

OTA TEST REPORT

Applicant Sengled Co.,Ltd.
Product Sengled Wi-Fi Module
Model SLM-B01
Report No. R2404A0486-T1
Issue Date June 5, 2024

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.

Prepared by: Wei Fangying

Approved by: Fan Guangchang

Eurofins TA Technology (Shanghai) Co., Ltd.

Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000

TABLE OF CONTENTS

1.	Test Laboratory	3
1.1.	Notes of the Test Report.....	3
1.2.	Test Facility	3
1.3.	Testing Location.....	3
1.4.	Laboratory Environment	3
2.	General Description of Equipment Under Test	4
2.1.	Applicant and Manufacturer Information.....	4
2.2.	General Information	4
2.3.	Test Date.....	4
2.4.	Received Date	4
2.5.	Applied Standards.....	5
3.	Test Conditions.....	6
3.1.	Test Configuration.....	6
3.2.	Test Measurement	6
4.	Test Results.....	7
4.1.	Gain and Efficiency	7
5.	Equipment List.....	8
	ANNEX A: 3-D Pattern Plots.....	9
	ANNEX B: The EUT Appearance and Test Configuration	12
	B.1 EUT Appearance	12
	B.2 Test Configuration.....	13

1. Test Laboratory

1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

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
Post code: 201201
Country: P. R. China
Contact: Fan Guangchang
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <https://www.eurofins.com/electrical-and-electronics>
E-mail: Jack.Fan@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 Co.,Ltd.
Applicant address	Room 103/02-B,Floor 1, Building 1, No. 498, Guoshoujing Road, Pilot Free Trade Zone Shanghai China
Manufacturer Name	Sengled Co.,Ltd.
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 Wi-Fi Module
Model	SLM-B01
HW Version:	V3
SW Version:	V2
Antenna Type:	PCB Antenna
Antenna Manufacturer:	Sengled Co.,Ltd.
Antenna Model:	SLM-B01
Test Frequency:	2400MHz ~ 2484MHz
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 on June 4, 2024.

2.4. Received Date

The sample was received on April 29, 2024.

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

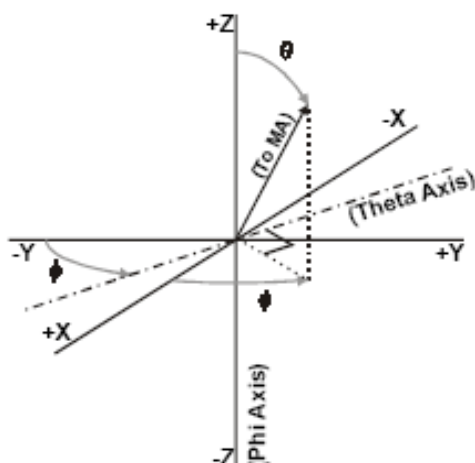
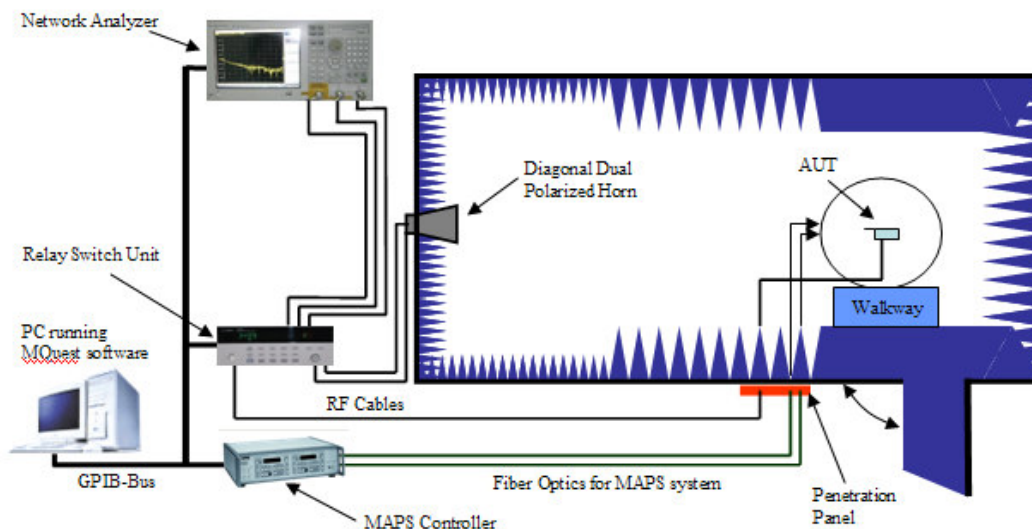


Figure 1 Test coordinate system

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

Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
Free Space	2402	40.40	2.42	/
	2407	41.44	2.68	
	2412	43.43	2.58	
	2417	45.11	2.81	
	2422	49.06	3.46	
	2427	50.16	2.91	
	2432	51.91	3.44	
	2437	53.60	3.42	
	2442	54.10	3.35	
	2447	53.76	3.14	
	2452	52.69	3.30	
	2457	53.75	3.45	
	2462	54.14	3.13	
	2467	54.47	3.23	
	2472	54.55	3.20	
	2477	55.82	3.29	
	2482	56.73	3.14	
	2485	56.17	3.38	

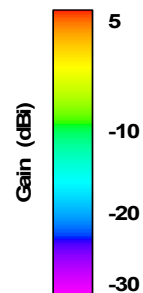
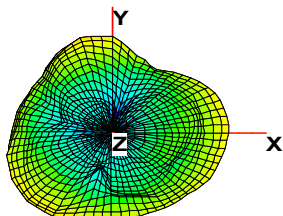
5. Equipment List

Type of Equipment	Manufacture	Model Number	S/N	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	2020-04-14	2025-04-13
Network Analyzer	Keysight	E5071B	MY42404014	2024-05-07	2025-05-06

ANNEX A: 3-D Pattern Plots

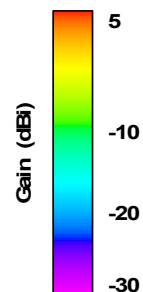
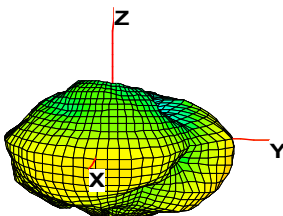
Total

Azimuth = 0.0
Elevation = 0.0
Roll = 0.0



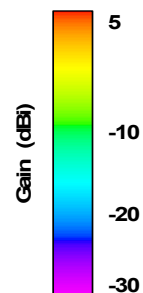
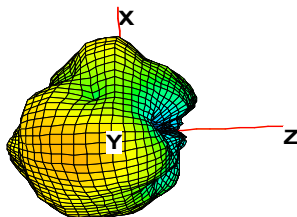
Total

Azimuth = 92.1
Elevation = -6.4
Roll = -77.5



Total

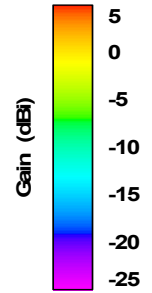
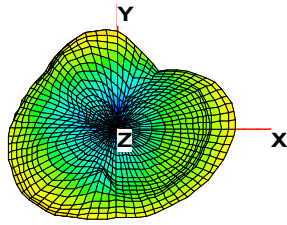
Azimuth = -89.7
Elevation = -84.3
Roll = 3.2



2402M 3D Gain

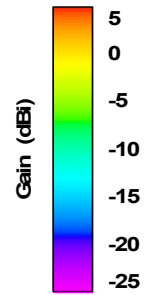
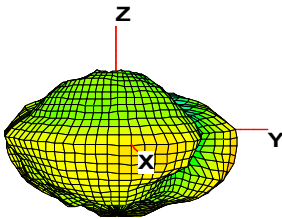
Total

Azimuth = 0.0
Elevation = 0.0
Roll = 0.0



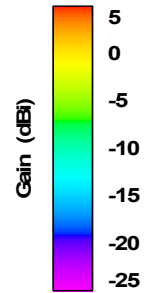
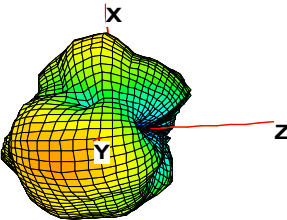
Total

Azimuth = 88.8
Elevation = 6.0
Roll = -82.9



Total

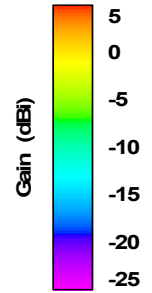
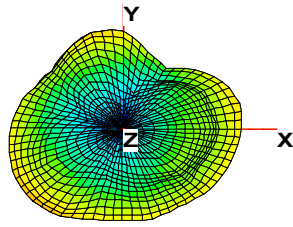
Azimuth = -118.8
Elevation = -82.2
Roll = -24.8



2442M 3D Gain

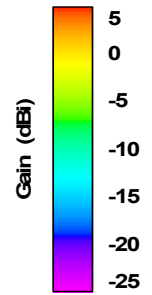
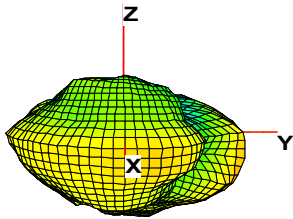
Total

Azimuth = 0.0
Elevation = 0.0
Roll = 0.0



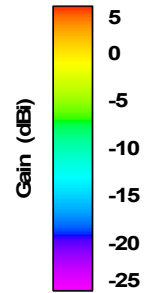
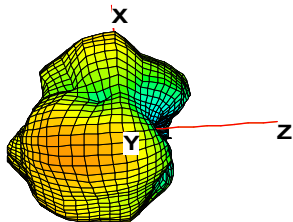
Total

Azimuth = 90.1
Elevation = 0.9
Roll = -81.4



Total

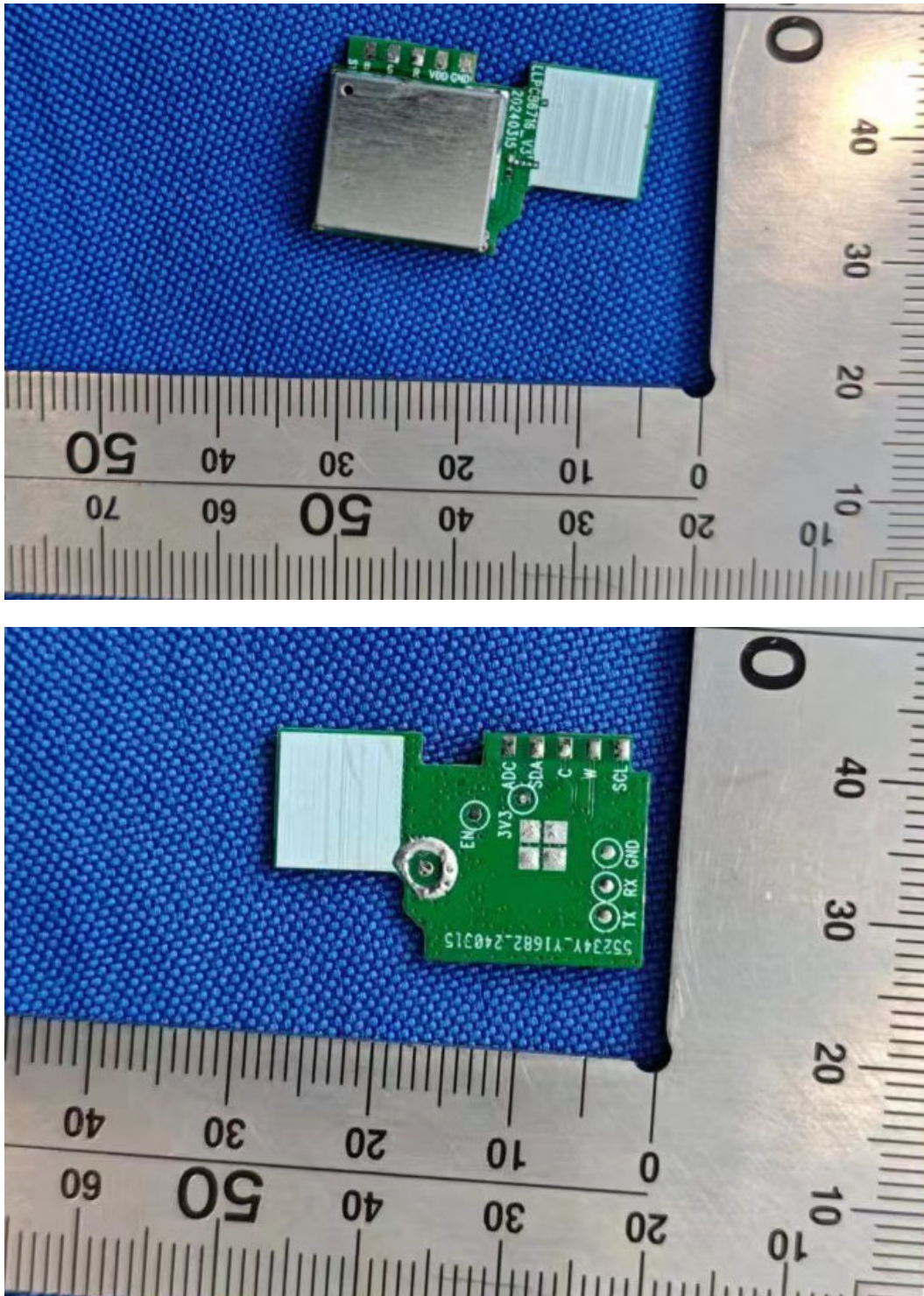
Azimuth = 158.5
Elevation = -89.1
Roll = -107.5



2485M 3D Gain

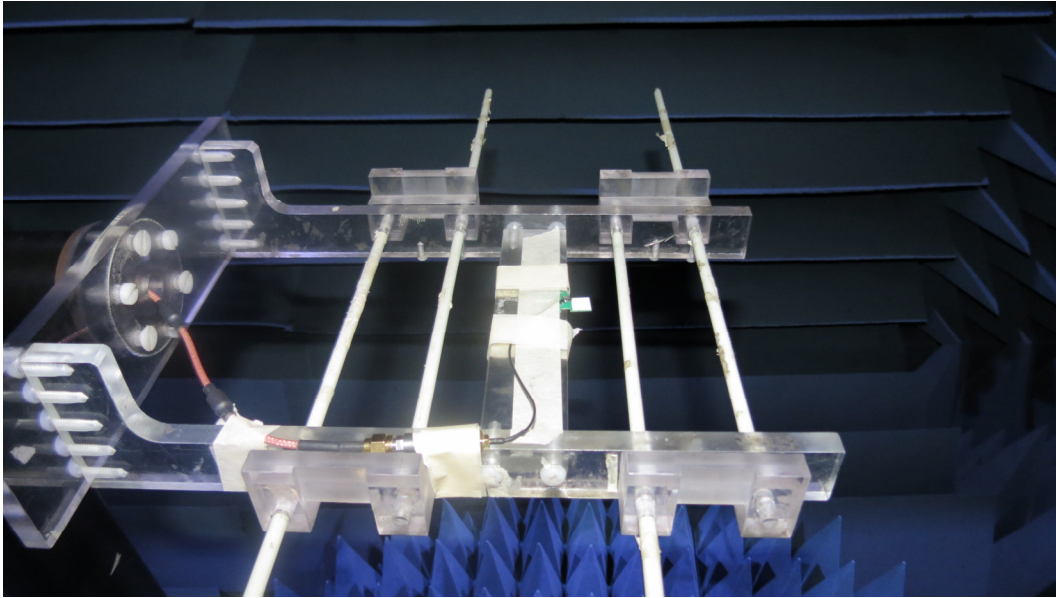
ANNEX B: THE EUT APPEARANCE AND TEST CONFIGURATION

B.1 EUT Appearance



Picture 1 Constituents of EUT

B.2 Test Configuration



Picture 2 Test Setup

*****END OF REPORT *****