



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

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

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

Report No.: SZEM171001074403

Page : 1 of 8

## ***RF Exposure Evaluation Report***

<b>Application No.:</b>	SZEM1710010744CR
<b>Applicant:</b>	
<b>Address of Applicant:</b>	
<b>Manufacturer:</b>	
<b>Address of Manufacturer:</b>	
<b>Factory:</b>	
<b>Address of Factory:</b>	
<b>Equipment under Test (EUT)</b>	
<b>Product Name:</b>	WIRELESS CHARGER, Wireless charging pad with quick charger
<b>Model No.(EUT):</b>	AC51100S, AC52100S, 5458-2, P308.96, OMWLAC52BK ♣
<b>♣</b>	Please refer to section 3.3 of this report which indicates which model was actually tested and which were electrically identical.
<b>Trade Mark:</b>	Please refer to section 3
<b>Standards:</b>	EN 50364:2010
<b>Test Method:</b>	EN 62369-1:2009
<b>Date of Receipt:</b>	2017-10-19
<b>Date of Test:</b>	2017-11-09 to 2017-11-15
<b>Date of Issue:</b>	2017-11-17
<b>Test Result:</b>	<b>PASS *</b>

\* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives.



Jack Zhang  
EMC Laboratory Manager



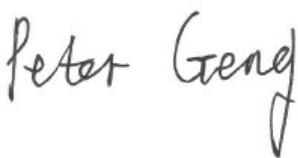

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant 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.



## 1. Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2017-11-17		Original

Authorized for issue by:				
				
		Peter Geng /Project Engineer		
				
		Eric Fu /Reviewer		



## 2. Contents

	Page
1. VERSION .....	2
2. CONTENTS.....	3
3. GENERAL INFORMATION.....	4
3.1 TECHNICAL SPECIFICATIONS.....	4
3.2 TEST LOCATION.....	5
3.3 TEST FACILITY.....	5
4. EQUIPMENTS USED DURING TEST.....	6
5. TEST STANDARDS AND LIMITS.....	7
5.1 E.U.T. OPERATION .....	8
5.1.1 <i>Operating Environment:</i> .....	8
5.1.2 <i>Measurement Data</i> .....	8

### 3. General Information



#### 3.1 Technical Specifications

Operation Frequency:	115-160kHz
Antenna Type:	Loop antenna
Power Supply:	Input: DC 5V/3A, DC 9V/2A Output: DC 5V/1A, DC 9V/1.1A

#### Declaration of EUT Family Grouping:

Model No.: AC51100S, AC52100S, 5458-2, P308.96, OMWLAC52BK

Only the model AC51100S was tested, since the electrical circuit design, PCB layout, components used and internal wiring were identical for the above models, only different 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
omars	OMWLAC52BK	rectangles appearance

### 3.2 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

### 3.3 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.



#### 4. Equipments Used during Test

RF conducted test						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	DC Power Supply	ZhaoXin	PS-3005D	SEM011-05	2017-09-27	2018-09-26
2	Spectrum Analyzer (20Hz-43GHz)	Rohde & Schwarz	FSU43	SEM004-08	2017-04-14	2018-04-13
3	Signal Generator (9kHz-40GHz)	KEYSIGHT	N5173B	SEM006-05	2017-09-27	2018-09-26
4	Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.6	N/A	N/A	N/A
5	Coaxial Cable	SGS	N/A	SEM031-01	2017-07-13	2018-07-12
6	Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A

## 5. Test Standards and Limits

The evaluation has been performed on the EUT, pursuant to the relevant requirements of the following document(s) and the harmonized EN standard(s) covering essential requirements under article 3.1 of the R&TTE Directive (1999/5/EC).

Identity	Document Title	Version
Council Recommendation of 12 July 1999(1999/519/EC)	On the limitation of exposure of the general public to electromagnetic fields (0Hz to 300GHz)	1999
EN 50364	Limitation of human exposure to electromagnetic fields from devices operating in the frequency range 0 Hz to 300 GHz	2010

**Limit:** According to EN 50364, the criteria listed in the below table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified table 2 of Council Recommendation 1999/519/EC.

Table 2  
Reference levels for electric, magnetic and electromagnetic fields  
(0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density $S_{eq}$ (W/m <sup>2</sup> )
0-1 Hz	—	$3,2 \times 10^4$	$4 \times 10^4$	—
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	—
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	—
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	—
0,8-3 kHz	$250/f$	5	6,25	—
3-150 kHz	87	5	6,25	—
0,15-1 MHz	87	$0,73/f$	$0,92/f$	—
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	—
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375\,f^{1/2}$	$0,0037\,f^{1/2}$	$0,0046\,f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

### Notes:

1.  $f$  as indicated in the frequency range column.
2. For frequencies between 100 kHz and 10 GHz,  $S_{eq}$ ,  $E^2$ ,  $H^2$ , and  $B^2$  are to be averaged over any six-minute period.
3. For frequencies exceeding 10 GHz,  $S_{eq}$ ,  $E^2$ ,  $H^2$ , and  $B^2$  are to be averaged over any  $68/f^{1.05}$  -minute period ( $f$  in GHz).
4. No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

Note: The limit of E-field strength for 130kHz is 5A/m.



## 5.1 E.U.T. Operation

### 5.1.1 Operating Environment:

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

Measurement Distance: 3cm  
Test voltage: DC 9V

### 5.1.2 Measurement Data

#### Electric Field Emissions

Test Position	Test Distance (cm)	Probe Measure Result (A/m)	Limit (A/m)
Side 1	3	0.0874	5
Side 2	3	0.0896	5
Side 3	3	0.0863	5
Side 4	3	0.0889	5
Top	3	0.1023	5
Bottom	3	0.0693	5

- End of the Report -