RF Exposure Evaluation Report

Applicant:	Autel Robotics Co., Ltd.
Address of Applicant:	18th Floor, Block C1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China

Equipment Under Test (EUT)

Product Name:	EVO II V3
Model No.:	MDCV3
Trade mark:	AUTEL ROBOTICS
FCC ID:	2AGNTMDC240958A
Applicable standards:	FCC CFR Title 47 Part 2 Subpart J Section 2.1091
Date of sample receipt:	24 Jun., 2022
Date of Test:	25 Jun., to 26 Jul., 2022
Date of report issue:	26 Jul., 2022
Test Result:	PASS*

Authorized Signature:

Bruce Zhang
Laboratory Manager

2 Version

Version No.	Date	Description
00	*26 Jul., 2022*	*Original*

Tested by: Mike.ou ***Date:*** *26 Jul., 2022*

Test Engineer

Reviewed by: Winner Zhang ***Date:*** *26 Jul., 2022*

Project Engineer

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4 General Information

4.1 Client Information

Applicant:	Autel Robotics Co., Ltd.
Address:	18th Floor, Block C1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China
Manufacturer:	Autel Robotics Co., Ltd.
Address:	18th Floor, Block C1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China
Factory:	Autel Robotics Co., Ltd.Guangming Branch
Address:	No.701, Jixie Factory, Building 4, Yanxiang Technology Industrial Park, Gaoxin Road, Dongzhou Community, Guangming street, Guangming district, Shenzhen, Guangdong, China

4.2 General Description of E.U.T.

Product Name:	EVO II V3
Model No.:	MDCV3
Operation Frequency:	900MHz: 904.0MHz~926.0MHz; 2.4GHz : 2403.5MHz~2475.5MHz 5GHz: 5728.0MHz~5847.0MHz
Modulation technology:	QPSK, 16QAM
Antenna Type:	Integral Antenna
Antenna gain:	904.0MHz~926.0MHz: Antenna 1: 1.4dBi, Antenna 2: 1.1dBi (declare by applicant) 2403.5MHz~2475.5MHz: Antenna 1: 2.0dBi, Antenna 2: 2.5dBi (declare by applicant) 5728.0MHz~5847.0MHz : Antenna 1: 4.5dBi, Antenna 2: 3.5dBi (declare by applicant)
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

4.3 Operating Modes

Operating mode	Detail description
2.4GHz mode	Keep the EUT in continuously transmitting in 2.4GHz mode
5GHz mode	Keep the EUT in continuously transmitting in 5GHz mode
900MHz mode	Keep the EUT in continuously transmitting in 900MHz mode

4.4 Additions to, deviations, or exclusions from the method

No

4.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

4.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info-JYTee@lets.com, Website: http://jyt.lets.com

5 Technical Requirements Specification in FCC CFR Title 47 Part 2.1091

5.1 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)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/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
(B) 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

5.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

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

5.3 Result

Frequency (MHz)	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm^2)	Limits for General Population/ Uncontrolled Exposure (mW/cm^2)
2.4GHz							
2439.5	22.444	175.55	2.5	1.78	20.00	0.062	1.0
900MHz							
915	27.164	520.48	1.4	1.38	20.00	0.143	0.61
5.8GHz-1.4MHz-16QAM							
5788	27.301	537.16	4.5	2.82	20.00	0.301	1.0

Note: Just the worst case mode was shown in report.

5.4 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

------End of report------