



**SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch**

No. 1 Workshop, M-10, Middle Section, Science & Technology Park,
Shenzhen, China 518057

Telephone: +86 (0) 755 2601 2053
Fax: +86 (0) 755 2671 0594
Email: ee.shenzhen@sgs.com

Report No.: SZEM18400248002
Page: 1 of 13

Human Exposure Report

Application No.: SZEM1804002480CR
Applicant: iOttie, Inc
Address of Applicant: 33 West 46th Street, 6th FL. New York, NY, 10036, United States.
Manufacturer: iOttie, Inc
Address of Manufacturer: 33 West 46th Street, 6th FL. New York, NY, 10036, United States.
Factory: SHENZHEN INVASIVE METHOD ELECTRONICS CO., LTD
Address of Factory: 2-3 building, building a, regular industrial park, saigox industrial zone, saigox city, Bao'an district, shenzhen city

Equipment Under Test (EUT):

EUT Name: iON Wireless Mini
Model No.: CHWRIO103 ♣
♣ Please refer to section 3.2 of this report which indicates which model was actually tested and which were electrically identical.
Trade mark: iOttie
FCC ID : 2AMRO-CHWRIO103
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
Date of Receipt: 2018-04-03
Date of Test: 2018-04-08 to 2018-04-13
Date of Issue: 2018-05-04

Test Result :	Pass*
----------------------	--------------

* In the configuration tested, the EUT complied with the standards specified above.



Keny Xu
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM18400248002
Page: 2 of 11

2 Contents

	Page
1 COVER PAGE	1
2 CONTENTS	2
3 GENERAL INFORMATION.....	3
3.1 DETAILS OF E.U.T.	3
3.2 DESCRIPTION OF SUPPORT UNITS.....	3
3.3 TEST LOCATION	4
3.4 TEST FACILITY	4
3.5 DEVIATION FROM STANDARDS.....	4
3.6 ABNORMALITIES FROM STANDARD CONDITIONS	4
4 EQUIPMENTS USED DURING TEST	5
5 TEST RESULTS	6
5.1 RF EXPOSURE TEST	6
5.1.1 E.U.T. Operation.....	6
Operating Environment:.....	6
EUT Operation:.....	6
5.1.2 Measurement Data.....	7
6 PHOTOGRAPHS.....	9
6.1 TEST PHOTOS	9-11



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM18400248002
Page: 3 of 11

3 General Information

3.1 Details of E.U.T.

Power supply: Input: DC 5V/3A, 9V/2A
Output: max. 10W

Modulation type: Load modulation

Antenna type: Inductive Loop Coil Antenna

Operation frequency: 113.94-182.85kHz

Remark: Tests were conducted in both load modes (5W, 10W) and the worst case (10W) is reported only.

3.2 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Serial No.
AC/DC adapter	provided by SGS	N/A	output: DC 5V/3A, 9V/2A, 12V/1.5A
E-loading	provided by SGS	N/A	DC 5V/1A, 9V/1.1A
USB charging line	provided by client	60 cm, unshielded	N/A
Mobile phone	Provided by SGS	Samsung edge 7	N/A

Declaration of EUT Family Grouping:

Model No.: CHWRIO103

Only the the sample in section 6.1 was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the model, with only difference on colour.



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM18400248002

Page: 4 of 11

3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China
518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

3.4 Test Facility

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

• CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 3816.01.

• VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• Industry Canada (IC)

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.



**SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch**

Report No.: SZEM18400248002

Page: 5 of 11

4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date (yyyy-mm-dd)
1	10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2019-03-31
2	Electric Field Meter	Schaffner	EMC20	EMC068	2019-03-21



5 Test Results

5.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310
Measurement Distance: 15cm
Test voltage: AC 120V 60Hz
Limit:

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
F=frequency in MHz *=Plane-wave equivalent power density RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).				

5.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 52% RH Atmospheric Pressure: 1015 mbar

EUT Operation:

This device has been tested the worst status of full load and the device has been tested with mobile phone at zero charge, intermediate charge, and full charge.



**SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch**

Report No.: SZEM18400248002
Page: 7 of 11

5.1.2 Measurement Data

1:Output Voltage=DC 9V; The max output power =10W;Calculation of resistor value=8.1Ω

Measurement Distance:15 cm

Electric Field Emissions

Test Position	Probe Measure Result(V/m)	50%Limit(V/m)	Test result
Side 1	4.04	307	Pass
Side 2	3.97	307	Pass
Side 3	4.24	307	Pass
Side 4	3.65	307	Pass
Top	5.29	307	Pass

Magnetic Field Emissions

Test Position	Probe Measure Result(A/m)	50% Limit(A/m)	Test result
Side 1	0.0862	0.815	Pass
Side 2	0.0854	0.815	Pass
Side 3	0.0875	0.815	Pass
Side 4	0.0843	0.815	Pass
Top	0.1056	0.815	Pass



**SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch**

Report No.: SZEM18400248002

Page: 8 of 11

2:Mobile phone has been charge at zero charge, intermediate charge, and full charge.

Measurement Distance:15 cm

Electric Field Emissions

Test Position	Probe Measure Result(V/m)			50%Limit(V/m)
	zero charge	intermediate charge	full charge	
Side 1	4.00	4.08	4.06	307
Side 2	3.93	3.95	4.02	307
Side 3	4.20	4.28	4.33	307
Side 4	3.64	3.72	3.75	307
Top	5.25	5.31	5.43	307

Magnetic Field Emissions

Test Position	Probe Measure Result(A/m)			50% Limit(A/m)
	zero charge	intermediate charge	full charge	
Side 1	0.0850	0.0855	0.0865	0.815
Side 2	0.0850	0.0862	0.0856	0.815
Side 3	0.0868	0.0861	0.0868	0.815
Side 4	0.0848	0.0853	0.0857	0.815
Top	0.1050	0.1065	0.1069	0.815

6 Photographs

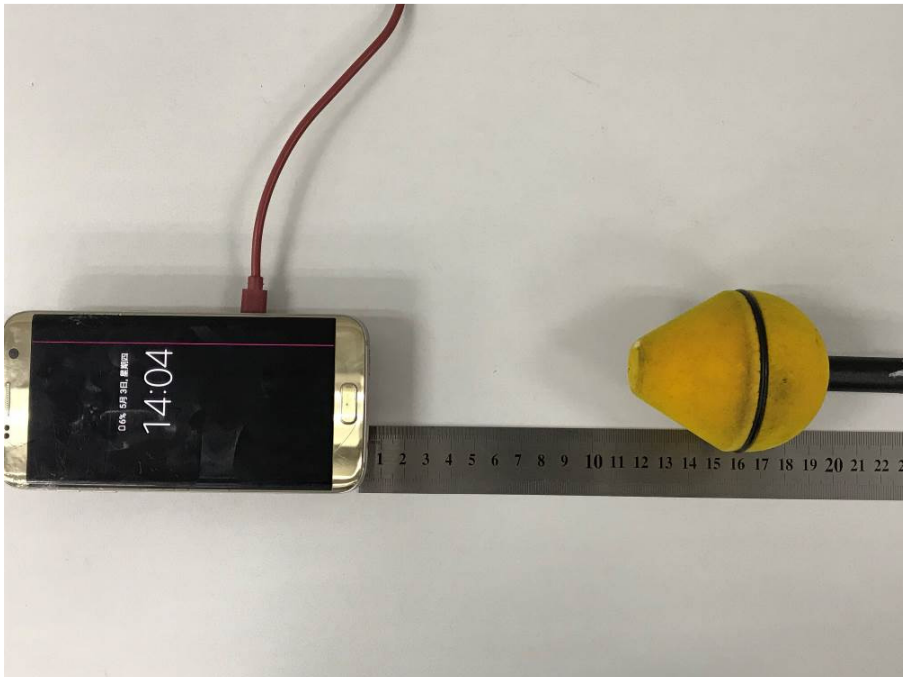
6.1 Test photos

Test with mobile phone

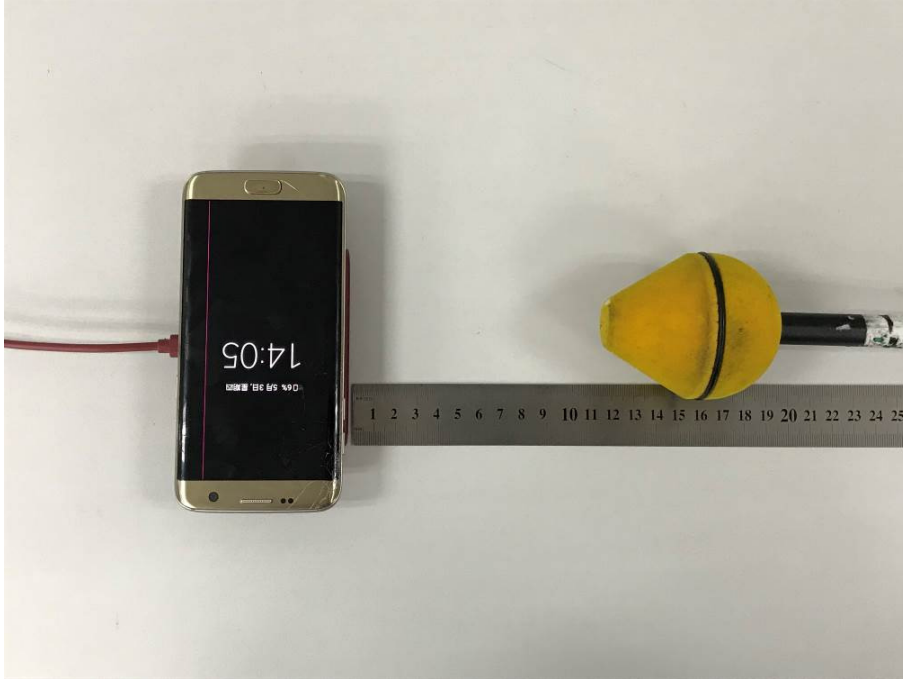
Side 1



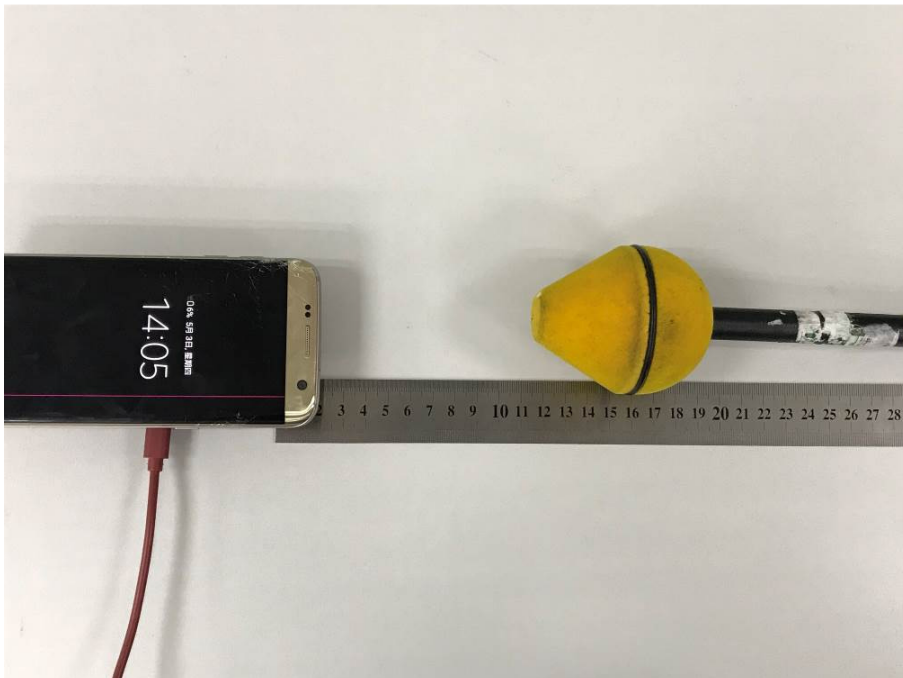
Side 2



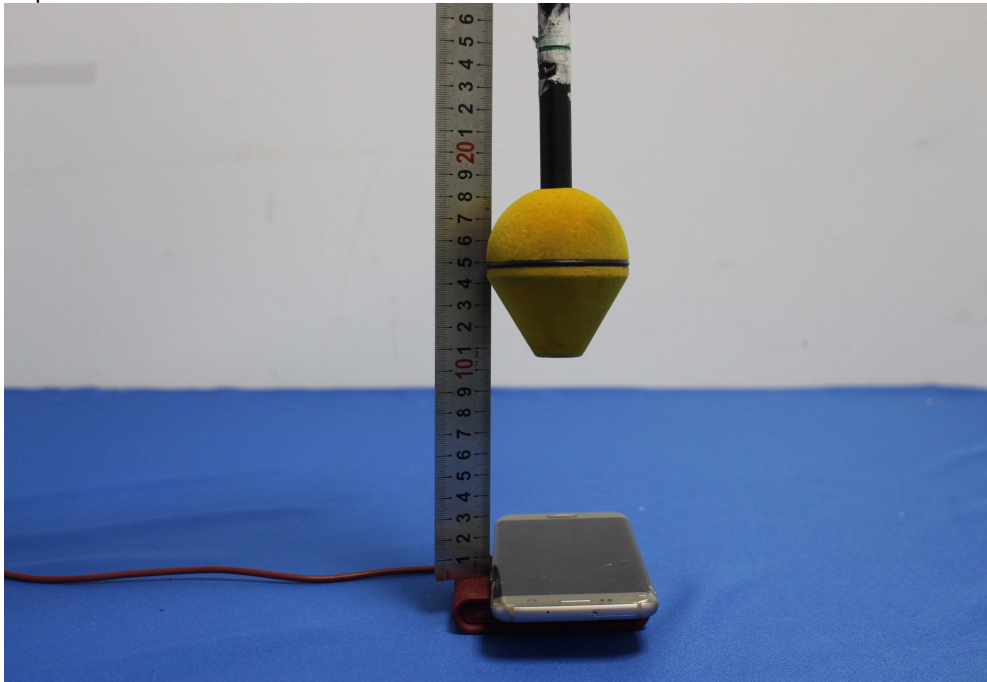
Side 3



Side 4



Top



-End of Report -