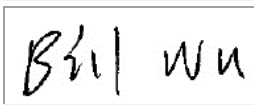
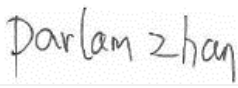
1 Cover Page

RF Exposure Evaluation Report

Application No.:	SHCR2406001115AT
FCC ID:	2A4AE-SS-WXC02
Applicant:	Pujiang Yuansheng Electronic Commerce Co., Ltd
Address of Applicant:	No.388, Yidianhong Road Pujiang Country Zhejiang province, P.R China
Manufacturer:	Pujiang Yuansheng Electronic Commerce Co., Ltd
Address of Manufacturer:	No.388, Yidianhong Road Pujiang Country Zhejiang province, P.R China
Factory:	Zhejiang Puzhao Optoelectronics Technology Co., Ltd.
Address of Factory:	No.1200 Hongye Avenue, XianhuaStreet,Pujiang County,Jinhua City,Zhejiang Province. P.R.China
Equipment Under Test (EUT):	
EUT Name:	Wireless Charging Pad
Model No.:	SS-WXC02
Trade Mark:	SANSI
Standards:	47 CFR PART 1, Subpart I, Section 1.1310 KDB680106 D01 Wireless Power Transfer V04
Date of Receipt:	2024-06-14
Date of Test:	2024-11-18 to 2024-11-27
Date of Issue:	2024-11-30
Test Result :	**Pass***

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

Revision Record			
Version	**Description**	**Date**	**Remark**
00	Original	2024-11-30	/

Authorized for issue by:				
Tested By		 **Bill Wu/Project Engineer**		
Approved By		 **Parlam Zhan / Reviewer**		

2 Contents

3 General Information

3.1 Details of E.U.T.

Power supply: DC 5V 1A
Test voltage: AC 120V 60Hz by Adapter
Operation frequency: 148KHz
Wireless Output power: 5W Max
Antenna type: Inductive Loop Coil Antenna
Modulation Type: Load Modulation
Duty cycle: 100%

3.2 Description of Support Units

Description	Manufacturer	Model No.
Load Resistance	/	/
Mobilephone	Apple	A3108
iPhone 8	Apple	A1863
Mobile Phone	Nexus	MRA58K
Adapter	MASS POWER	ED2-050100UE

3.3 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China
Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
3. Sample source: sent by customer.

3.4 Test Facility

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

• A2LA (Certificate No. 6332.01)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

• FCC (Designation Number: CN1301)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

• ISED (CAB Identifier: CN0020)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 8617A

• VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

3.5 Deviation from Standards

None

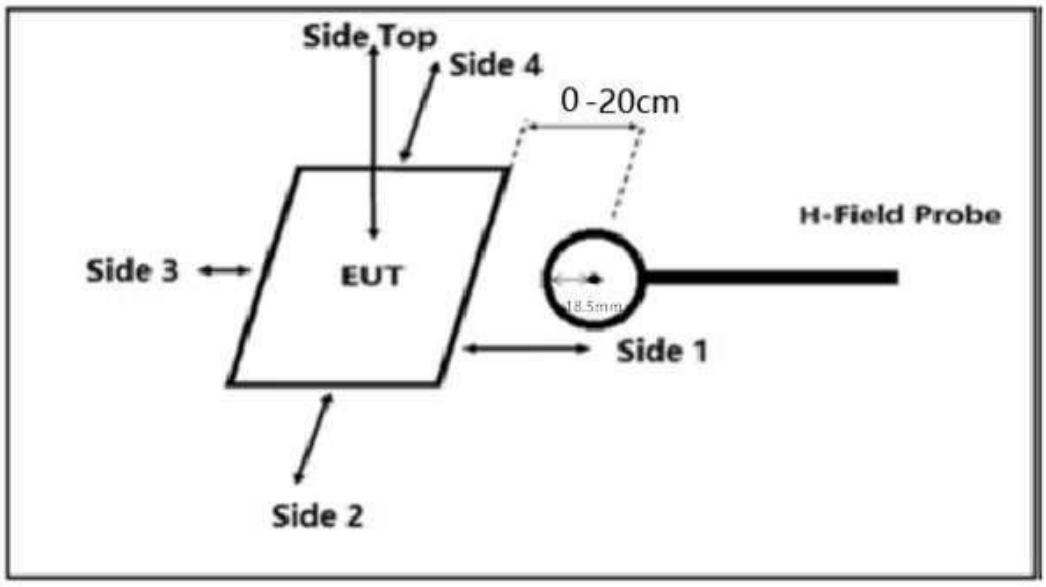
3.6 Abnormalities from Standard Conditions

None

4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ST	N/A	SHEM078-2	2023-05-06	2026-05-05
2	MAGPy-8H3D+E3D	SPEAG	MAGPy-DAS	KSES503103	2024-02-22	2025-02-21
3	MAGPy-DAS	SPEAG	MAGPy V2.6.0	N/A	N/A	N/A

5 Test Block Diagram



Remark：
1 The RF exposure test is performed in the anechoic chamber.
2 The test distance is measured from the center of the probe along all three axes of the device, from 0cm to 20cm, from the edge of the device coil in minimum 2cm increments.

6 RF Exposure Test Results

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310

Measurement Distance: 0-20cm

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
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(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).

6.1 Operating Environment

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

6.2 EUT Operation

During the test, the probe scanning a parallel plane at the measurement distance on each side of the device to find the peak level.

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

The MAGPy V2.4+ system supports two compliance evaluation locations: probe center and probe tip. It is the only system that can accurately assess the fields at the probe tip (i.e., at the flat surface of the probe) with a reliable field extrapolation, as the probe not only measures the amplitude but also the gradient of the H-field. This enables the assessment at the surface of the DUT.

6.3 Test Mode

Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Charge mode_Keep the moboile phone is charging at 1% battry power
Pre-scan	01	Charge mode_Keep the moboile phone is charging at 50% battry power

Pre-scan	02	Charge mode_Keep the moboile phone is charging at 99% battry power
Final test	03	Charge mode_Keep the EUT continuous charging(5W)

Remark 1:

1 H-field data were measured in minimal increnments of 2cm from the edge of the device along all three axes of the device,from 0cm to 20cm, one axis is consistent with the axis of the main coil, all mode an distance have been fully tested.

2 Mode 03 is a special product sample provided by the coustomer for this test , which allows the equipment to perate at the maximum power(5W) without a client device.

6.3.1 Measurement Data

Magnetic Field Emissions

Operation Frequency	Test Position	Probe Measure Result (A/m)										Limits: (A/m)
		2cm	4cm	6cm	8cm	10cm	12cm	14cm	16cm	18cm	20cm	
148 kHz which is the worst case within the operation frequency range	Side 1	0.957	0.322	0.267	0.212	0.179	0.114	0.089	0.046	0.028	0.016	**1.63**
	Side 2	0.964	0.318	0.286	0.206	0.171	0.152	0.094	0.048	0.033	0.012	
	Side 3	0.875	0.304	0.273	0.197	0.168	0.151	0.083	0.039	0.036	0.018	
	Side 4	0.956	0.291	0.265	0.215	0.176	0.160	0.096	0.042	0.032	0.014	
	Top	1.306	0.452	0.274	0.232	0.204	0.176	0.104	0.084	0.062	0.036	

Electric Field Emissions

Operation Frequency	Test Position	Probe Measure Result (V/m)										Limits: (V/m)
		2cm	4cm	6cm	8cm	10cm	12cm	14cm	`6cm	18cm	20cm	
148 kHz which is the worst case within the operation frequency range	Side 1	31.65	24.14	19.28	15.78	12.25	8.57	5.66	3.22	2.18	1.64	**614**
	Side 2	31.28	24.33	19.52	15.62	12.38	8.36	5.37	3.26	2.27	1.75	
	Side 3	31.64	24.96	19.14	15.71	12.25	8.79	5.35	3.65	2.15	1.96	
	Side 4	31.12	24.61	19.28	15.52	12.14	8.65	5.41	3.77	2.04	1.12	
	Top	48.71	43.56	36.26	30.37	24.62	20.54	15.93	12.08	8.65	6.07	

Remark1: Refer to the MAGPy-8H3D+E3D specification, the center of the probe to the outer edge is 18.5mm, so the minimum test distance can only reach 2cm.

Remark2: Refer to the test data, we selected the worst Test mode(5W Full Load) for 0cm test.

H-field strength at 0cm:
Validation:
To determine the H-field strength of 0cm, an extrapolation function by setting to probe tip in the software of MAGPy-8H3D+E3D probe.

The validation of the extrapolation is as follows:

Operation Frequency	Test Position	Test distance: (cm)	Estimated value: (A/m) (probe tip to EUT)	30% tolerance(A/m)		Measured value (A/m) (probe center to EUT)
				Min	Max	
148 kHz which is the worst case within the operation frequency range	Top	1.85	1.318	0.9226	1.7134	1.325
		3.85	0.574	0.4018	0.7462	0.547
		5.85	0.302	0.2114	0.3926	0.295

Remark:

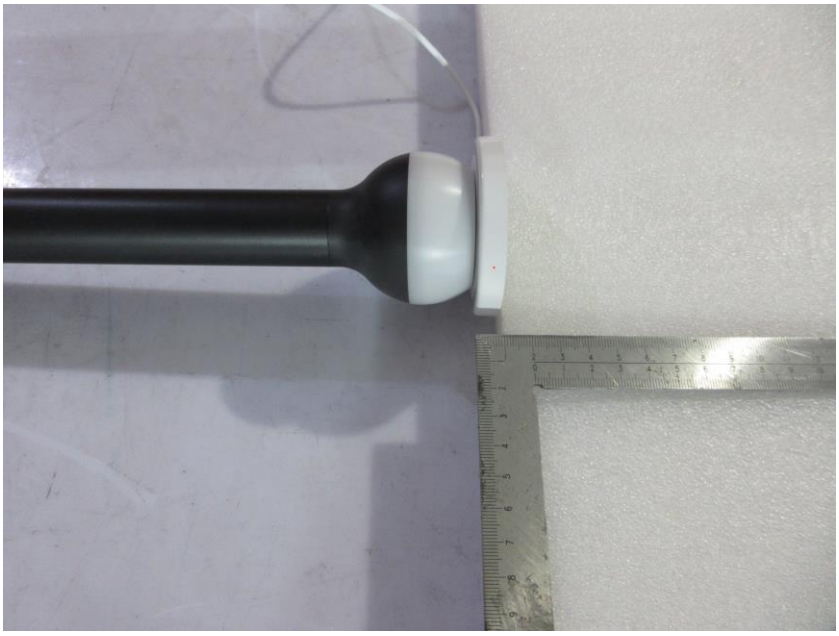
1 According to KBD 680106 D01 V04, the validation is considered sufficient if a 30% agreement between the Estimated value and the (E-field and H-field) probe measurements id demonstrated.

2 Estimated value obtained from the tip function of the probe.

Operation Frequency	Test Distance (cm) (probe tip to EUT)	Test Position	Estimated Result (A/m)	Limits: (A/m)
148 kHz which is the worst case within the operation frequency range	0	Side 1	1.295	**1.63**
		Side 2	1.318	
		Side 3	1.302	
		Side 4	1.276	
		Top	1.512	

7 Test photos

Top (0cm)



- End of the Report -