



## 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.: SZEM180100100102  
Page: 1 of 12

# Human Exposure Report

**Application No.:** SZEM1801001001CR  
**Applicant:** ShenZhen KaiXingHui Technology Co., Ltd.  
**Address of Applicant:** 206, 2nd Floor G Bldg. Hengchangrong Xinghui Industrial Park, Huaning Rd,  
Dalang St. Longhua Dist. Shenzhen, China 518000  
**Manufacturer/ Factory:** Shenzhen Kaixinghui Technology Co., Ltd.  
**Address of Manufacturer/  
Factory:** 206, 2nd Floor G Bldg. Hengchangrong Xinghui Industrial Park, Huaning Rd.  
Dalang St. Longhua Dist. Shenzhen Guangdong, China  
**Equipment Under Test (EUT):**  
**EUT Name:** Wireless charger  
**Model No.:** F500, T500 ♣  
♣ Please refer to section 2.2 of this report which indicates which model was  
actually tested and which were electrically identical.  
**FCC ID:** 2AOSUF500  
**Standards:** 47 CFR Part 1, Subpart I, Section 1.1310  
**Date of Receipt:** 2018-04-04  
**Date of Test:** 2018-04-08 TO 2018-04-09  
**Date of Issue:** 2018-04-11  
**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.



# 1 Contents

	Page
<b>1 COVER PAGE</b> .....	<b>1</b>
<b>1 CONTENTS</b> .....	<b>2</b>
<b>2 GENERAL INFORMATION</b> .....	<b>3</b>
2.1 DETAILS OF E.U.T. ....	3
2.2 DESCRIPTION OF SUPPORT UNITS.....	3
2.3 TEST LOCATION .....	4
2.4 TEST FACILITY .....	4
2.5 DEVIATION FROM STANDARDS.....	4
2.6 ABNORMALITIES FROM STANDARD CONDITIONS .....	4
<b>3 EQUIPMENTS USED DURING TEST</b> .....	<b>5</b>
<b>4 TEST RESULTS</b> .....	<b>6</b>
4.1 RF EXPOSURE TEST .....	6
4.1.1 <i>E.U.T. Operation</i> .....	6
<i>Operating Environment:</i> .....	6
<i>EUT Operation:</i> .....	6
4.1.2 <i>Measurement Data</i> .....	8
<b>5 PHOTOGRAPHS</b> .....	<b>10</b>
5.1 TEST PHOTOS .....	10-12



## 2 General Information

### 2.1 Details of E.U.T.

Power supply:	DC 5V or DC 9V from USB port Input: DC 5V/2A, DC 9V/1.67A Output: 5W(DC 5V/1A), 7.5W(DC 5V1.5A), 10W(DC 9V/1.1A)
Cable:	100-205kHz
Operation frequency:	Loop antenna
Modulation type:	Load modulation
Antenna type:	AC 120V/60Hz (Voltage of the AC/DC adapter)

### 2.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
AC/DC Adapter	SGS	DC 5V	REF. No.SEA0500
AC/DC Adapter	Samsung	EP-TA200	REF. No.SEA0500
iPhone 8	Apple	A1863	F4GVQ656JC6D
Mobile Phone	SAMSUNG	SM-G9500	R28J9140LPB

**Remark:**

Model No.: F500, T500

Only the model F500 was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, only different on model name.



## 2.3 Test Location

All tests were performed at:

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

## 2.4 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 – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

- **Industry Canada (IC)**

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

## 2.5 Deviation from Standards

None.

## 2.6 Abnormalities from Standard Conditions

None.



### 3 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	2019-03-21



## 4 Test Results

### 4.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310  
Measurement Distance: 15cm  
Test voltage: AC 120V/60Hz (Voltage of the AC/DC adapter)  
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).				

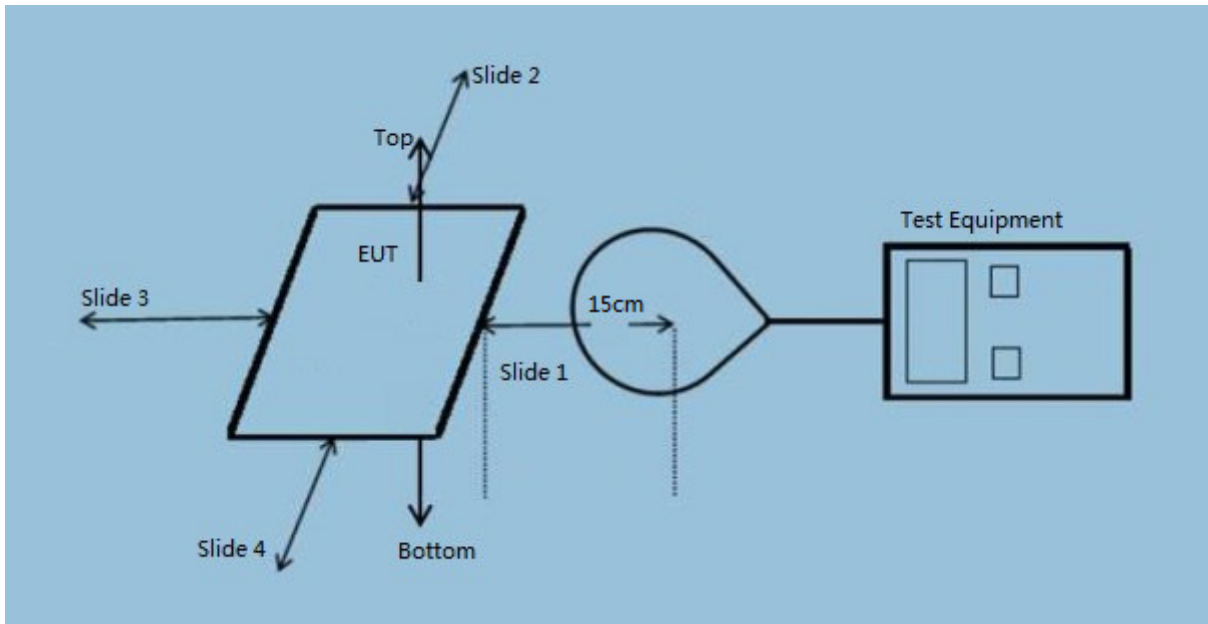
#### 4.1.1 E.U.T. Operation

##### 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.





#### 4.1.2 Measurement Data

##### 1: Output Voltage=DC 9V and DC 5V

Both voltages were tested during the testing and found that DC 9V is the worst case, the worst one data of the voltage was show on the report.

##### Electric Field Emissions

Test Position	Test Distance(cm)	Probe Measure Result(V/m)			Limit (V/m)	50% Limit(V/m)
		1% Current	50% Current	99% Current		
Side 1	15	0.74	0.58	0.56	614	307
Side 2	15	0.73	0.57	0.59	614	307
Side 3	15	0.65	0.54	0.53	614	307
Side 4	15	0.70	0.55	0.55	614	307
Top	15	<b>0.94</b>	0.79	0.75	614	307

##### Magnetic Field Emissions

Test Position	Test Distance(cm)	Probe Measure Result(A/m)			Limit (A/m)	50% Limit(A/m)
		1% Current	50% Current	99% Current		
Side 1	15	0.0019	0.0016	0.0017	1.63	0.815
Side 2	15	0.0025	0.0017	0.0015	1.63	0.815
Side 3	15	0.0032	0.0014	0.0016	1.63	0.815
Side 4	15	0.0026	0.0013	0.0015	1.63	0.815
Top	15	<b>0.0044</b>	0.0032	0.0029	1.63	0.815





**2: Mobile phone has been charge at zero charge, intermediate charge, and full charge.  
Electric Field Emissions**

Test Position	Test Distance(cm)	Probe Measure Result(V/m)			Limit (V/m)	50% Limit(V/m)
		zero charge	intermediate charge	full charge		
Side 1	15	0.74	0.79	0.66	614	307
Side 2	15	0.53	0.62	0.54	614	307
Side 3	15	0.55	0.58	0.53	614	307
Side 4	15	0.53	0.54	0.56	614	307
Top	15	0.73	<b>0.92</b>	0.77	614	307

**Magnetic Field Emissions**

Test Position	Test Distance(cm)	Probe Measure Result(A/m)			Limit (A/m)	50% Limit(A/m)
		zero charge	intermediate charge	full charge		
Side 1	15	0.0026	0.0026	0.0018	1.63	0.815
Side 2	15	0.0025	0.0019	0.0019	1.63	0.815
Side 3	15	0.0019	0.0022	0.0017	1.63	0.815
Side 4	15	0.0021	0.0023	0.0016	1.63	0.815
To	15	0.0033	<b>0.0039</b>	0.0031	1.63	0.815

## 5 Photographs

### 5.1 Test photos

Test with mobile phone with 15/20cm measurement distance

Side 1



Side 2



Side 3



Side 4



Top



- End of the Report -