

**FCC RF Exposure Exemption report**

**for**

**REMOTE CONTROL**

**Model No.: RC-WM-213**

**FCC ID: VFK-RC-WM-213**

**of**

Applicant: Ascion, LLC

Address: 2066 Franklin Rd, Bloomfield Hills, MI 48302, United States

Tested and Prepared

by

**Worldwide Testing Services (Taiwan) Co., Ltd.**

**FCC Registration No.: TW1477, TW1072**

**Industry Canada filed test laboratory Reg. No.: 20037, 5107A**



**Report No.: W6M22403-23342-EE**

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Registration number: W6M22403-23342-C-1  
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# Worldwide Testing Services(Taiwan) Co., Ltd.

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## 1 General Information

### 1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

Laboratory disclaimer-

1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.

### **Tester:**

April 26, 2024	Rick Chen	<i>Rick Chen.</i>
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Date	WTS-Lab.	Name	Signature
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### **Technical responsibility for area of testing:**

April 26, 2024	Kevin Wang	<i>Kevin Wang</i>
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Date	WTS	Name	Signature
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# **Worldwide Testing Services(Taiwan) Co., Ltd.**

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## **1.2 Testing laboratory**

### **1.2.1 Location**

10m OATS

No.5-1, Lishui, Shuang Sing Village, Wanli Dist.,  
New Taipei City 207, Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist.,  
Taipei City 114, Taiwan (R.O.C.)  
Tel: 886-2-6613-0228

Worldwide Testing Services (Taiwan) Co., Ltd.  
6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,  
Taipei City 114, Taiwan (R.O.C.)  
Tel: 886-2-6606-8877

### **1.2.2 Details of accreditation status**

Accredited testing laboratory

FCC filed test laboratory Reg. No.: TW1477, TW1072

Industry Canada filed test laboratory Reg. No.: 20037, 5107A

### **Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd.**

Name: ./.  
Accredited no.: ./.  
Street: ./.  
Town: ./.  
Country: ./.

## **1.3 Details of approval holder**

Name: Ascion, LLC  
Street: 2066 Franklin Rd, Bloomfield Hills,  
Town: MI 48302,  
Country: United States



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**1.4 Application details**

Date of receipt of test item: March 08, 2024  
Date of test: from March 11, 2024 to April 18, 2024

**1.5 General information of Test item**

Type of test item: REMOTE CONTROL  
Model no.: RC-WM-213  
Brand name: Reverie  
Multi-listing model no.: RC-WM-213-XXX  
(where "X" may be any alphanumeric character, black or " -"  
Sample no.: #02  
Classification:

Fixed Device	<input type="checkbox"/>
Mobile Device (Human Body distance > 20cm)	<input type="checkbox"/>
Portable Device (Human Body distance < 20cm)	<input checked="" type="checkbox"/>

**Manufacturer: (if applicable)**

Name: SUZHOU MOTECK ELECTRONICS-TECHNOLOGY CO LTD  
Street: No. 500, Hubei Road, Fenhua Economic Development Zone,  
Town: Wujiang City, Jiangsu Province,  
Country: China

**1.6 Test standards**

47 CFR FCC Part 2.1093  
447498 D04 Interim General RF Exposure Guidance v01



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## 2 Technical test

### 2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

or

The deviations were ascertained in the course of the tests performed.

### 2.2 Test environment

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Power supply: AAA Battery 1.5Vd.c.\*3

Extreme conditions parameters: ./.

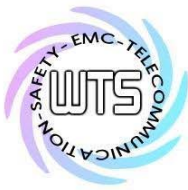
Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Output Power Measurement	Expanded Uncertainty : 1.64 dB

The decision rule is: Measurement uncertainty is not included in the calculation of test results.

### 2.3 Test Equipment List

Power

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2023/9/20	2024/9/19
ETSTW-RE 154	EMI Test Receiver	ESR3	102829	R&S	2024/4/10	2025/4/9
ETSTW-RE 160	Amplifier Module	CHC 3	None	WTS	2023/7/14	2024/7/13
ETSTW-RE 177	TRILOG Broadband Antenna	VULB 9168&EMCI-N-6-06	01380&AT-06007	SCHWARZBECK&EMC	2024/3/4	2025/3/3
ETSTW-RE 178	Double Ridged Guide Horn Antenna	DRH18-E	210505A18ES	RFSPIN	2024/2/29	2025/2/28
ETSTW-Cable 077	SMA type cable (10m)	EMCI04-SM-SM-10000	230511	EMCI	2023/7/14	2024/7/13
ETSTW-Cable 084	SMA type cable (1m)	SF104-11SMA-1000	816477/4	HONOVA	2023/7/14	2024/7/13
ETSTW-Cable 089	SMA type cable (2m)	SF104-11SMA-2000	SN 811889/4	HUBER+SUHNER	2023/7/14	2024/7/13
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMCI	None	Farad	Version ETS-03A1 Version EMEC-3A1+	



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**3 RF Exposure Test Exemptions**

**3.1 1-mW Test Exemption**

$$P \leq 1\text{mW}$$

When the aggregate maximum available power of all transmitting antennas is  $\leq 1$  mW in the same time-averaging period.

**3.2 SAR-Based Exemption**

Max. time-averaged power(conducted power) or ERP  $\leq P_{th}$

$$P_{th}(\text{mW}) = ERP_{20\text{cm}} \left(\frac{d}{20}\right)^x \text{ for distance } d \leq 20\text{cm}$$

$$P_{th}(\text{mW}) = ERP_{20\text{cm}} \text{ for distance } 20\text{cm} < d \leq 40\text{cm}$$

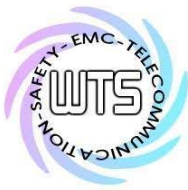
$$x = -\log_{10} \left( \frac{60}{ERP_{20\text{cm}} \sqrt{f}} \right)$$

$$ERP_{20\text{cm}}(\text{mW}) \begin{cases} 0.3\text{GHz} \leq f < 1.5\text{GHz}: 2040 * f \\ 1.5\text{GHz} \leq f \leq 6\text{GHz}: 3060 \end{cases}$$

d: cm  
 f: GHz

**Table B.2 – Example Power Thresholds (mW)**

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169



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**3.3 MPE-Based Exemption**

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 to support an exemption from further evaluation from 300 kHz through 100 GHz.

>300kHz & distance  $R > \lambda/2\pi$  , MPE-based exemption

**Table B.1 –Thresholds for single RF sources subject to routine environmental evaluation**

RF Source Frequency			Minimum Distance			Threshold ERP
$f_L$ MHz	-	$f_H$ MHz	$\lambda_L / 2\pi$	-	$\lambda_H / 2\pi$	W
0.3	-	1.34	159 m	-	35.6 m	$1,920 R^2$
1.34	-	30	35.6 m	-	1.6 m	$3,450 R^2/f^2$
30	-	300	1.6 m	-	159 mm	$3.83 R^2$
300	-	1,500	159 mm	-	31.8 mm	$0.0128 R^2/f^2$
1,500	-	100,000	31.8 mm	-	0.5 mm	$19.2 R^2$

f: MHz  
 R: m  
 $\lambda/2\pi$   
 $v=f \lambda$   
 v: speed of light =  $3 \times 10^8 m/s$   
 f: frequency (Hz)  
 $\lambda$ : wavelength

f (MHz)	$\lambda / 2\pi$ (m)	$\lambda / 2\pi$ (mm)
0.125	382	381,972
13.56	3.52	3,521
300	0.159	159
918	0.052	52
2400	0.020	19.9
5250	0.009	9.09
5600	0.009	8.53
5825	0.008	8.20
6000	0.008	7.96
7000	0.007	6.82
10000	0.005	4.77





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**4 Exemption calculation**

**1-mW Test Exemption**

The maximum power is 72.80 dBuV/m (0.0057 mW)

$$0.0057 \text{ mW} \leq 1\text{mW}$$

The device is qualify for simultaneous transmission SAR exemption.