**Shenzhen CTA Testing Technology Co., Ltd.**

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao’an District, Shenzhen, China

# FCC PART 15 SUBPART C TEST REPORT

| | |
|---|---|
| **Report Reference No.**.....: | **CTA21110900201** |
| **FCC ID**..... **:** | **2AVG2-AK03** |
| Compiled by ( position+printed name+signature)..: | File administrators Kevin Liu |
| Supervised by ( position+printed name+signature)..: | Project Engineer Kevin Liu |
| Approved by ( position+printed name+signature)..: | RF Manager Eric Wang |
| Date of issue.....: | Nov. 30, 2021 |

| | |
|---|---|
| **Representative Laboratory Name .:** | **Shenzhen CTA Testing Technology Co., Ltd.** |
| Address.....: | Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao‘an District, Shenzhen, China |
| **Applicant’s name**.....: | **Shenzhen Shi Aiker Electronic Technology Co., Ltd.** |
| Address .....: | 6th Floor, Building C, No. 9 East, Shangxue Technology Industrial City, Xinxue Community, Bantian Street, Longgang District, Shenzhen China |
| **Test specification** .....**:** | |
| Standard .....: | **FCC Rules and Regulations Part 15 Subpart C (Section 15.209), ANSI C63.10: 2013** |



| | |
|---|---|
| **Test item description .....:** | 3 in 1 Wireless Charging Stand |
| Trade Mark .....: | N/A |
| Manufacturer .....: | **Shenzhen Shi Aiker Electronic Technology Co., Ltd.** |
| Model/Type reference.....: | AK03 |
| Listed Models .....: | AK05 |
| Modulation Type .....: | ASK |
| Operation Frequency.....: | From 110KHz~205KHz |
| Rating .....: | Input: DC 5V/2A,9V/2.2A<br>Output: Wireless Charging: 15W(Max) |
| Result.....: | **PASS** |

# TEST REPORT

| | | |
|---|---|---|
| Equipment under Test | : | 3 in 1 Wireless Charging Stand |
| Model /Type | : | AK03 |
| Listed Models | : | AK05 |
| Model Declaration | : | PCB board, structure and internal of these model(s) are the same, So no additional models were tested. |
| **Applicant** | : | **Shenzhen Shi Aiker Electronic Technology Co., Ltd.** |
| Address | : | 6th Floor, Building C, No. 9 East, Shangxue Technology Industrial City, Xinxue Community, Bantian Street, Longgang District, Shenzhen China |
| **Manufacturer** | : | **Shenzhen Shi Aiker Electronic Technology Co., Ltd.** |
| Address | : | 6th Floor, Building C, No. 9 East, Shangxue Technology Industrial City, Xinxue Community, Bantian Street, Longgang District, Shenzhen China |

| **Test Result**: | **PASS** |
|---|---|

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

# Contents

# 1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules and Regulations Part 15 Subpart C (Section 15.207): Conducted limits.
FCC Rules and Regulations Part 15 Subpart C (Section 15.209): Radiated emission limits; general requirements.
ANSI C63.10: 2013: American National Standard for Testing Unlicensed Wireless Devices

# 2 SUMMARY

## 2.1 General Remarks

| | | |
|---|---|---|
| Date of receipt of test sample | : | Nov. 01, 2021 |
| | | |
| Testing commenced on | : | Nov. 01, 2021 |
| | | |
| Testing concluded on | : | Nov. 30, 2021 |

## 2.2 Product Description

| | |
|---|---|
| Product Name: | 3 in 1 Wireless Charging Stand |
| Model/Type reference: | AK03 |
| Hardware version: | V1.0 |
| Software version: | V1.0 |
| Test samples ID: | CTA211109002-1# (Engineer sample),<br>CTA211109002-2# (Normal sample) |
| Power supply: | Input: DC 5V/2A,9V/2.2A<br>Output: Wireless Charging: 15W(Max) |
| Operation frequency: | 110KHz - 205KHz |
| Modulation type: | ASK |
| Antenna type: | Loop coil antenna |

## 2.3 Description of the test mode

Equipment under test was operated during the measurement under the following conditions:
☒ Charging and communication mode

| **Test Modes:** | | |
|---|---|---|
| Mode 1 | Wireless Charging | Recorded |
| Mode 2 | Standby | Pre-tested |
| Note: All test modes were pre-tested, but we only recorded the worst case in this report. | | |

## 2.4 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the manufacturer or laboratory is listed as follow:

| Description | Manufacturer | Model | Technical Parameters | Certificate | Provided by |
|---|---|---|---|---|---|
| Adapter | PD | V1285 | Input: 100-240V~, 50/60Hz, 0.6A<br>Output: 5V⎓2A/9V⎓2.22A | CE/FCC | laboratory |
| / | / | / | / | / | / |

## 2.5 Modifications

No modifications were implemented to meet testing criteria.

# 3 TEST ENVIRONMENT

## 3.1 Address of the test laboratory

**Shenzhen CTA Testing Technology Co., Ltd.**
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,
Fuhai Street, Bao'an District, Shenzhen, China

## 3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:
**FCC-Registration No.: 517856 Designation Number: CN1318**

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

**A2LA-Lab Cert. No.: 6534.01**

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

## 3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:
Radiated Emission:

| | |
|---|---|
| Temperature: | 24 ° C |
| | |
| Humidity: | 45 % |
| | |
| Atmospheric pressure: | 950-1050mbar |

AC Power Conducted Emission:

| | |
|---|---|
| Temperature: | 25 ° C |
| | |
| Humidity: | 46 % |
| | |
| Atmospheric pressure: | 950-1050mbar |

Conducted testing:

| | |
|---|---|
| Temperature: | 25 ° C |
| | |
| Humidity: | 44 % |
| | |
| Atmospheric pressure: | 950-1050mbar |

## 3.4 Summary of measurement results

| Description of test | Result |
|---|---|
| Conducted emissions test | Compliant |
| Radiated emission test | Compliant |
| Occupied bandwidth measurement | Compliant |
| Antenna requirement | Compliant |

## 3.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen CTA laboratory is reported:

| Test | Range | Measurement Uncertainty | Notes |
|---|---|---|---|
| Radiated Emission | 30~1000MHz | 4.06 dB | (1) |
| Radiated Emission | 1~18GHz | 5.14 dB | (1) |
| Radiated Emission | 18-40GHz | 5.38 dB | (1) |
| Conducted Disturbance | 0.15~30MHz | 2.14 dB | (1) |

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 3.6 Equipments Used during the Test

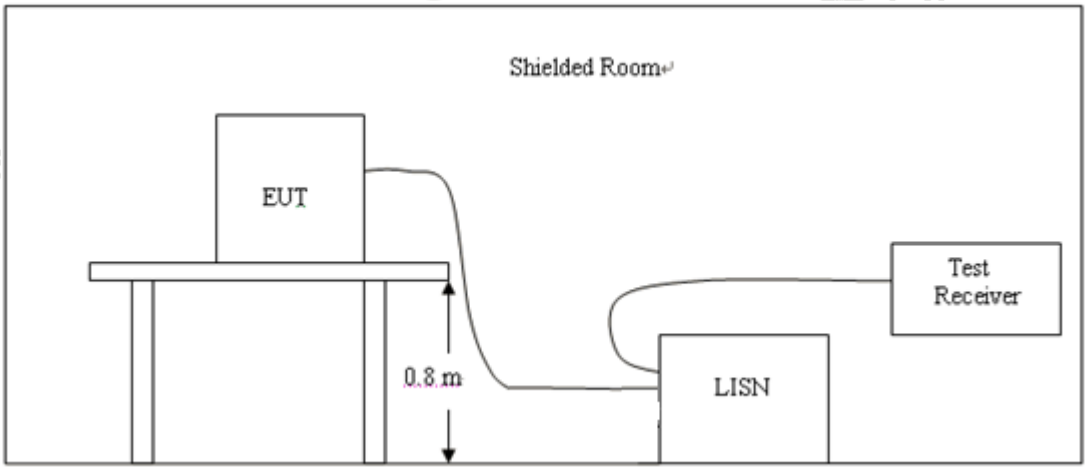
| Test Equipment | Manufacturer | Model No. | Equipment No. | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|
| LISN | R&S | ENV216 | CTA-308 | 2021/08/06 | 2022/08/05 |
| LISN | R&S | ENV216 | CTA-314 | 2021/08/06 | 2022/08/05 |
| EMI Test Receiver | R&S | ESPI | CTA-307 | 2021/08/06 | 2022/08/05 |
| EMI Test Receiver | R&S | ESCI | CTA-306 | 2021/08/06 | 2022/08/05 |
| Spectrum Analyzer | Agilent | N9020A | CTA-301 | 2021/08/06 | 2022/08/05 |
| Spectrum Analyzer | R&S | FSP | CTA-337 | 2021/08/06 | 2022/08/05 |
| Vector Signal generator | Agilent | N5182A | CTA-305 | 2021/08/06 | 2022/08/05 |
| Analog Signal Generator | R&S | SML03 | CTA-304 | 2021/08/06 | 2022/08/05 |
| Universal Radio Communication | CMW500 | R&S | CTA-302 | 2021/08/06 | 2022/08/05 |
| Temperature and humidity meter | Chigo | ZG-7020 | CTA-326 | 2021/08/06 | 2022/08/05 |
| Ultra-Broadband Antenna | Schwarzbeck | VULB9163 | CTA-310 | 2021/08/07 | 2022/08/06 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | CTA-309 | 2021/08/07 | 2022/08/06 |
| Loop Antenna | Zhinan | ZN30900C | CTA-311 | 2021/08/07 | 2022/08/06 |
| Horn Antenna | Beijing Hangwei Dayang | OBH100400 | CTA-336 | 2021/08/06 | 2022/08/05 |
| Amplifier | Schwarzbeck | BBV 9745 | CTA-312 | 2021/08/06 | 2022/08/05 |
| Amplifier | Taiwan chengyi | EMC051845B | CTA-313 | 2021/08/06 | 2022/08/05 |
| Directional coupler | NARDA | 4226-10 | CTA-303 | 2021/08/06 | 2022/08/05 |
| High-Pass Filter | XingBo | XBLBQ-GTA18 | CTA-402 | 2021/08/06 | 2022/08/05 |
| High-Pass Filter | XingBo | XBLBQ-GTA27 | CTA-403 | 2021/08/06 | 2022/08/05 |
| Automated filter bank | Tonscend | JS0806-F | CTA-404 | 2021/08/06 | 2022/08/05 |
| Power Sensor | Agilent | U2021XA | CTA-405 | 2021/08/06 | 2022/08/05 |
| Amplifier | Schwarzbeck | BBV9719 | CTA-406 | 2021/08/06 | 2022/08/05 |

Note: The Cal.Interval was one year.

# 4 TEST CONDITIONS AND RESULTS

## 4.1 AC Power Conducted Emission

**TEST CONFIGURATION**




**TEST PROCEDURE**

1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
2, Support equipment, if needed, was placed as per ANSI C63.10.
3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5, All support equipments received AC power from a second LISN, if any.
6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

**AC Power Conducted Emission Limit**

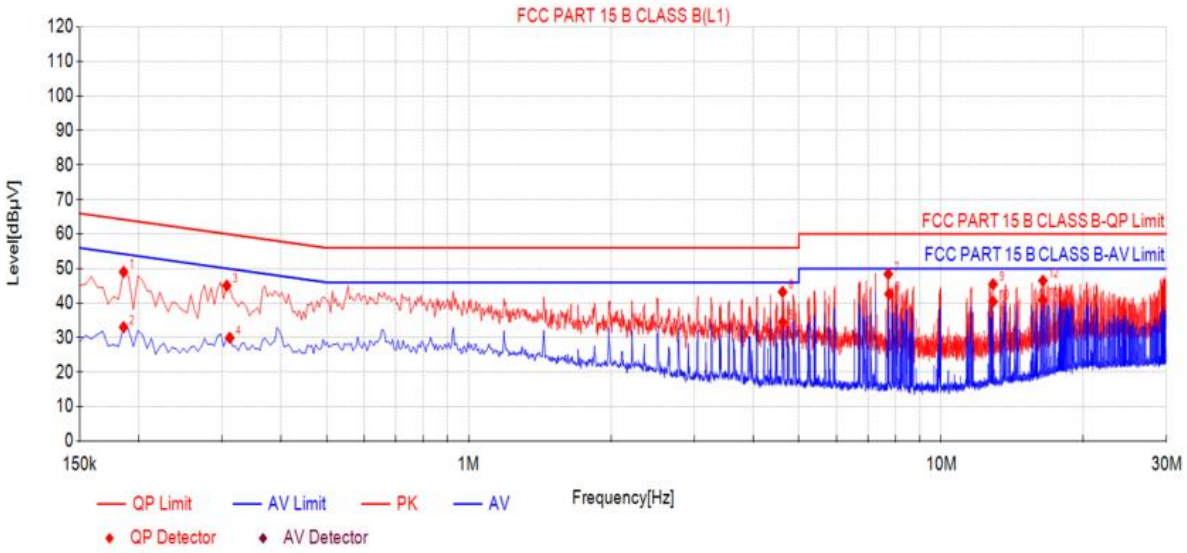
For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following：

| Frequency range (MHz) | Limit (dBuV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15-0.5 | 66 to 56* | 56 to 46* |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |
| * Decreases with the logarithm of the frequency. | | |

## TEST RESULTS

1. Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:

| Power supply: | DC 5V from Adapter AC 120V/60Hz | Polarization | L |
|---|---|---|---|




**Suspected List**

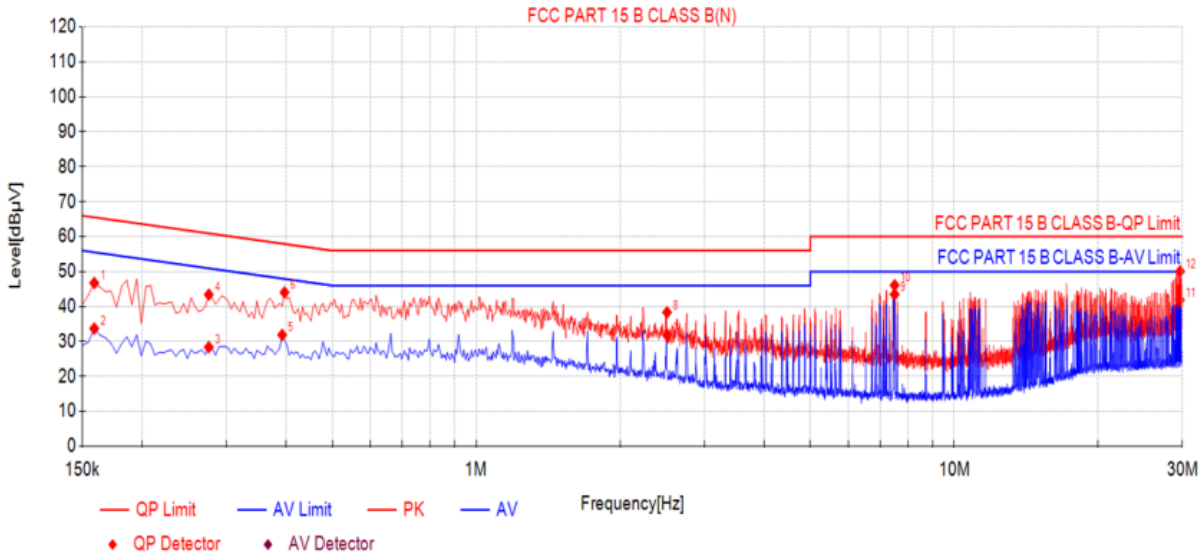
| NO. | Freq. [MHz] | Reading [dBµV] | Level [dBµV] | Factor [dB] | Limit [dBµV] | Margin [dB] | Detector | Type | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.186 | 38.55 | 49.05 | 10.50 | 64.21 | 15.16 | Qp | L1 | PASS |
| 2 | 0.186 | 22.52 | 33.02 | 10.50 | 54.21 | 21.19 | AV | L1 | PASS |
| 3 | 0.3075 | 34.56 | 45.06 | 10.50 | 60.04 | 14.98 | Qp | L1 | PASS |
| 4 | 0.312 | 19.44 | 29.94 | 10.50 | 49.92 | 19.98 | AV | L1 | PASS |
| 5 | 4.6185 | 24.00 | 34.50 | 10.50 | 46.00 | 11.50 | AV | L1 | PASS |
| 6 | 4.6185 | 32.72 | 43.22 | 10.50 | 56.00 | 12.78 | Qp | L1 | PASS |
| 7 | 7.728 | 37.90 | 48.40 | 10.50 | 60.00 | 11.60 | Qp | L1 | PASS |
| 8 | 7.755 | 32.17 | 42.67 | 10.50 | 50.00 | 7.33 | AV | L1 | PASS |
| 9 | 12.8805 | 34.97 | 45.47 | 10.50 | 60.00 | 14.53 | Qp | L1 | PASS |
| 10 | 12.8805 | 29.92 | 40.42 | 10.50 | 50.00 | 9.58 | AV | L1 | PASS |
| 11 | 16.4175 | 30.38 | 40.88 | 10.50 | 50.00 | 9.12 | AV | L1 | PASS |
| 12 | 16.422 | 36.00 | 46.50 | 10.50 | 60.00 | 13.50 | Qp | L1 | PASS |

Note:1).Level (dBµV)= Reading (dBµV)+ Factor (dB)

2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). Margin(dB) = Limit (dBµV) - Level (dBµV)

| Power supply: | DC 5V from Adapter AC 120V/60Hz | Polarization | N |
|---|---|---|---|




## Suspected List

| NO. | Freq. [MHz] | Reading [dBµV] | Level [dBµV] | Factor [dB] | Limit [dBµV] | Margin [dB] | Detector | Type | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.159 | 36.25 | 46.75 | 10.50 | 65.52 | 18.77 | Qp | N | PASS |
| 2 | 0.159 | 23.20 | 33.70 | 10.50 | 55.52 | 21.82 | AV | N | PASS |
| 3 | 0.276 | 17.85 | 28.35 | 10.50 | 50.94 | 22.59 | AV | N | PASS |
| 4 | 0.276 | 32.91 | 43.41 | 10.50 | 60.94 | 17.53 | Qp | N | PASS |
| 5 | 0.393 | 21.38 | 31.88 | 10.50 | 48.00 | 16.12 | AV | N | PASS |
| 6 | 0.3975 | 33.54 | 44.04 | 10.50 | 57.91 | 13.87 | Qp | N | PASS |
| 7 | 2.508 | 21.27 | 31.77 | 10.50 | 46.00 | 14.23 | AV | N | PASS |
| 8 | 2.508 | 27.84 | 38.34 | 10.50 | 56.00 | 17.66 | Qp | N | PASS |
| 9 | 7.503 | 32.98 | 43.48 | 10.50 | 50.00 | 6.52 | AV | N | PASS |
| 10 | 7.503 | 35.61 | 46.11 | 10.50 | 60.00 | 13.89 | Qp | N | PASS |
| 11 | 29.6205 | 31.38 | 41.88 | 10.50 | 50.00 | 8.12 | AV | N | PASS |
| 12 | 29.6655 | 39.56 | 50.06 | 10.50 | 60.00 | 9.94 | Qp | N | PASS |

Note:1).Level (dBµV)= Reading (dBµV)+ Factor (dB)

2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). Margin(dB) = Limit (dBµV) - Level (dBµV)

## 4.2 Radiated Emission

**Limit**

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

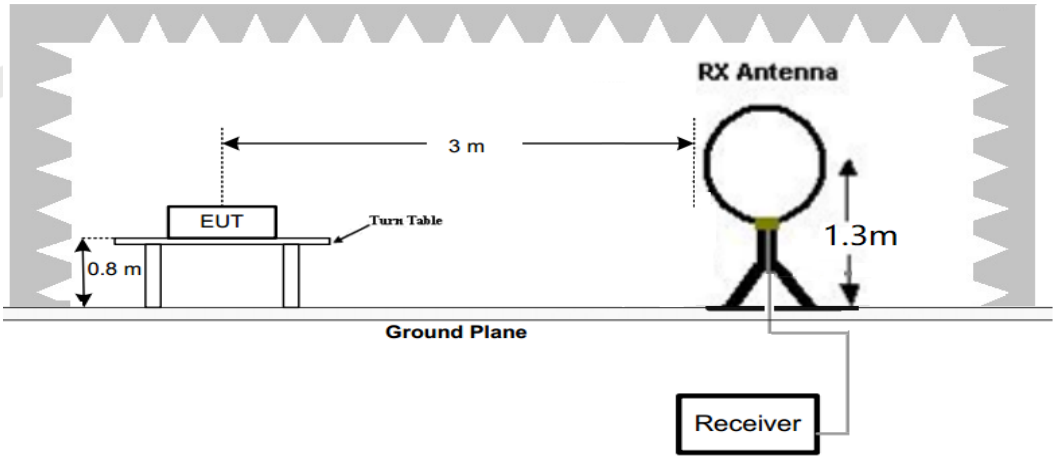
In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

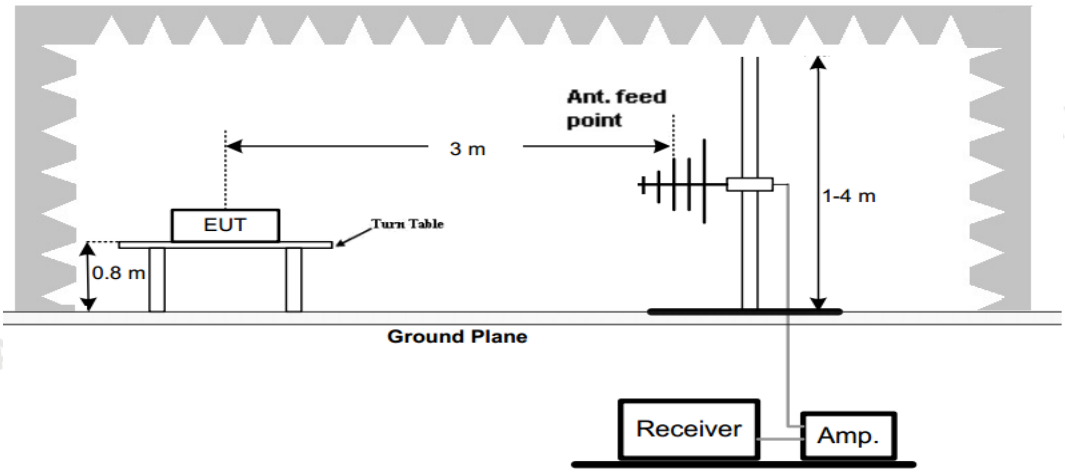
| Frequency (MHz) | Distance (Meters) | Radiated (dBμV/m) | Radiated (μV/m) |
|---|---|---|---|
| 0.009-0.49 | 3 | 20log(2400/F(KHz))+40log(300/3) | 2400/F(KHz) |
| 0.49-1.705 | 3 | 20log(24000/F(KHz))+ 40log(30/3) | 24000/F(KHz) |
| 1.705-30 | 3 | 20log(30)+ 40log(30/3) | 30 |
| 30-88 | 3 | 40.0 | 100 |
| 88-216 | 3 | 43.5 | 150 |
| 216-960 | 3 | 46.0 | 200 |
| Above 960 | 3 | 54.0 | 500 |

**TEST CONFIGURATION**

1. Radiated Emission Test Set-Up, Frequency Below 30MHz




2. Radiated Emission Test Set-Up, Frequency below 1000MHz



**Test Procedure**

1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0℃ to 360℃ to acquire the highest emissions from EUT
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. Radiated emission test frequency band from 9KHz to 1000MHz.
6. The distance between test antenna and EUT as following table states:

| Test Frequency range | Test Antenna Type | Test Distance |
|---|---|---|
| 9KHz-30MHz | Active Loop Antenna | 3 |
| 30MHz-1GHz | Bilog Antenna | 3 |

7. Setting test receiver/spectrum as following table states:

| Test Frequency range | Test Receiver/Spectrum Setting | Detector |
|---|---|---|
| 9KHz-150KHz | RBW=200Hz/VBW=3KHz,Sweep time=Auto | QP |
| 150KHz-30MHz | RBW=9KHz/VBW=100KHz,Sweep time=Auto | QP |
| 30MHz-1GHz | RBW=120KHz/VBW=1000KHz,Sweep time=Auto | QP |

**TEST RESULTS**

**For 9 KHz-30MHz**

**WORST-CASE RADIATED EMISSION BELOW 30 MHz**

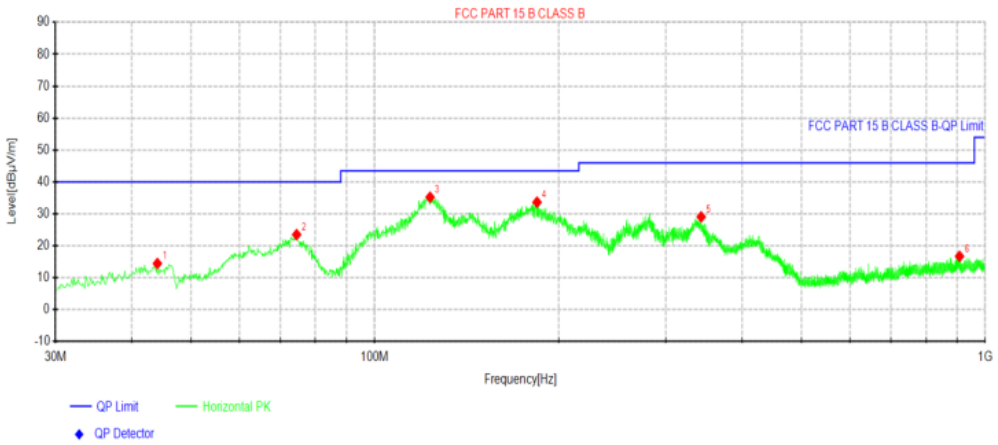
| Frequency (MHz) | Reading (dBμV/m) | Polar Loop | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Levels (dBμV/m) | Limits at 3m (dBμV/m) | Margin (dB) | Detector Mode |
|---|---|---|---|---|---|---|---|---|
| 0.131(F) | 58.53 | Loop | 23.63 | 0.02 | 82.18 | 105.26 | 23.08 | **PK** |
| 0.131(F) | 50.79 | Loop | 23.63 | 0.02 | 74.44 | 85.26 | 10.82 | **AV** |
| 0.110 | 47.92 | Loop | 23.51 | 0.02 | 71.45 | 106.78 | 35.33 | **PK** |
| 0.110 | 44.72 | Loop | 23.51 | 0.02 | 68.25 | 86.78 | 18.53 | **AV** |
| 0.285 | 31.01 | Loop | 23.82 | -0.17 | 54.66 | 98.51 | 43.85 | **QP** |
| 0.474 | 29.11 | Loop | 24.21 | -0.28 | 53.04 | 94.09 | 41.05 | **QP** |
| 0.592 | 24.06 | Loop | 24.32 | -0.3 | 48.08 | 72.16 | 24.08 | **QP** |
| –– | –– | –– | –– | –– | –– | –– | | –– |

Remark:

1. Data of measurement within this frequency range shown “-- in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits and not recorded.
2. The test limit distance is 3m limit.
3. PK means Peak Value, QP means Quasi Peak Value, AV means Average Value.
4. F means Fundamental Frequency.
5. Emission level (dBuV/m) =Reading + Antenna Factor + Cable Loss.
6. Margin value = Limit value- Emission level.

**For 30MHz-1GHz**

Horizontal

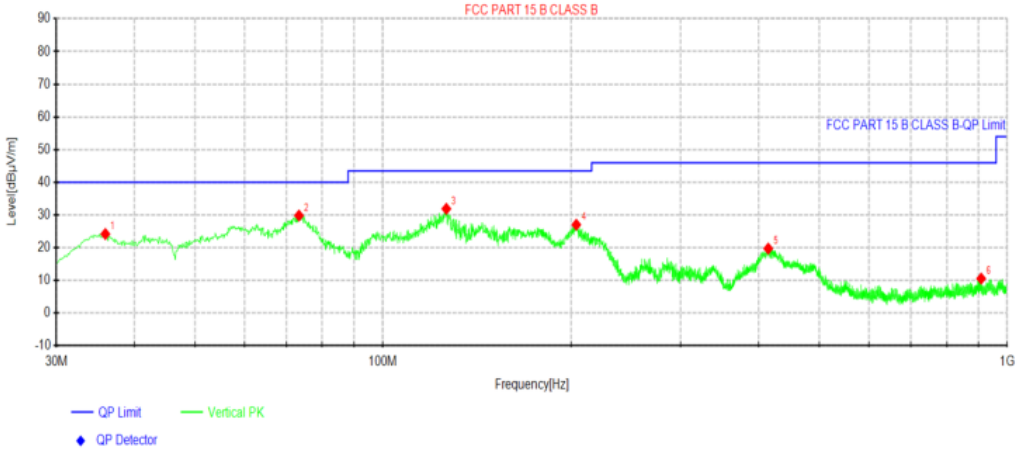



**Suspected Data List**

| NO. | Freq. [MHz] | Reading [dBµV] | Level [dBµV/m] | Factor [dB/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 44.065 | 31.06 | 14.48 | -16.58 | 40.00 | 25.52 | 100 | 341 | Horizontal |
| 2 | 74.4988 | 44.61 | 23.53 | -21.08 | 40.00 | 16.47 | 100 | 360 | Horizontal |
| 3 | 123.241 | 55.85 | 35.23 | -20.62 | 43.50 | 8.27 | 100 | 156 | Horizontal |
| 4 | 184.472 | 53.94 | 33.68 | -20.26 | 43.50 | 9.82 | 100 | 196 | Horizontal |
| 5 | 342.582 | 45.32 | 29.08 | -16.24 | 46.00 | 16.92 | 100 | 311 | Horizontal |
| 6 | 907.728 | 25.93 | 16.72 | -9.21 | 46.00 | 29.28 | 100 | 360 | Horizontal |

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)
3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

Vertical




**Suspected Data List**

| NO. | Freq. [MHz] | Reading [dBµV] | Level [dBµV/m] | Factor [dB/m] | Limit [dBµV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 35.9412 | 41.93 | 24.22 | -17.71 | 40.00 | 15.78 | 100 | 141 | Vertical |
| 2 | 73.4075 | 50.88 | 29.85 | -21.03 | 40.00 | 10.15 | 100 | 141 | Vertical |
| 3 | 126.393 | 52.85 | 31.90 | -20.95 | 43.50 | 11.60 | 100 | 334 | Vertical |
| 4 | 204.115 | 46.27 | 27.06 | -19.21 | 43.50 | 16.44 | 100 | 357 | Vertical |
| 5 | 414.241 | 35.16 | 19.75 | -15.41 | 46.00 | 26.25 | 100 | 188 | Vertical |
| 6 | 908.335 | 19.78 | 10.57 | -9.21 | 46.00 | 35.43 | 100 | 219 | Vertical |

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)
3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)

## 4.3 Occupied Bandwidth

**TEST CONFIGURATION**


**TEST PROCEDURE**

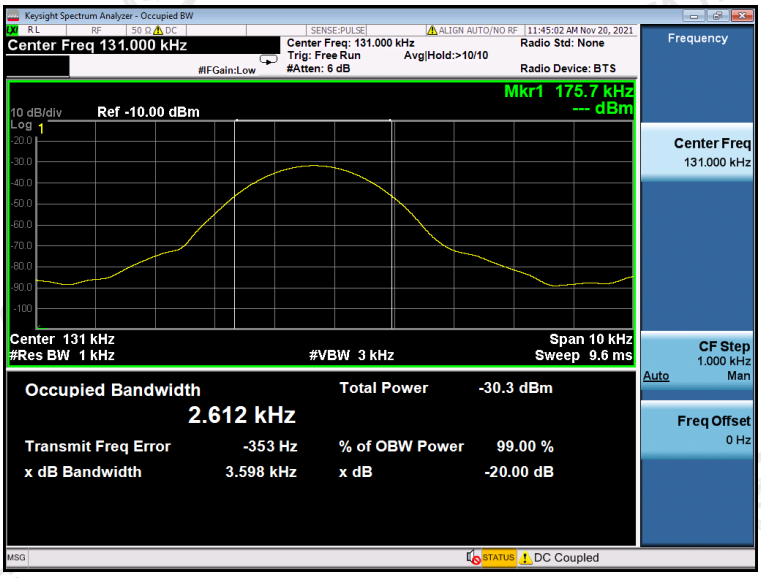
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equip compliance with the 20dB attenuation specification may base on measurement at the intentional radiator's antenna output terminal unless the intentional radiator uses a permanently attached antenna, in which case compliance shall be.deomonstrated by measuring the radiated emissions.

**LIMIT**

The 20dB bandwidth shall be less than 80% of the permitted frequency band.

**TEST RESULTS**

| Mode | Freq (KHz) | 20dB Bandwidth (KHz) | 99% OBW (KHz) | Conclusion |
|---|---|---|---|---|
| Tx Mode | 131 | 3.598 | 2.612 | PASS |



## 4.4 Antenna Requirement

**Standard Applicable**

**Standard Applicable**

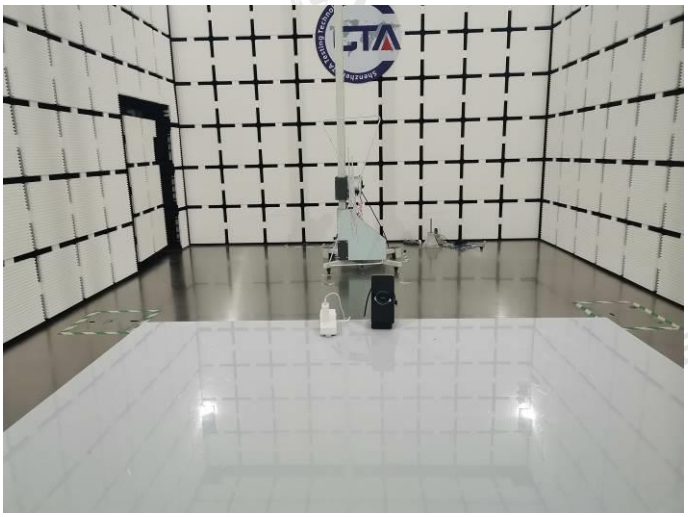
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

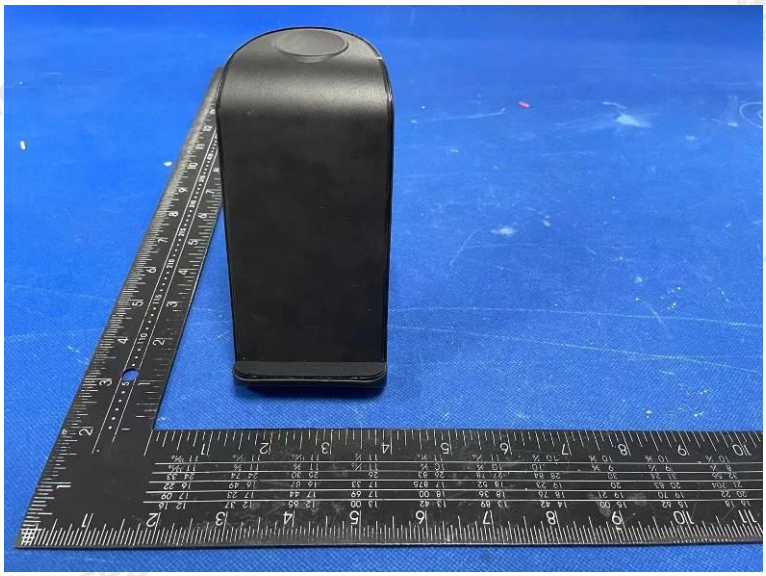
**Antenna Information**

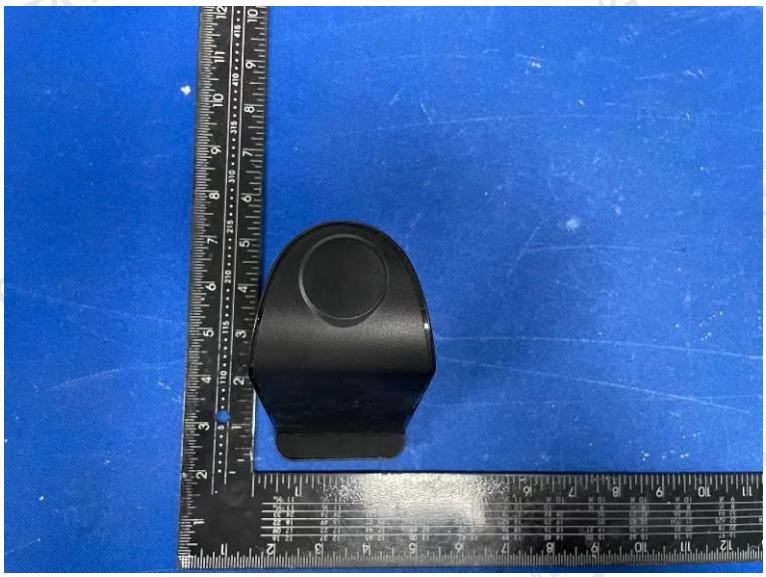
The antenna used in this product is a Coil Antenna, The directional gains of antenna used for transmitting is 0dBi.

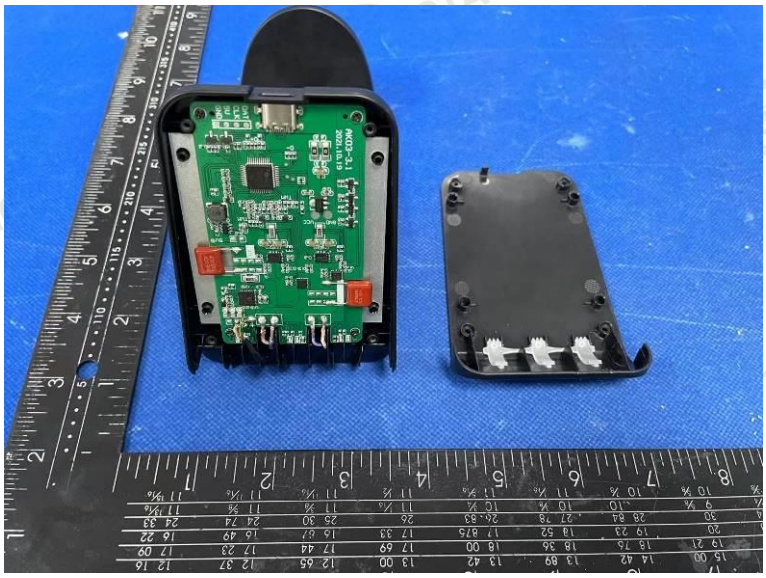
# 5 Test Setup Photos of the EUT

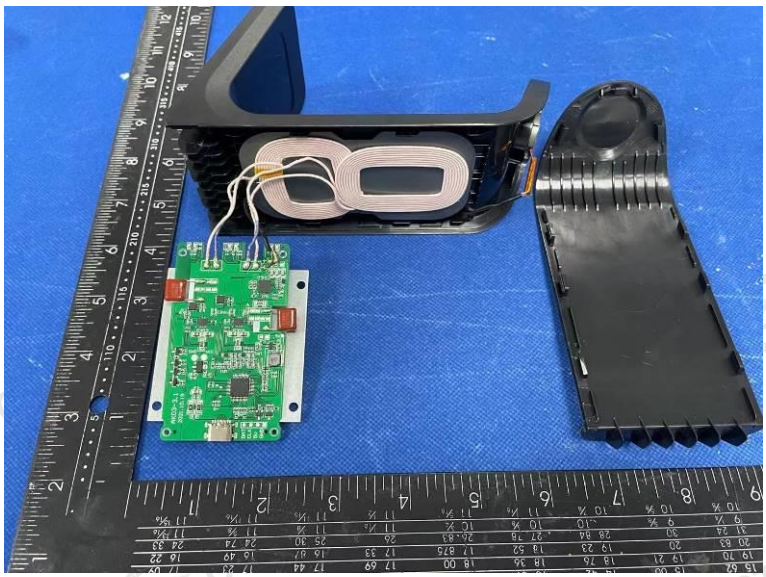


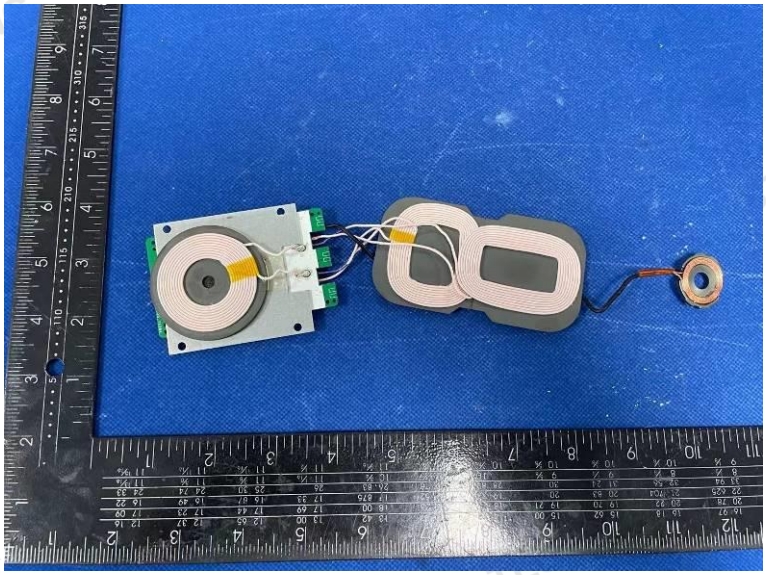
# 6 PHOTOS OF THE EUT

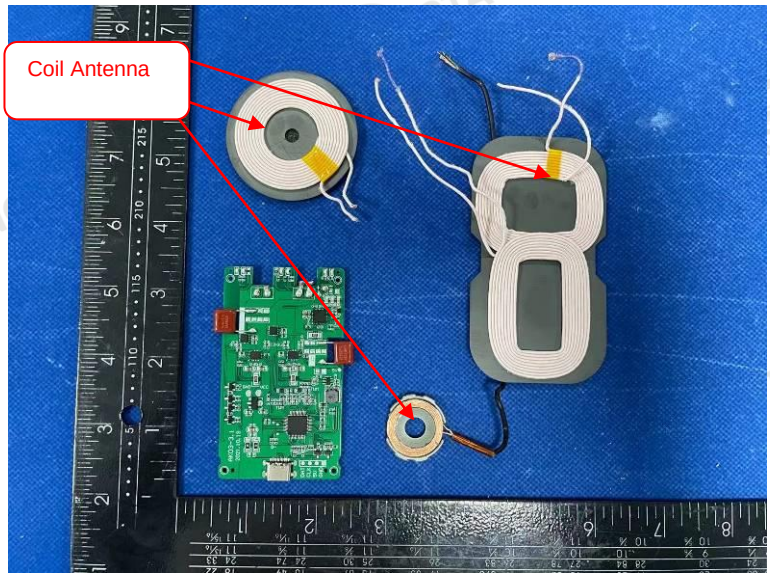


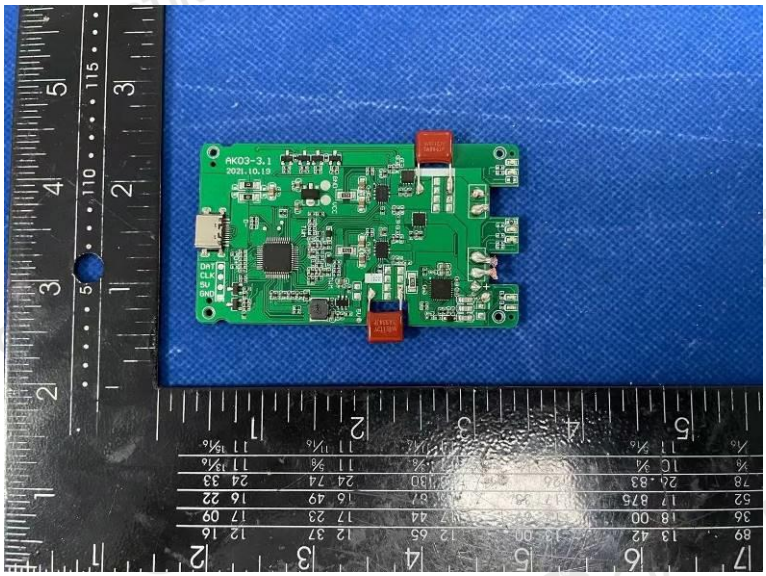


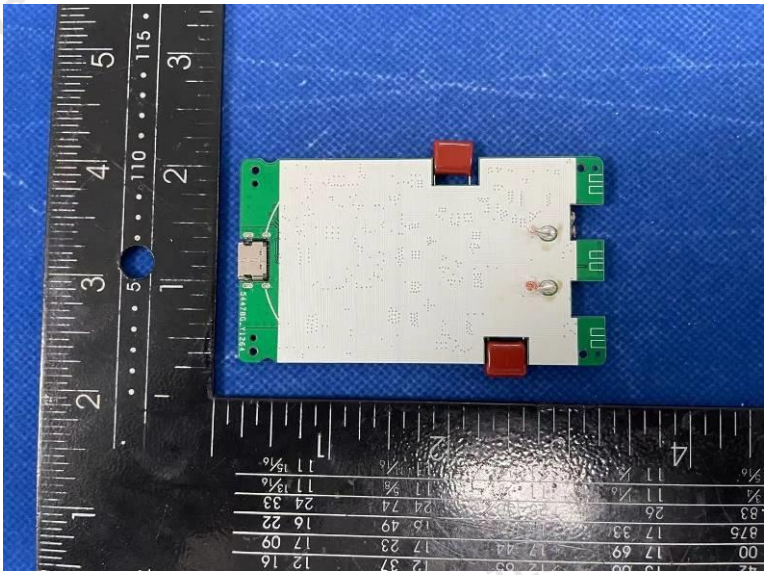







Coil Antenna





********** End of Report **********