



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

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## Human Exposure Report

**Application No.:** SZEM1710010743CR  
**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, 518026 China  
**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 with quick charger  
**Model No.:** AC51100S, AC52100S, 5458-2, P308.96, OMWLAC52BK, iAD8X10BK, AC52, EGA-PQC1 -B1, RW001 ♣  
**♣** 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:** ZBCAC511001A  
**Standards:** 47 CFR PART 1, Subpart I, Section 1.1310  
**Date of Receipt:** 2017-11-01  
**Date of Test:** 2017-11-15  
**Date of Issue:** 2017-11-16

<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, 3A/DC 9V, 2A  
Rated output: DC 5V/1A, DC 9V/1.1A  
Operation frequency: 115-160kHz  
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.
mobile phone	Samsung	Galaxy S6 Edge+	N/A
Micro USB Cable	PHILIPS	SWR2101	REF. No.SEA0700
AC charger	provided by client	N/A	
E-Charging	provided by client	DC 9V/1.1A, DC 5V/2A	

#### Declaration of EUT Family Grouping:

Model No.: AC51100S, AC52100S, 5458-2, P308.96, OMWLAC52BK, iAD8X10BK, AC52, EGA-PQC1 –B1, RW001

Only the model AC51100S was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, with only difference on model number and appearance.

Trade mark	Model number	Description
DNS, LBT, IHOME Owltech, nexxtech, iHope <b>ATIVA®</b> Leplus, VIBE, AmazonBasics	AC52100S	 rectangles appearance
	AC51100S	 Square appearance
Tzumi	5458-2	rectangles appearance
Xindao	P308.96	Square appearance
iLuv	iAD8X10BK	Square appearance
gyrux	AC52	Square appearance
Echogear	EGA-PQC1 -B1	Square appearance
RUSH	RW001	Square appearance
omars	OMWLAC52BK	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.



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## 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	5.13	614	184.2
119	Side 2	10	5.21	614	184.2
119	Side 3	10	5.27	614	184.2
119	Side 4	10	5.52	614	184.2
119	Top	10	7.11	614	184.2
119	Bottom	10	4.17	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	0.0964	1.63	0.489
119	Side 2	10	0.0942	1.63	0.489
119	Side 3	10	0.0917	1.63	0.489
119	Side 4	10	0.0985	1.63	0.489
119	Top	10	0.1317	1.63	0.489
119	Bottom	10	0.0732	1.63	0.489





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

**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	4.86	614	184.2
119	Side 2	10	4.45	614	184.2
119	Side 3	10	5.53	614	184.2
119	Side 4	10	4.82	614	184.2
119	Top	10	6.28	614	184.2
119	Bottom	10	3.64	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	0.0775	1.63	0.489
119	Side 2	10	0.0857	1.63	0.489
119	Side 3	10	0.0899	1.63	0.489
119	Side 4	10	0.0847	1.63	0.489
119	Top	10	0.1478	1.63	0.489
119	Bottom	10	0.0760	1.63	0.489



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**3:Mobile phone has been charge 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	4.63	4.75	3.82	184.2
119	Side 2	10	4.61	4.83	3.33	184.2
119	Side 3	10	4.47	5.49	4.37	184.2
119	Side 4	10	3.86	4.24	3.74	184.2
119	Top	10	5.79	5.37	5.26	184.2
119	Bottom	10	3.47	2.69	2.83	184.2

**Magnetic Field Emissions**

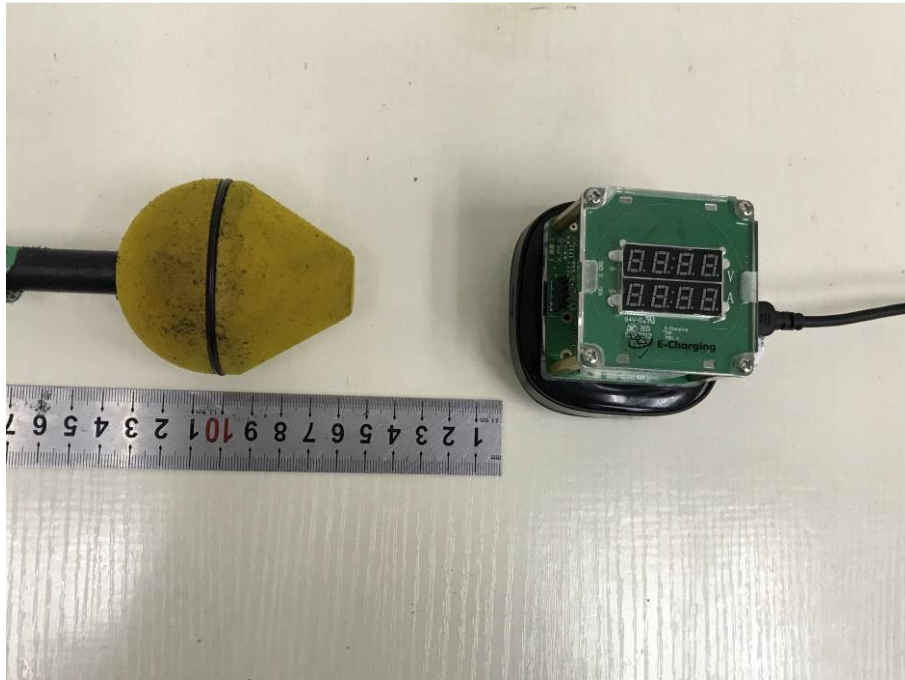
Operation frequency (kHz)	Test Position	Test Distance (cm)	Probe Measure Result(A/m)			30%Limit (A/m)
			zero charge	intermediate charge	full charge	
119	Side 1	10	0.0211	0.0181	0.0198	0.489
119	Side 2	10	0.0225	0.0147	0.0175	0.489
119	Side 3	10	0.0252	0.0175	0.0186	0.489
119	Side 4	10	0.0184	0.0143	0.0179	0.489
119	Top	10	0.0336	0.0286	0.0324	0.489
119	Bottom	10	0.0188	0.0158	0.0166	0.489

## 6 Photographs

### 6.1 Test photos

Test with full load

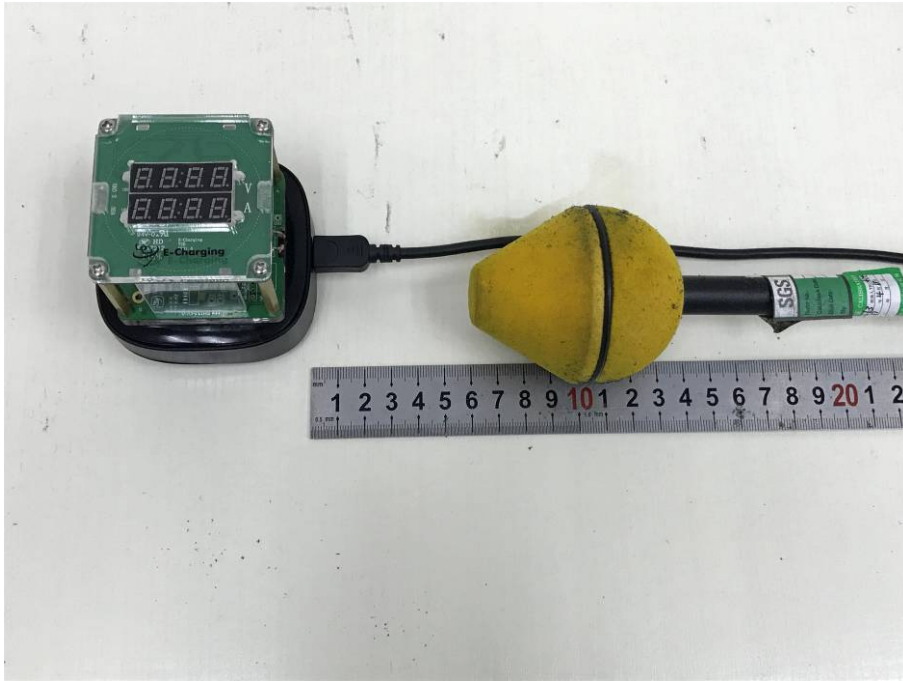
Side 1



Side 2



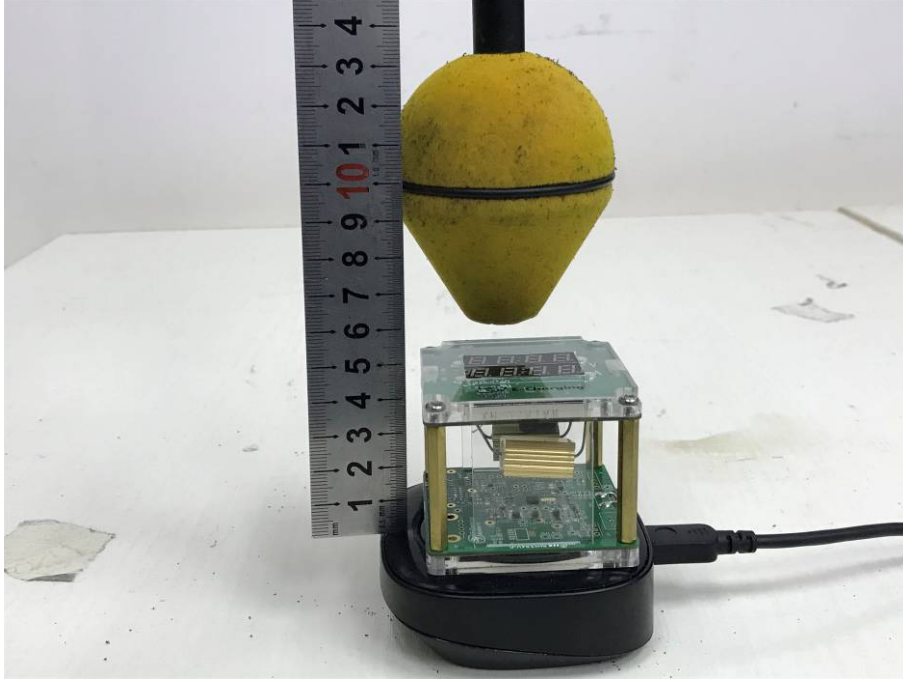
Side 3



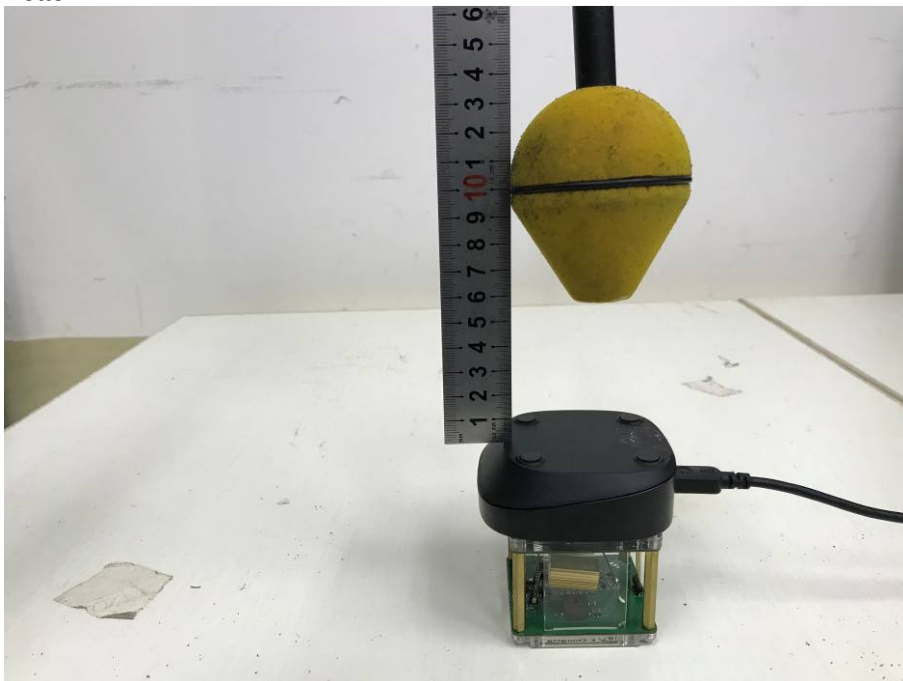
Side 4



Top



Bottom



- End of the Report -