

Test Report No:  
2550032R-RFUSV17S-A

## RF EXPOSURE EVALUATION DECLARATION

Product Name	System-On-Module
Brand Name	AMobile
Model No.	SoM-SD700, SoM-SD510
FCC ID	2AQ5W-SOM510-700
Applicant's Name / Address	AMobile Solutions Corp. 8F.-1, No.700, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan
Manufacturer's Name / Address	AMobile Solutions Corp. 8F.-1, No.700, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan
Test Method Requested, Standard	FCC CFR Title 47 Part 2.1091 Radiofrequency radiation exposure evaluation: mobile devices.
Verdict Summary	IN COMPLIANCE
Documented By	 Vera Hsu
Approved By	 Allen Lin
Date of Receipt	May 05, 2025
Date of Issue	Jul. 15, 2025
Report Version	V1.0

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## Competences and Guarantees

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DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

**IMPORTANT:** No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

## General Conditions

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1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

## Revision History

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Version	Description	Issued Date
V1.0	Initial issue of report	Jul. 15, 2025

## 1. General Information

### 1.1. EUT Description

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
WiFi 2.4 GHz	2400 ~ 2483.5	2412 ~ 2462	802.11b: DSSS 802.11g/n: OFDM
WiFi 5 GHz	5150 ~ 5250 5250 ~ 5350 5470 ~ 5725 5725 ~ 5850	5180 ~ 5240 5260 ~ 5320 5500 ~ 5700 5745 ~ 5825	802.11a/n/ac: OFDM
Bluetooth	2400 ~ 2483.5	2402 ~ 2480	BR / EDR: FHSS (GFSK / $\pi/4$ -DQPSK / 8DPSK) LE: GFSK

The difference for each model is shown as below:

EUT	Model No.	Platform	Description
1	SoM-SD700	MT8390	The differences are platform and CPU/GPU. All under same layout.
2	SoM-SD510	MT8370	

From the above models, model: SoM-SD700 was selected as representative model for the test and its data was recorded in this report.

Note: The above EUT information is declared by the manufacturer.

### 1.2. Testing Location Information

Testing Location Information		
Test Laboratory : DEKRA Testing and Certification Co., Ltd.		
1  (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.  TEL: +886-3-582-8001                      FAX: +886-3-582-8958  Test site Designation No. TW3024 with FCC.  Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
2  (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.  TEL: +886-3-582-8001                      FAX: +886-3-582-8958  Test site Designation No. TW3024 with FCC.  Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
Test site number for address 1 includes HC-SR02 and HC-CB10. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.		

## 2. RF Exposure Evaluation

### 2.1. Test Limit

(A) Test Limit for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	*(100)	<6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	<6
30-300	61.4	0.163	1.0	<6
300-1500	-	-	f/300	<6
1500-100,000	-	-	5	<6

(B) Test Limit for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	<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

Power Density (S) is calculated by the following formula:

$$S = (P \cdot G) / 4\pi R^2$$

where:

S = power density (in appropriate units, e.g. mW/ cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

$\pi$  = 3.1416

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

## 2.2. Test Result of RF Exposure Evaluation

### Exposure Environment: General Population / Uncontrolled Exposure

Evaluation Mode	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Test Result (PASS/FAIL)
WiFi 2.4 GHz	29.670	926.830	0.184	1.000	PASS
WiFi 5 GHz UNII-1	26.661	463.554	0.092	1.000	PASS
WiFi 5 GHz UNII-2A	26.326	429.141	0.085	1.000	PASS
WiFi 5 GHz UNII-2C	26.288	425.402	0.085	1.000	PASS
WiFi 5 GHz UNII-3	25.830	382.825	0.076	1.000	PASS
Bluetooth BR / EDR	15.990	39.719	0.008	1.000	PASS
Bluetooth LE	16.160	41.305	0.008	1.000	PASS

Distance (cm): 20 for Maximum Permissible Exposure.

Co-location
<p><b>Conclusion:</b>  The formula of calculated the MPE is:  <b>CPD1 / LPD1 + CPD2 / LPD2 + .....etc. &lt; 1</b>  <b>CPD = Calculation power density</b>  <b>LPD = Limit of power density</b></p> <p>Bluetooth + WiFi = 0.008 + 0.184 = 0.192, therefore the maximum calculations of above situations are less than the "1" limit.</p>

Note:

1. The above EUT information is declared by the manufacturer.
2. The results are based on the maximum power.