FCC TEST REPORT

For

Zigbee SoC

Model Number: JASMG21A

FCC ID: U2ZJASMG21A

Report Number : WT228002602

Test Laboratory	:	Shenzhen Academy of Metrology and Quality Inspection
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Revision History

No	Date	Remark
V1.0	2022.11.02	Initial issue

TEST REPORT DECLARATION

Applicant	:	Sheenway Asia Ltd.
Address	:	Room1313, 13/F, Austin Tower, 22-26 Austin Avenue, Tsim Sha Tsui, Kowloon, Hong Kong, China
Manufacturer	:	Sheenway Asia Ltd.
Address	:	Room1313, 13/F, Austin Tower, 22-26 Austin Avenue, Tsim Sha Tsui, Kowloon, Hong Kong, China
EUT Description	:	Zigbee SoC
Model No.	:	JASMG21A
FCC ID	:	U2ZJASMG21A

Test Standards:

FCC Part 1 Subpart I 1.1310
FCC Part 2 Subpart J 2.1091 & 2.1093

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer:	(Zhou Fangai 周芳媛)	Date:	Nov.02, 2022
Checked by:	(Shi Changda 施昌达)	Date:	Nov.02, 2022
Approved by:	(Lin Yixiang 林奕翔)	Date:	Nov.02, 2022

TABLE OF CONTENTS

1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Results
RF Exposure	Pass

Remark: “N/A” means “Not applicable.”

2. GENERAL INFORMATION

2.1. Report Information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

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The lab will not be liable for any loss or damage resulting for false, inaccurate, inappropriate or incomplete product information provided by the applicant/manufacturer.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.

The Laboratory is Accredited Testing Laboratory of FCC with Designation number CN1165 and Site registration number 582918.

The Laboratory is registered to perform emission tests with Innovation, Science and Economic Development (ISED), and the registration number is 11177A.

The Laboratory is registered to perform emission tests with VCCI, and the registration number are C-20048, G20076, R-20077, R-20078 and T-20047.

The Laboratory is Accredited Testing Laboratory of American Association for Laboratory Accreditation (A2LA) and certificate number is 3292.01.

3. PRODUCT DESCRIPTION

3.1. EUT Description

Table 2 Specification of the Equipment under Test

Description:	Zigbee SoC
FCC ID:	U2ZJASMG21A
Frequency:	2.405GHz~2.480GHz
Type(s) of Modulation:	DSSS (O-QPSK)
Antenna Type:	chip antenna 2 dBi
Operating voltage:	1.71V~3.8V DC

Remark: --

4. RF EXPOSURE

4.1. FCC RULES

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.
In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.
Limits for General Population/Uncontrolled Exposure

4.2. FCC LIMIT

Table 3 Limits for General Population/Uncontrolled Exposure

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
0.13-1.34	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
1500-100000	---	---	1.0	<30

f = frequency in MHz.
* = Plane-wave equivalent power density.

4.3. CALCULATION METHOD

$S=PG/4\pi R^2$
Where:
S=power density
P=power input to antenna
G=power gain of the antenna in the direction of interest relative to an isotropic radiator
R=distance to the center of radiation of the antenna

4.4. CALCULATION RESULT

Table 4 Calculation result

Worst Case					
Mode	Output Power	Antenna Gain	Power Density	Power Density Limit	Result
	dBm	dBi	mW/cm^2	mW/cm^2	---
Zigbee	15.5	2	0.01119	1.0	Complies

Note:
1. The Power comes from report operation description.
2. The minimum separation distance of the device is greater than 20 cm.

----------End of Report----------