RF MPE REPORT

Report No.:	20231217G17427X-W4
Product Name:	UAM052
Model No.:	UAM052
FCC ID:	2A68EJX-UAM052
Applicant:	Shenzhen Uascent Technology Co.,Ltd
Address:	7th Floor, Building A2, Chuangzhiyuncheng, Liuxian Avenue, Xili Community, Xili Street, Nanshan District, Shenzhen
Dates of Testing:	12/14/2023 - 01/04/2024
Issued by:	CCIC Southern Testing Co., Ltd.
Lab Location:	Electronic Testing Building, No. 43 Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China. **Tel**：86 755 26627338 **Fax**：86 755 26627238

This test report consists of 8 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by CCIC-SET. The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to CCIC-SET within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.

Test Report

Product.....:	UAM057
Brand Name..... :	Uascent
Trade Name ..... :	Uascent
Applicant.....:	Shenzhen Uascent Technology Co.,Ltd
Applicant Address.....:	7th Floor, Building A2, Chuangzhiyuncheng, Liuxian Avenue, Xili Community, Xili Street, Nanshan District, Shenzhen
Manufacturer.....:	ShengXianZhiKongCo.,Ltd
Manufacturer Address.....:	Room 804, one of No.9 Yucheng Road, Chang'an Town, Dongguan City, Guangdong Province
Test Standards..... :	47 CFR Part 2.1091
Test Result.....:	Pass
Tested by .....:	Chuiwang Zhang 2024.01.04
	Chuiwang Zhang, Test Engineer
Reviewed by.....:	Chris You 2024.01.04
	Chris You, Senior Engineer
Approved by..... :	Yang Fan 2024.01.04
	Yang Fan, Manager

Table of Contents

1. GENERAL INFORMATION 5
1.1. EUT Description 5
1.2. EUT Description 6
1.3. Laboratory Facilities 6
1.4. Laboratory Location 6
2. TECHNICAL REQUIREMENTS SPECIFICATION IN CFR TITLE 47 PART 2.1091 ... 7
2.1. Exposure Limits 7
2.2. Predication of MPE limit at a given distance 7
2.3. Evaluation Results 8
2.4. Conclusion 8

Change History		
Issue	Date	Reason for change
1.0	2024.01.04	First edition

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	UAM052
EUT supports Radios application	2.4G WIFI/BLE
Frequency Range(Tx)	BLE: 2.402GHz ~ 2.480GHz
	2.4G WIFI: 2.412GHz ~ 2.462GHz
Bandwidth	BLE: 1Mbps
	802.11b/g/n-HT20/ax-HE20: 20MHz 802.11n-HT40/ax-HE40: 40MHz
Modulation Type	BLE: GFSK
	2.4G WIFI: DSSS (802.11b), OFDM (802.11g/n/ax)
Antenna gain	BLE: -1.3dBi
	2.4G WIFI: -1.3dBi
Antenna Type	PCB Antenna

Note 1: The information of antenna gain and cable loss is provided by the manufacturer and our lab is not responsible for the accuracy of the antenna gain and cable loss information.

1.2. EUT Description

EUT has been tested according to the following standards.

No.	Identity	Document Title
1	47 CFR Part 1	Practice and Procedure
2	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
3	KDB 447498 D01 General RF Exposure Guidance v06	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
4	OET Bulletin 65 Edition 97-01	Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields

1.3. Laboratory Facilities

FCC-Registration No.: 406086

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

ISED Registration: 11185A

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

CAB number: CN0064

A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

1.4. Laboratory Location

Company Name:	CCIC Southern Testing Co., Ltd.
Address:	Electronic Testing Building, No. 43 Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

2. Technical Requirements Specification in CFR Title 47 Part 2.1091

2.1. Exposure Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm2)	Averaging Time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	< 6
3.0-30	1824/f	4.89/f	*(900/f^2)	< 6
30-300	61.4	0.163	1.0	< 6
300-1500	/	/	f/300	< 6
1500-100,000	/	/	5	< 6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	< 30
1.34-30	824/f	2.19/f	*(180/f^2)	< 30
30-300	27.5	0.073	0.2	< 30
300-1500	/	/	f/1500	< 30
1500-100,000	/	/	1.0	< 30
Note: f = frequency in MHz. * = Plane-wave equivalent power density.				

2.2. Predication of MPE limit at a given distance

Refer to formulas on page 19 of OET Bulletin 65, Edition 97-01.

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = power density (in appropriate units, e.g. mW/cm^2)
P = power input to the antenna (in appropriate units, e.g., mW)
G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the centre of radiation of the antenna (appropriate units, e.g., cm)

2.3. Evaluation Results

Worst-Case mode Conducted Output Power Results for BLE

Band	Mode	Frequency (MHz)	Maximum Output Power (dBm)	Max Tune up power (dBm)	Max Tune up power (mW)
BLE	GFSK	2480	5.855	5±1	3.98

Worst-Case mode Conducted Output Power Results for 2.4G WLAN

Band	Mode	Frequency (MHz)	Maximum Output Power (dBm)	Max Tune up power (dBm)	Max Tune up power (mW)
2.4G WIFI	802.11b	2442	16.92	16±1	50.12

Calculation results: Worst-Case mode

Band	Max Tune up power (dBm)	Antenna Gain (dBi)	Distance (cm)	Result (mW/cm2)	Power Density (mW/cm2)	Ratio
BLE	6	-1.3	20	0.0006	1.00	0.0006
2.4G WIFI	17	-1.3	20	0.0074	1.00	**0.0074**

2.4. Conclusion

According to the KDB 447498 D01 General RF Exposure Guidance v06 section 7.2 determine the device is exclusion from SAR test.

** END OF REPORT **