RF Exposure Evaluation Report

Applicant:	Move Robotics Technology Co., Ltd.
Address of Applicant:	Floor 4, No.1150, Feidu Road, Xin Cheng town, Nanhui, Pudong, Shanghai, China

Equipment Under Test (EUT)

Product Name:	Health Management Exoskeleton
Model No.:	Mercury-Sports-1901
Trade mark:	Move Robotics
FCC ID:	2AVZEMRMCRUS20PT-01
Applicable standards:	FCC CFR Title 47 Part 2 Subpart J Section 2.1091
Date of sample receipt:	24 Mar., 2020
Date of Test:	25 Mar., to 15 Jul., 2020
Date of report issue:	21 Aug., 2020
Test Result:	PASS*

Authorized Signature:

Bruce Zhang
Laboratory Manager

2 Version

Version No.	Date	Description
00	*18 Aug., 2018*	*Original*
01	*21 Aug., 2018*	*1. Updated data on page 7.*

Tested by: Janet Wei ***Date:*** *21 Aug., 2018*

Test Engineer

Reviewed by: Winner Zhang ***Date:*** *21 Aug., 2018*

Project Engineer

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4 General Information

4.1 Client Information

Applicant:	Move Robotics Technology Co., Ltd.
Address:	Floor 4, No.1150, Feidu Road, Xin Cheng town, Nanhui, Pudong, Shanghai, China
Manufacturer/Factory:	Move Robotics Technology Co., Ltd.
Address:	Floor 4, No.1150, Feidu Road, Xin Cheng town, Nanhui, Pudong, Shanghai, China

4.2 General Description of E.U.T.

Product Name:	Health Management Exoskeleton
Model No.:	Mercury-Sports-1901
Operation Frequency:	Band 1: 5150MHz-5250MHz, Band 4: 5725MHz-5825MHz
Modulation technology:	802.11a/n20: OFDM
Antenna Type:	External Antenna
Antenna gain:	5.2G WiFi: 3.0dBi; 5.8G WiFi: 2.0dBi
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

4.3 Operating Modes

Operating mode	Detail description
5G WIFI mode	Keep the EUT in continuously transmitting in 5G WIFI 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**

Shenzhen Zhongjian Nanfang Testing 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 of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

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

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 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

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
Address: No.110~116, Building B, Jinyuan Business Building, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info@ccis-cb.com, Website: http://www.ccis-cb.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)
5.2G Wi-Fi							
5200	13.62	23.01	3.0	2.0	20.00	0.0091	1.0
5.8G Wi-Fi							
5785	13.75	23.71	2.0	1.58	20.00	0.0075	1.0

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

5.4 Conclusion

The device is exempt from the RF exposure evaluation.

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