OTA TEST REPORT

Applicant	Shanghai High-Flying Electronics Technology Co., Ltd
Product	Low Power 2.4GWi-Fi6 + BLE Module
Model	HF-LPT6200
Report No.	Y2211A1164-T1V1
Issue Date	March 13, 2023

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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Approved by: Xu Kai

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	January 9, 2023
Rev.1	Update information.	March 13, 2023
Note: This revised report (Report No. Y2211A1164-T1V1) supersedes and replaces the previously issued report (Report No. Y2211A1164-T1). Please discard or destroy the previously issued report and dispose of it accordingly.		

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 **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)

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

1.3. Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China
City:	Shanghai
Post code:	201201
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Website:	http://www.ta-shanghai.com
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1.4. Laboratory Environment

Temperature	Min. =19℃, Max. = 25℃	
Relative humidity	Min. =40%, Max. =72%	
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	Shanghai High-Flying Electronics Technology Co., Ltd
Applicant address	Building 17, No.1500 Zu Chongzhi Road,Pudong District, 201203, Shanghai, China
Manufacturer Name	Shanghai High-Flying Electronics Technology Co., Ltd
Manufacturer address	Building 17, No.1500 Zu Chongzhi Road,Pudong District, 201203, Shanghai, China

2.2. General information

EUT Description	
Product Name:	Low Power 2.4GWi-Fi6 + BLE Module
Model	HF-LPT6200
HW Version:	V2.0
SW Version:	V1.0
Antenna Type:	Internal Antenna
Antenna Manufacturer:	Shanghai High-Flying Electronics Technology Co., Ltd
Test Frequency:	2412MHz ~ 2472MHz
Note: The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. All indications of Pass/Fail in this report are opinions expressed by 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 November 25, 2022.

2.4. Received Date

The sample was received on November 14, 2022.

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

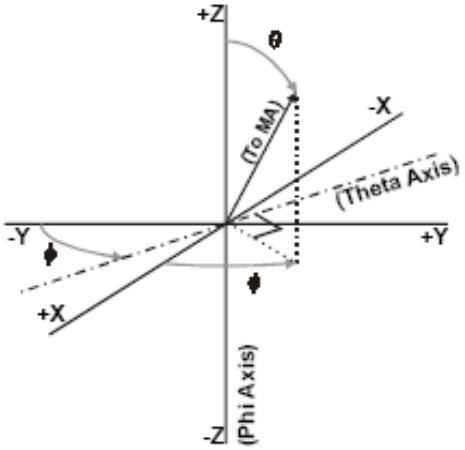
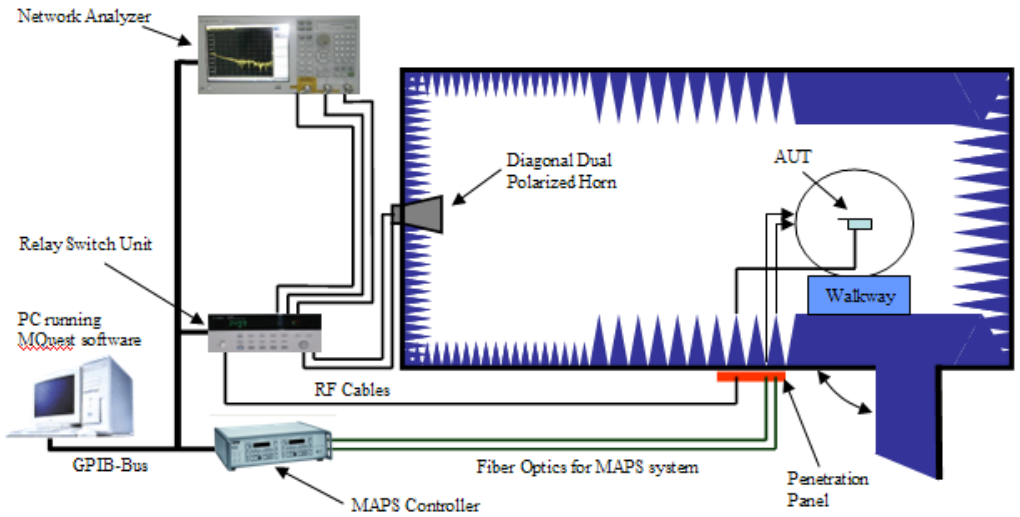


Figure 1 Test coordinate system

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

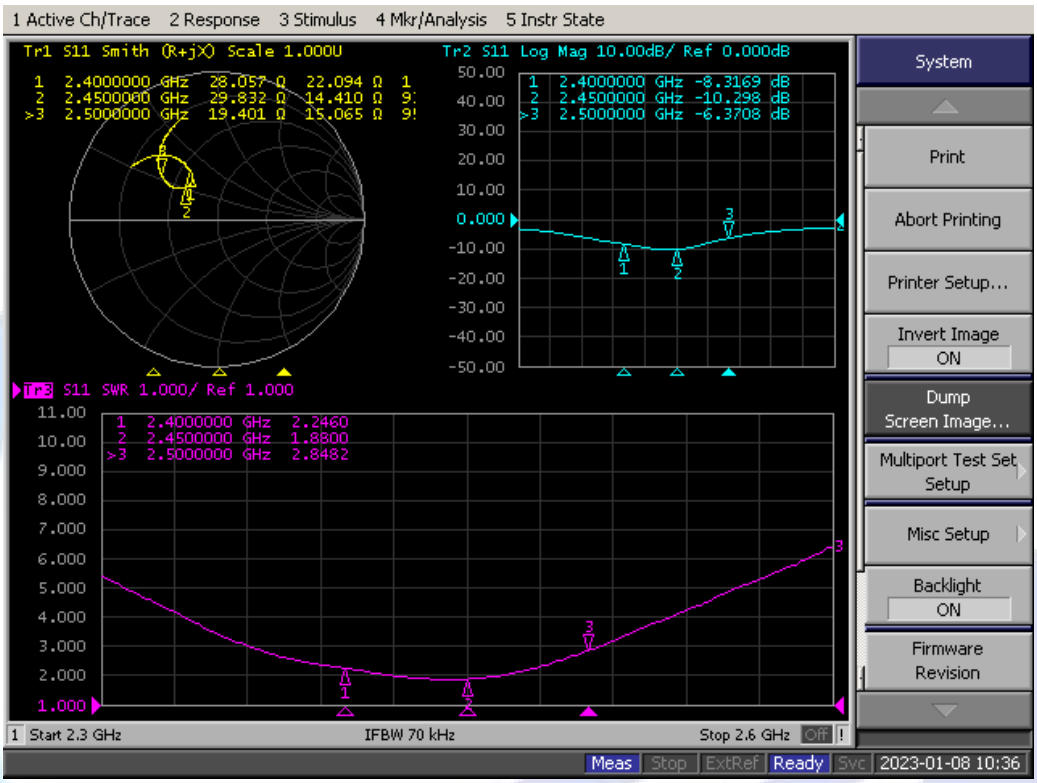


4. Test Results

4.1. Gain and Efficiency

Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
Free Space	2412	49.39	0.75	/
	2442	49.66	0.52	
	2472	49.87	0.53	

4.2. Voltage Standing Wave Ratio (VSWR) & Antenna S11 & Smith Chart



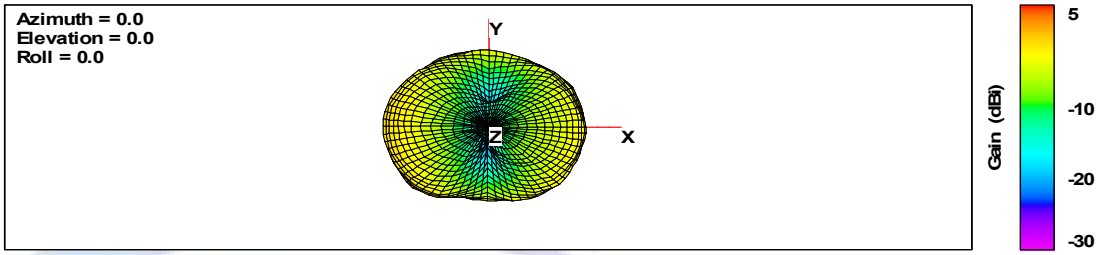
Frequency (MHz)	2400	2450	2500
VSWR	2.2460	1.8800	2.8482

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 1.0.9	-	-
EMCenter_Switch Control System	ETS	7006/7001	00059957/MY42001152	-	-
Diagonal Dual Polarized Horn	ETS	ETS 3164-04	00062743	2020-04-14	2025-04-13
Communication TX/RX Antenna on turntable	ETS	taoglas WDMP.2458.A	100214H000088A	-	-
Network Analyzer	Keysight	E5071B	MY42404014	2022-05-14	2023-05-13

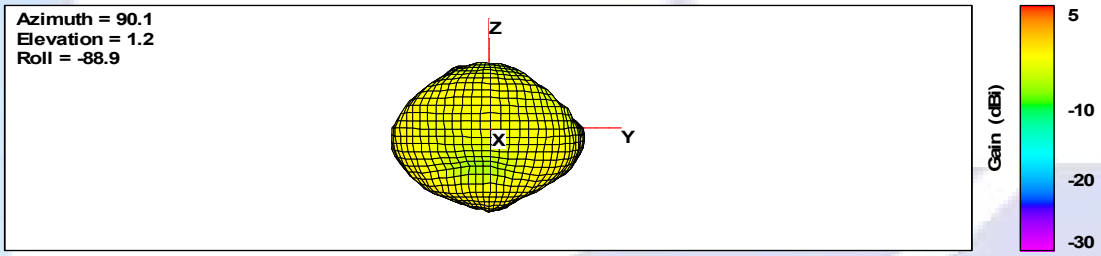
ANNEX A: 3-D Pattern Plots

Total



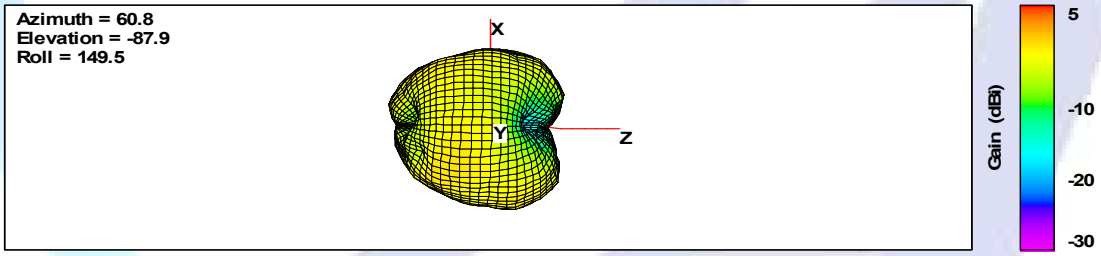
2412 MHz

Total



2442 MHz

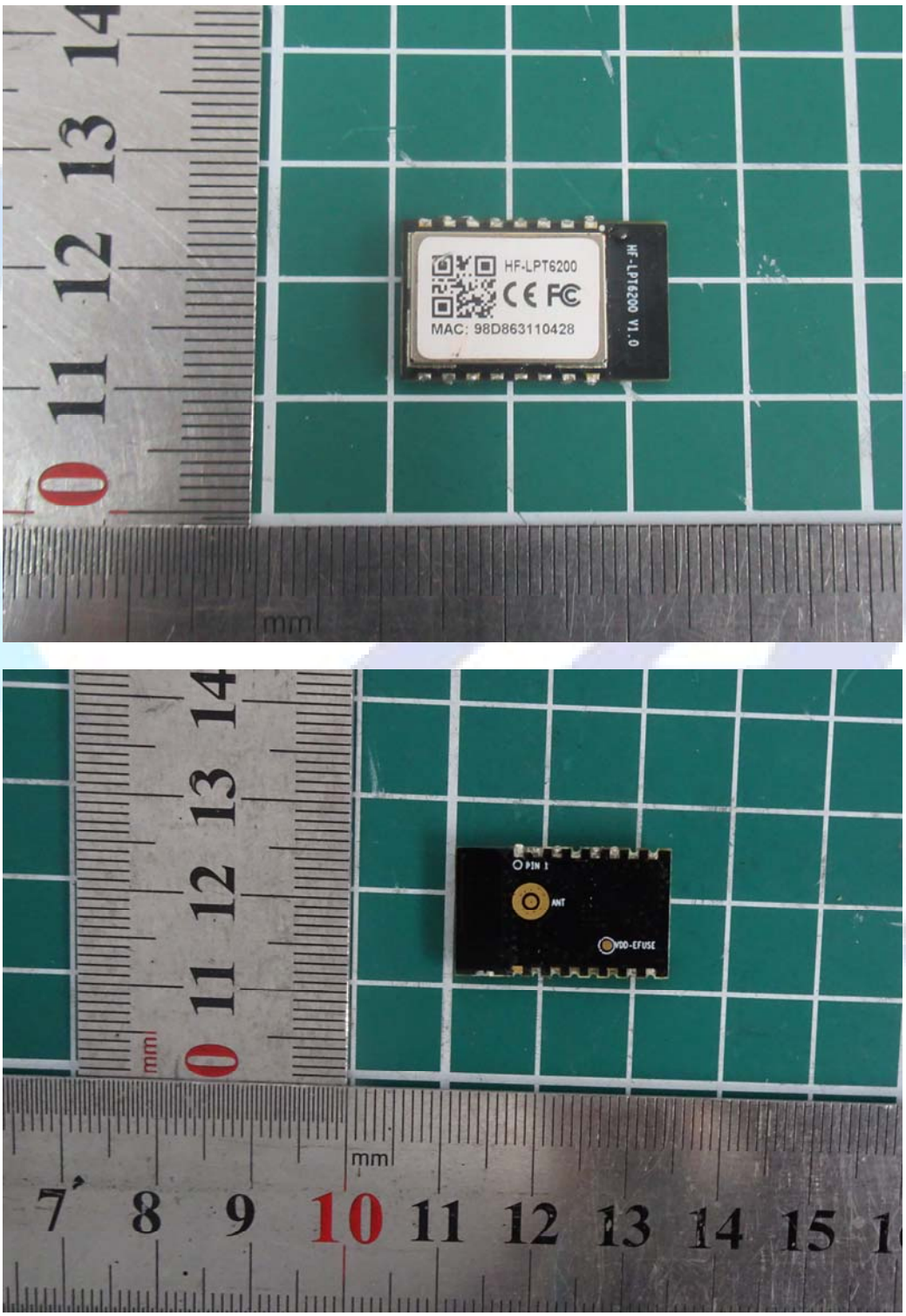
Total



2472 MHz

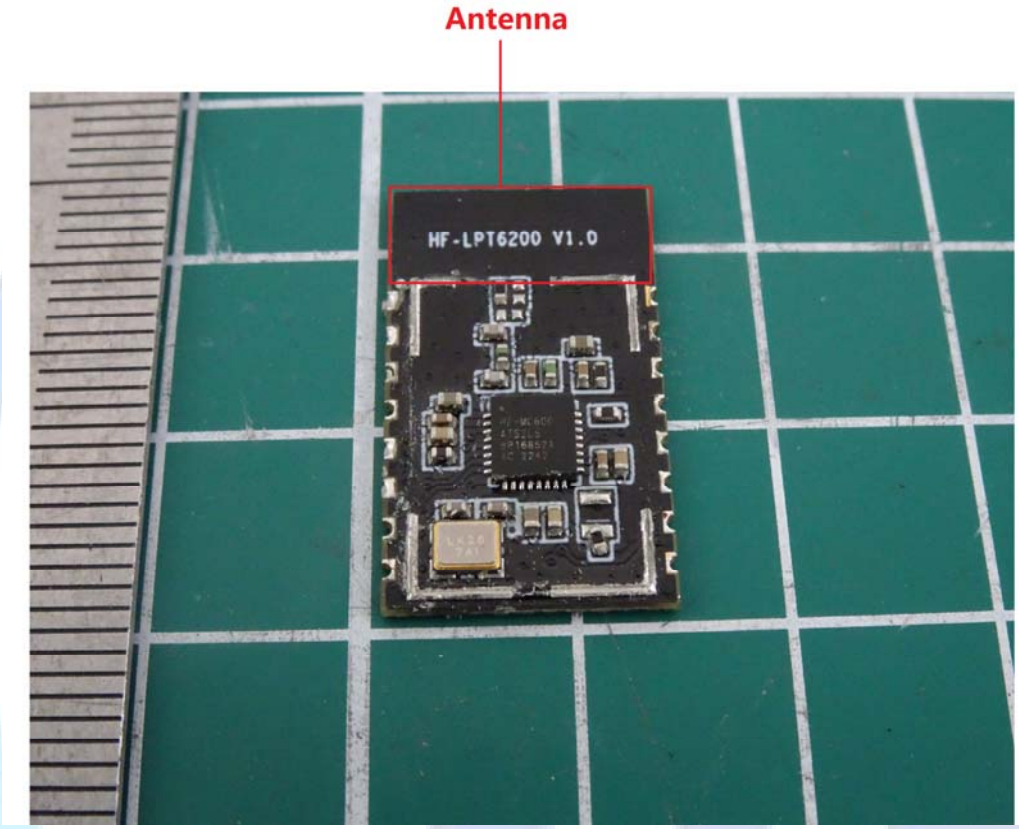
ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance



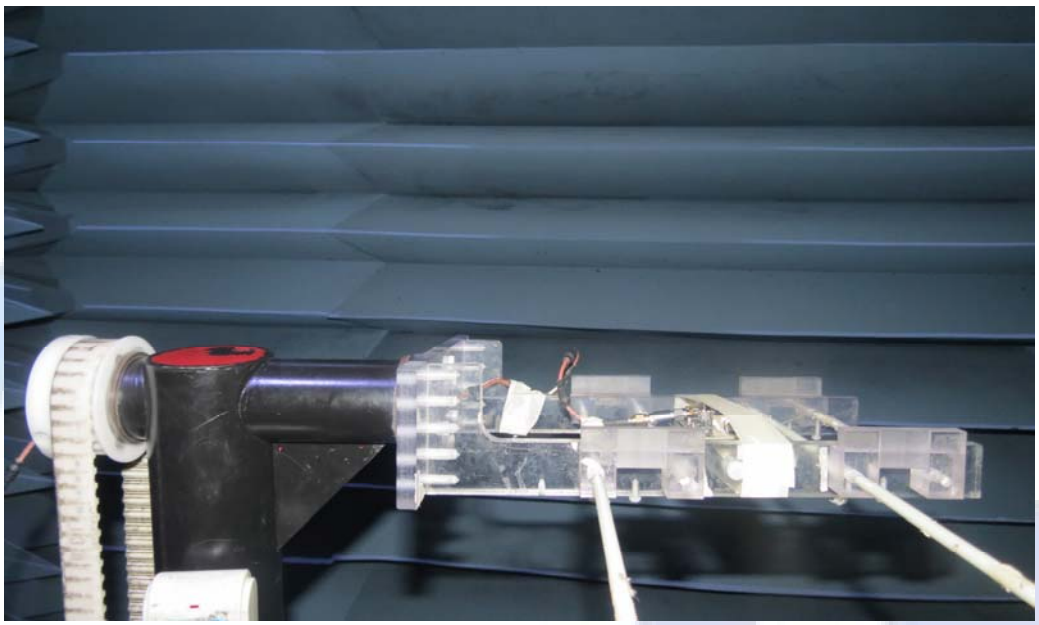
Picture 1 Constituents of EUT

B.2 Internal photo



Picture 2 Antenna location

B.3 Test Configuration



Picture 3 Test Setup

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