FCC REPORT

Applicant: UBIO LABS, INC.

Address of Applicant: 2821 Northup Way, Suite 250, Bellevue, WA 98004, USA

Equipment Under Test (EUT)

Product Name: wireless charging pad

Model No.: AWC1058SG, AWC1058NA

Trade mark: ubiolabs

FCC ID: 2ATGY-AWC1058

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.209

Date of sample receipt: 29 Nov., 2019

Date of Test: 30 Nov., to 26 Dec., 2019

Date of report issue: 02 Jan., 2020

Test Result: PASS *

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

Authorized Signature:



Bruce Zhang

Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of theCCISproduct certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. 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.

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2 Version

| Version No. | Date | Description | | |
|-------------|---------------|---------------|--|--|
| 00 | 26 Dec., 2019 | Original | | |
| 01 | 02 Jan., 2020 | Update page 4 | | |
| | | | | |
| | | | | |
| | | | | |

Prepared By: Ozoren (hem Date: 02 Jan., 2020

Report Clerk

Check By: 02 Jan., 2020

Project Engineer





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4 Test Summary

| Test Item | Section in CFR 47 | Result | |
|--------------------|-------------------|--------|--|
| Spurious emissions | 15.209 | Pass | |
| 20dB Bandwidth | 15.215(c) | Pass | |
| Conducted Emission | 15.207 | Pass | |

Remark:

- 1. Pass: The EUT complies with the essential requirements in the standard.
- 2. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).

| Test Method: | ANSI C63.10-2013 |
|--------------|------------------|
| | |

5 General Information

5.1 Client Information

| Applicant: | UBIO LABS, INC. | |
|-----------------------|---|--|
| Address of Applicant: | 2821 Northup Way, Suite 250, Bellevue, WA 98004, USA | |
| Manufacturer: | UBIO LABS, INC. | |
| Address: | 2821 Northup Way, Suite 250, Bellevue, WA 98004, USA | |
| Factory: | Gopod Group Holding Limited | |
| Address: | 4-6/F, Building 8, Lian Jian Industrial Park, Hua Rong Rd, DaLang, LongHua New District, Shenzhen, China | |

5.2 General Description of E.U.T.

| Product Name: | wireless charging pad |
|----------------------------------|---|
| Model No.: | AWC1058SG, AWC1058NA |
| Operation Frequency: | 110kHz ~ 205kHz |
| Modulation type: | ASK |
| Antenna Type: | Coil Antenna |
| Power supply (Wireless Charger): | Input: DC 5V, 2.4A Output: 5W |
| Test Sample Condition: | The test samples were provided in good working order with no visible defects. |
| Remark: | The Model No.: AWC1058SG, AWC1058NAare identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name and color. |

5.3 Test mode

| Transmitting mode: Keep the EUT in transmitting mode with modulation |
|--|
|--|

5.4 Description of Support Units

| Manufacturer | anufacturer Description | | S/N | FCC ID/DoC |
|----------------|------------------------------|-----------|-------------|------------|
| Skytek | Wireless charging match load | N/A | N/A | N/A |
| UGREEN | UGREEN USB3.0 to Type-C3.1 | | N/A | N/A |
| MIXOMI Adapter | | MDY-03-EB | 15100912998 | N/A |

5.5 Measurement Uncertainty

| Parameter | Expanded Uncertainty (Confidence of 95%) | | |
|-------------------------------------|--|--|--|
| Conducted Emission (9kHz ~ 30MHz) | ±1.60 dB (k=2) | | |
| Radiated Emission (9kHz ~ 30MHz) | ±3.12 dB (k=2) | | |
| Radiated Emission (30MHz ~ 1000MHz) | ±4.32 dB (k=2) | | |
| Radiated Emission (1GHz ~ 18GHz) | ±5.38 dB (k=2) | | |
| Radiated Emission (18GHz ~ 26.5GHz) | ±3.36 dB (k=2) | | |



5.6 Description of Cable Used

N/A

5.7 Laboratory Facility

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

FCC - Designation No.: CN1211

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

ISED – CAB identifier.: CN0021

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info@ccis-cb.com, Website: http://www.ccis-cb.com





5.9 Test Instrumentslist

| Radiated Emission: | | | | | | |
|--------------------|---------------------------------|----------------------|-------------|-------------------------|-----------------------------|--|
| Test Equipment | Manufacturer | Model No. Serial No. | | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) | |
| 3m SAC | SAEMC | 9m*6m*6m | 966 | 07-22-2017 | 07-21-2020 | |
| BiConiLog Antenna | SCHWARZBECK | VULB9163 | 497 | 03-16-2019 | 03-15-2020 | |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 916 | 03-16-2019 | 03-15-2020 | |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 1805 | 06-22-2017 | 06-21-2020 | |
| Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170582 | 11-21-2019 | 11-20-2020 | |
| Loop Antenna | Loop Antenna SCHWARZBECK FMZB 1 | | 00044 | 04-28-2019 | 04-27-2020 | |
| EMI Test Software | AUDIX | E3 | \ | ersion: 6.110919 | b | |
| Pre-amplifier | HP | 8447D | 2944A09358 | 03-07-2019 | 03-06-2020 | |
| Pre-amplifier | CD | PAP-1G18 | 11804 | 03-07-2019 | 03-06-2020 | |
| Spectrum analyzer | Rohde & Schwarz | FSP30 | 101454 | 03-07-2019 | 03-06-2020 | |
| Spectrum analyzer | Rohde & Schwarz | FSP40 | 100363 | 11-21-2019 | 11-20-2020 | |
| EMI Test Receiver | Rohde & Schwarz | ESRP7 | 101070 | 03-07-2019 | 03-06-2020 | |
| Simulated Station | Anritsu | MT8820C | 6201026545 | 03-07-2019 | 03-06-2020 | |
| Cable | | | 1608458 | 03-07-2019 | 03-06-2020 | |
| Cable | MICRO-COAX | MFR64639 | K10742-5 | 03-07-2019 | 03-06-2020 | |
| Cable | SUHNER | SUCOFLEX100 | | | 03-06-2020 | |

| Conducted Emission: | | | | | | |
|---------------------|-----------------|------------|---|--|------------|--|
| Test Equipment | Manufacturer | Model No. | Serial No. Cal. Date (mm-dd-yy) (mm-dd | | | |
| EMI Test Receiver | Rohde & Schwarz | ESCI | 101189 03-07-2019 03-06-2020 | | | |
| Pulse Limiter | SCHWARZBECK | OSRAM 2306 | 9731 03-07-2019 03-06-202 | | | |
| LISN | CHASE | MN2050D | 1447 03-19-2019 03-18-202 | | | |
| LISN | Rohde & Schwarz | ESH3-Z5 | 8438621/010 07-21-2018 07-20-202 | | | |
| Cable | HP | 10503A | N/A 03-07-2019 03-06-20 | | 03-06-2020 | |
| EMI Test Software | AUDIX | E3 | Version: 6.110919b | | | |



6 Test results and Measurement Data

6.1 Antenna requirement

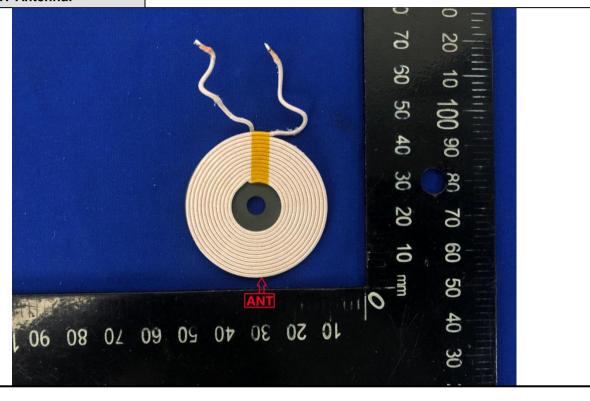
Standard requirement:

FCC Part15 C Section 15.203

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

E.U.T Antenna:

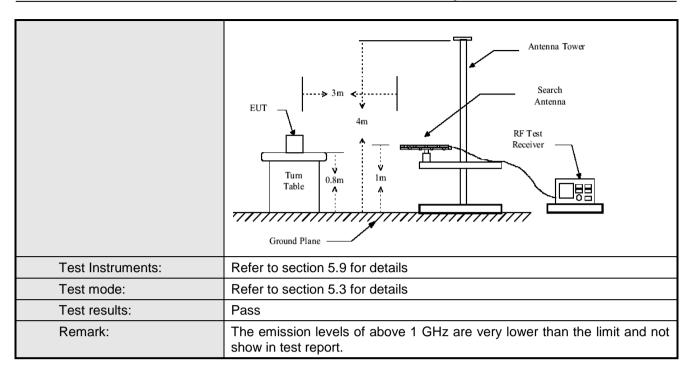




6.2 Radiated Emission

| 0.2 Radiated Elliss | 2 Radiated Emission | | | | | | | |
|------------------------------|--|---|-------------|------|------------------------|--------------|--|--|
| Test Requirement: | FCC Part15 C S | FCC Part15 C Section 15.209 | | | | | | |
| Test Method: | ANSI C63.4:201 | ANSI C63.4:2014 | | | | | | |
| TestFrequencyRange: | 9kHz to 1000MH | 9kHz to 1000MHz | | | | | | |
| Test site: | Measurement Di | Measurement Distance: 3m(Semi-Anechoic Chamber) | | | | | | |
| Receiver setup: | Frequency | Detector | RBW | VBV | Ν | Remark | | |
| | 9kHz-150kHz | Quasi-peak | 200Hz | 600H | 600Hz Quasi-peak Value | | | |
| | 150kHz- 30MHz | Quasi-peak | 9kHz | 30kl | Hz Quasi-peak Value | | | |
| | 30MHz-1GHz | | | | | | | |
| | Above 1GHz | Peak | 1MHz | 3MF | l z | Peak Value | | |
| Limit: | Frequency (M | | t (uV/m @3 | m) | | Distance (m) | | |
| | 0.009-0.49 | | 400/F(kHz) | | | 300 | | |
| | 0.490-1.70 | | 1000/F(kHz) |) | | 30 | | |
| | 1.705-30 | | 30 | | | 30 | | |
| | 30-88 88-216 | | 100 150 | | | 3 | | |
| | 216-960 | | 200 | | | 3 | | |
| | Above 1GH | 17 | 500 | | | 3 | | |
| Test Procedure: Test setup: | degrees todel b. The EUT was whichwas mo c. The antennal to determine to vertical polari: d. For each susp thenthe anten rotatabletable reading. e. The test-recei SpecifiedBand f. If the emission limitspecified, wouldbe repo would bere-te specified and | groundat a 3 meter semi-anechoic camber. The table was rotated 360 degrees todetermine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the groun to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatabletable was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode. | | | | | | |
| ι σαι σσιαφ. | 9kHz-30MHz Antenna Tower Search Antenna Tum Table Ground Plane 30MHz-1GHz | | | | rch | | | |







Measurement Data:

a) Fundamental field strength

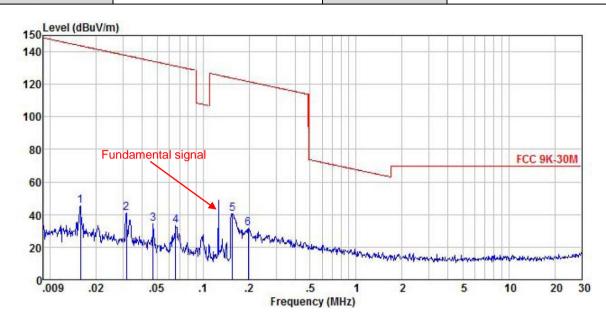
| | Peak value | | | | | | | | |
|-------------------|--------------------|----------------------|--------------------|--------|--|--|--|--|--|
| Test Polarization | Frequency (kHz) | H-field@3m (dBµV) | Limit@3m (dBµV) | Result | | | | | |
| Horizontal | 125.00 | 49.63 | 125.67 | Pass | | | | | |
| Vertical | 125.00 | 48.57 | 125.67 | Pass | | | | | |
| | | Average value | | | | | | | |
| Test Polarization | Frequency (kHz) | H-field@3m (dBµV) | Limit@3m (dBµV) | Result | | | | | |
| Horizontal | 125.00 | 41.58 | 105.67 | Pass | | | | | |
| Vertical | 125.00 | 39.82 | 105.67 | Pass | | | | | |





b) Radiated spurious (By 9 kHz ~ 30 MHz):

| Product name: | wireless charging pad | Product Model: | AWC1058SG |
|-----------------|-----------------------|----------------|-----------------------|
| Test by: | Carey | Test mode: | TX mode |
| Test frequency: | 9 kHz ~ 30 MHz | Phase: | Horizontal |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% |



| | Freq | | Antenna Factor | | | | | | Remark |
|-----------------------|-------|-------|-------------------------------|------|-------|---------------------|---------------------|-----------|--------|
| | MHz | dBu∜ | $-\overline{dB}/\overline{m}$ | | дв | $\overline{dBuV/m}$ | $\overline{dBuV/m}$ | <u>ab</u> | |
| 1 | 0.016 | 36.95 | -25.87 | 0.05 | 17.50 | 45.13 | 143.64 | -98.51 | Peak |
| 1 2 3 4 5 | 0.031 | 32.72 | -25.95 | | 17.50 | | | | |
| 3 | 0.047 | 26.04 | -25.99 | | 17.50 | | | | |
| 4 | | | -26.04 | 0.19 | 17.50 | 33.27 | 131.17 | -97.90 | Peak |
| 5 | | | -26.16 | | 17.50 | | | | |
| 6 | | | -26.20 | | 17.50 | | | | |

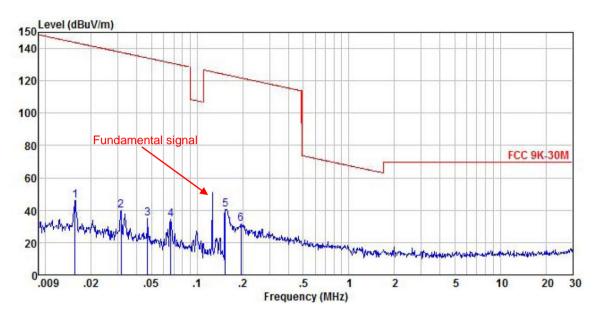
Notes:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.





| Product name: | wireless charging pad | Product model: | AWC1058SG |
|-----------------|-----------------------|----------------|-----------------------|
| Test by: | Carey | Test mode: | TX mode |
| Test frequency: | 9 kHz ~ 30 MHz | Phase: | Vertical |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% |



| | Freq | | Antenna Factor | | | | Limit Line | | |
|-------------|-------|-------|-------------------|------------|-----------|---------------------|---------------|------------|------|
| - | MHz | dBu⊽ | | <u>d</u> B | <u>dB</u> | $\overline{dBuV/m}$ | dBu√/m | <u>d</u> B | |
| 1 | 0.016 | 37.85 | -25.86 | 0.05 | 17.50 | 46.04 | 143.71 | -97.67 | Peak |
| 2 3 4 | 0.031 | 31.94 | -25.95 | 0.12 | 17.50 | 40.11 | 137.65 | -97.54 | Peak |
| 3 | 0.047 | 26.82 | -25.99 | 0.17 | 17.50 | 35.00 | 134.13 | -99.13 | Peak |
| 4 | 0.067 | 25.94 | -26.04 | 0.19 | 17.50 | 34.09 | 131.10 | -97.01 | Peak |
| 5 | 0.154 | 32.40 | -26.16 | 0.27 | 17.50 | 40.51 | 123.88 | -83.37 | Peak |
| 6 | 0.195 | 23.22 | -26.20 | 0.32 | 17.50 | 31.34 | 121.83 | -90.49 | Peak |

Notes

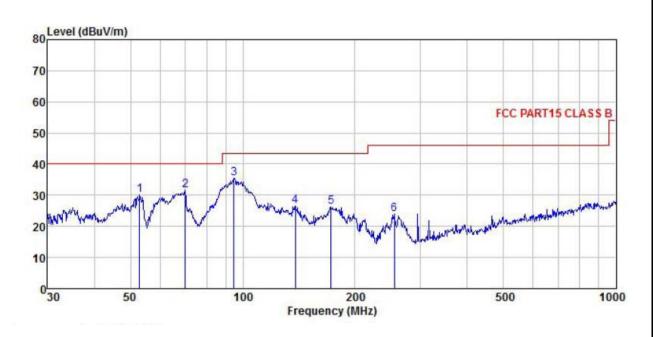
^{1.} Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

^{2.} The emission levels of other frequencies are very lower than the limit and not show in test report.



Radiated spurious (By 30 MHz ~ 1 GHz):

| Product Name: | wireless charging pad | Product Model: | AWC1058SG |
|-----------------|-----------------------|----------------|----------------------|
| Test By: | Carey | Test mode: | TX mode |
| Test Frequency: | 30 MHz ~ 1 GHz | Polarization: | Vertical |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24°C Huni: 57% |



| | Freq | | Antenna Factor | | | | | Over Limit | Remark |
|-------------|---------|-------|-------------------|------|-----------|--------|--------|---------------|--------|
| | MHz | dBu∀ | <u>dB</u> /m | dB | <u>dB</u> | dBuV/m | dBuV/m | dB | |
| 1 | 52.945 | 46.69 | 11.80 | 1.32 | 29.81 | 30.00 | 40.00 | -10.00 | QP |
| 2 3 4 | 70.090 | 51.29 | 8.50 | 1.52 | 29.72 | 31.59 | 40.00 | -8.41 | QP |
| 3 | 94.760 | 51.58 | 11.30 | 2.01 | 29.55 | 35.34 | 43.50 | -8.16 | QP |
| | 138.387 | 43.75 | 9.61 | 2.38 | 29.28 | 26.46 | 43.50 | -17.04 | QP |
| 5 | 172.599 | 42.79 | 9.74 | 2.68 | 29.03 | 26.18 | 43.50 | -17.32 | QP |
| 5 6 | 254.728 | 36.91 | 12.78 | 2.82 | 28.53 | 23.98 | 46.00 | -22.02 | QP |
| | | | | | | | | | |

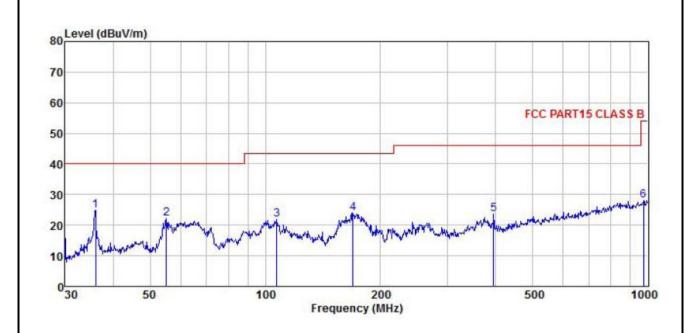
Remark:

^{1.} Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

^{2.} The emission levels of other frequencies are very lower than the limit and not show in test report.



| Product Name: | wireless charging pad | Product Model: | AWC1058SG |
|-----------------|-----------------------|----------------|----------------------|
| Test By: | Carey | Test mode: | TX mode |
| Test Frequency: | 30 MHz ~ 1 GHz | Polarization: | Horizontal |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24°C Huni: 57% |



| | Freq | | | | | Level | | Over Limit | Remark |
|--------|---------|-------|-------|------|-------|--------|--------|---------------|--------|
| 32 | MHz | dBu∜ | dB/m | ₫B | dB | dBuV/m | dBuV/m | dB | |
| 1 | 36.001 | 42.33 | 11.43 | 1.07 | 29.94 | 24.89 | 40.00 | -15.11 | QP |
| 2 3 4 | 55.221 | 38.88 | 11.59 | 1.36 | 29.80 | 22.03 | 40.00 | -17.97 | QP |
| 3 | 107.134 | 37.28 | 11.90 | 2.02 | 29.48 | 21.72 | 43.50 | -21.78 | QP |
| 4 | 169.599 | 40.78 | 9.61 | 2.66 | 29.05 | 24.00 | 43.50 | -19.50 | QP |
| 5 | 394.855 | 34.16 | 15.23 | 3.08 | 28.76 | 23.71 | 46.00 | -22.29 | QP |
| 5 6 | 972.337 | 28.71 | 22.74 | 4.33 | 27.59 | 28.19 | 54.00 | -25.81 | QP |

Remark

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



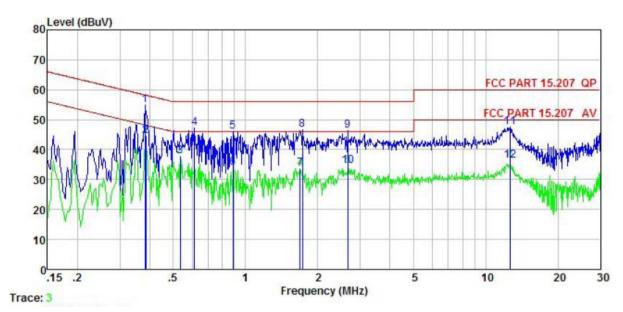
6.3 Conducted Emission

| Test Requirement: | FCC Part 15 B Section 15.10 | 07 | | | |
|-----------------------|---|---|---|--|--|
| Test Method: | ANSI C63.4:2014 | | | | |
| Test Frequency Range: | 150kHz to 30MHz | | | | |
| Class / Severity: | Class B | | | | |
| Receiver setup: | RBW=9kHz, VBW=30kHz | | | | |
| Limit: | | Limit (| dBµV) | | |
| | Frequency range (MHz) | Quasi-peak | Average | | |
| | 0.15-0.5 | 66 to 56* | 56 to 46* | | |
| | 0.5-5 | 56 | 46 | | |
| | 0.5-30 | 60 | 50 | | |
| | * Decreases with the logarith | nm of the frequency. | | | |
| Test setup: | Reference Pla | ne | _ | | |
| | AUX Equipment E.U.T Filter AC power EMI Receiver Remark E.U.T Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m | | | | |
| Test procedure | The E.U.T and simulators line impedance stabilization 500hm/50uH coupling impedance. The peripheral devices are a LISN that provides a 50 termination. (Please reference photographs). Both sides of A.C. line are interference. In order to find positions of equipment and according to ANSI C63.4: | on network(L.I.S.N.). The pedance for the measure also connected to the ohm/50uH coupling impose to the block diagram of the maximum emission all of the interface call | ne provide a ring equipment. In main power through bedance with 500hm of the test setup and riconducted rion, the relative bles must be changed | | |
| Test environment: | Temp.: 23 °C Hur | nid.: 56% Pre | ess.: 101kPa | | |
| Test Instruments: | Refer to section 5.9 for detail | ils | ÷ | | |
| Test mode: | Refer to section 5.3 for detail | ils | | | |
| Test results: | Pass | | | | |
| | | | | | |



Measurement Data:

| Product name: | wireless charging pad | Product Model: | AWC1058SG |
|-----------------|-----------------------|----------------|-----------------------|
| Test by: | Carey | Test mode: | TX mode |
| Test frequency: | 150 kHz ~ 30 MHz | Phase: | Line |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% |



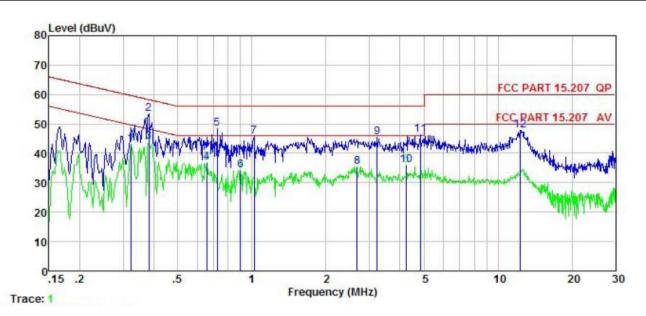
| | Freq | Read Level | LISN Factor | Aux Factor | Cable Loss | Level | Limit Line | Over Limit | Remark |
|--------------------------------------|--------|---------------|----------------|---------------|---------------|-------|---------------|---------------|---------|
| | MHz | dBu∀ | ₫B | ₫B | dB | dBu∜ | dBu∀ | dB | |
| 1 | 0.381 | 44.37 | -0.37 | 0.31 | 10.72 | 55.03 | 58.25 | -3.22 | QP |
| 2 | 0.385 | 33.84 | -0.37 | 0.33 | 10.72 | 44.52 | 48.17 | -3.65 | Average |
| 3 | 0.535 | 27.84 | -0.39 | -0.36 | 10.76 | 37.85 | 46.00 | -8.15 | Average |
| 4 | 0.614 | 37.29 | -0.38 | -0.38 | 10.77 | 47.30 | 56.00 | -8.70 | QP |
| 2 3 4 5 6 7 8 9 | 0.885 | 35.49 | -0.38 | 0.17 | 10.84 | 46.12 | 56.00 | -9.88 | QP |
| 6 | 0.885 | 23.47 | -0.38 | 0.17 | 10.84 | 34.10 | 46.00 | -11.90 | Average |
| 7 | 1.689 | 23.21 | -0.40 | -0.13 | 10.94 | 33.62 | 46.00 | -12.38 | Average |
| 8 | 1.725 | 36.13 | -0.40 | -0.15 | 10.94 | 46.52 | 56.00 | -9.48 | QP |
| 9 | 2.664 | 36.09 | -0.43 | -0.24 | 10.93 | 46.35 | 56.00 | -9.65 | QP |
| 0 | 2.678 | 24.19 | -0.43 | -0.24 | 10.93 | 34.45 | 46.00 | | Average |
| 11 | 12.649 | 34.43 | -0.65 | 2.91 | 10.92 | 47.61 | | -12.39 | |
| 12 | 12.649 | 23.00 | -0.65 | 2.91 | 10.92 | 36.18 | | | Average |

Notes

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



| Product name: | wireless charging pad | Product Model: | AWC1058SG |
|-----------------|-----------------------|----------------|-----------------------|
| Test by: | Carey | Test mode: | TX mode |
| Test frequency: | 150 kHz ~ 30 MHz | Phase: | Neutral |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% |



| | Freq | Read Level | LISN Factor | Aux Factor | Cable Loss | Level | Limit Line | Over Limit | Remark |
|----------------------------|--------|---------------|----------------|---------------|---------------|-------|---------------|---------------|---------|
| - | MHz | dBu∜ | <u>dB</u> | <u>dB</u> | dB | dBu₹ | dBu∀ | <u>dB</u> | |
| 1 | 0.322 | 32.97 | -0.63 | -0.01 | 10.74 | 43.07 | 49.66 | | Average |
| 2 | 0.381 | 43.48 | -0.64 | -0.05 | 10.72 | 53.51 | 58. 25 | -4.74 | QP |
| 3 | 0.381 | 34.07 | -0.64 | -0.05 | 10.72 | 44.10 | 48.25 | -4.15 | Average |
| 4 | 0.654 | 26.62 | -0.64 | 0.04 | 10.77 | 36.79 | 46.00 | -9.21 | Average |
| 5 | 0.724 | 38.31 | -0.64 | 0.04 | 10.78 | 48.49 | 56.00 | -7.51 | QP |
| 2 3 4 5 6 7 | 0.899 | 23.85 | -0.63 | 0.07 | 10.84 | 34.13 | 46.00 | -11.87 | Average |
| | 1.021 | 35.36 | -0.63 | 0.08 | 10.87 | 45.68 | 56.00 | -10.32 | QP |
| 8 | 2.678 | 25.04 | -0.67 | 0.27 | 10.93 | 35.57 | 46.00 | -10.43 | Average |
| 8 | 3.224 | 34.88 | -0.68 | 0.36 | 10.91 | 45.47 | 56.00 | -10.53 | QP |
| 10 | 4.247 | 25.34 | -0.70 | 0.56 | 10.88 | 36.08 | 46.00 | -9.92 | Average |
| 11 | 4.822 | 35.67 | -0.72 | 0.65 | 10.86 | 46.46 | 56.00 | -9.54 | QP |
| 12 | 12.253 | 35.51 | -0.80 | 2.26 | 10.92 | 47.89 | 60.00 | -12.11 | QP |

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



6.4 Bandwidth

| Test Requirement: | FCC Part15 C Section 15.215 (c) | |
|-------------------|---|--|
| Test Method: | ANSI C63.4:2009 | |
| Receiver setup: | RBW=1 kHz, VBW=3 kHz, detector: Peak | |
| Limit: | The fundamentalemission be kept within atleast the central 80% of the permittedband | |
| Test Procedure: | According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. Set the EUT to proper test channel. Max hold the radiated emissions, mark the peak power frequency point and the -20dB upper and lower frequency points. Read 20dB bandwidth. | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | |
| Test Instruments: | Refer to section 5.9 for details | |
| Test mode: | Refer to section 5.3 for details | |
| Test results: | Passed | |

Measurement Data

| 20dB bandwidth (kHz) | Limits | | |
|----------------------------------|--------|--|--|
| 2.80 | NI/A | | |
| 2.80 | N/A | | |
| Remark: For report purpose only. | | | |



Test plot as follows:

