



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

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Report No.: SZEM171101158302

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## Human Exposure Report

**Application No.:** SZEM1711011583CR  
**Applicant/ Manufacturer:** SHENZHEN DNS INDUSTRIES CO., LTD.  
**Address of Applicant/ Manufacturer:** 23/F Building A, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian, Shenzhen, China 518026  
**Factory:** HUIZHOU D&S CABLE CO., LTD.  
**Address of Factory:** LONGJIN DONGJIANG INDUSTRY ZONE, SHUIKOU, HUICHENG, HUIZHOU, GUANGDONG, CHINA  
**Equipment Under Test (EUT):**  
**EUT Name:** WIRELESS CHARGER, Wireless charging pad  
**Model No.:** AC52100N, AC51100N, AWJ-PD1 WH, AWJ-PDBK, 4379187, 4378776, 05061♣  
**♣** Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.  
**Trade Mark:** Please refer to section 2  
**FCC ID:** ZBCAC511001N  
**Standards:** 47 CFR PART 1, Subpart I, Section 1.1310  
**Date of Receipt:** 2017-11-16  
**Date of Test:** 2017-11-20 to 2017-11-27  
**Date of Issue:** 2017-11-30

<b>Test Result :</b>	<b>Pass*</b>
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\* This report is just a test result base on the test method and limit requirement shown in the form on the second page. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.



Jack Zhang  
EMC Laboratory Manager

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### 3 General Information

#### 3.1 Details of E.U.T.

Rated input: DC 5V,2A  
Rated output: DC 5V,1A  
Operation frequency: 113-183kHz  
Test voltage: AC 120V/60Hz

#### 3.2 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Serial No.
Micro USB Cable	PHILIPS	SWR2101	REF. No.SEA0700
Adapter	Apple	A1357 W010A051	REF. No.:SEA0500
E-Charging	provided by SGS	DC 5V/1A	N/A
Mobile phone	Apple	A1429	N/A

Remark:

Model No.: AC52100N, AC51100N, AWJ-PD1 WH, AWJ-PDBK, 4379187, 4378776, 05061

Only the model AC52100N was tested fully, since the electrical circuit design, PCB layout, components used and internal wiring were identical for the above models, with only difference being model number, appearance.

Details see below:

Trade mark	Model number	Description
DNS, Omars, LBT, IHOME Owltech, nexxtech, <b>ATIVA®</b> iHope Leplus, VIBE, AmazonBasics	AC52100N	 rectangles appearance
	AC51100N	 Square appearance
Air-J	AWJ-PD1 WH	rectangles appearance
Air-J	AWJ-PD1 BK	rectangles appearance
VIBE	4379187	rectangles appearance
VIBE	4378776	rectangles appearance
ROSS	05061	rectangles appearance



### 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 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 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.



## 4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2018-06-10
2	Electric Field Meter	Schaffner	EMC20	EMC068	2018-03-27



## 5 Test Results

### 5.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310  
Measurement Distance: 10cm  
Test voltage: AC 120V 60Hz  
Limit:

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
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>(B) Limits for General Population/Uncontrolled Exposure</b>				
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
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.



### 5.1.2 Measurement Data

1: Output Voltage=DC 5V; The max output current =1A;Calculation of resistor value=5Ω

#### Electric Field Emissions

Operation frequency (kHz)	Test Position	Test Distance (cm)	Probe Measure Result (V/m)	Limit (V/m)	30% Limit (V/m)
119	Side 1	10	5.01	614	184.2
119	Side 2	10	5.14	614	184.2
119	Side 3	10	5.11	614	184.2
119	Side 4	10	5.26	614	184.2
119	Top	10	7.43	614	184.2
119	Bottom	10	4.11	614	184.2

#### Magnetic Field Emissions

Operation frequency (kHz)	Test Position	Test Distance (cm)	Probe Measure Result (A/m)	Limit (A/m)	30% Limit (A/m)
119	Side 1	10	0.0936	1.63	0.489
119	Side 2	10	0.0917	1.63	0.489
119	Side 3	10	0.0909	1.63	0.489
119	Side 4	10	0.0985	1.63	0.489
119	Top	10	0.1305	1.63	0.489
119	Bottom	10	0.0716	1.63	0.489





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

**Electric Field Emissions**

Operation frequency (kHz)	Test Position	Test Distance (cm)	Probe Measure Result(V/m)			30%Limit (V/m)
			zero charge	intermediate charge	full charge	
119	Side 1	10	4.23	4.68	3.74	184.2
119	Side 2	10	4.59	4.84	3.55	184.2
119	Side 3	10	4.05	5.79	4.58	184.2
119	Side 4	10	3.64	4.76	3.36	184.2
119	Top	10	5.57	5.34	5.63	184.2
119	Bottom	10	3.74	2.27	2.65	184.2

**Magnetic Field Emissions**

Operation frequency (kHz)	Test Position	Test Distance (cm)	Probe Measure Result(A/m)			30%Limit (A/m)
			zero charge	intermediate charge	full charge	
119	Side 1	10	0.0254	0.0187	0.0184	0.489
119	Side 2	10	0.0209	0.0134	0.0177	0.489
119	Side 3	10	0.0256	0.0178	0.0181	0.489
119	Side 4	10	0.0174	0.0142	0.0175	0.489
119	Top	10	0.0325	0.0283	0.0353	0.489
119	Bottom	10	0.0184	0.0126	0.0158	0.489

## 6 Photographs

### 6.1 Test photos

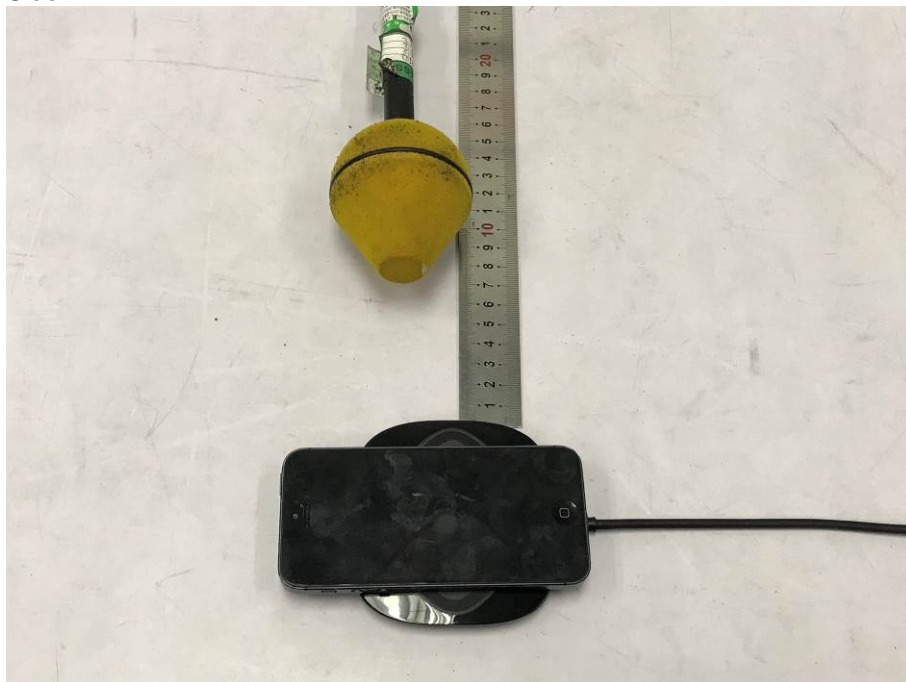
#### Test with mobile phone



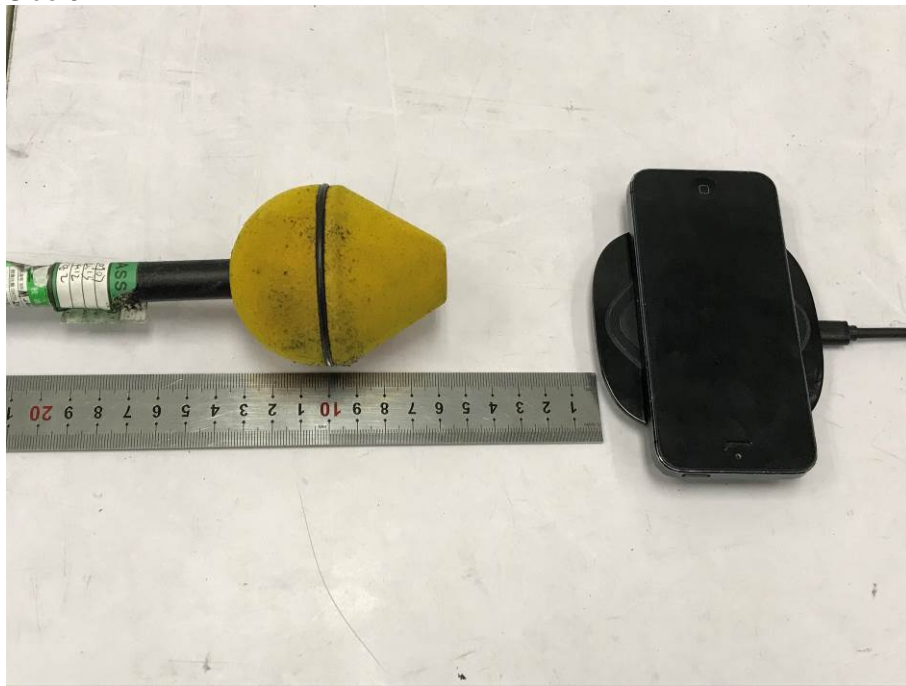
Side 1



Side 2



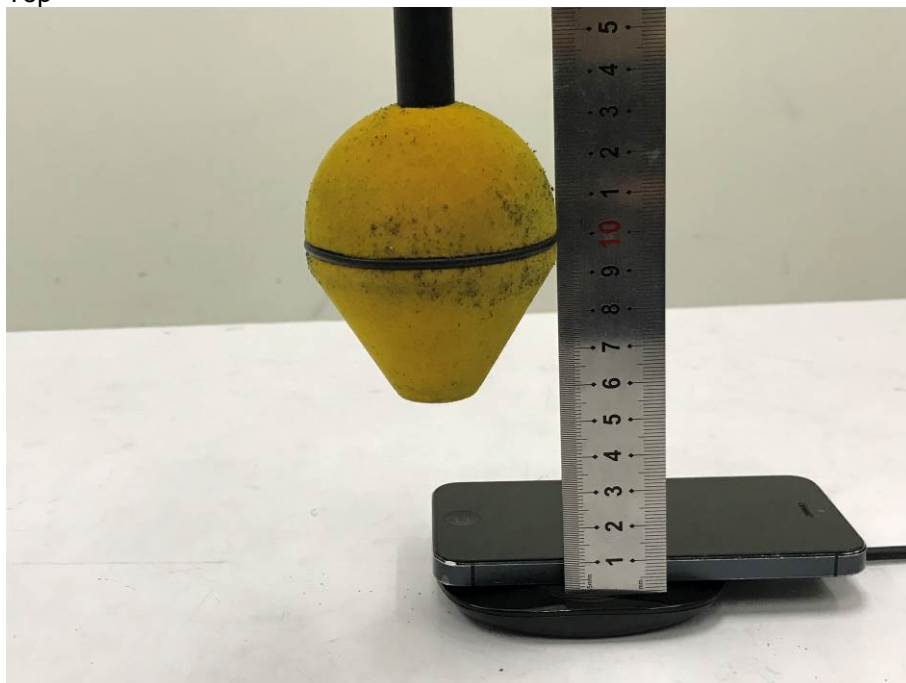
Side 3



Side 4



Top



Bottom

