FCC TEST REPORT

FCC ID: AJD-SDAWC01

On Behalf of

PIONEER CORPORATION

High-Speed Wireless Charging Pad

Model No.: SDA-WC01

Prepared for	:	PIONEER CORPORATION
Address	:	28-8, Honkomagome 2-chome, Bunkyo-ku, Tokyo 113-0021, Japan

Prepared By	:	Shenzhen Alpha Product Testing Co., Ltd.
Address	:	Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

Report Number	:	T1881420 02A
Date of Receipt	:	September 10, 2018
Date of Test	:	September 10, 2018-September 20, 2018
Date of Report	:	September 20, 2018
Version Number	:	REV0

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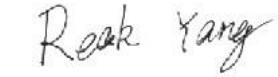
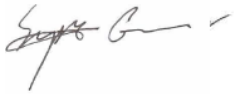
TEST REPORT DECLARATION

Applicant	:	PIONEER CORPORATION
Address	:	28-8, Honkomagome 2-chome, Bunkyo-ku, Tokyo 113-0021, Japan
Manufacturer	:	Shenzhen Esorun Technology Co.,LTD
Address	:	10F, Mingzhuo Building, Mingzhuoxing Industrial Park,Guangming Street, Guangming District, Shenzhen, China
EUT Description	:	High-Speed Wireless Charging Pad
		(A) Model No. : SDA-WC01
		(B) Trademark : N/A

Measurement Standard Used:

FCC CFR Title 47 Part 15 Subpart C

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and comple f test. Also, this report shows that the EUT is technically compliant with the FCC CFR Title 47 Part 15 Subpart C requirements.

Tested by (name + signature).....…..:	Reak Yang Project Engineer	
Approved by (name + signature)…....:	Simple Guan Project Manager	
Date of issue…… ……..:	September 20, 2018	

Revision History

Revision	Issue Date	Revisions	Revised By
00	September 20, 2018	Initial released Issue	Simple Guan

1. Test Result Summary

Requirement	CFR 47 Section	Result
RF EXPOSURE	§1.1307(b)(1) & KDB680106	PASS

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

2. EUT Description

2.1. Description of Device (EUT)

EUT Name	:	High-Speed Wireless Charging Pad
Model No.	:	SDA-WC01
DIFF.	:	N/A
Trademark	:	N/A
Power supply	:	Input : 5 V⎓2A; 9 V⎓1.67A Output: 5 V⎓1A; 9 V⎓1.12A
Operation frequency	:	125-205KHz
Modulation	:	MSK
Antenna Type	:	Coil Antenna, Maximum Gain is 28dBi
Software version	:	V2.1
Hardware version	:	V1.0

Conditions requirement	Answers
Power transfer frequency is less that 1 MHz	After measuring the product the transfer frequency is 125-205KHz
Output power from each primary coil is less than 15 watts	After measuring the product the each primary coil power is 10 watts
The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of oils	The High-Speed Wireless Charging Pad has two primary coils, the primary coils was in the charger, the seconder coils in the mobile phone.
Client device is inserted in or placed directly in contact with the transmitter	Client device is placed directly in contact with the transmitter
Aggregate leakage fields at 15 cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.	After measuring the product the Max E-Filed Strength is 2.83V/m Far less than 50% of the MPE limit.

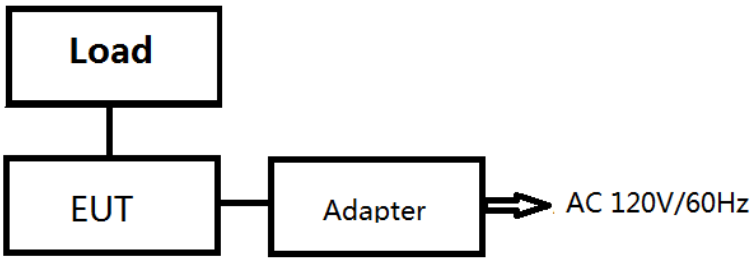
2.2. Accessories of Device (EUT)

Accessories1 : /
Manufacturer : /
Model : /
Ratings : /

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or DOC
1	Load	--	--	--	--
2	Adapter	Shenzhen Green Power Electronic Technology Co., Ltd.	--	--	--

2.4. Block Diagram of connection between EUT and simulators



2.5. Description of Test Modes

Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)
1	125	6	150	11	175	16	200
2	130	7	155	12	180	17	205
3	135	8	160	13	185	18	
4	140	9	165	14	190	19	
5	145	10	170	15	195	20	

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	27℃
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	980kPa

2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd
Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission
Registration Number: 293961

July 25, 2017 Certificated by IC
Registration Number: 12135A

2.8. Measurement Uncertainty

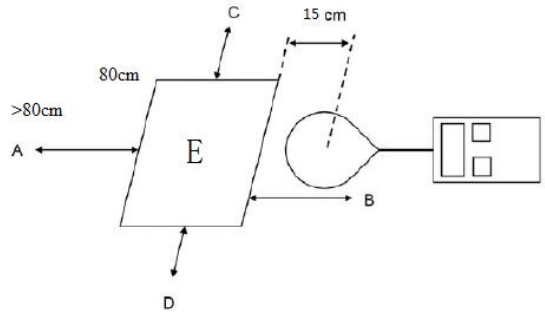
(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	2.42dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	2.13 dB(Polarize: V)
	2.57dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.54dB(Polarize: V)
	4.1dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	2.08dB(Polarize: H)
	2.56dB(Polarize: V)
Uncertainty for radio frequency	1×10-9
Uncertainty for conducted RF Power	0.65dB
Uncertainty for temperature	0.2℃
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3. Test Results and Measurement Data

3.1. RF EXPOSURE TEST

3.1.1. Test Specification

Test Requirement:	**FCC Rules and Regulations KDB680106**
Test Method:	§1.1307(b)(1) & KDB680106
Limits:	According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1093 RF exposure is calculated. According KDB680106 D01v03: RF Exposure Wireless Charging Apps v02.
Test Setup:	
Test Mode:	Charging + Transmitting Mode
Test Procedure:	1. The RF exposure test was performed on 360 degree turn table in anechoic chamber. 2. The measurement probe was placed at test distance (10cm) which is between the edge of the charger and the geometric centre of probe. 3. The turn table was rotated 360d degree to search of highest strength. 4. The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed. 5. The EUT were measured according to the dictates of KDB 680106D01v03.
Test Result:	PASS

3.1.2. Test Instruments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Exposure Level Tester	narda	ELT-400	N-0231	2017.09.29	1 Year
2.	Magnetic field probe 100cm2	narda	ELT probe 100cm2	M0675	2017.09.29	1 Year

3.1.3. Test data

For Full load mode:
E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (V/m)	Limits Test (V/m)
0.205	2.83	2.81	2.77	2.74	2.76	184.2	614

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (A/m)	Limits Test (V/m)
0. 205	0.16	0.15	0.17	0.19	0.17	0.489	1.63

For half load mode:
E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (V/m)	Limits Test (V/m)
0.175	1.60	1.55	1.53	1.49	1.51	184.2	614

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (A/m)	Limits Test (V/m)
0.175	0.18	0.17	0.16	0.18	0.16	0.489	1.63

For No load mode:
E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (V/m)	Limits Test (V/m)
0.125	1.27	1.25	1.24	1.21	1.26	184.2	614

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (A/m)	Limits Test (V/m)
0.125	0.16	0.17	0.18	0.15	0.6	0.489	1.63

4. Photos of test setup

For Full load mode

For No load mode

5. Photographs of EUT

Refer to test report T1881420 01A.

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