



Report No.: EA2109036801001

1 of 50

**ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
INTENTIONAL RADIATOR CERTIFICATION TO
FCC PART 15 SUBPART C REQUIREMENT**

OF

3-in-1 Wireless Charger

Model No.: CD278, 90326

Trademark: UGREEN

FCC ID: 2AQI5-CD278

Report No.: EA2109036801001

Issue Date: Sept. 29, 2021

Prepared for

Ugreen Group Limited

**UGREEN Building, Longcheng Industrial Park Longguanxi Road,
Longhua ShenZhen, China**

Prepared by

Dong Guan Anci Electronic Technology Co., Ltd.

**1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan, Lake
Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr.,
China.**

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Dong Guan Anci Electronic Technology Co., Ltd.**



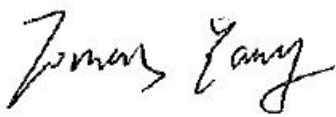
VERIFICATION OF COMPLIANCE


| | |
|----------------------|---|
| Applicant: | Ugreen Group Limited UGREEN Building,Longcheng Industrial Park Longguanxi Road,Longhua ShenZhen,China |
| Manufacturer: | Ugreen Group Limited UGREEN Building,Longcheng Industrial Park Longguanxi Road,Longhua ShenZhen,China |
| Product Description: | 3-in-1 Wireless Charger |
| Trade Mark: | UGREEN |
| Model Number: | CD278, 90326 (All models are the same except the model name is different, we choose model: CD278 for all tests) |

We hereby certify that:

The above equipment was tested by Dong Guan Anci Electronic Technology Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.209(2020).

Date of Test : Sept. 22, 2021 to Sept. 28, 2021

Prepared by : 
Tomas Yang/Supervisor

Reviewer &
Authorized Signer : 
Alan He/Manager



Modified Information

| Version | Summary | Revision Date | Report No. |
|---------|-----------------|---------------|-----------------|
| Ver.1.0 | Original Report | / | EA2109036801001 |
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1 General Information

1.1 Product Description

| Characteristics | Description |
|-------------------------|---|
| Product Name | 3-in-1 Wireless Charger |
| Model number | CD278 |
| Operation Mode | Wireless Charging |
| Input Rating | DC 5V, 3A ; DC 9V, 3A ; DC 12V, 2.75A |
| Power Supply | AC120V/60Hz for adapter |
| Operating Frequency | 127.7KHz for iphone 326.5KHz for Apple Watch 142KHz for Airpods |
| Wireless Charging Power | 15W for iphone 5W for Apple Watch 5W for Airpods |
| Modulation Technique | FSK |
| Antenna Type | Induction coil |



1.2 Related Submittal(s) / Grant(s)

This submittal(s) (test report) is intended for FCC ID: 2AQI5-CD278 filing to comply with the FCC Part 15, Subpart C Rules.

1.3 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

1.6 Test Facility

Site Description
EMC Lab. : Accredited by CNAS, 2017.06.26
The certificate is valid until 2022.10.28
The Laboratory has been assessed and proved to be in compliance with
CNAS-CL01:2006 (identical to ISO/IEC 17025:2005)
The Certificate Registration Number is L6214.

Accredited by A2LA, 2018.03.15
The Certificate Number is 4422.01.

Name of Firm : Dong Guan Anci Electronic Technology Co., Ltd.
Site Location : 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan, Lake
Hi-tech Industrial Development Zone, Dongguan City, development Zone,
Dongguan City, Guangdong Pr., China.

2 System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is placed on a turn table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

2.3.2 Radiated Emissions

The EUT is placed on a turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the fixed in a particular direction according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013.

2.4 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

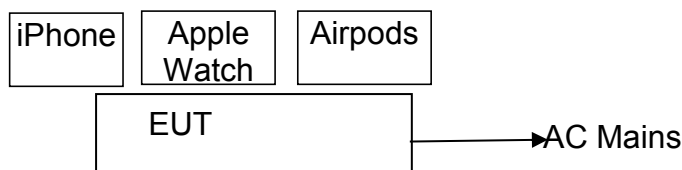


Table 2-1 Equipment Used in Tested System

| Item | Equipment | Trade Mark | Model No. | FCC ID | Note |
|------|-------------------------|------------|--|-------------|--------------------------|
| 1. | 3-in-1 Wireless Charger | UGREEN | CD278 | 2AQI5-CD278 | EUT |
| 2. | Adapter | UGREEN | Model:CD272 Input: AC 100-240V, 50/60Hz Output: DC 5V/3A, DC 9V/3A,DC 12V/2.75A | N/A | Support Equipment |
| 3. | iphone | Apple | A2404 | N/A | Support Equipment |
| 4. | Airpods | Apple | A2190 | N/A | Support Equipment |
| 5. | Apple Watch | Apple | A1859 | N/A | Support Equipment |

Note:

- (1) Unless otherwise denoted as EUT in 『Remark』 column, device(s) used in tested system is a support equipment.

3 Summary of Test Results

| FCC Rules | Description Of Test | Result |
|-----------|-----------------------------|-----------|
| §15.207 | AC Power Conducted Emission | Compliant |
| §15.209 | Radiated Emission | Compliant |
| §2.1049 | 20dB Bandwidth | Compliant |
| §15.203 | Antenna Requirement | Compliant |



4 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| Parameter | Uncertainty |
|--------------------------|-------------------------|
| Conducted Emissions Test | $\pm 2.0\text{dB}$ |
| Radiated Emission Test | $\pm 2.0\text{dB}$ |
| Temperature | $\pm 0.5^\circ\text{C}$ |
| Humidity | $\pm 3\%$ |

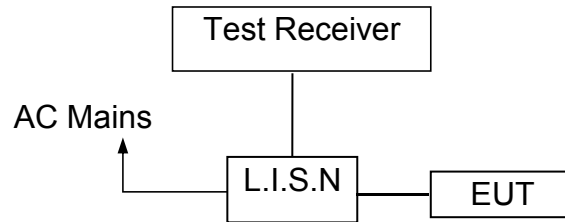
Remark: The coverage Factor ($k=2$), and measurement Uncertainty for a level of Confidence of 95%

5 Conducted Emissions Test

5.1 Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

5.2 Test SET-UP (Block Diagram of Configuration)



5.3 Measurement Equipment Used

| EQUIPMENT TYPE | MFR | MODEL NUMBER | SERIAL NUMBER | Calibrated until |
|-------------------|---------------|--------------|---------------|------------------|
| L.I.S.N | SCHWARZBECK | NSLK 8127 | 8127-669 | 2022-05-23 |
| 10 db attenuator | JFW | 50FP-010-H4 | 4360846-427-1 | 2022-05-23 |
| RF Cable | N/A | N/A | 2# | 2022-05-23 |
| EMI Test Receiver | ROHDE&SCHWARZ | ESCI | 101358 | 2022-05-23 |

5.4 Conducted Emission Limit

| Conducted Emission Frequency(MHz) | Quasi-peak | Average |
|--------------------------------------|------------|---------|
| 0.15-0.5 | 66-56 | 56-46 |
| 0.5-5.0 | 56 | 46 |
| 5.0-30.0 | 60 | 50 |

- Note:** 1. The lower limit shall apply at the transition frequencies
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.



5.5 Measurement Result

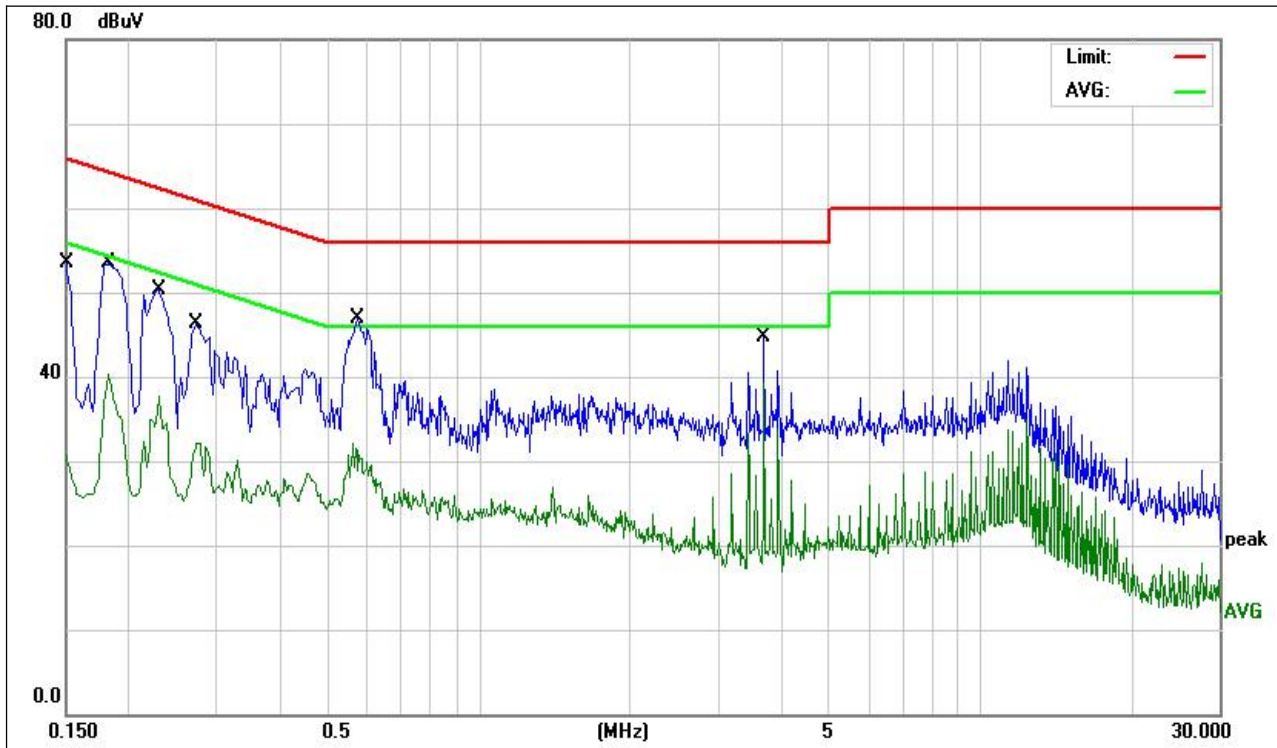
| | | | |
|------------------|---------------|---------------|------------|
| Operation Mode: | TX | Test Date : | 2021/09/26 |
| Frequency Range: | 0.15MHz~30MHz | Temperature : | 28°C |
| Test Result: | PASS | Humidity : | 65 % |
| Test By: | Best | | |

Pass

We pretested modes (Wireless Charging for iphone, Wireless Charging for Apple Watch, Wireless Charging for Airpods , Wireless Charging for iphone+Apple Watch+Airpods) for EUT. The worst test data see follow the table.

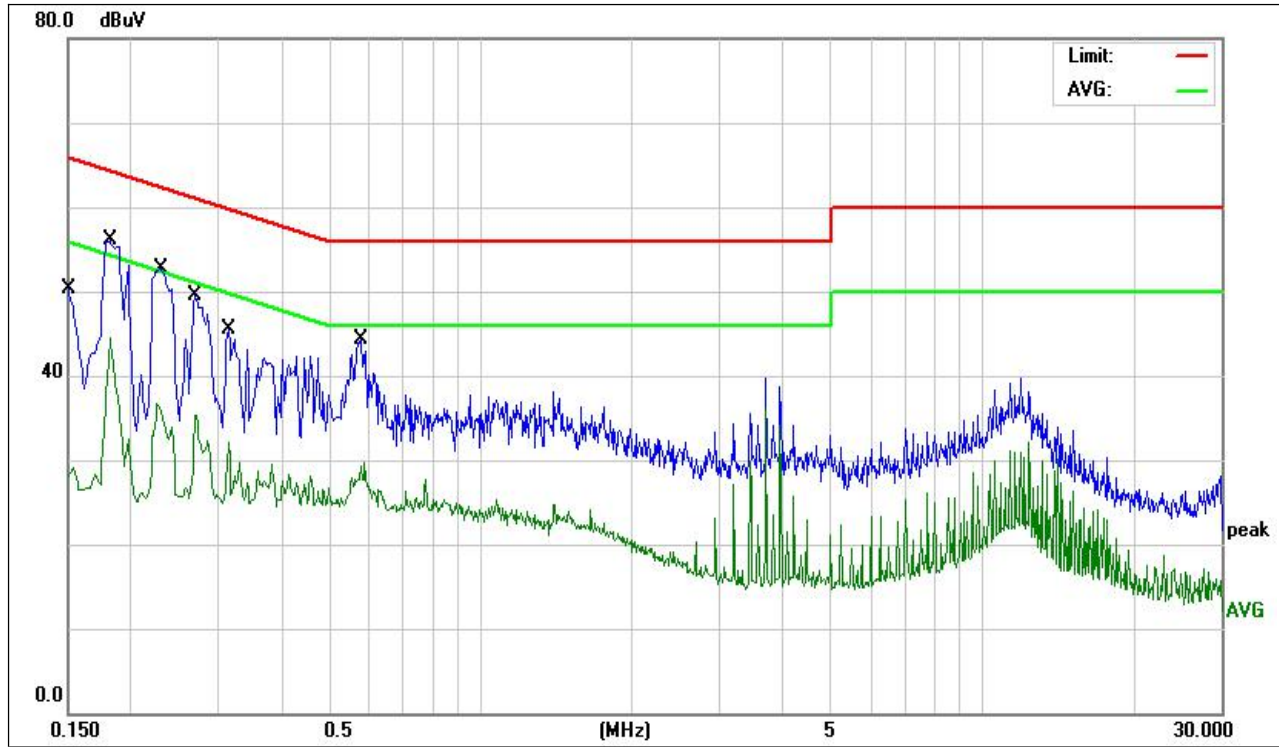


Test mode: Wireless Charging for iphone



| | | | | | |
|---------------|-------------------------------------|-----------------------|---------------------|------------------------|--------------|
| Site: | 843 | Phase: | L1 | Temperature(C): | 26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | | | Humidity(%): | 60% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/26 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for iphone | Test Engineer: | Jack | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 | 0.1500 | 37.62 | 9.60 | 47.22 | 65.99 | -18.77 | QP | |
| 2 | 0.1500 | 20.29 | 9.60 | 29.89 | 55.99 | -26.10 | AVG | |
| 3 | 0.1819 | 40.97 | 9.61 | 50.58 | 64.39 | -13.81 | QP | |
| 4 | 0.1819 | 26.66 | 9.61 | 36.27 | 54.39 | -18.12 | AVG | |
| 5 | 0.2300 | 36.82 | 9.63 | 46.45 | 62.45 | -16.00 | QP | |
| 6 | 0.2300 | 23.72 | 9.63 | 33.35 | 52.45 | -19.10 | AVG | |
| 7 | 0.2740 | 32.41 | 9.63 | 42.04 | 60.99 | -18.95 | QP | |
| 8 | 0.2740 | 20.23 | 9.63 | 29.86 | 50.99 | -21.13 | AVG | |
| 9 | 0.5740 | 33.88 | 9.66 | 43.54 | 56.00 | -12.46 | QP | |
| 10 | 0.5740 | 20.27 | 9.66 | 29.93 | 46.00 | -16.07 | AVG | |
| 11 | 3.7060 | 32.80 | 9.83 | 42.63 | 56.00 | -13.37 | QP | |
| 12 | 3.7060 | 27.93 | 9.83 | 37.76 | 46.00 | -8.24 | AVG | |
| * | | | | | | | | |

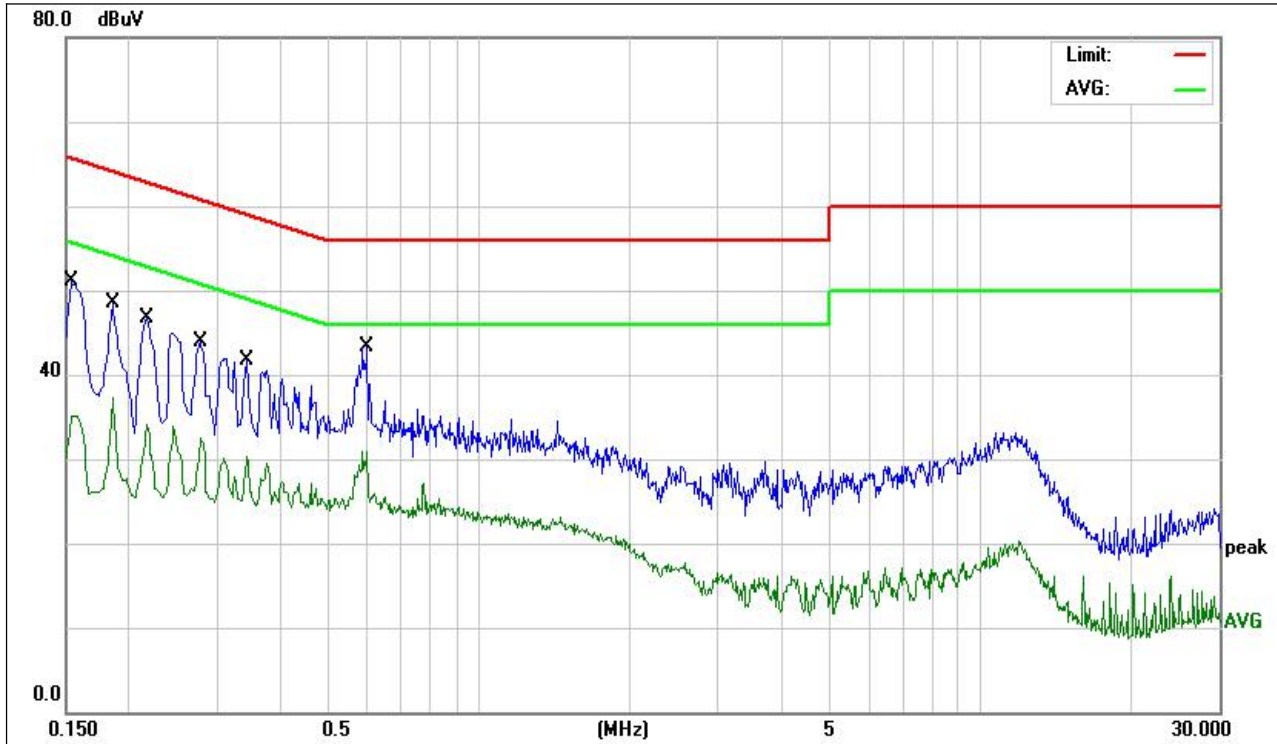


| | | | | | |
|---------------|------------------------------|----------------------|--------------|------------------------|-------|
| Site: | 843 | Phase: | N | Temperature(C): | 26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | Test Time: | 2021/09/26 | Humidity(%): | 60% |
| EUT: | 3-in-1 Wireless Charger | Power Rating: | AC 120V/60Hz | Test Engineer: | Jack |
| M/N.: | CD278 | | | | |
| Mode: | Wireless Charging for iphone | | | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 | 0.1500 | 38.86 | 9.60 | 48.46 | 65.99 | -17.53 | QP | |
| 2 | 0.1500 | 20.60 | 9.60 | 30.20 | 55.99 | -25.79 | AVG | |
| 3 * | 0.1819 | 42.97 | 9.61 | 52.58 | 64.39 | -11.81 | QP | |
| 4 | 0.1819 | 28.19 | 9.61 | 37.80 | 54.39 | -16.59 | AVG | |
| 5 | 0.2300 | 38.87 | 9.63 | 48.50 | 62.45 | -13.95 | QP | |
| 6 | 0.2300 | 24.76 | 9.63 | 34.39 | 52.45 | -18.06 | AVG | |
| 7 | 0.2700 | 34.50 | 9.63 | 44.13 | 61.12 | -16.99 | QP | |
| 8 | 0.2700 | 20.54 | 9.63 | 30.17 | 51.12 | -20.95 | AVG | |
| 9 | 0.3140 | 29.95 | 9.63 | 39.58 | 59.86 | -20.28 | QP | |
| 10 | 0.3140 | 17.94 | 9.63 | 27.57 | 49.86 | -22.29 | AVG | |
| 11 | 0.5780 | 30.46 | 9.67 | 40.13 | 56.00 | -15.87 | QP | |
| 12 | 0.5780 | 18.41 | 9.67 | 28.08 | 46.00 | -17.92 | AVG | |

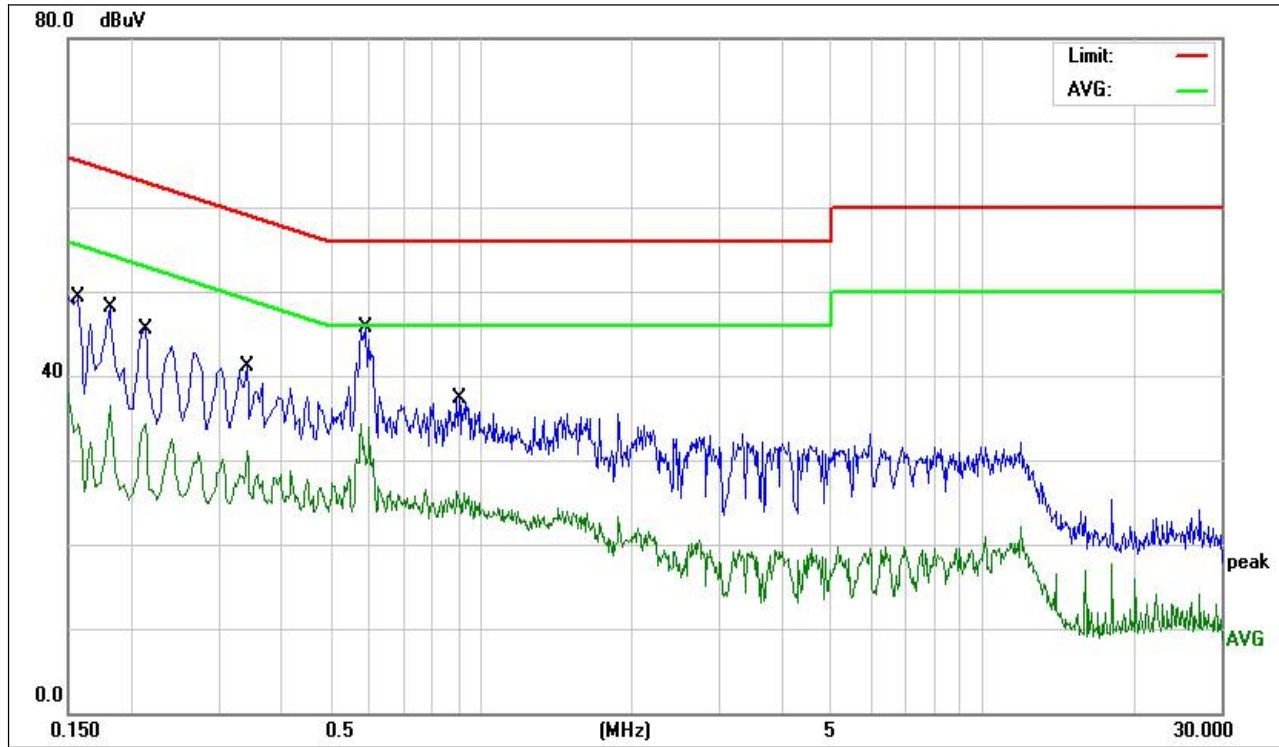


Test mode: Wireless Charging for Apple Watch



| | | | | | |
|---------------|--|-----------------------|---------------------|------------------------|--------------|
| Site: | 843 | Phase: | N | Temperature(C): | 26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | | | Humidity(%): | 60% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/26 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for Apple Watch | Test Engineer: | Jack | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 * | 0.1539 | 39.20 | 9.60 | 48.80 | 65.78 | -16.98 | QP | |
| 2 | 0.1539 | 25.77 | 9.60 | 35.37 | 55.78 | -20.41 | AVG | |
| 3 | 0.1860 | 36.94 | 9.62 | 46.56 | 64.21 | -17.65 | QP | |
| 4 | 0.1860 | 24.36 | 9.62 | 33.98 | 54.21 | -20.23 | AVG | |
| 5 | 0.2180 | 34.76 | 9.62 | 44.38 | 62.89 | -18.51 | QP | |
| 6 | 0.2180 | 21.43 | 9.62 | 31.05 | 52.89 | -21.84 | AVG | |
| 7 | 0.2779 | 28.10 | 9.63 | 37.73 | 60.88 | -23.15 | QP | |
| 8 | 0.2779 | 17.61 | 9.63 | 27.24 | 50.88 | -23.64 | AVG | |
| 9 | 0.3460 | 22.51 | 9.63 | 32.14 | 59.06 | -26.92 | QP | |
| 10 | 0.3460 | 15.62 | 9.63 | 25.25 | 49.06 | -23.81 | AVG | |
| 11 | 0.5980 | 27.64 | 9.67 | 37.31 | 56.00 | -18.69 | QP | |
| 12 | 0.5980 | 19.30 | 9.67 | 28.97 | 46.00 | -17.03 | AVG | |

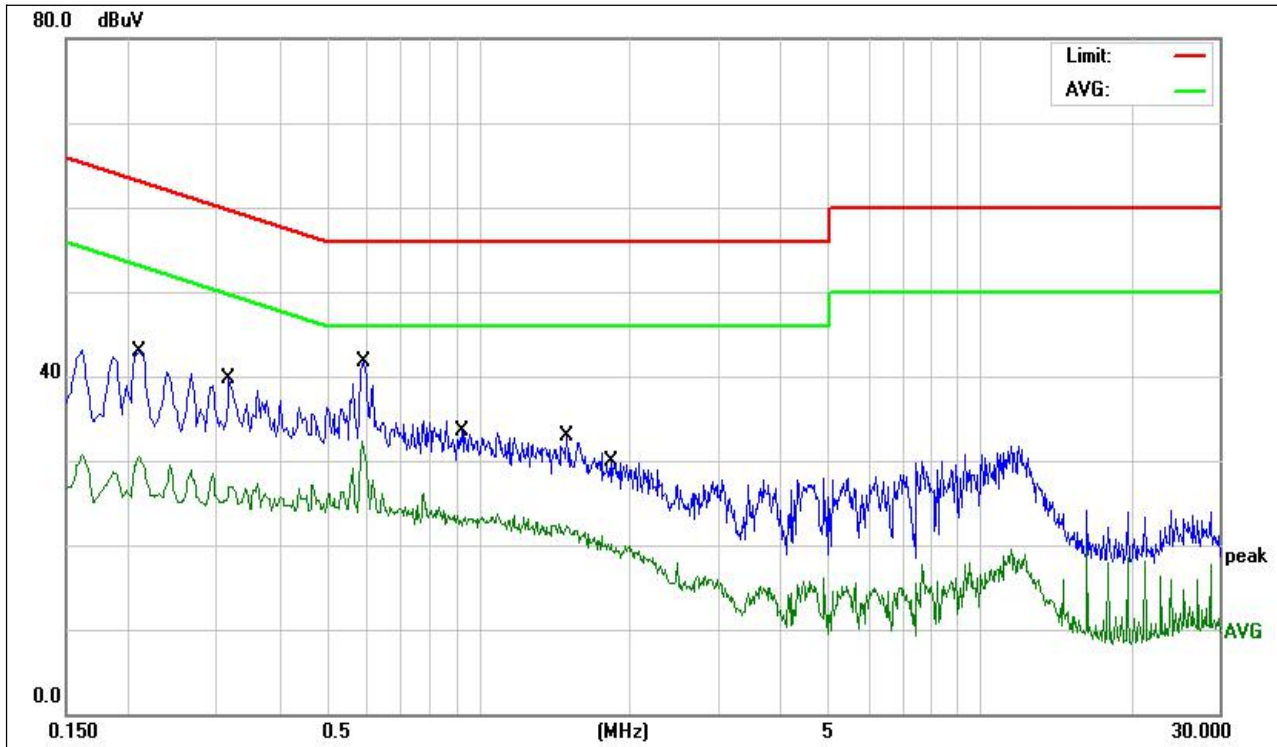


| | | | |
|--------|-----------------------------------|----------------|----------------------|
| Site: | 843 | Phase:L1 | Temperature(C):26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | | Humidity(%):60% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/26 |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz |
| Mode: | Wireless Charging for Apple Watch | Test Engineer: | Jack |
| Note: | | | |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 | 0.1580 | 33.80 | 9.60 | 43.40 | 65.56 | -22.16 | QP | |
| 2 | 0.1580 | 20.00 | 9.60 | 29.60 | 55.56 | -25.96 | AVG | |
| 3 | 0.1819 | 35.10 | 9.61 | 44.71 | 64.39 | -19.68 | QP | |
| 4 | 0.1819 | 23.14 | 9.61 | 32.75 | 54.39 | -21.64 | AVG | |
| 5 | 0.2140 | 32.99 | 9.62 | 42.61 | 63.04 | -20.43 | QP | |
| 6 | 0.2140 | 21.23 | 9.62 | 30.85 | 53.04 | -22.19 | AVG | |
| 7 | 0.3420 | 23.10 | 9.63 | 32.73 | 59.15 | -26.42 | QP | |
| 8 | 0.3420 | 15.94 | 9.63 | 25.57 | 49.15 | -23.58 | AVG | |
| 9 * | 0.5899 | 32.20 | 9.67 | 41.87 | 56.00 | -14.13 | QP | |
| 10 | 0.5899 | 20.09 | 9.67 | 29.76 | 46.00 | -16.24 | AVG | |
| 11 | 0.9060 | 21.34 | 9.67 | 31.01 | 56.00 | -24.99 | QP | |
| 12 | 0.9060 | 14.73 | 9.67 | 24.40 | 46.00 | -21.60 | AVG | |

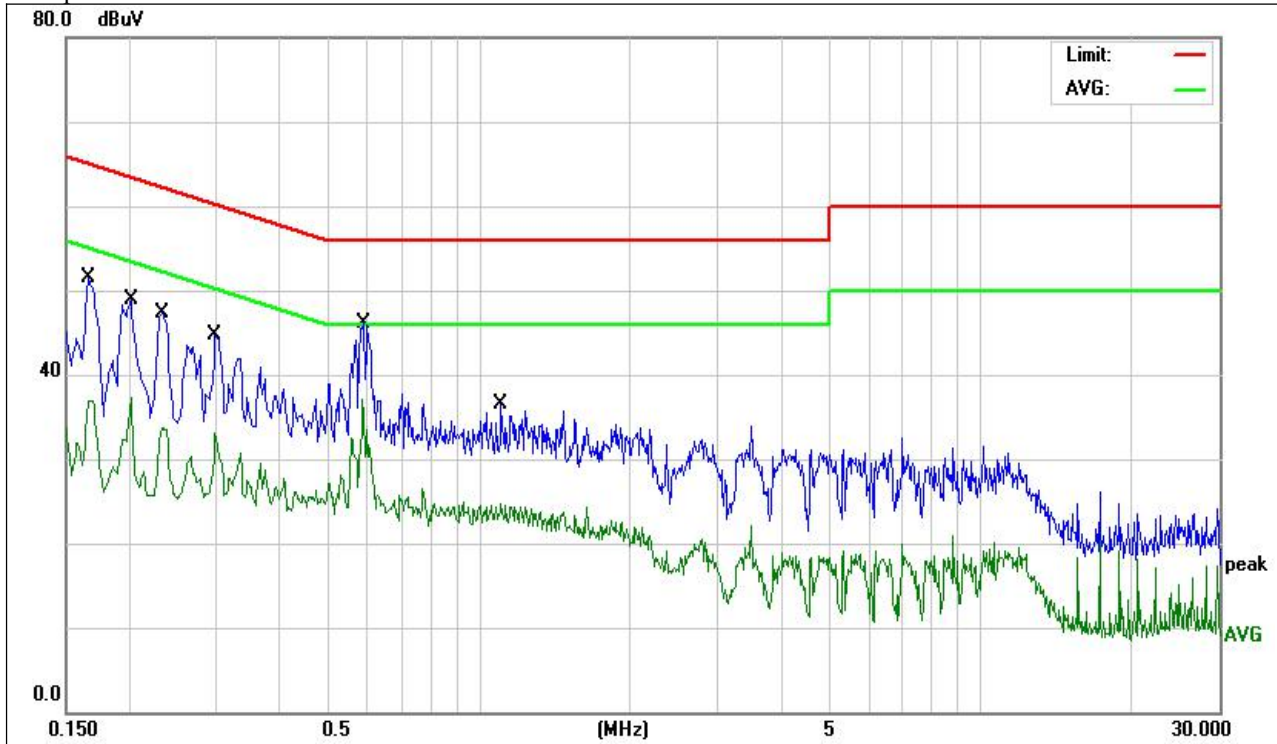


Test mode: Wireless Charging for Airpods



| | | | | | |
|---------------|-------------------------------|-----------------------|--------------|------------------------|-------|
| Site: | 843 | Phase: | N | Temperature(C): | 26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | | | Humidity(%): | 60% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/26 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for Airpods | Test Engineer: | Jack | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 | 0.2100 | 28.72 | 9.62 | 38.34 | 63.20 | -24.86 | QP | |
| 2 | 0.2100 | 18.76 | 9.62 | 28.38 | 53.20 | -24.82 | AVG | |
| 3 | 0.3180 | 25.52 | 9.63 | 35.15 | 59.76 | -24.61 | QP | |
| 4 | 0.3180 | 17.27 | 9.63 | 26.90 | 49.76 | -22.86 | AVG | |
| 5 | 0.5899 | 28.73 | 9.67 | 38.40 | 56.00 | -17.60 | QP | |
| 6 * | 0.5899 | 20.82 | 9.67 | 30.49 | 46.00 | -15.51 | AVG | |
| 7 | 0.9260 | 18.70 | 9.68 | 28.38 | 56.00 | -27.62 | QP | |
| 8 | 0.9260 | 13.56 | 9.68 | 23.24 | 46.00 | -22.76 | AVG | |
| 9 | 1.4980 | 17.09 | 9.75 | 26.84 | 56.00 | -29.16 | QP | |
| 10 | 1.4980 | 12.00 | 9.75 | 21.75 | 46.00 | -24.25 | AVG | |
| 11 | 1.8340 | 14.96 | 9.78 | 24.74 | 56.00 | -31.26 | QP | |
| 12 | 1.8340 | 10.08 | 9.78 | 19.86 | 46.00 | -26.14 | AVG | |

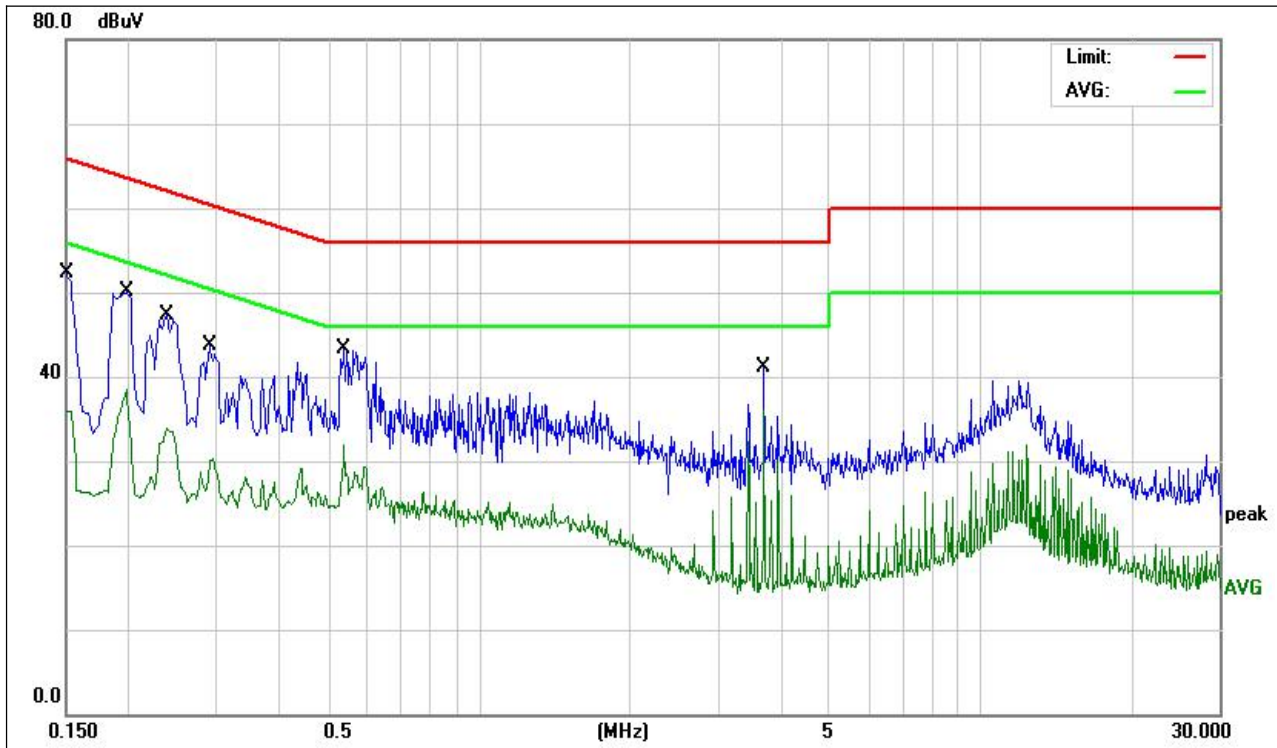


| | | | |
|---------------|--------------------------------------|-----------------------|-----------------------------|
| Site: | 843 | Phase:L1 | Temperature(C):26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | | Humidity(%):60% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/26 |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz |
| Mode: | Wireless Charging for Airpods | Test Engineer: | Jack |
| Note: | | | |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 | 0.1660 | 25.99 | 9.61 | 35.60 | 65.15 | -29.55 | QP | |
| 2 | 0.1660 | 17.49 | 9.61 | 27.10 | 55.15 | -28.05 | AVG | |
| 3 | 0.2020 | 26.99 | 9.62 | 36.61 | 63.52 | -26.91 | QP | |
| 4 | 0.2020 | 17.16 | 9.62 | 26.78 | 53.52 | -26.74 | AVG | |
| 5 | 0.2340 | 25.98 | 9.63 | 35.61 | 62.30 | -26.69 | QP | |
| 6 | 0.2340 | 17.75 | 9.63 | 27.38 | 52.30 | -24.92 | AVG | |
| 7 | 0.2980 | 24.41 | 9.63 | 34.04 | 60.30 | -26.26 | QP | |
| 8 | 0.2980 | 17.39 | 9.63 | 27.02 | 50.30 | -23.28 | AVG | |
| 9 | 0.5899 | 33.26 | 9.67 | 42.93 | 56.00 | -13.07 | QP | |
| 10 | 0.5899 | 25.65 | 9.67 | 35.32 | 46.00 | -10.68 | AVG | |
| * | | | | | | | | |
| 11 | 1.1100 | 19.80 | 9.72 | 29.52 | 56.00 | -26.48 | QP | |
| 12 | 1.1100 | 13.82 | 9.72 | 23.54 | 46.00 | -22.46 | AVG | |

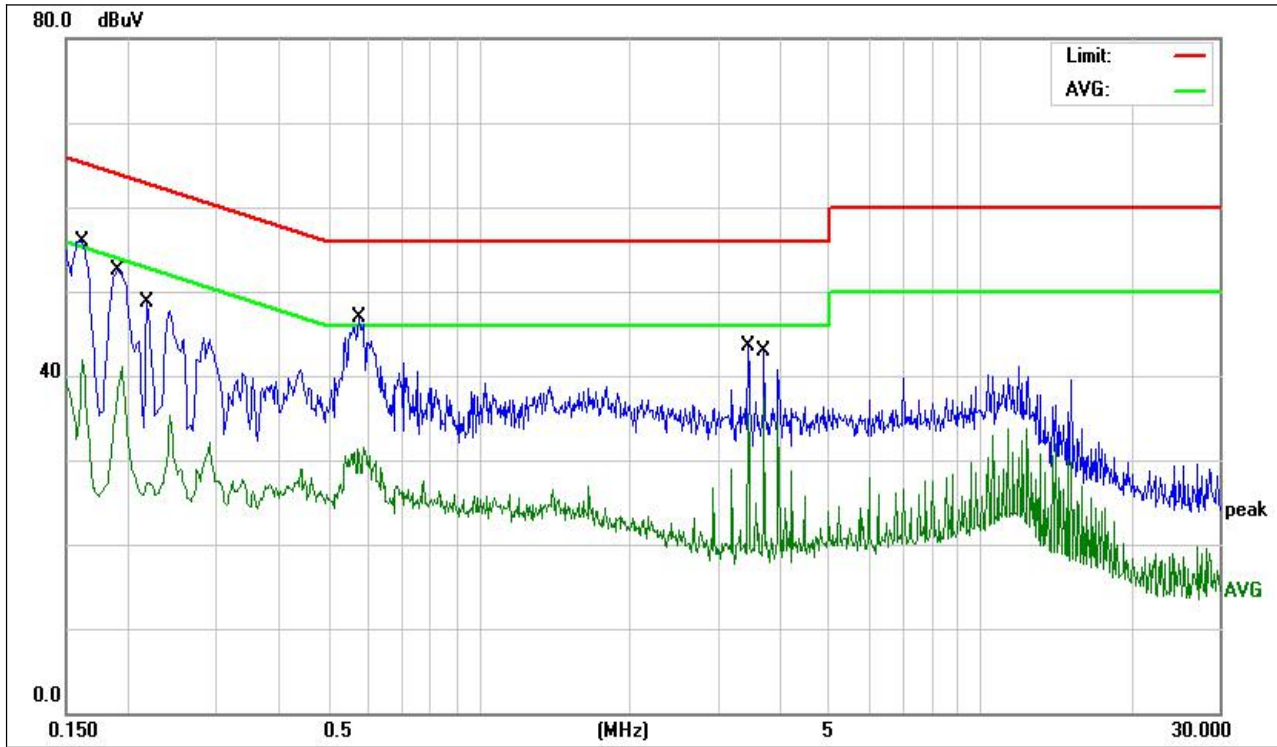


Test mode: Wireless Charging for iPhone+Apple Watch+Airpods



| | | | | | |
|---------------|--|-----------------------|--------------|------------------------|-------|
| Site: | 843 | Phase: | N | Temperature(C): | 26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | | | Humidity(%): | 60% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/26 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for iPhone+Apple Watch+Airpods | Test Engineer: | Jack | | |
| Note: | | | | | |

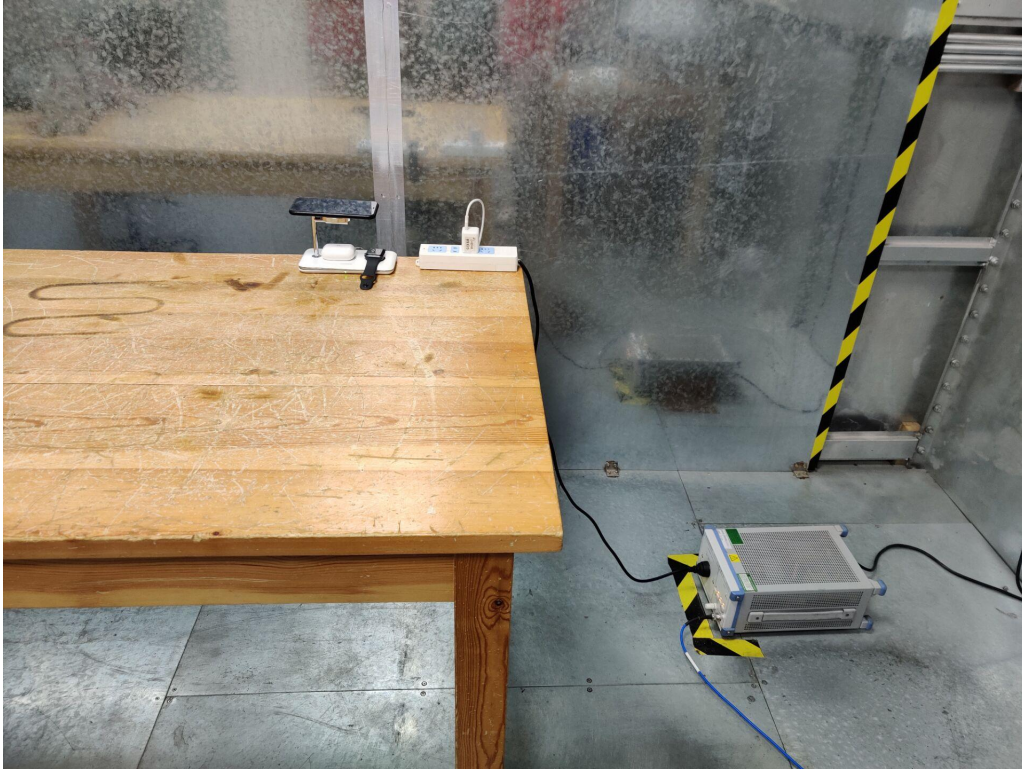
| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 | 0.1500 | 41.75 | 9.60 | 51.35 | 65.99 | -14.64 | QP | |
| 2 | 0.1500 | 26.76 | 9.60 | 36.36 | 55.99 | -19.63 | AVG | |
| 3 | 0.1980 | 37.25 | 9.62 | 46.87 | 63.69 | -16.82 | QP | |
| 4 | 0.1980 | 23.56 | 9.62 | 33.18 | 53.69 | -20.51 | AVG | |
| 5 | 0.2380 | 33.55 | 9.63 | 43.18 | 62.16 | -18.98 | QP | |
| 6 | 0.2380 | 20.94 | 9.63 | 30.57 | 52.16 | -21.59 | AVG | |
| 7 | 0.2900 | 28.64 | 9.63 | 38.27 | 60.52 | -22.25 | QP | |
| 8 | 0.2900 | 17.91 | 9.63 | 27.54 | 50.52 | -22.98 | AVG | |
| 9 | 0.5380 | 27.06 | 9.66 | 36.72 | 56.00 | -19.28 | QP | |
| 10 | 0.5380 | 17.00 | 9.66 | 26.66 | 46.00 | -19.34 | AVG | |
| 11 | 3.7060 | 27.96 | 9.83 | 37.79 | 56.00 | -18.21 | QP | |
| 12 | 3.7060 | 24.42 | 9.83 | 34.25 | 46.00 | -11.75 | AVG | |
| * | | | | | | | | |



| | | | |
|--------|--|----------------|----------------------|
| Site: | 843 | Phase:L1 | Temperature(C):26(C) |
| Limit: | FCC Part 18 C Conduction(QP) | | Humidity(%):60% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/26 |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz |
| Mode: | Wireless Charging for iPhone+Apple Watch+Airpods | Test Engineer: | Jack |
| Note: | | | |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measurement(dBuV) | Limit (dBuV) | Over (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|-------------------|--------------|-----------|----------|---------|
| 1 | 0.1620 | 22.72 | 9.61 | 32.33 | 65.36 | -33.03 | QP | |
| 2 | 0.1620 | 16.44 | 9.61 | 26.05 | 55.36 | -29.31 | AVG | |
| 3 | 0.1900 | 39.10 | 9.62 | 48.72 | 64.03 | -15.31 | QP | |
| 4 | 0.1900 | 24.91 | 9.62 | 34.53 | 54.03 | -19.50 | AVG | |
| 5 | 0.2180 | 22.88 | 9.62 | 32.50 | 62.89 | -30.39 | QP | |
| 6 | 0.2180 | 16.05 | 9.62 | 25.67 | 52.89 | -27.22 | AVG | |
| 7 | 0.5780 | 33.38 | 9.67 | 43.05 | 56.00 | -12.95 | QP | |
| 8 | 0.5780 | 21.00 | 9.67 | 30.67 | 46.00 | -15.33 | AVG | |
| 9 | 3.4500 | 29.42 | 9.81 | 39.23 | 56.00 | -16.77 | QP | |
| 10 | 3.4500 | 24.26 | 9.81 | 34.07 | 46.00 | -11.93 | AVG | |
| 11 | 3.7060 | 32.66 | 9.83 | 42.49 | 56.00 | -13.51 | QP | |
| 12 | 3.7060 | 27.45 | 9.83 | 37.28 | 46.00 | -8.72 | AVG | |
| * | | | | | | | | |

5.6 Conducted Measurement Photo



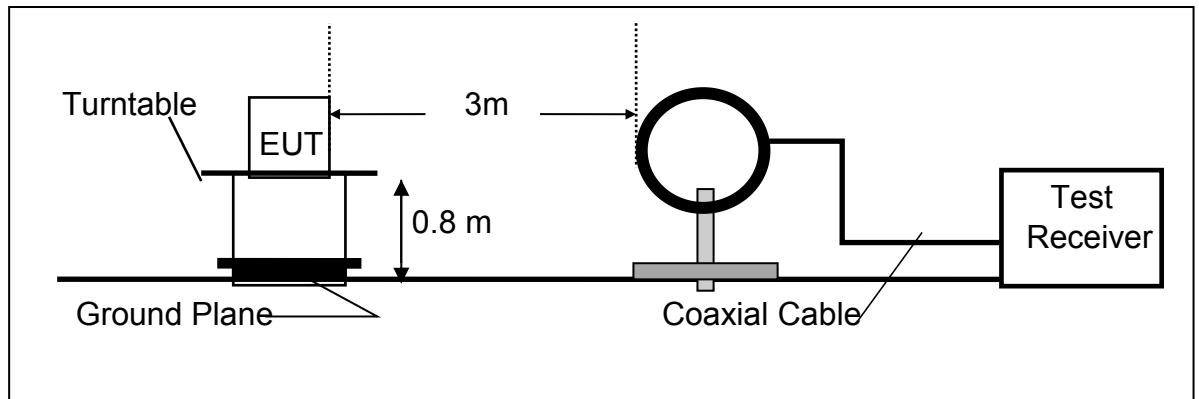
6 Radiated Emission Test

6.1 Measurement Procedure

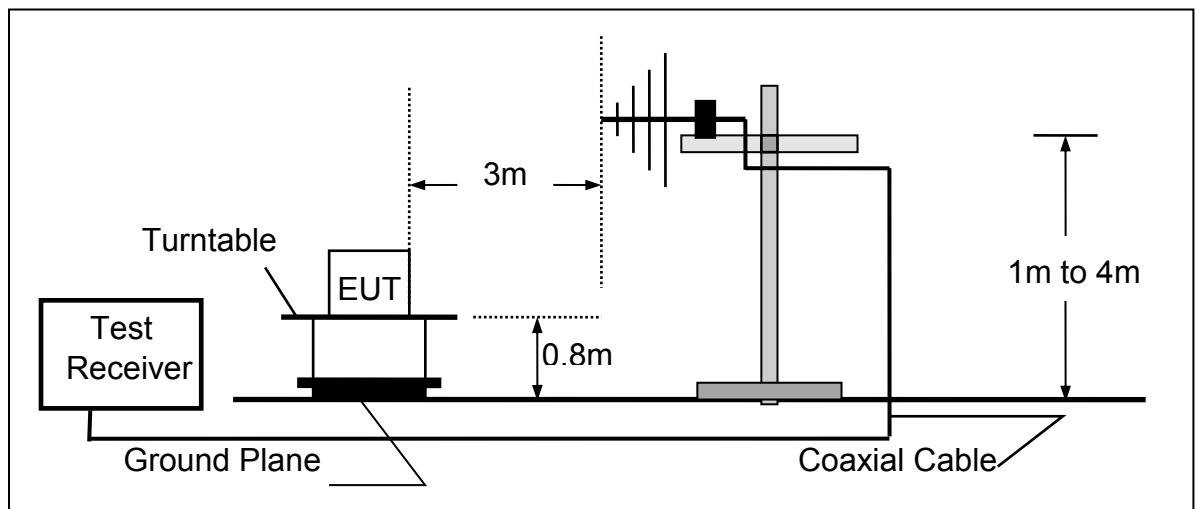
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

6.2 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



6.3 Measurement Equipment Used

| Item | Equipment | Manufacturer | Model No. | Serial No. | Calibrated until |
|------|--------------------------|--------------------|------------------------|--------------|------------------|
| 1. | EMI Test Receiver | Rohde & Schwarz | ESPI | 100502 | 2021/11/19 |
| 2. | Pre-Amplifier | HP | 8447D | 2727A06172 | 2022-05-23 |
| 3. | Bilog Antenna | Schwarzbeck | VULB9163 | VULB9163-588 | 2022-05-23 |
| 4. | Loop Antenna | Schwarzbeck | FMZB 1516 | 1516-141 | 2021/11/19 |
| 5. | RF Cable | Gigalink Microwave | ZT40-2.92J-2.92 J-2m | N/A | 2021/11/19 |
| 6. | RF Cable | Gigalink Microwave | ZT40-2.92J-2.92 J-0.3m | N/A | 2021/11/19 |
| 7. | RF Cable | N/A | N/A | 6# | 2022-05-23 |
| 8. | 3m Semi-anechoic Chamber | chengyu | 9m*6m*6m | N/A | 2022-05-23 |
| 9. | Test Software | Farad | EZ-EMC Ver:ANCI-3A1 | N/A | N/A |

6.4 Radiated Emission Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

| FCC Part 15.209 | | | | |
|-----------------|---------------------------|------|---|-------------------------|
| Frequency (MHz) | Field Strength Limitation | | Field Strength Limitation Frequency tion at 3m Measurement Dist | |
| | (uV/m) | Dist | (uV/m) | (dBuV/m) |
| 0.009 – 0.490 | 2400 / F(KHz) | 300m | 10000 * 2400/F(KHz) | 20log 2400/F(KHz) + 80 |
| 0.490 – 1.705 | 24000 / F(KHz) | 30m | 100 * 24000/F(KHz) | 20log 24000/F(KHz) + 40 |
| 1.705 – 30.00 | 30 | 30m | 100* 30 | 20log 30 + 40 |
| 30.0 – 88.0 | 100 | 3m | 100 | 20log 100 |
| 88.0 – 216.0 | 150 | 3m | 150 | 20log 150 |
| 216.0 – 960.0 | 200 | 3m | 200 | 20log 200 |
| Above 960.0 | 500 | 3m | 500 | 20log 500 |



15.205 Restricted bands of operation

| MHz | MHz | MHz | GHz |
|----------------------------|-----------------------|-----------------|------------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - 156.52525 | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.7 - 156.9 | 2690 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 162.0125 - 167.17 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 167.72 - 173.2 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 240 - 285 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 - 335.4 | 3600 - 4400 | (²) |

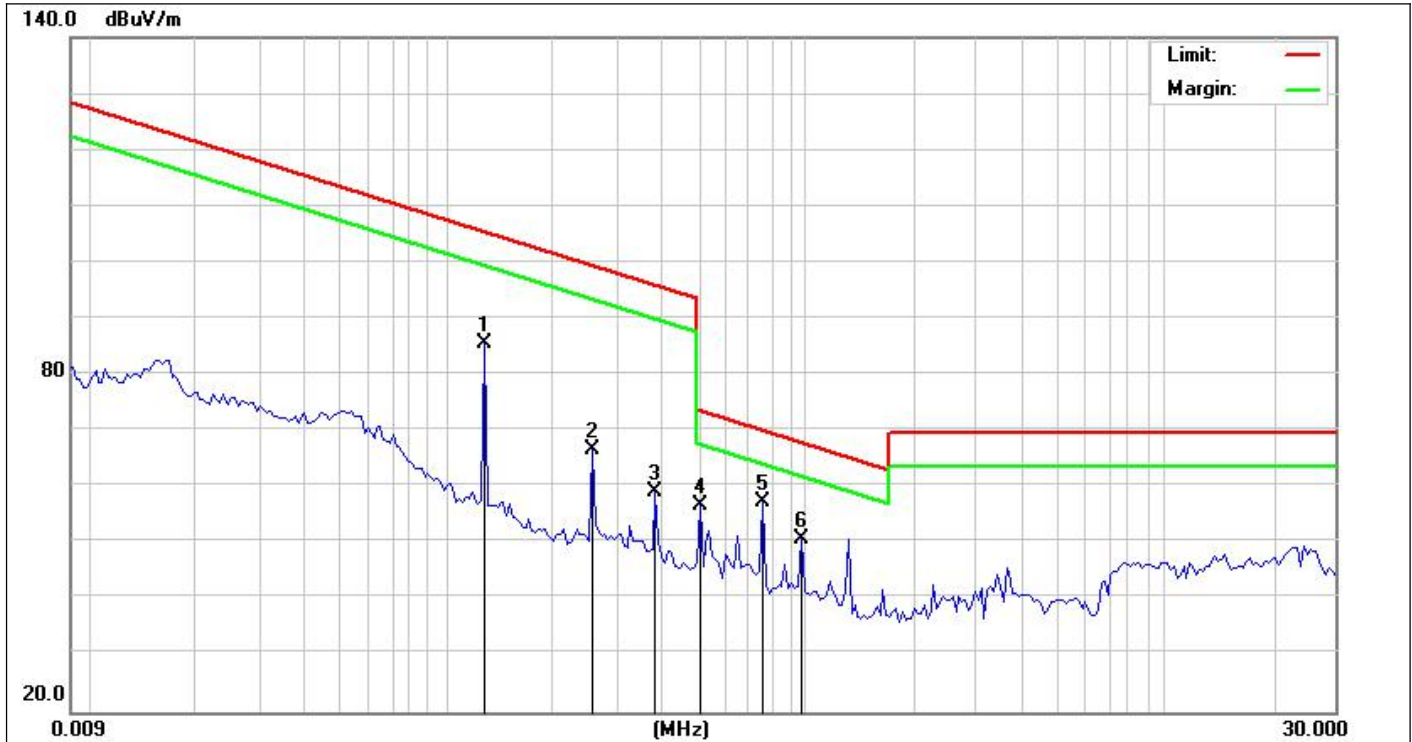
- Remark:
1. Emission level in dBuV/m=20 log (uV/m)
 2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
 3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.



6.5 Measurement Result

We pretested modes (Wireless Charging for iphone, Wireless Charging for Apple Watch, Wireless Charging for Airpods, Wireless Charging for iphone+Apple Watch+Airpods) for EUT. The worst mode test data see follow the table.

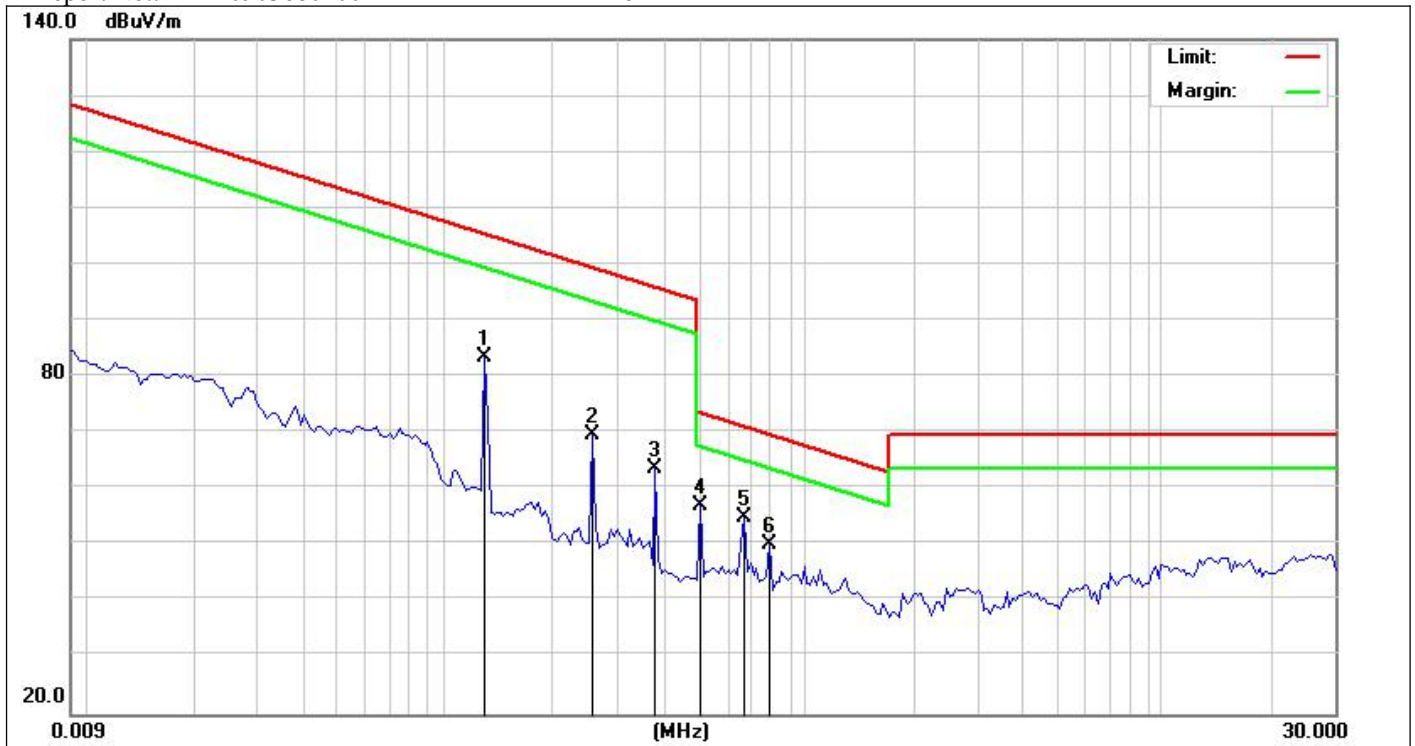
Test mode: Wireless Charging for iphone



| | | | |
|--------|-------------------------------|-------------------|-------------------------|
| Site: | LAB | Antenna: Vertical | Temperature(C): 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | Humidity(%): 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz |
| Mode: | Wireless Charging for iphone | Test Engineer: | sunshine |
| Note: | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.1280 | 79.33 | 6.20 | 85.53 | 105.39 | -19.86 | QP | 100 | 236 | |
| 2 | 0.2555 | 61.03 | 5.60 | 66.63 | 99.42 | -32.79 | QP | 100 | 254 | |
| 3 | 0.3830 | 53.09 | 5.97 | 59.06 | 95.92 | -36.86 | QP | 100 | 120 | |
| 4 | 0.5090 | 50.34 | 6.31 | 56.65 | 73.47 | -16.82 | QP | 100 | 103 | |
| 5 * | 0.7638 | 50.82 | 6.50 | 57.32 | 69.95 | -12.63 | QP | 100 | 271 | |
| 6 | 0.9743 | 44.53 | 6.09 | 50.62 | 67.85 | -17.23 | QP | 100 | 152 | |

*:Maximum data x:Over limit !:over margin



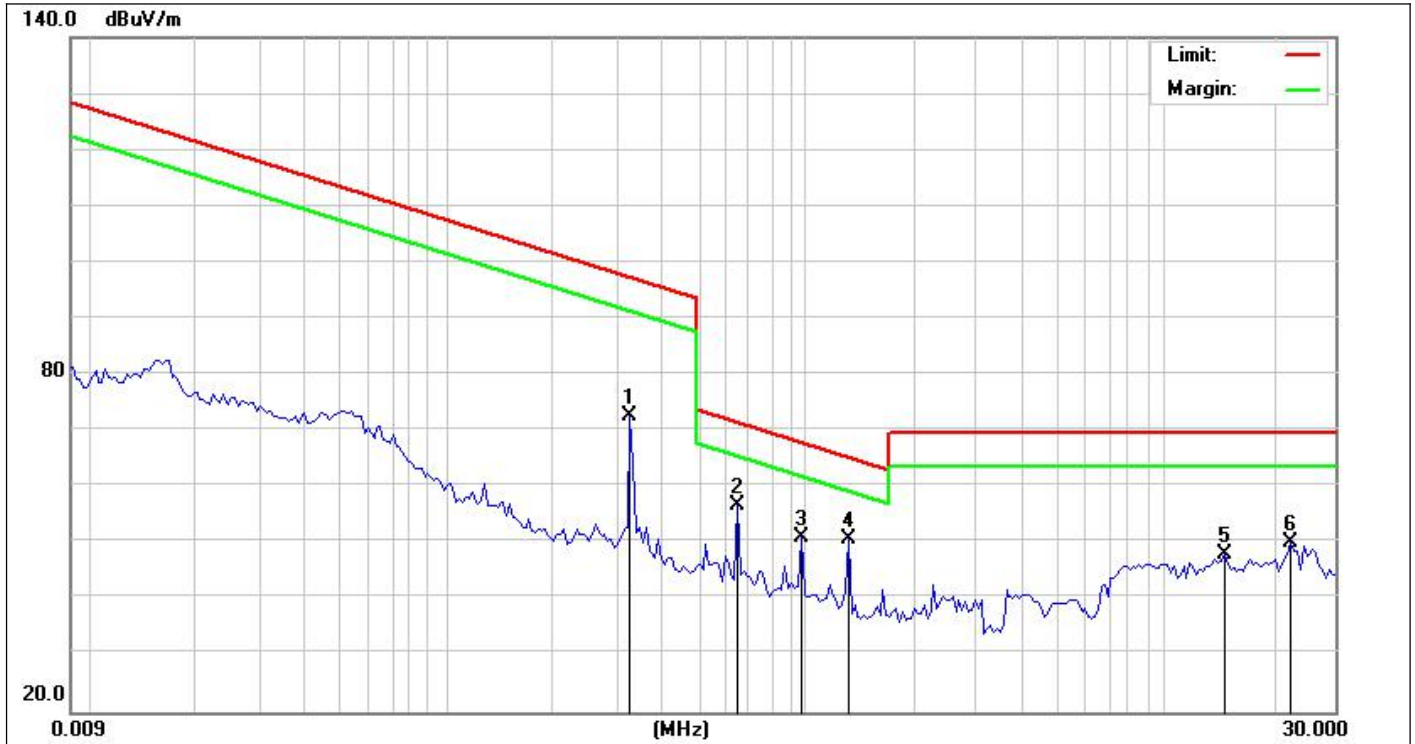
| | | | | | |
|--------|-------------------------------|----------------|------------|-----------------|--------------|
| Site: | LAB | Antenna:: | Horizontal | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for iphone | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.1282 | 77.33 | 6.20 | 83.53 | 105.37 | -21.84 | QP | 100 | 236 | |
| 2 | 0.2555 | 64.03 | 5.60 | 69.63 | 99.42 | -29.79 | QP | 100 | 254 | |
| 3 | 0.3830 | 57.59 | 5.97 | 63.56 | 95.92 | -32.36 | QP | 100 | 120 | |
| 4 | 0.5090 | 50.84 | 6.31 | 57.15 | 73.47 | -16.32 | QP | 100 | 103 | |
| 5 * | 0.6764 | 48.60 | 6.46 | 55.06 | 71.01 | -15.95 | QP | 100 | 271 | |
| 6 | 0.7953 | 43.74 | 6.44 | 50.18 | 69.60 | -19.42 | QP | 100 | 152 | |

- Note:**
- (1) All Readings are Peak Value.
 - (2) Emission Level= Reading Level+Probe Factor +Cable Loss.
 - (3) The average measurement was not performed when the peak measured data under the limit of average detection.
 - (4) EUT lying on the table position is the worst case result in the report.



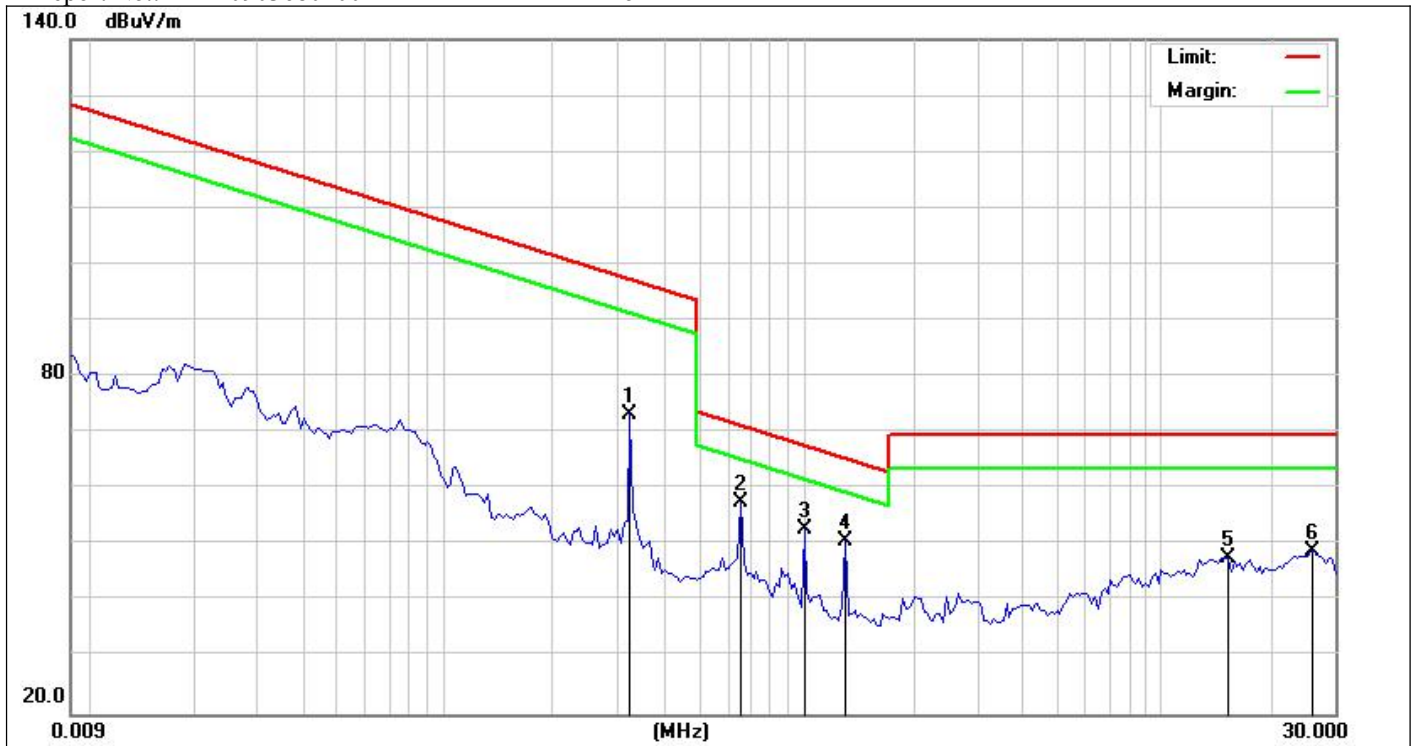
Test mode: Wireless Charging for Apple Watch



| | | | | | |
|--------|-----------------------------------|----------------|----------|-----------------|--------------|
| Site: | LAB | Antenna:: | Vertical | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for Apple Watch | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.3259 | 66.95 | 5.80 | 72.75 | 97.32 | -24.57 | QP | 100 | 36 | |
| 2 | 0.6491 | 50.32 | 6.44 | 56.76 | 71.36 | -14.60 | QP | 100 | 33 | |
| 3 | 0.9743 | 45.03 | 6.09 | 51.12 | 67.85 | -16.73 | QP | 100 | 38 | |
| 4 * | 1.3204 | 44.50 | 6.15 | 50.65 | 65.21 | -14.56 | QP | 100 | 26 | |
| 5 | 14.7522 | 41.17 | 6.93 | 48.10 | 69.50 | -21.40 | QP | 100 | 77 | |
| 6 | 22.5849 | 43.49 | 6.56 | 50.05 | 69.50 | -19.45 | QP | 100 | 86 | |

*:Maximum data x:Over limit !:over margin

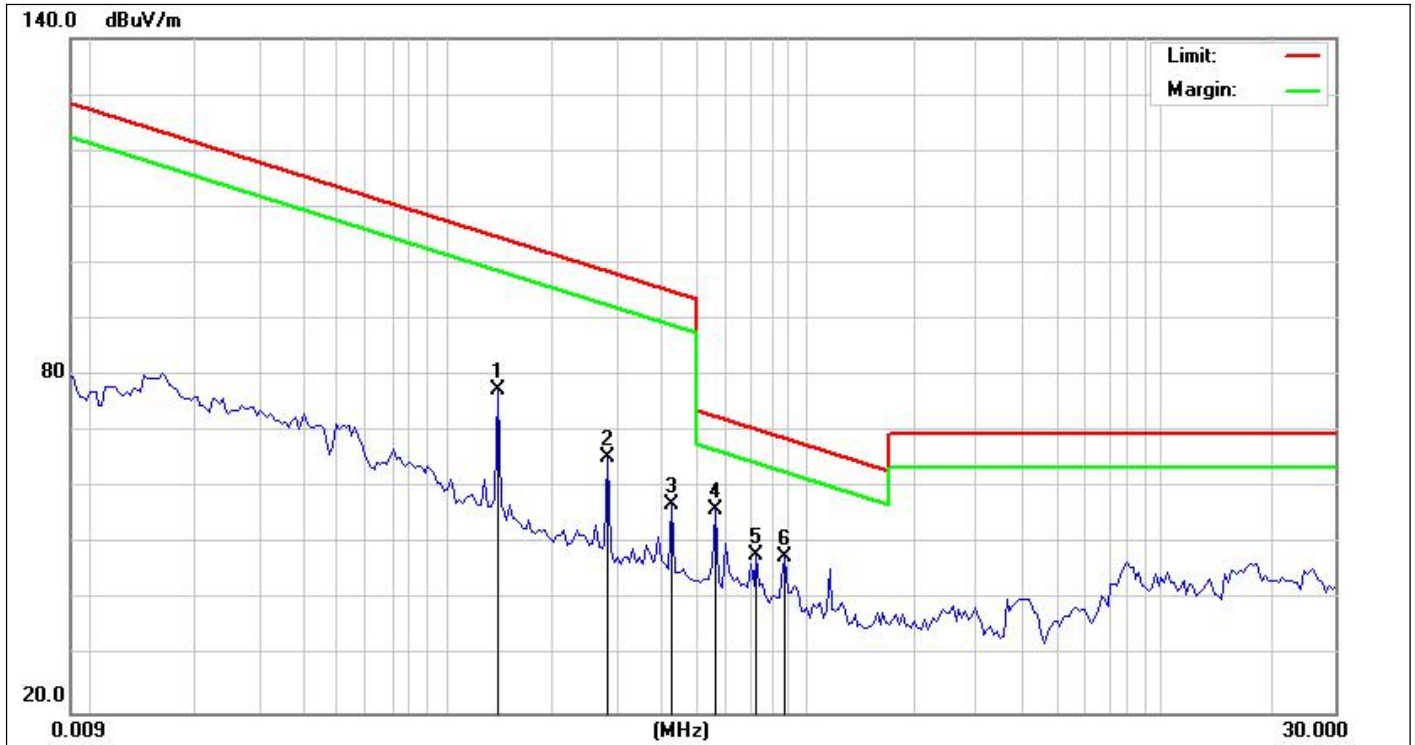


| | | | | | |
|--------|-----------------------------------|----------------|------------|-----------------|--------------|
| Site: | LAB | Antenna:: | Horizontal | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for Apple Watch | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.3265 | 67.45 | 5.80 | 73.25 | 97.30 | -24.05 | QP | 100 | 36 | |
| 2 * | 0.6540 | 51.16 | 6.44 | 57.60 | 71.30 | -13.70 | QP | 100 | 33 | |
| 3 | 0.9939 | 46.66 | 6.05 | 52.71 | 67.67 | -14.96 | QP | 100 | 38 | |
| 4 | 1.2942 | 44.59 | 6.13 | 50.72 | 65.39 | -14.67 | QP | 100 | 26 | |
| 5 | 15.0548 | 40.90 | 6.95 | 47.85 | 69.50 | -21.65 | QP | 100 | 77 | |
| 6 | 26.0298 | 43.16 | 5.89 | 49.05 | 69.50 | -20.45 | QP | 100 | 86 | |

- Note:**
- (1) All Readings are Peak Value.
 - (2) Emission Level= Reading Level+Probe Factor +Cable Loss.
 - (3) The average measurement was not performed when the peak measured data under the limit of average detection.
 - (4) EUT lying on the table position is the worst case result in the report.

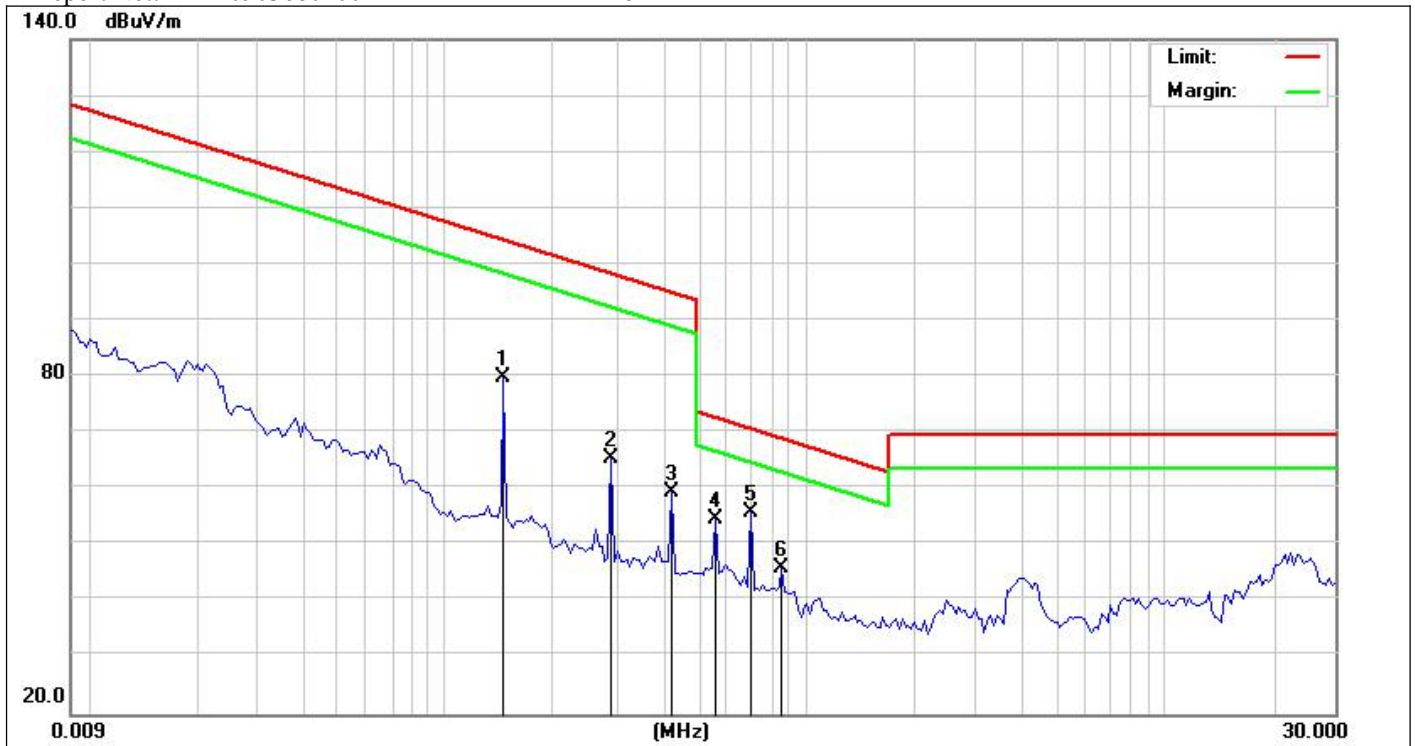
Test mode: Wireless Charging for Airpods



| | | | |
|--------|-------------------------------|-------------------|-------------------------|
| Site: | LAB | Antenna: Vertical | Temperature(C): 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | Humidity(%): 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz |
| Mode: | Wireless Charging for Airpods | Test Engineer: | sunshine |
| Note: | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.1411 | 71.27 | 6.14 | 77.41 | 104.55 | -27.14 | QP | 100 | 109 | |
| 2 | 0.2827 | 59.71 | 5.68 | 65.39 | 98.55 | -33.16 | QP | 100 | 93 | |
| 3 | 0.4242 | 50.88 | 6.09 | 56.97 | 95.04 | -38.07 | QP | 100 | 67 | |
| 4 * | 0.5635 | 49.68 | 6.36 | 56.04 | 72.59 | -16.55 | QP | 100 | 52 | |
| 5 | 0.7335 | 41.45 | 6.50 | 47.95 | 70.30 | -22.35 | QP | 100 | 26 | |
| 6 | 0.8800 | 41.56 | 6.27 | 47.83 | 68.73 | -20.90 | QP | 100 | 71 | |

*:Maximum data x:Over limit !:over margin



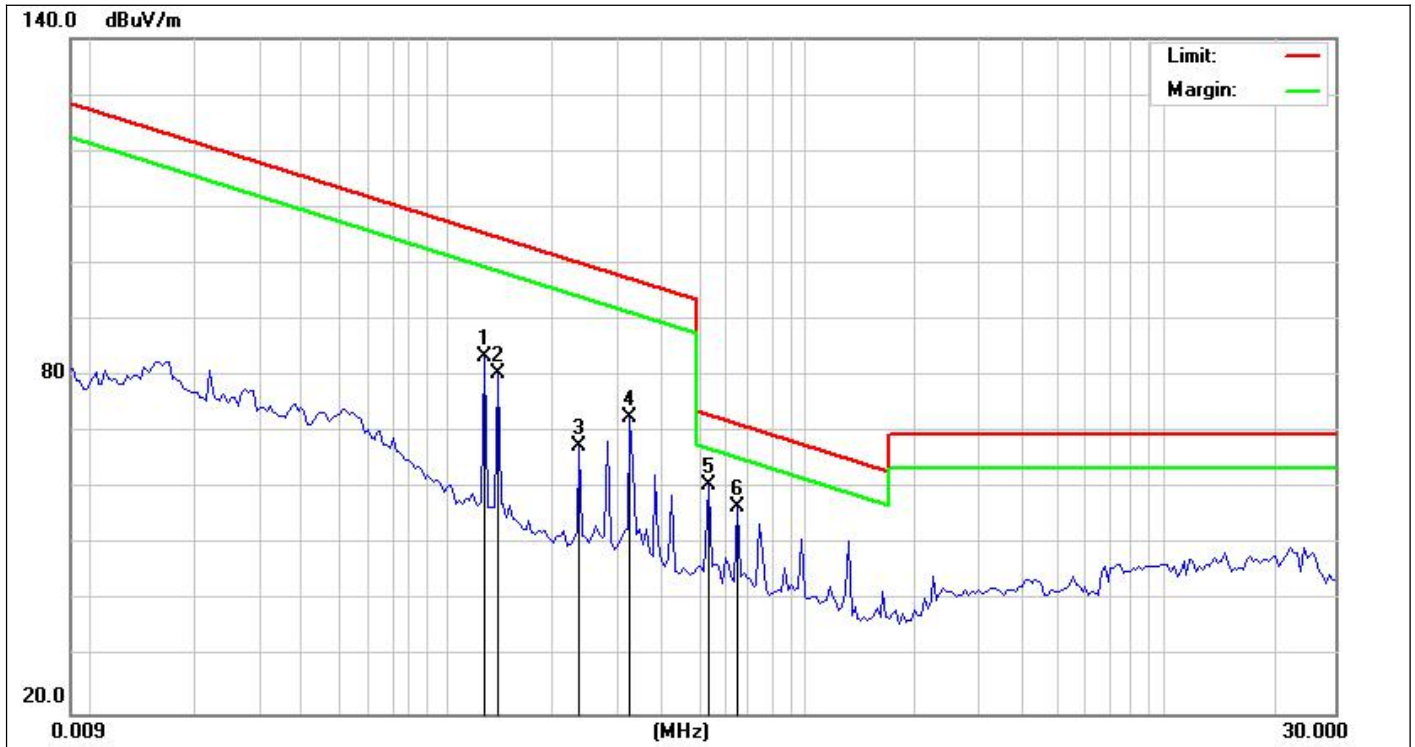
| | | | | | |
|--------|-------------------------------|----------------|------------|-----------------|--------------|
| Site: | LAB | Antenna:: | Horizontal | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for Airpods | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.1411 | 73.78 | 6.12 | 79.90 | 104.32 | -24.42 | QP | 100 | 109 | |
| 2 | 0.2825 | 59.69 | 5.70 | 65.39 | 98.37 | -32.98 | QP | 100 | 93 | |
| 3 | 0.4242 | 53.38 | 6.09 | 59.47 | 95.04 | -35.57 | QP | 100 | 67 | |
| 4 | 0.5635 | 48.18 | 6.36 | 54.54 | 72.59 | -18.05 | QP | 100 | 52 | |
| 5 * | 0.7044 | 49.46 | 6.48 | 55.94 | 70.66 | -14.72 | QP | 100 | 26 | |
| 6 | 0.8627 | 39.59 | 6.30 | 45.89 | 68.90 | -23.01 | QP | 100 | 71 | |

- Note:**
- (1) All Readings are Peak Value.
 - (2) Emission Level= Reading Level+Probe Factor +Cable Loss.
 - (3) The average measurement was not performed when the peak measured data under the limit of average detection.
 - (4) EUT lying on the table position is the worst case result in the report.



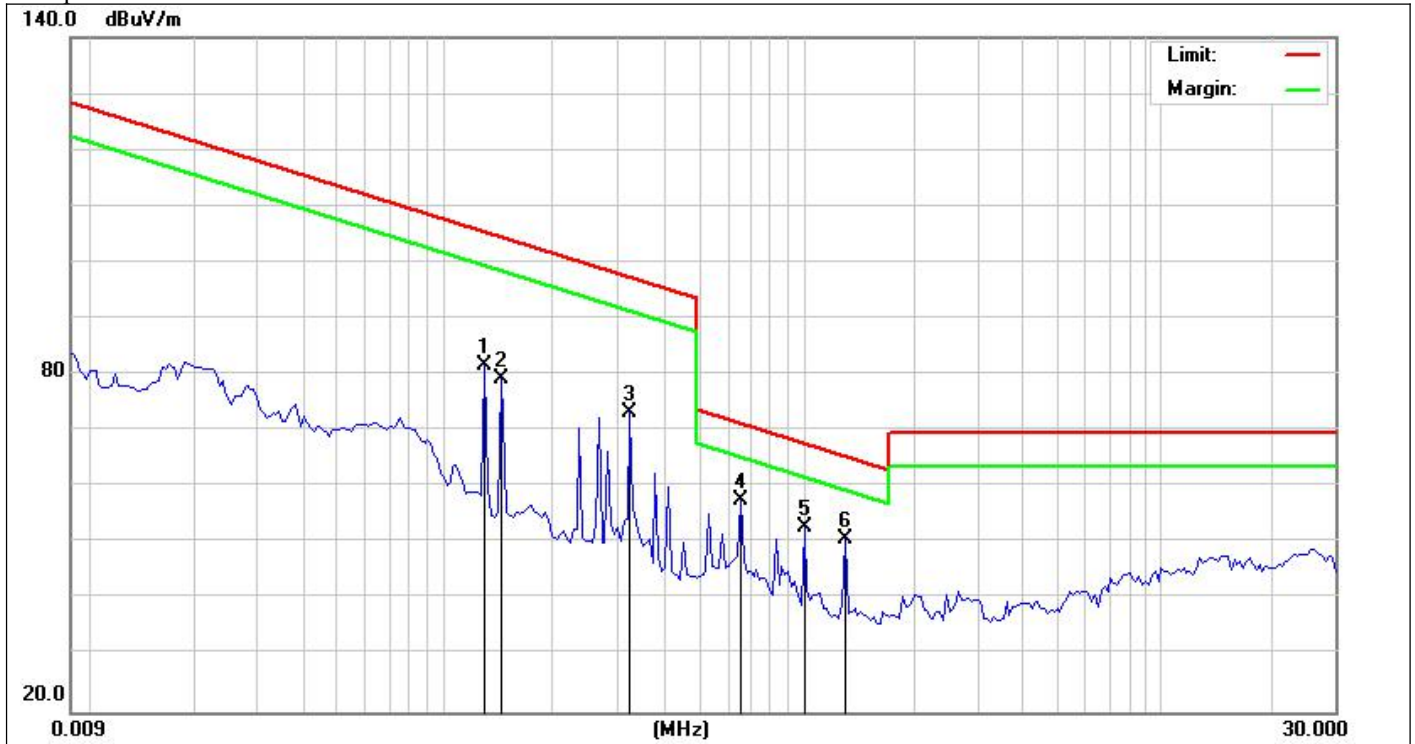
Test mode: Wireless Charging for iPhone+Apple Watch+Airpods



| | | | | | |
|--------|--|----------------|----------|-----------------|--------------|
| Site: | LAB | Antenna:: | Vertical | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for iPhone+Apple Watch+Airpods | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.1282 | 77.33 | 6.20 | 83.53 | 105.37 | -21.84 | QP | 100 | 26 | |
| 2 | 0.1391 | 74.26 | 6.15 | 80.41 | 104.67 | -24.26 | QP | 100 | 39 | |
| 3 | 0.2356 | 62.03 | 5.66 | 67.69 | 100.12 | -32.43 | QP | 100 | 74 | |
| 4 | 0.3259 | 66.95 | 5.80 | 72.75 | 97.32 | -24.57 | QP | 100 | 47 | |
| 5 * | 0.5410 | 54.38 | 6.34 | 60.72 | 72.94 | -12.22 | QP | 100 | 123 | |
| 6 | 0.6491 | 50.32 | 6.44 | 56.76 | 71.36 | -14.60 | QP | 100 | 45 | |

*:Maximum data x:Over limit !:over margin



| | | | | | |
|--------|--|----------------|------------|-----------------|--------------|
| Site: | LAB | Antenna:: | Horizontal | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15C 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for iPhone+Apple Watch+Airpods | Test Engineer: | | | sunshine |
| Note: | | | | | |

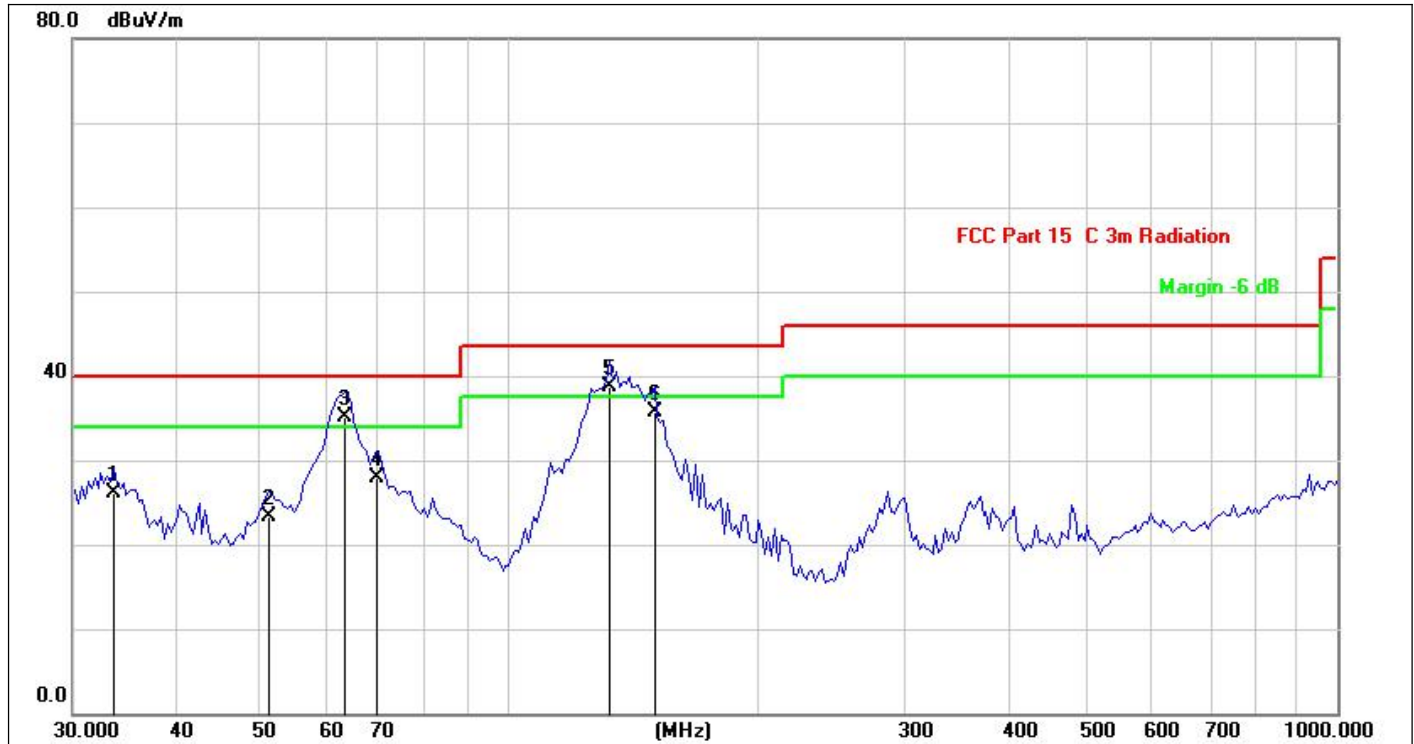
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 0.1280 | 75.33 | 6.20 | 81.53 | 105.39 | -23.86 | QP | 100 | 26 | |
| 2 | 0.1418 | 73.07 | 6.14 | 79.21 | 104.50 | -25.29 | QP | 100 | 39 | |
| 3 | 0.3259 | 67.45 | 5.80 | 73.25 | 97.32 | -24.07 | QP | 100 | 74 | |
| 4 * | 0.6622 | 51.15 | 6.45 | 57.60 | 71.19 | -13.59 | QP | 100 | 47 | |
| 5 | 0.9939 | 46.66 | 6.05 | 52.71 | 67.67 | -14.96 | QP | 100 | 123 | |
| 6 | 1.2942 | 44.59 | 6.13 | 50.72 | 65.39 | -14.67 | QP | 100 | 45 | |

- Note:**
- (1) All Readings are Peak Value.
 - (2) Emission Level= Reading Level+Probe Factor +Cable Loss.
 - (3) The average measurement was not performed when the peak measured data under the limit of average detection.
 - (4) EUT lying on the table position is the worst case result in the report.



We pretested modes (Wireless Charging for iphone, Wireless Charging for Apple Watch, Wireless Charging for Airpods , Wireless Charging for iphone+Apple Watch+Airpods) for EUT. The worst test data see follow the table.

Test mode: Wireless Charging for iphone



| | | | | | |
|---------------|--------------------------------------|-----------------------|--------------|------------------------|---------|
| Site: | LAB | Antenna:: | Vertical | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/28 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for iphone | Test Engineer: | sunshine | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 33.6212 | 44.23 | -18.04 | 26.19 | 40.00 | -13.81 | QP | 100 | 45 | |
| 2 | 51.6615 | 39.29 | -15.94 | 23.35 | 40.00 | -16.65 | QP | 100 | 45 | |
| 3 * | 63.7588 | 51.89 | -16.72 | 35.17 | 40.00 | -4.83 | QP | 100 | 27 | |
| 4 | 69.6004 | 45.89 | -17.99 | 27.90 | 40.00 | -12.10 | QP | 100 | 27 | |
| 5 ! | 133.1511 | 57.21 | -18.54 | 38.67 | 43.50 | -4.83 | QP | 100 | 96 | |
| 6 | 150.5378 | 54.43 | -18.79 | 35.64 | 43.50 | -7.86 | QP | 100 | 96 | |

*:Maximum data x:Over limit !:over margin



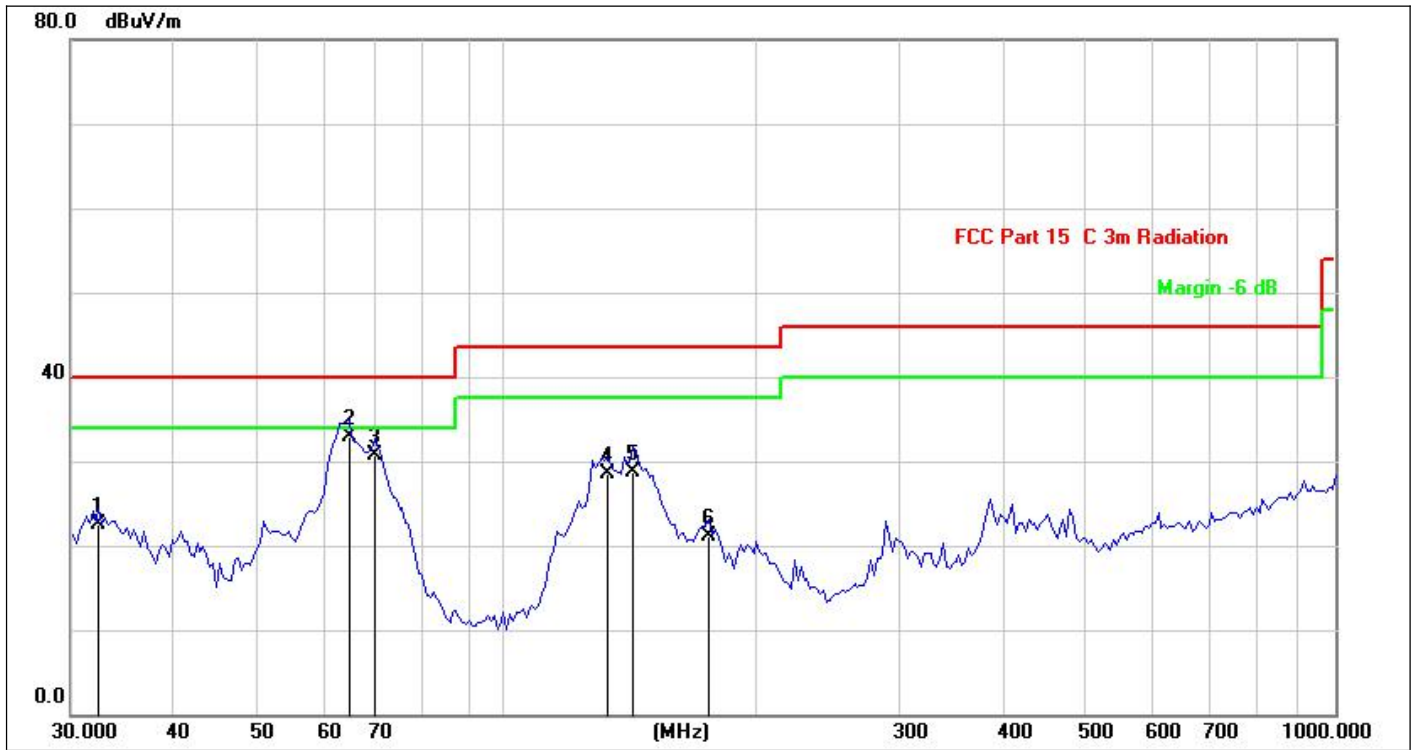
| | | | | | |
|--------|--------------------------------------|----------------|------------|-----------------|--------------|
| Site: | LAB | Antenna:: | Horizontal | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for iphone | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 * | 64.3202 | 38.63 | -16.85 | 21.78 | 40.00 | -18.22 | QP | 200 | 45 | |
| 2 | 69.6005 | 36.09 | -17.99 | 18.10 | 40.00 | -21.90 | QP | 200 | 45 | |
| 3 | 78.6888 | 34.40 | -18.31 | 16.09 | 40.00 | -23.91 | QP | 200 | 27 | |
| 4 | 128.5630 | 41.64 | -18.13 | 23.51 | 43.50 | -19.99 | QP | 200 | 27 | |
| 5 | 144.0819 | 40.82 | -18.99 | 21.83 | 43.50 | -21.67 | QP | 200 | 96 | |
| 6 | 155.9101 | 39.71 | -18.48 | 21.23 | 43.50 | -22.27 | QP | 200 | 96 | |

*:Maximum data x:Over limit !:over margin



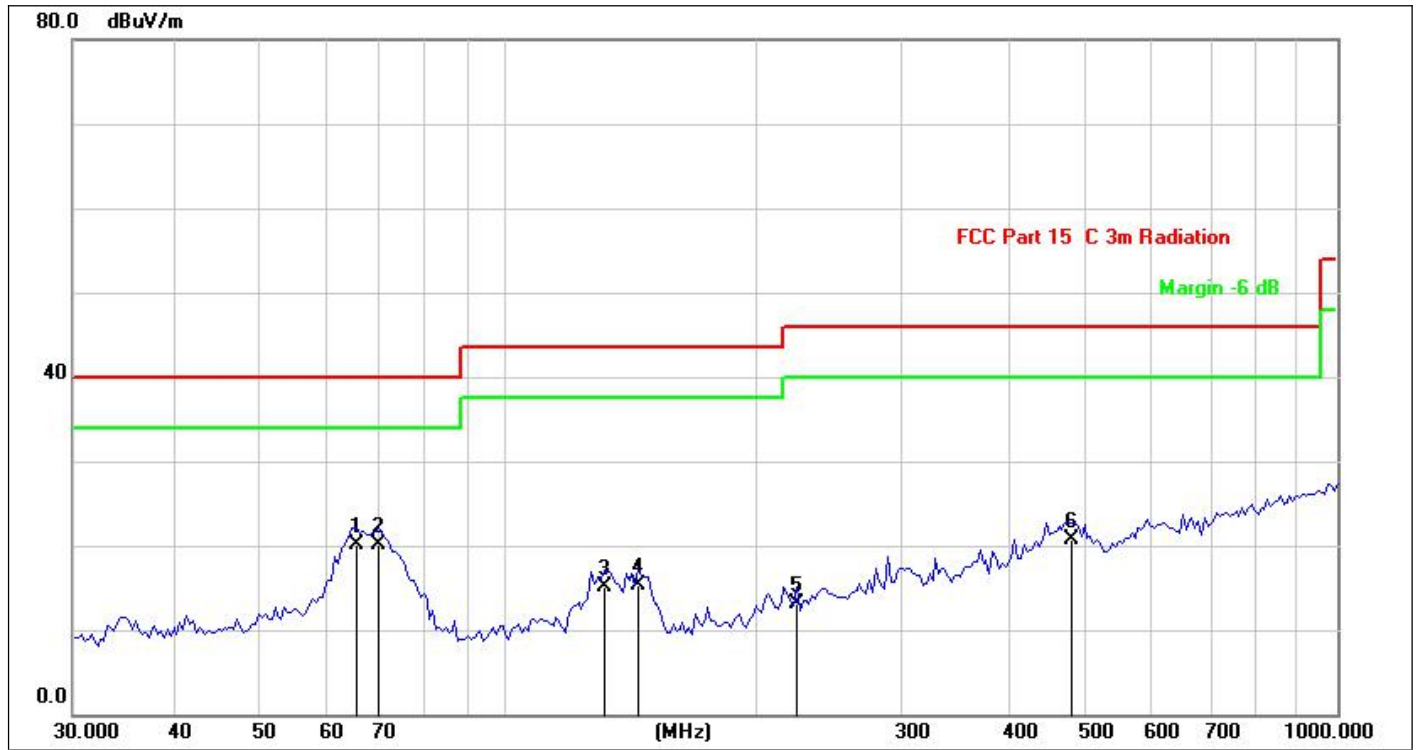
Test mode: Wireless Charging for Apple Watch



| | | | | | |
|---------------|--------------------------------------|-----------------------|--------------|------------------------|---------|
| Site: | LAB | Antenna:: | Vertical | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/28 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for Apple Watch | Test Engineer: | sunshine | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 32.4628 | 40.64 | -18.15 | 22.49 | 40.00 | -17.51 | QP | 100 | 56 | |
| 2 * | 64.8865 | 49.78 | -16.97 | 32.81 | 40.00 | -7.19 | QP | 100 | 47 | |
| 3 | 69.6005 | 48.79 | -17.99 | 30.80 | 40.00 | -9.20 | QP | 100 | 42 | |
| 4 | 133.1511 | 47.08 | -18.54 | 28.54 | 43.50 | -14.96 | QP | 100 | 135 | |
| 5 | 142.8243 | 47.71 | -19.02 | 28.69 | 43.50 | -14.81 | QP | 100 | 130 | |
| 6 | 176.2686 | 38.70 | -17.55 | 21.15 | 43.50 | -22.35 | QP | 100 | 85 | |

*:Maximum data x:Over limit !:over margin



| | | | | | |
|--------|--------------------------------------|----------------|------------|-----------------|--------------|
| Site: | LAB | Antenna:: | Horizontal | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for Apple Watch | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 * | 66.0342 | 37.27 | -17.22 | 20.05 | 40.00 | -19.95 | QP | 200 | 45 | |
| 2 | 70.2132 | 38.10 | -18.08 | 20.02 | 40.00 | -19.98 | QP | 200 | 56 | |
| 3 | 130.8369 | 33.45 | -18.36 | 15.09 | 43.50 | -28.41 | QP | 200 | 74 | |
| 4 | 144.0819 | 34.27 | -18.99 | 15.28 | 43.50 | -28.22 | QP | 200 | 136 | |
| 5 | 223.3415 | 28.36 | -15.19 | 13.17 | 46.00 | -32.83 | QP | 200 | 58 | |
| 6 | 478.8456 | 30.85 | -10.10 | 20.75 | 46.00 | -25.25 | QP | 200 | 96 | |

*:Maximum data x:Over limit !:over margin



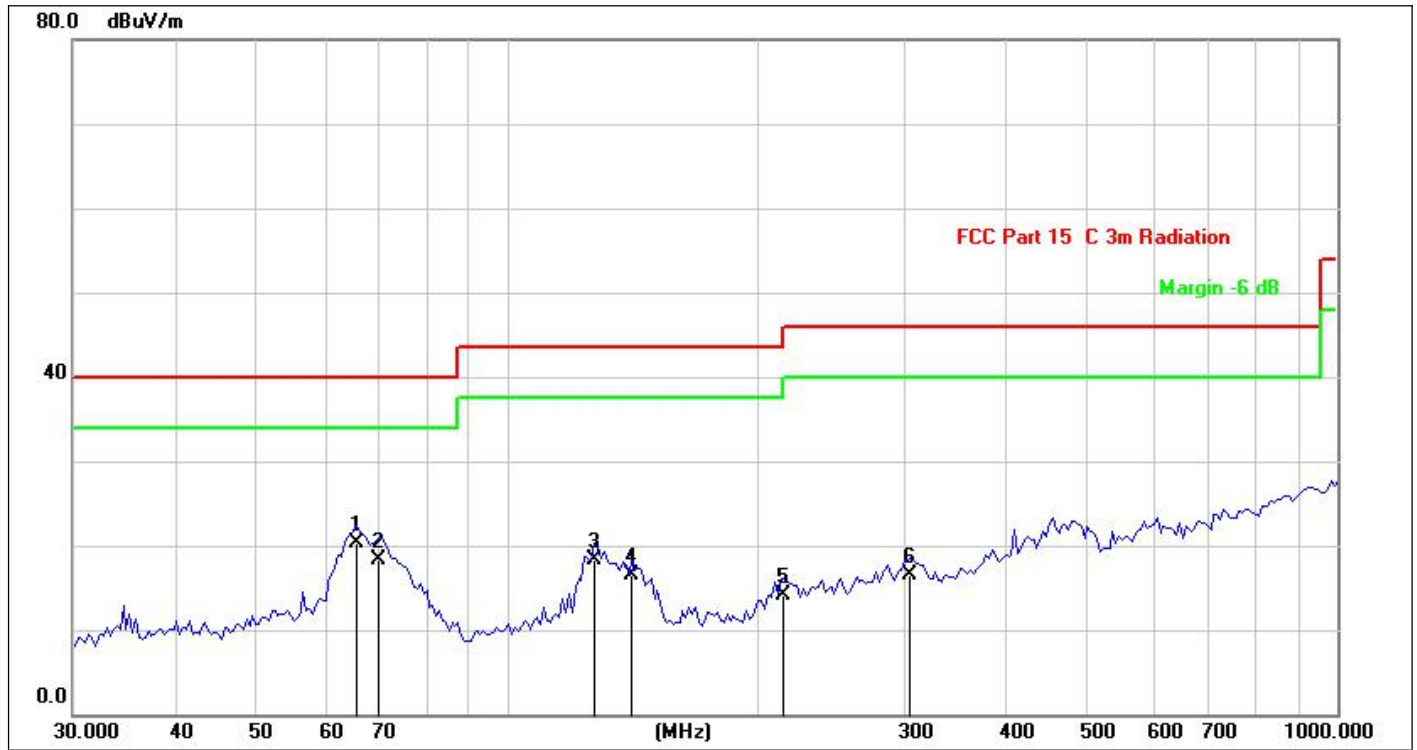
Test mode: Wireless Charging for AirPods



| | | | | | |
|---------------|--------------------------------------|-----------------------|--------------|------------------------|---------|
| Site: | LAB | Antenna:: | Vertical | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/28 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for AirPods | Test Engineer: | sunshine | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 32.4628 | 40.34 | -18.15 | 22.19 | 40.00 | -17.81 | QP | 100 | 45 | |
| 2 | 51.6616 | 37.43 | -15.94 | 21.49 | 40.00 | -18.51 | QP | 100 | 74 | |
| 3 * | 64.3202 | 48.25 | -16.85 | 31.40 | 40.00 | -8.60 | QP | 100 | 103 | |
| 4 | 69.6005 | 48.58 | -17.99 | 30.59 | 40.00 | -9.41 | QP | 100 | 144 | |
| 5 | 128.5630 | 47.17 | -18.13 | 29.04 | 43.50 | -14.46 | QP | 100 | 139 | |
| 6 | 137.9028 | 49.56 | -18.93 | 30.63 | 43.50 | -12.87 | QP | 100 | 47 | |

*:Maximum data x:Over limit !:over margin



| | | | |
|--------|--------------------------------------|---------------------|------------------------|
| Site: | LAB | Antenna::Horizontal | Temperature(C):23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | Test Time: | Humidity(%):56.7% |
| EUT: | 3-in-1 Wireless Charger | Power Rating: | 2021/09/28 |
| M/N.: | CD278 | Test Engineer: | AC 120V/60Hz |
| Mode: | Wireless Charging for Airpods | | sunshine |
| Note: | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 * | 66.0342 | 37.62 | -17.22 | 20.40 | 40.00 | -19.60 | QP | 200 | 48 | |
| 2 | 70.2132 | 36.37 | -18.08 | 18.29 | 40.00 | -21.71 | QP | 200 | 56 | |
| 3 | 127.4409 | 36.39 | -18.00 | 18.39 | 43.50 | -25.11 | QP | 200 | 86 | |
| 4 | 141.5777 | 35.59 | -19.06 | 16.53 | 43.50 | -26.97 | QP | 200 | 133 | |
| 5 | 215.6456 | 29.65 | -15.56 | 14.09 | 43.50 | -29.41 | QP | 200 | 76 | |
| 6 | 306.2164 | 29.53 | -13.01 | 16.52 | 46.00 | -29.48 | QP | 200 | 145 | |

*:Maximum data x:Over limit !:over margin



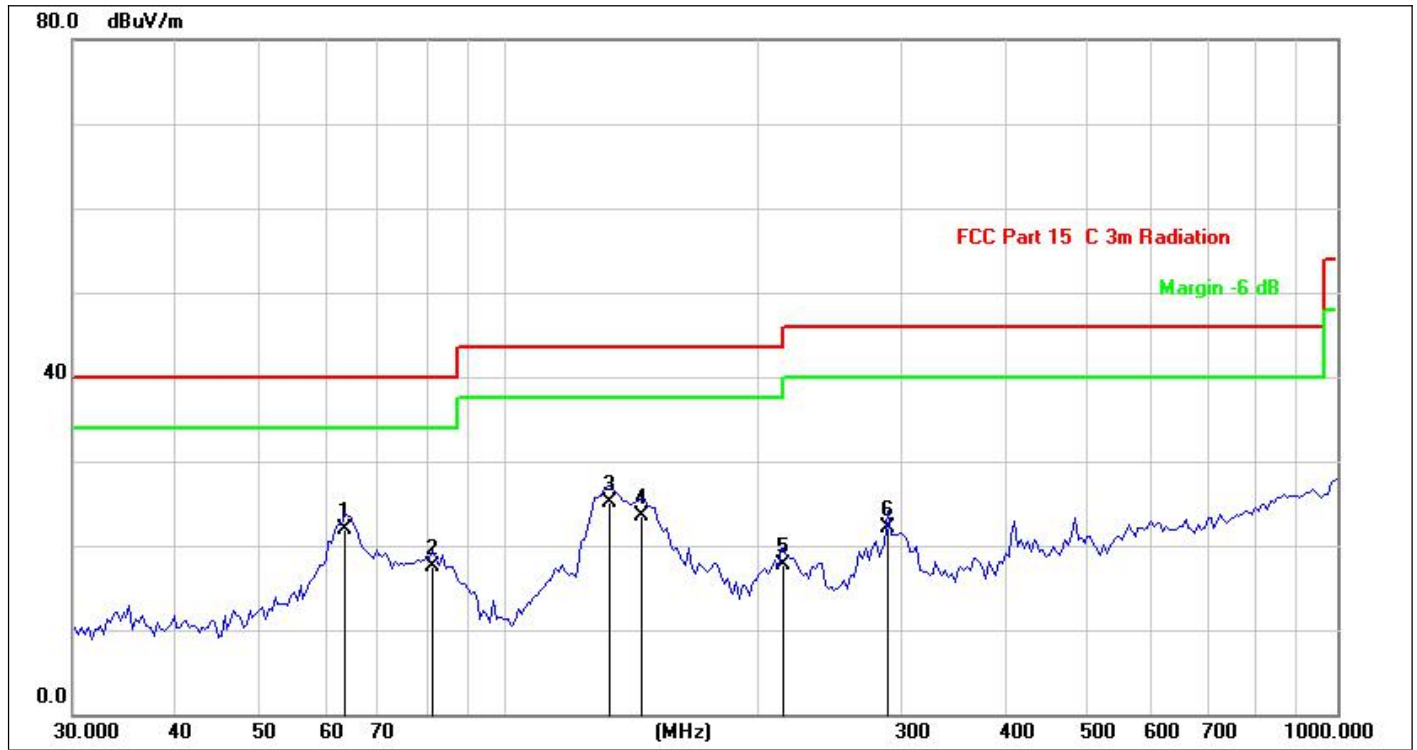
Test mode: Wireless Charging for iPhone+Apple Watch+Airpods



| | | | | | |
|---------------|--|-----------------------|--------------|------------------------|---------|
| Site: | LAB | Antenna:: | Vertical | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | 2021/09/28 | | |
| M/N.: | CD278 | Power Rating: | AC 120V/60Hz | | |
| Mode: | Wireless Charging for iPhone+Apple Watch+Airpods | Test Engineer: | sunshine | | |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 | 31.8986 | 44.47 | -18.21 | 26.26 | 40.00 | -13.74 | QP | 100 | 45 | |
| 2 | 51.6616 | 39.71 | -15.94 | 23.77 | 40.00 | -16.23 | QP | 100 | 74 | |
| 3 * | 63.7588 | 52.19 | -16.72 | 35.47 | 40.00 | -4.53 | QP | 100 | 103 | |
| 4 ! | 130.8369 | 56.07 | -18.36 | 37.71 | 43.50 | -5.79 | QP | 100 | 144 | |
| 5 | 142.8243 | 55.65 | -19.02 | 36.63 | 43.50 | -6.87 | QP | 100 | 139 | |
| 6 | 167.2368 | 43.36 | -17.83 | 25.53 | 43.50 | -17.97 | QP | 100 | 47 | |

*:Maximum data x:Over limit !:over margin

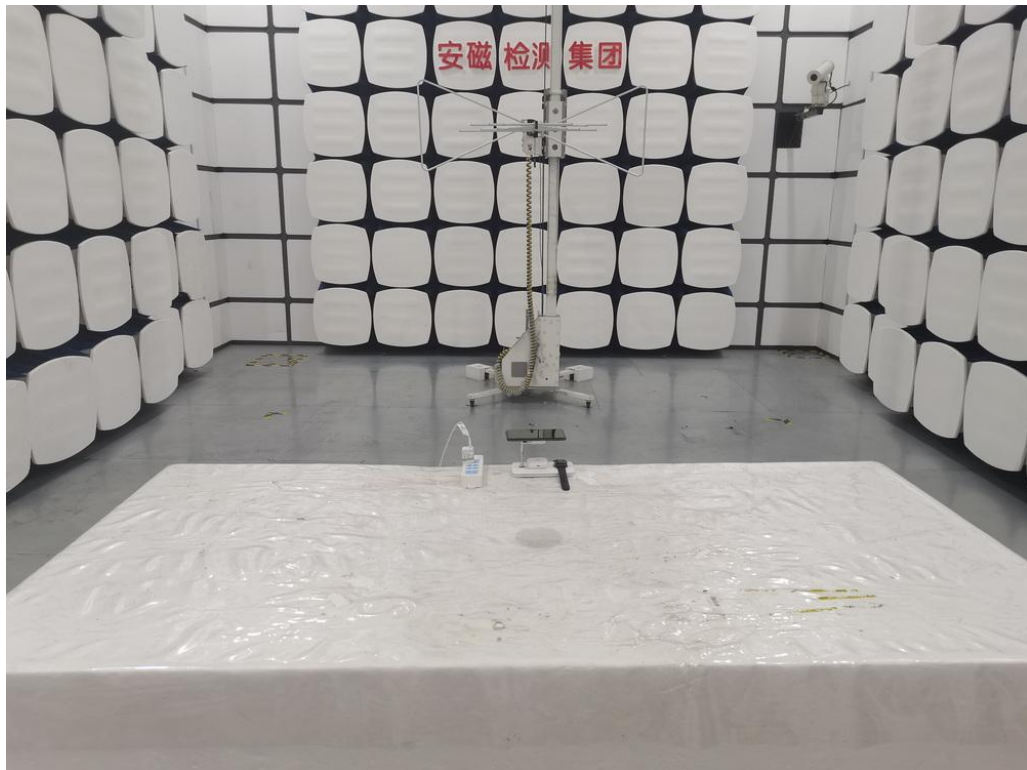
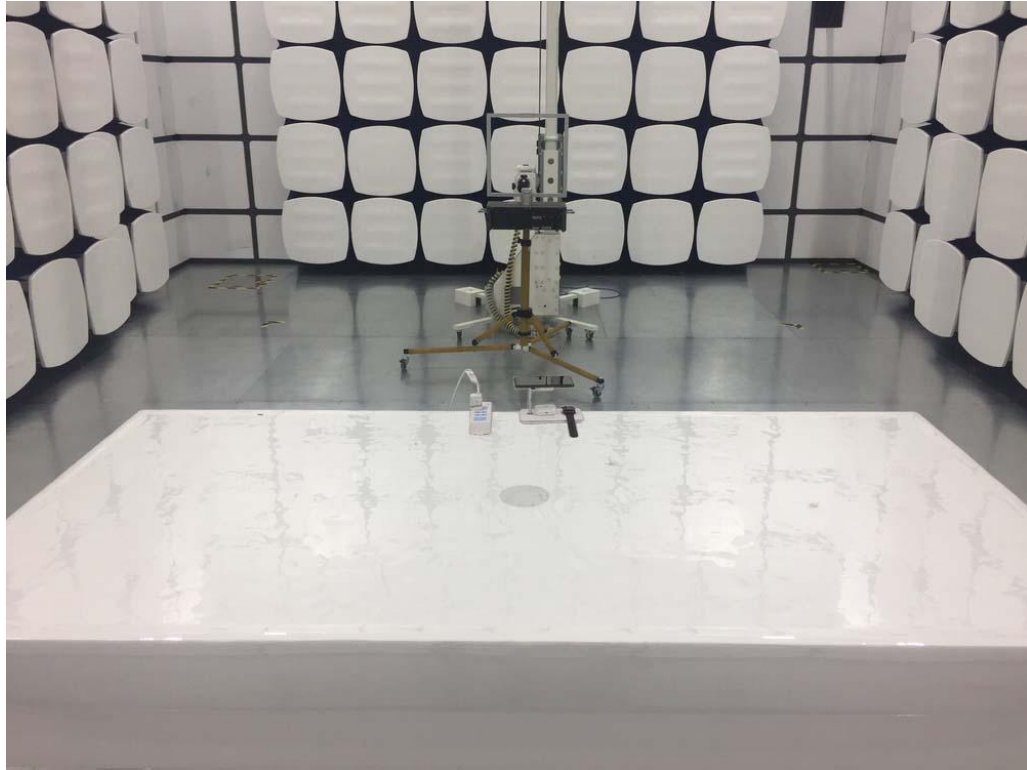


| | | | | | |
|--------|--|----------------|------------|-----------------|--------------|
| Site: | LAB | Antenna:: | Horizontal | Temperature(C): | 23.4(C) |
| Limit: | FCC Part 15 Class B 3m Radiation(QP) | | | Humidity(%): | 56.7% |
| EUT: | 3-in-1 Wireless Charger | Test Time: | | | 2021/09/28 |
| M/N.: | CD278 | Power Rating: | | | AC 120V/60Hz |
| Mode: | Wireless Charging for iPhone+Apple Watch+Airpods | Test Engineer: | | | sunshine |
| Note: | | | | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1 * | 63.7588 | 38.67 | -16.72 | 21.95 | 40.00 | -18.05 | QP | 200 | 48 | |
| 2 | 81.4970 | 35.97 | -18.40 | 17.57 | 40.00 | -22.43 | QP | 200 | 56 | |
| 3 | 133.1511 | 43.57 | -18.54 | 25.03 | 43.50 | -18.47 | QP | 200 | 86 | |
| 4 | 145.3506 | 42.37 | -18.95 | 23.42 | 43.50 | -20.08 | QP | 200 | 133 | |
| 5 | 215.6456 | 33.34 | -15.56 | 17.78 | 43.50 | -25.72 | QP | 200 | 76 | |
| 6 | 287.9904 | 35.48 | -13.28 | 22.20 | 46.00 | -23.80 | QP | 200 | 145 | |

*:Maximum data x:Over limit !:over margin

6.6 Radiated Measurement Photos



7 20db Bandwidth

7.1 20dB Bandwidth Limit

None: for reporting purposed only.

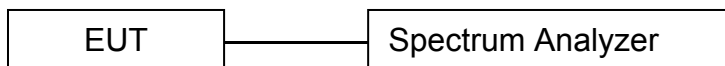
7.2 Test Instruments

Refer a test equipment and calibration data table in this test report.

7.3 Test Procedure

The bandwidth of the fundamental frequency was measured by spectrum analyzer with 1KHz RBW and 3KHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

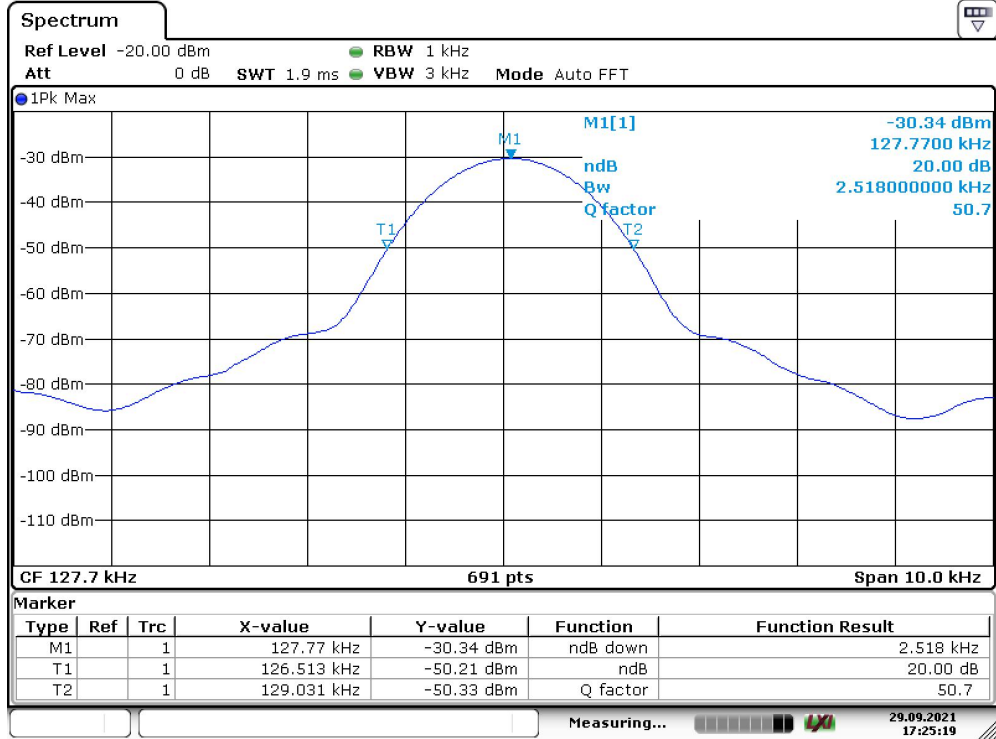
7.4 Test Setup



7.5 Test Result

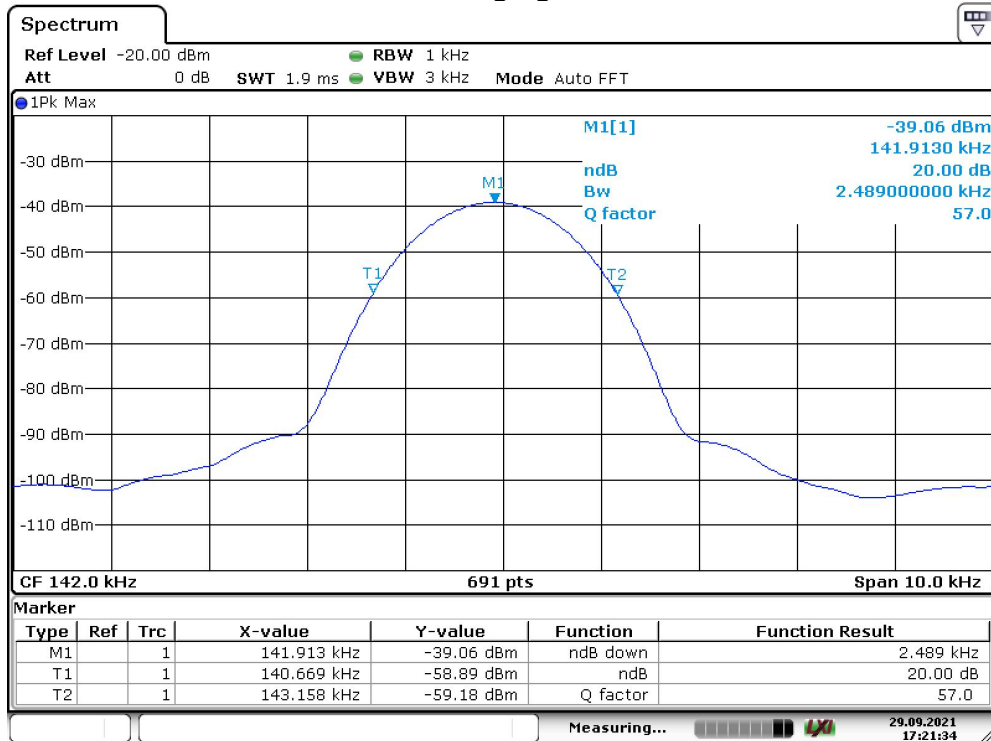
| Charging Mode | Frequency (KHz) | 20dB Bandwidth (KHz) | Results |
|---------------|-----------------|----------------------|---------|
| iPhone | 127.7 | 2.518 | PASS |
| Airpods | 142 | 2.489 | PASS |
| Apple Watch | 326.5 | 2.692 | PASS |

20 dB Bandwidth Test plot



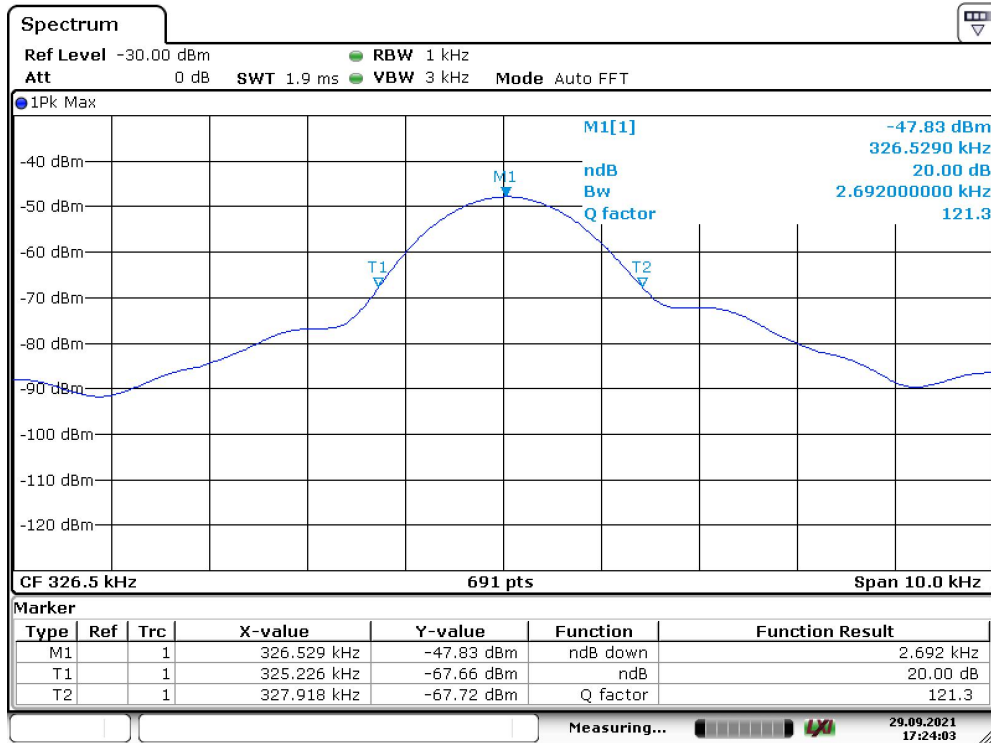
Date: 29.SEP.2021 17:25:18

Wireless Charging for iPhone



Date: 29.SEP.2021 17:21:34

Wireless Charging for AirPods



Date: 29.SEP.2021 17:24:03

Wireless Charging for Apple Watch



8 Antenna Application

8.1 Antenna requirement

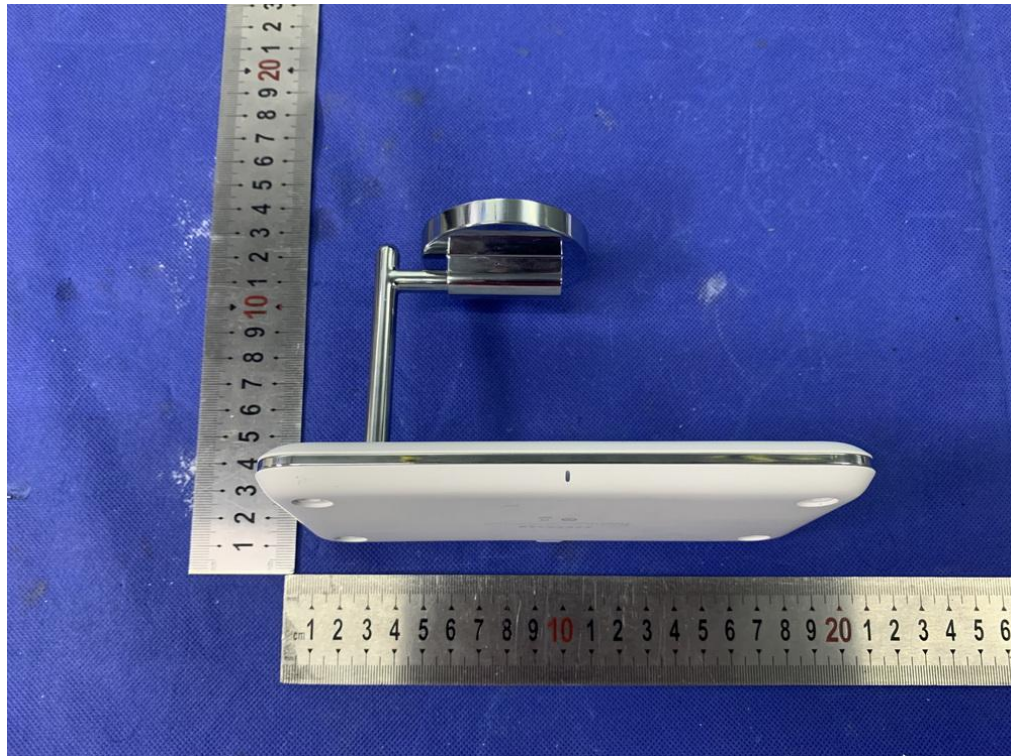
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

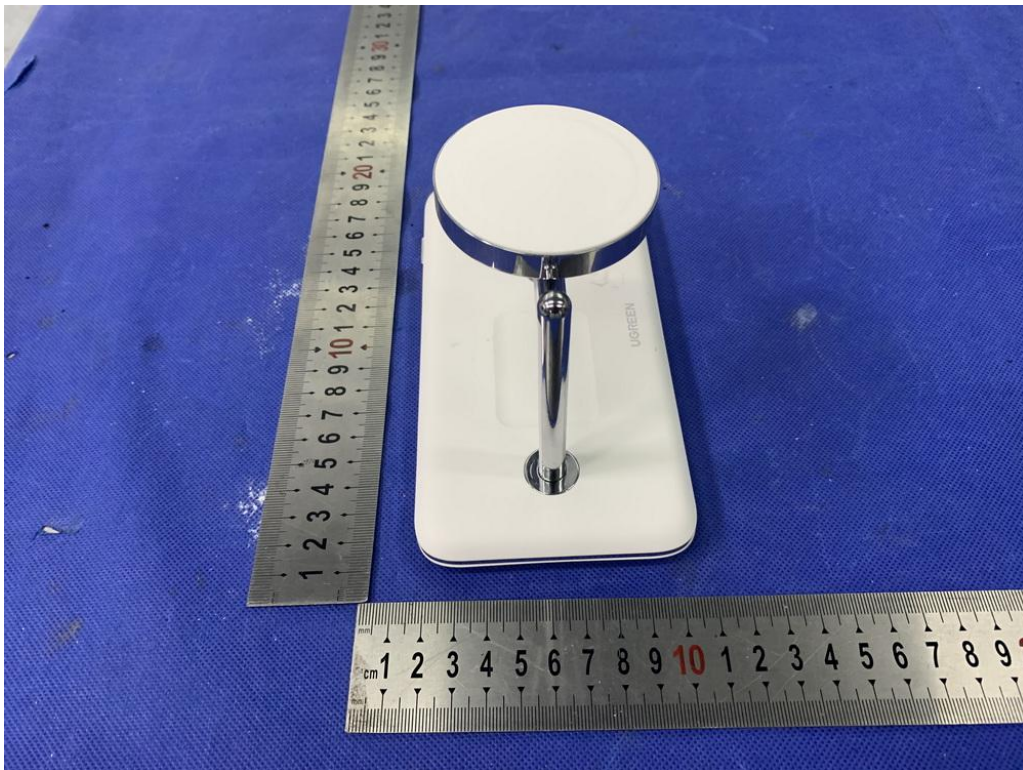
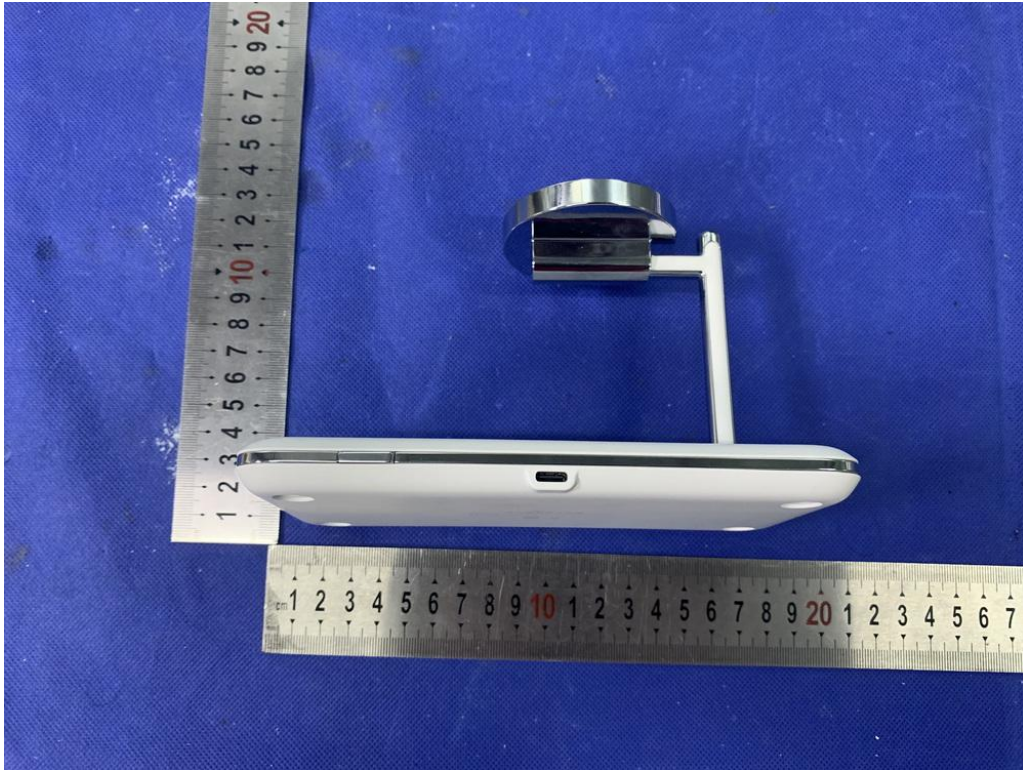
8.2 Result

The EUT's antenna, permanent attached antenna, used an Induction coil and integrated on PCB, The antenna's gain meets the requirement.

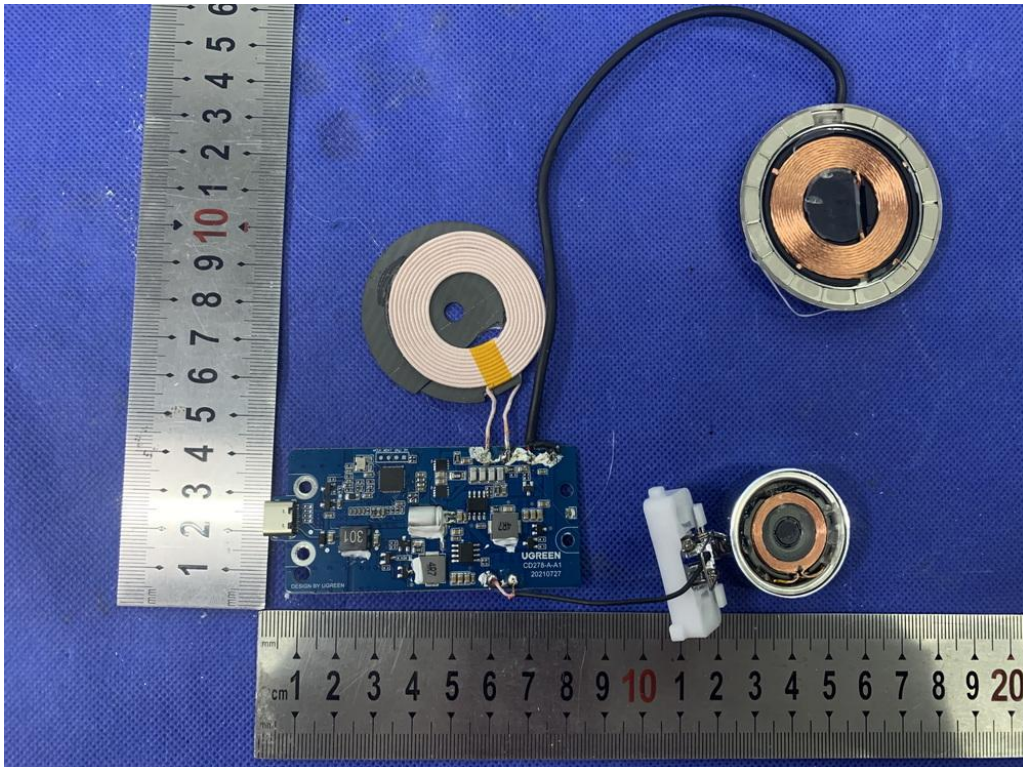
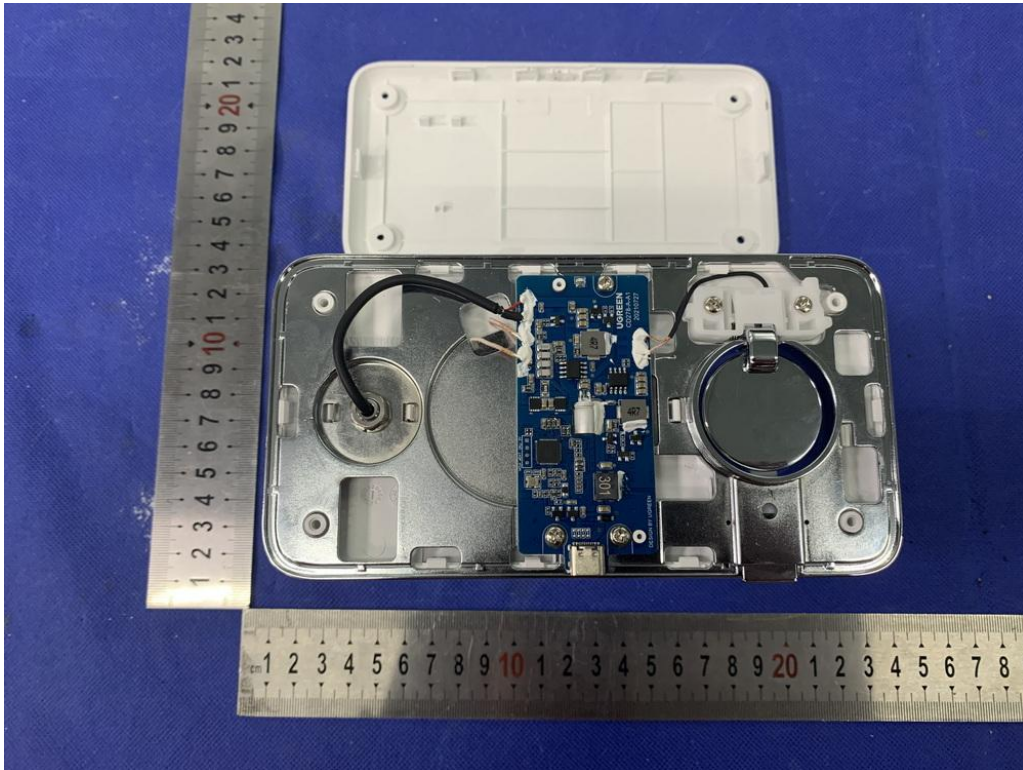


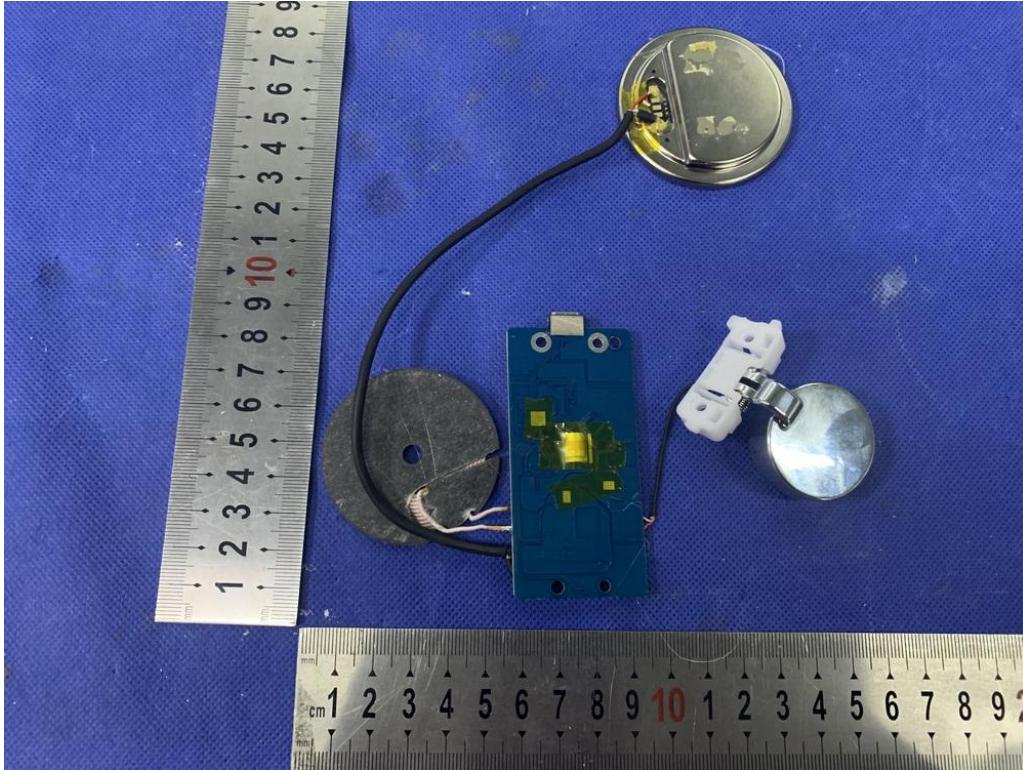
APPENDIX (Photos of EUT)











-----The end-----