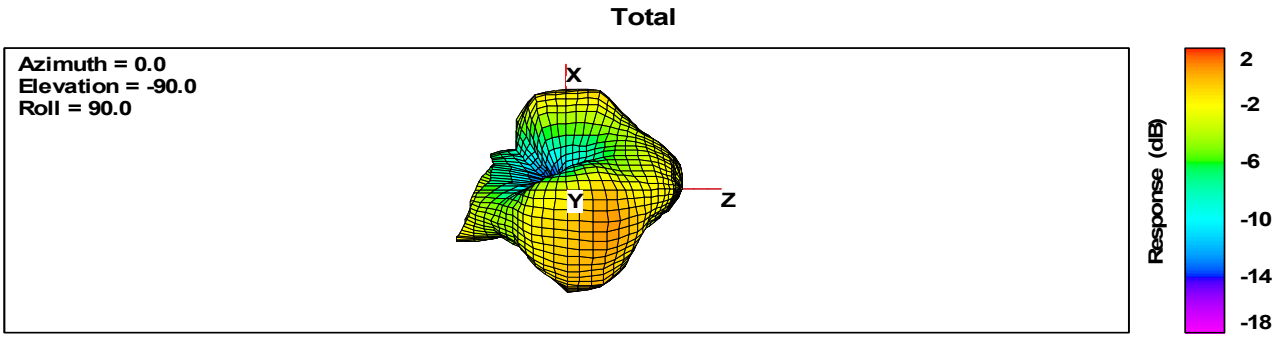




2402M 3D Gain

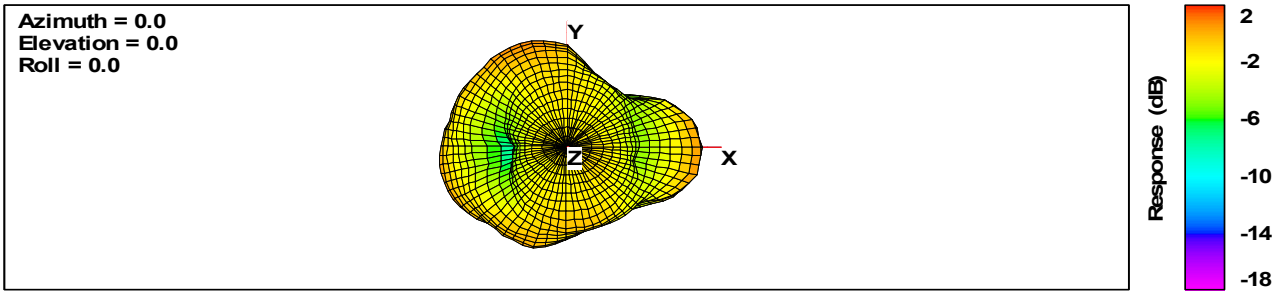




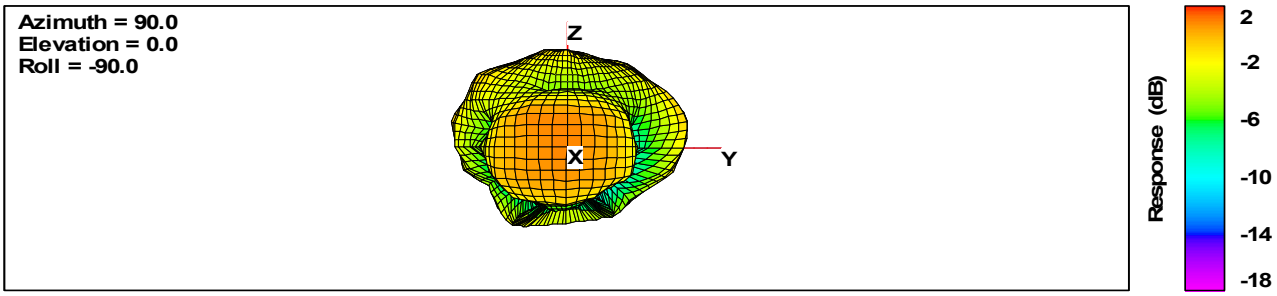


2442M 3D Gain

Total



Total



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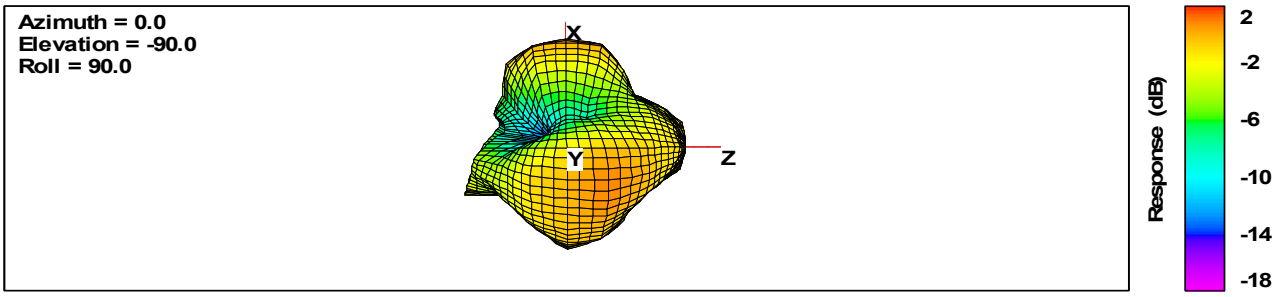
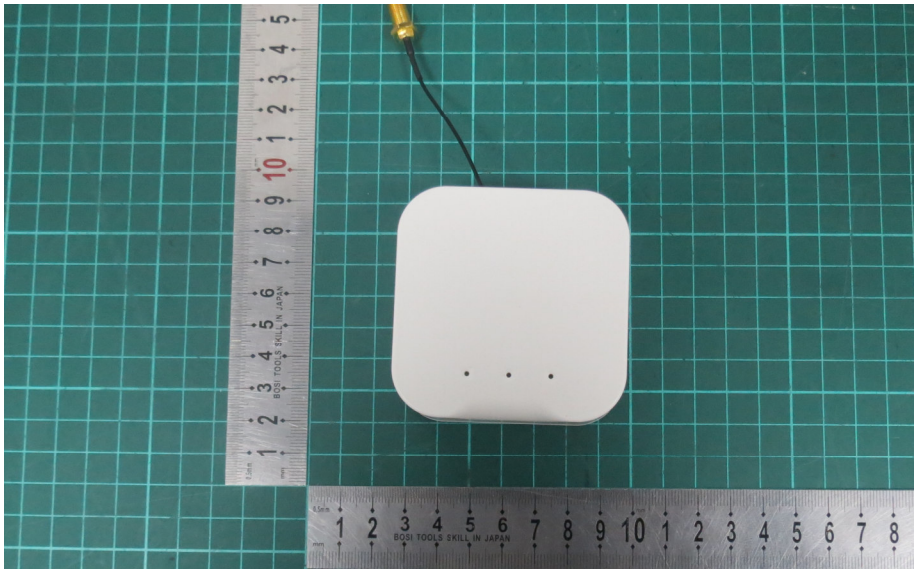


2485M 3D Gain

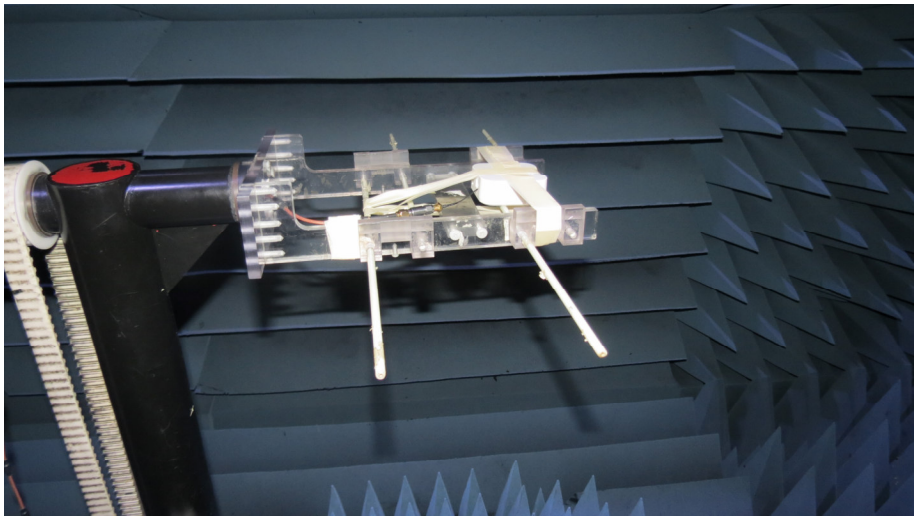
ANNEX B: THE EUT APPEARANCE AND TEST CONFIGURATION

B.1 EUT Appearance



Picture 1 Constituents of EUT

B.2 Test Configuration



Picture 2 Test Setup

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