

TEST REPORT

Report Number.: 14497921-E1V1

- Applicant : BELKIN INTERNATIONAL, INC. 555 S. AVIATION BLVD., SUITE 180 EL SEGUNDO, CA 90245, USA
 - Model : WIC008
 - FCC ID : K7SWIC008
- **EUT Description** : BoostCharge[™] Pro Wireless Car Charger With MagSafe 15W
- Test Standard(s) : FCC 47 CFR PART 15 SUBPART C

Date Of Issue: 2022-10-03

Prepared by: UL Verification Services Inc. 47173 Benicia Street Fremont, CA 94538 U.S.A. TEL: (510) 319-4000 FAX: (510) 661-0888



Revision History

| Rev. | Issue Date | Revisions | Revised By |
|------|---------------|---------------|------------|
| V1 | 2022-10-03 | Initial Issue | |

UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538, USA This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

Page 2 of 21

TABLE OF CONTENTS

| 1. | AT | TESTATION OF TEST RESULTS4 | |
|----|---------------------------|--|---|
| 2. | TE | ST METHODOLOGY6 | |
| 3. | FA | CILITIES AND ACCREDITATION6 | |
| 4. | DE | CISION RULES AND MEASUREMENT UNCERTAINTY7 | |
| 4 | 1.1. | METROLOGICAL TRACEABILITY | • |
| 4 | 1.2. | DECISION RULES | |
| 4 | 4.3. | MEASUREMENT UNCERTAINTY7 | , |
| 5. | EC | UIPMENT UNDER TEST8 | |
| 5 | 5.1. | DESCRIPTION OF EUT | |
| Ę | 5.2 <i>.</i> | MAXIMUM E-FIELD AND H-FIELD STRENGTH 8 | |
| Ę | 5.3. | SOFTWARE AND FIRMWARE | |
| 5 | 5. <i>4.</i> | WORST-CASE CONFIGURATION9 | I |
| 6. | TE | ST AND MEASUREMENT EQUIPMENT10 | |
| 7. | 00 | CUPIED BANDWIDTH11 | |
| 8. | RA | DIATED EMISSION TEST RESULTS12 | |
| 8 | 3.1. | LIMITS AND PROCEDURE | |
| 8 | 8.2. 8.2 8.2 8.2 | .2. CONFIGURATION 2: OPERATING MODE WITH iPhone (360kHz) | |
| | 8.2 | · · · · · · · · · · · · · · · · · · · | |
| 8 | 3.3. 8.3 8.3 | | |
| 9. | DF | SCRIPTION OF TEST SETUP AND SETUP PHOTOS | |

Page 3 of 21

1. ATTESTATION OF TEST RESULTS

| С | OMPANY NAME: | BELKIN INTERNATIONAL, INC. 555 S. AVIATION BLVD., SUITE 1 EL SEGUNDO, CA 90245, USA | 80 | | |
|--|-----------------|---|------------------------|--|--|
| Ε | UT DESCRIPTION: | BoostCharge™ Pro Wireless Car Cha | arger With MagSafe 15W | | |
| Μ | ODEL NUMBER: | WIC008 | | | |
| В | RAND: | BELKIN | | | |
| S | ERIAL NUMBER: | 57L00F69C00055 | | | |
| BRAND: SERIAL NUMBER: SAMPLE RECEIPT DATE: DATE TESTED: | | 2022-09-16 | | | |
| DATE TESTED: | | 2022-09-20 TO 2022-09-22 | | | |
| | | APPLICABLE STANDARDS | | | |
| | S | TANDARD | TEST RESULTS | | |
| | FCC PAR | T 15 SUBPART C | Complies | | |

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, any agency of the Federal Government, or any agency of the U.S. government.

Page 4 of 21

Approved & Released For UL Verification Services Inc. By:

comine de avok

Francisco de Anda Staff Engineer Consumer Technology Division UL Verification Services Inc.

Prepared By:

Gerardo Abrego Senior Test Engineer Consumer Technology Division UL Verification Services Inc.

Reviewed By:

Tina Chu Senior Project Engineer Consumer Technology Division UL Verification Services Inc.

Page 5 of 21

2. TEST METHODOLOGY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.

The tests documented in this report were performed in accordance with: ANSI C63.10-2013 FCC CFR 47 Part 2 FCC CFR 47 Part 15 KDB 414788 D01 Radiated Test Site v01r01

3. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

| | Address | ISED CABID | ISED Company Number | FCC Registration | | |
|-------------|--|---------------|---------------------------|---------------------|--|--|
| | Building 1: 47173 Benicia Street, Fremont, CA 94538, USA | US0104 | 2324A | 550739 | | |
| | Building 2: 47266 Benicia Street, Fremont, CA 94538, USA | US0104 | 22541 | 550739 | | |
| \boxtimes | Building 4: 47658 Kato Rd, Fremont, CA 94538, USA | US0104 | 2324B | 550739 | | |

Page 6 of 21

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

4.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER | U _{Lab} |
|---|------------------|
| Worst Case Conducted Disturbance, 9KHz to 0.15 MHz | 3.78 dB |
| Worst Case Conducted Disturbance, 0.15 to 30 MHz | 3.40 dB |
| Worst Case Radiated Disturbance, 9KHz to 30 MHz (E-field) | 2.84 dB |
| Worst Case Radiated Disturbance, 9KHz to 30 MHz (H-field) | 2.87 dB |
| Worst Case Radiated Disturbance, 30 to 1000 MHz | 6.01 dB |

Uncertainty figures are valid to a confidence level of 95%.

Page 7 of 21

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT, BoostCharge[™] Pro Wireless Car Charger With MagSafe 15W, is a single charging coil that is capable of charging one client device at a time.

The coil is used for charging a MagSafe iPhone at 360kHz (15W), a legacy iPhone at 127.7kHz (7.5W), and an AirPods Case at 127.7kHz (1W).

EUT is sold with a 20W PD 3.0 single port USB Type-C Cigarette Lighter Adapter (CLA).

5.2. MAXIMUM E-FIELD AND H-FIELD STRENGTH

The transmitter has maximum peak radiated electric field strength as follows:

| Fundamental Frequency (kHz) | E field (300m distance) FCC (dBuV/m) |
|-----------------------------------|--|
| 360 (MagSafe iPhone) | -26.02 |
| 127.7 (Legacy iPhone) | -19.9 |
| 127.7 (AirPods Pro Case) | -9.57 |

5.3. SOFTWARE AND FIRMWARE

The firmware version installed in the EUT during testing was: 360kHz/127.7kHz: V2.67

Page 8 of 21

5.4. WORST-CASE CONFIGURATION

The EUT is a Car Vent Mount wireless charger. For all tests, the EUT was connected to a USB Type-C CLA and powered by a 12V battery.

MagSafe phone is based on direct contact with no shifts in position due to the embedded magnet in the charger pad and in the client. Testing is performed with the EUT at its natural orientation (Portrait orientation).

Legacy phone and the AirPods Pro Case that do not have an embedded magnet, are placed at the maximum power position during the testing. Testing is performed with the EUT at a flatbed orientation only.

For the entire radiated emissions test, the client devices where charging between a 20% to 50% state of charge.

Radiated spurious emission 30MHz to 1GHz was performed on Configuration 1 and 2 at EUT minimum and maximum load respectively only as worst-case.

| Config | Descriptions | EUT orientation | Frequency | Client and worst-case orientation |
|--------|--|-----------------------------|-----------|---|
| 1 | EUT stand alone, standby, EUT is powered by 12V battery via CLA | Z-orientation (Portrait) | @127.7kHz | None |
| 2 | Direct contact during charging/operating between the EUT & WPT Client, EUT is powered by 12V | Z-orientation (Portrait) | @360kHz | iPhone 12. Portrait orientation where the lighting connector of iPhone at the bottom |
| 3 | | X-orientation (Flatbed) | @127.7kHz | Legacy iPhone. Flatbed orientation where the lighting connector of iPhone facing USB cable |
| 4 | battery via CLA | X-orientation (Flatbed) | @127.7kHz | AirPods Pro Case. Flatbed orientation with the lighting connector 90 degree away from USB cable to the left. |

The following configurations were tested:

Page 9 of 21

6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| TEST EQUIPMENT LIST | | | | | | | | | | |
|--|------------------------|-----------|--------|------------------|------------|--|--|--|--|--|
| Description | Manufacturer | Model | ID Num | Cal Due | Last Cal | | | | | |
| Antenna, Passive Loop 30Hz - 1MHz | ELECTRO-METRIC | S EM-6871 | 219909 | 2023-05-10 | 2022-05-10 | | | | | |
| Antenna, Passive Loop 100KHz - 30MHz | ELECTRO-METRIC | S EM-6872 | 219911 | 2023-05-10 | 2022-05-10 | | | | | |
| Antenna, Broadband Hybrid, 30MHz to 2000MHz | Sunol Sciences Crop | o. JB1 | 82258 | 2022-10-01 | 2021-10-01 | | | | | |
| Amplifier, 9KHz to 1GHz, 32dB | Sonoma Instrument | 310 | 175953 | 2023-02-08 | 2022-02-08 | | | | | |
| EMI TEST RECEIVER | Rohde & Schwarz | ESW44 | 169927 | 2023-02-16 | 2022-02-16 | | | | | |
| | UL AUTOMATION SOFTWARE | | | | | | | | | |
| Radiated Software | UL | UL EMC | Jul | 6 2022, Jul 15 2 | 2014 | | | | | |

Page 10 of 21

7. OCCUPIED BANDWIDTH

TEST PROCEDURE

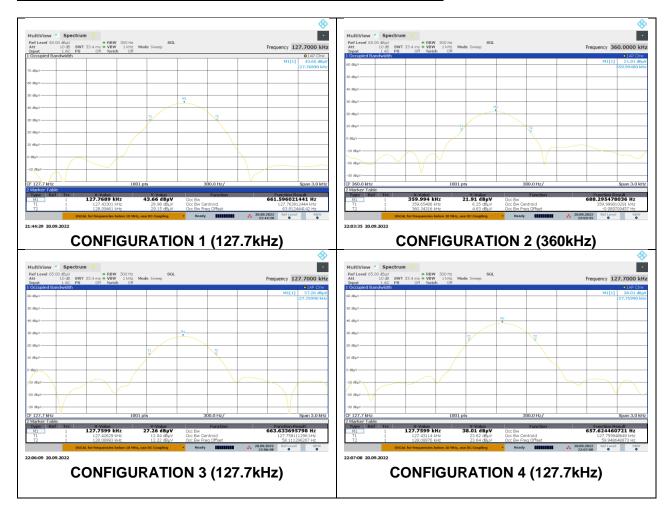
The transmitter output is connected to the spectrum analyzer. The RBW is set to 300Hz. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

Note: Because the measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

RESULTS

Test Engineer: 45256 JB

| Configuration | Frequency (kHz) | 99% Bandwidth (Hz) |
|---------------|-----------------|--------------------|
| 1 | 127.7 | 661.60 |
| 2 | 360 | 688.29 |
| 3 | 127.7 | 663.63 |
| 4 | 127.7 | 657.62 |



Page 11 of 21

8. RADIATED EMISSION TEST RESULTS

8.1. LIMITS AND PROCEDURE

<u>LIMIT</u>

FCC §15.209 (a)

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (m) |
|--------------------------------|-----------------------------------|--------------------------|
| 0.009–0.490 | 2400/F(kHz) | 300 |
| 0.490–1.705 | 24000/F(kHz) | 30 |
| 1.705–30.0 | 30 | 30 |
| 30–88 | 100 | 3 |
| 88 to 216 | 150 | 3 |
| 216 to 960 | 200 | 3 |
| Above 960 MHz | 500 | 3 |
| Note: The lower limit shall ap | oly at the transition frequency. | |

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only. Blue color trace on plots: Parallel orientation. Green color trace on plots: Perpendicular orientation.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

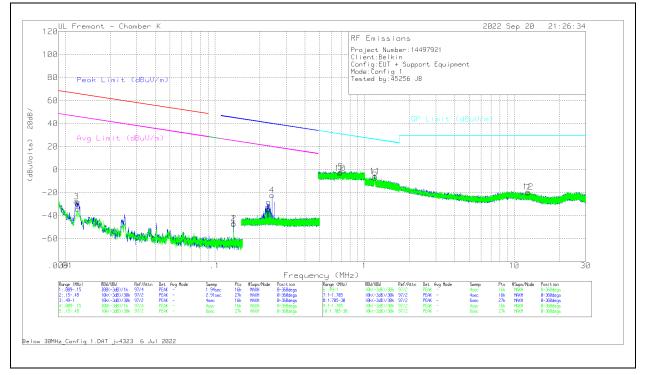
Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

<u>RESULTS</u>

Page 12 of 21

8.2. FCC TX FUNDAMENTAL AND SPURIOUS EMISSIONS FROM 9 kHz TO 30 MHz



8.2.1. CONFIGURATION 1: STANDBY MODE (127.7kHz)

DATA

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Peak L (dBuV | | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|---------------------------|-----------------|----------------------|----------------------------------|---------------------------|----------------|-----------------------|----------------|-----------------|------------------|----------------|-----------------------|----------------|-------------------|
| 1 | .1337 | 9.28 | Pk | 55.8 | -32.2 | -80 | -47.12 | - | - | - | - | 45.1 | 1 | -92.22 | 25.1 | -72.22 | 0-360 |
| 3 | .0119 | 23.29 | Pk | 60.1 | -31 | -80 | -27.61 | 66.09 | -93.7 | 46.09 | -73.7 | - | | - | - | | 0-360 |
| 4 | .2409 | 33.76 | Pk | 56.2 | -32.2 | -80 | -22.24 | - | - | - | - | 39.9 | 8 | -62.22 | 19.98 | -42.22 | 0-360 |
| 2 | .1337 | 9.45 | Pk | 55.8 | -32.2 | -80 | -46.95 | - | - | | - | 45.1 | | -92.05 | 25.1 | -72.05 | 0-360 |
| 8 | .0121 | 16.8 | Pk | 60 | -31 | -80 | -34.2 | 65.91 | -100.11 | 45.91 | -80.11 | - | | | | - | 0-360 |
| 9 | .2283 | 21.4 | Pk | 56.2 | -32.2 | -80 | -34.6 | - | - | | - | 40.4 | 5 | -75.05 | 20.45 | -55.05 | 0-360 |
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna | E(ACF) | Amp/Cbl (dB) | | Dist Corr 30m (dB) 40Log | | QP Limit (d | , | Margin (dB) | Azimut (Degs) |) | | | |
| 5 | .692 | 13.77 | Pk | 56.2 | | -32.1 | | -40 | -2.13 | 30.8 | 1 | -32.94 | 0-360 | | | | |
| 10 | .6857 | 12.73 | Pk | 56.2 | | -32.1 | | -40 | -3.17 | 30.8 | 9 | -34.06 | 0-360 | | | | |
| 6 | 1.1764 | 18.96 | Pk | 46 | | -32.1 | | -40 | -7.14 | 26.2 | 1 | -33.35 | 0-360 | | | | |
| | | | | | | 01.0 | | 10 | 00.00 | | | 10.50 | 0.000 | | | | |
| 7 | 12.3359 | 17.42 | Pk | 34.3 | | -31.8 | | -40 | -20.08 | 29.5 | • | -49.58 | 0-360 | | | | |

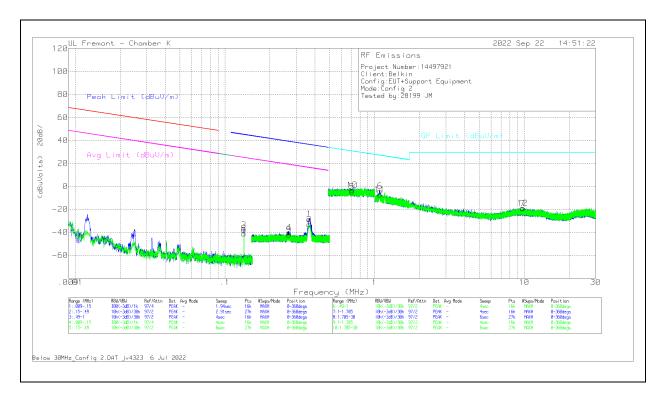
-48.85

Radiated Emissions

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|---------------------|--------------|----------------|----------------------------------|---------------------|----------------|--------------------|----------------|-------------------|
| 1 | .1319 | 32.73 | Pk | 55.8 | -32.2 | -80 | -23.67 | 45.22 | -68.89 | 25.22 | -48.89 | 202 |
| 2 | .132 | 28.27 | Pk | 55.8 | -32.2 | -80 | -28.13 | 45.22 | -73.35 | 25.22 | -53.35 | 171 |

Pk - Peak detector

Page 13 of 21



8.2.2. CONFIGURATION 2: OPERATING MODE WITH iPhone (360kHz)

<u>DATA</u>

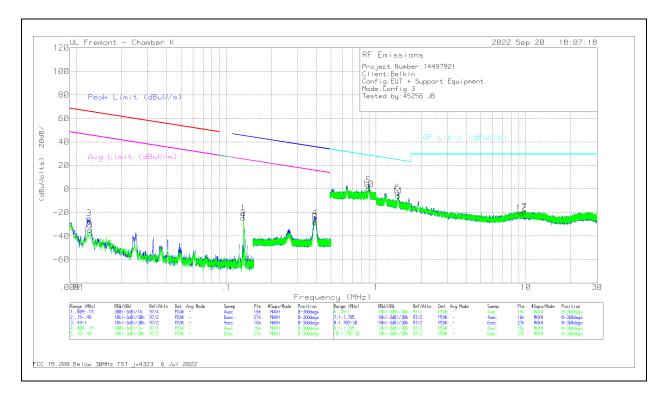
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|---------------------|--------------|----------------|----------------------------------|---------------------|----------------|--------------------|----------------|-------------------|
| 3 | .134 | 18.59 | Pk | 55.8 | -32.2 | -80 | -37.81 | 45.08 | -82.89 | 25.08 | -62.89 | 0-360 |
| 1 | .3667 | 27.8 | Pk | 56.1 | -32.2 | -80 | -28.3 | 36.32 | -64.62 | 16.32 | -44.62 | 0-360 |
| 4 | .2679 | 15.85 | Pk | 56.2 | -32.2 | -80 | -40.15 | 39.06 | -79.21 | 19.06 | -59.21 | 0-360 |
| 8 | .134 | 15.28 | Pk | 55.8 | -32.2 | -80 | -41.12 | 45.08 | -86.2 | 25.08 | -66.2 | 0-360 |
| 2 | .3667 | 22.94 | Pk | 56.1 | -32.2 | -80 | -33.16 | 36.32 | -69.48 | 16.32 | -49.48 | 0-360 |
| 9 | .2681 | 13.79 | Pk | 56.2 | -32.2 | -80 | -42.21 | 39.05 | -81.26 | 19.05 | -61.26 | 0-360 |

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 30m (dB) 40Log | Corrected Reading (dBuV/m) | QP Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|---------------------|--------------|--------------------------|----------------------------------|-------------------|----------------|-------------------|
| 5 | .7059 | 11.28 | Pk | 56.2 | -32.1 | -40 | -4.62 | 30.64 | -35.26 | 0-360 |
| 10 | .7091 | 12.62 | Pk | 56.2 | -32.1 | -40 | -3.28 | 30.6 | -33.88 | 0-360 |
| 6 | 1.0838 | 21.56 | Pk | 46.5 | -32.1 | -40 | -4.04 | 26.92 | -30.96 | 0-360 |
| 7 | 9.7348 | 18.01 | Pk | 34.7 | -31.9 | -40 | -19.19 | 29.5 | -48.69 | 0-360 |
| 11 | 1.0837 | 18.19 | Pk | 46.5 | -32.1 | -40 | -7.41 | 26.93 | -34.34 | 0-360 |
| 12 | 9.7495 | 18.07 | Pk | 34.7 | -31.9 | -40 | -19.13 | 29.5 | -48.63 | 0-360 |

Radiated Emissions

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Face |
|--------|--------------------|----------------------------|-----|------------------------|-----------------|-------------------|----------------------------------|------------------------|----------------|-----------------------|----------------|-------------------|------|
| 1 | .3609 | 30.08 | Pk | 56.1 | -32.2 | -80 | -26.02 | 36.46 | -62.48 | 16.46 | -42.48 | 242 | On |
| 2 | .3595 | 27.47 | Pk | 56.1 | -32.2 | -80 | -28.63 | 36.5 | -65.13 | 16.5 | -45.13 | 347 | Off |

Pk - Peak detector



8.2.3. CONFIGURATION 3: OPERATING MODE WITH iPhone (127.7kHz)

<u>DATA</u>

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|---------------------------|-----------------|----------------------|----------------------------------|------------------------|----------------|--------------------------|----------------|------------------------|----------------|-----------------------|----------------|-------------------|
| 1 | .1303 | 36.14 | Pk | 55.8 | -32.2 | -80 | -20.26 | | | - | - | 45.33 | -65.59 | 25.33 | -45.59 | 0-360 |
| 3 | .0121 | 26.02 | Pk | 60 | -31 | -80 | -24.98 | 65.91 | -90.89 | 45.91 | -70.89 | | | | | 0-360 |
| 4 | .3916 | 31.61 | Pk | 56.1 | -32.2 | -80 | -24.49 | | | - | - | 35.75 | -60.24 | 15.75 | -40.24 | 0-360 |
| 2 | .1303 | 31.64 | Pk | 55.8 | -32.2 | -80 | -24.76 | | | | | 45.33 | -70.09 | 25.33 | -50.09 | 0-360 |
| 8 | .0123 | 16.15 | Pk | 60 | -31 | -80 | -34.85 | 65.76 | -100.61 | 45.76 | -80.61 | | - | | - | 0-360 |
| 9 | 3916 | 28.06 | Pk | 56.1 | -32.2 | -80 | -28.04 | | | | - | 35.75 | -63.79 | 15.75 | -43 79 | 0-360 |

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 30m (dB) 40Log | Corrected Reading (dBuV/m) | QP Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|---------------------|--------------|--------------------------|----------------------------------|-------------------|----------------|-------------------|
| 5 | .8938 | 18.98 | Pk | 56.2 | -32.1 | -40 | 3.08 | 28.59 | -25.51 | 0-360 |
| 10 | .8898 | 15.53 | Pk | 56.2 | -32.1 | -40 | 37 | 28.63 | -29 | 0-360 |
| 6 | 1.4015 | 24.28 | Pk | 44.8 | -32.1 | -40 | -3.02 | 24.7 | -27.72 | 0-360 |
| 7 | 9.7998 | 17.79 | Pk | 34.8 | -31.9 | -40 | -19.31 | 29.5 | -48.81 | 0-360 |
| 11 | 1.4079 | 21.52 | Pk | 44.8 | -32.1 | -40 | -5.78 | 24.66 | -30.44 | 0-360 |
| 12 | 9.3795 | 17 | Pk | 34.7 | -31.9 | -40 | -20.2 | 29.5 | -49.7 | 0-360 |

Radiated Emissions

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|---------------------|--------------|----------------|----------------------------------|---------------------|----------------|--------------------|----------------|-------------------|
| 1 | .1278 | 36.5 | Pk | 55.8 | -32.2 | -80 | -19.9 | 45.5 | -65.4 | 25.5 | -45.4 | 63 |
| 2 | .1278 | 31.94 | Pk | 55.8 | -32.2 | -80 | -24.46 | 45.5 | -69.96 | 25.5 | -49.96 | 152 |

Pk - Peak detector

Page 15 of 21



8.2.4. CONFIGURATION 4: OPERATING MODE WITH AirPods Pro Case (127.7kHz)

<u>DATA</u>

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Peak L (dBuV | | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------------|--------------------|----------------------------|----------|---------------------------|-----------------|----------------------|----------------------------------|------------------------|----------------------|--------------------------|----------------|------------------|----------------|----------------|-----------------------|----------------|-------------------|
| 1 | .1302 | 45.8 | Pk | 55.8 | -32.2 | -80 | -10.6 | | | - | - | 45.3 | 13 | -55.93 | 25.33 | -35.93 | 0-360 |
| 3 | .0122 | 24.65 | Pk | 60 | -31 | -80 | -26.35 | 65.83 | -92.18 | 45.83 | -72.18 | | | - | | | 0-360 |
| 4 | .2593 | 30.72 | Pk | 56.2 | -32.2 | -80 | -25.28 | - | | - | - | 39.3 | 4 | -64.62 | 19.34 | -44.62 | 0-360 |
| 2 | .1302 | 40.22 | Pk | 55.8 | -32.2 | -80 | -16.18 | | | - | - | 45.3 | 13 | -61.51 | 25.33 | -41.51 | 0-360 |
| 8 | .0119 | 14.78 | Pk | 60.1 | -31 | -80 | -36.12 | 66.09 | -102.21 | 46.09 | -82.21 | - | | - | • | - | 0-360 |
| 9 | .257 | 23.98 | Pk | 56.2 | -32.2 | -80 | -32.02 | - | | - | - | 39.4 | 2 | -71.44 | 19.42 | -51.44 | 0-360 |
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna | a E(ACF) | Amp/Cbl (dB) | Dist Corr 3 | 0m (dB) 40Log | Corrected Reading | QP Limit (dB | uV/m) | Margin (dB) | Azimu (Degs | | | | |
| | | (abuv) | | | | | | | (dBuV/m) | | | | | | | | |
| 5 | .6432 | (dBuV) 15.91 | Pk | 56.1 | | -32.1 | | -40 | (dBuV/m) 09 | 31.44 | | -31.53 | 0-360 |) | | | |
| 5 10 | .6432 .6341 | | Pk Pk | 56.1 56.1 | | -32.1 -32.1 | | -40 -40 | | 31.44 31.57 | _ | -31.53 -34.56 | 0-360 | | | | |
| 5 10 6 | | 15.91 | | | | | | | 09 | | | | |) | | | |

-33.49 -48.17 0-360

Radiated Emissions

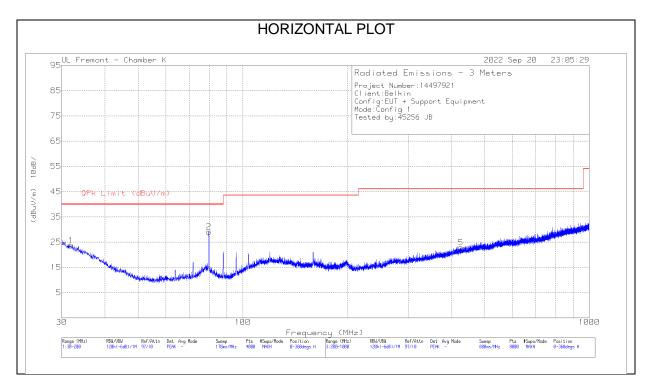
18.84

1.1604 9.2433

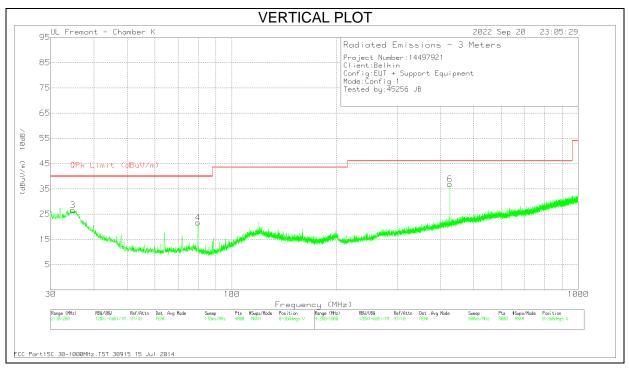
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | Loop Antenna E(ACF) | Amp/Cbl (dB) | Dist Corr 300m | Corrected Reading (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | Margin (dB) | Avg Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) |
|--------|--------------------|----------------------------|-----|------------------------|-----------------|-------------------|----------------------------------|----------------|------------------------|----------------|-----------------------|----------------|-------------------|
| 1 | .1278 | 46.83 | Pk | 55.8 | -32.2 | -80 | -9.57 | - | 45.49 | -55.06 | 25.49 | -35.06 | 177 |
| 2 | .1278 | 41.18 | Pk | 55.8 | -32.2 | -80 | -15.22 | - | 45.5 | -60.72 | 25.5 | -40.72 | 261 |

Pk - Peak detector

8.3. FCC TX SPURIOUS EMISSION 30 TO 1000 MHz



8.3.1. CONFIGURATION 1: STANDBY MODE (127.7kHz)



Page 17 of 21

<u>DATA</u>

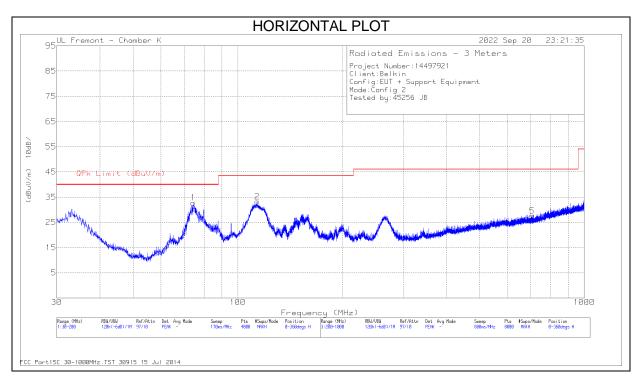
| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 82258 ACF (dB) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|--------------------|----------------------------|-----|----------------|--------------|----------------------------------|--------------------|----------------|-------------------|----------------|----------|
| 1 | 31.9555 | 28.74 | Pk | 26.4 | -31.5 | 23.64 | 40 | -16.36 | 0-360 | 295 | Н |
| 2 | 79.8229 | 46.37 | Pk | 13.7 | -31 | 29.07 | 40 | -10.93 | 0-360 | 295 | Н |
| 3 | 34.7612 | 33.74 | Pk | 24.3 | -31.5 | 26.54 | 40 | -13.46 | 0-360 | 101 | V |
| 4 | 79.9079 | 38.94 | Pk | 13.7 | -31 | 21.64 | 40 | -18.36 | 0-360 | 101 | V |
| 5 | 426.429 | 29.47 | Pk | 22.7 | -29.3 | 22.87 | 46.02 | -23.15 | 0-360 | 394 | Н |
| 6 | 426.662 | 29.96 | Pk | 22.7 | -29.3 | 23.36 | 46.02 | -22.66 | 347 | 221 | V |
| | 426.662 | 20.98 | Qp | 22.7 | -29.3 | 14.38 | 46.02 | -31.64 | 347 | 221 | V |

Pk - Peak detector

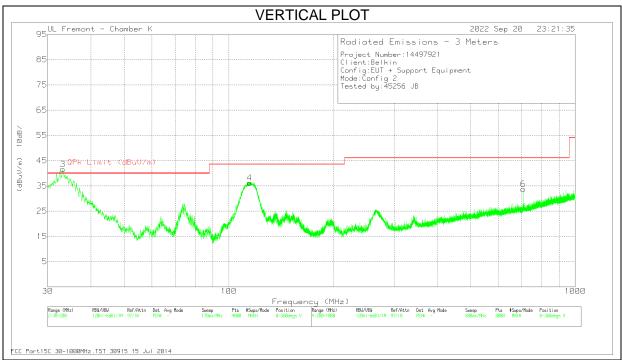
Qp - Quasi-Peak detector

UL VERIFICATION SERVICES INC. 47173 Benicia Street, Fremont, CA 94538, USA This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

Page 18 of 21



8.3.2. CONFIGURATION 2: OPERATING MODE WITH iPhone (15W)



UL VERIFICATION SERVICES INC.FORM NO: CCSUP4701147173 Benicia Street, Fremont, CA 94538, USATEL:(510) 319-4000FAX:(510) 661-0888This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.FORM NO: CCSUP47011

Page 19 of 21

<u>DATA</u>

| Marker | Frequency (MHz) | Meter Reading (dBuV) | Det | 82258 ACF (dB) | Amp/Cbl (dB) | Corrected Reading (dBuV/m) | QPk Limit (dBuV/m) | Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|--------------------|----------------------------|-----|----------------|--------------|----------------------------------|--------------------|----------------|-------------------|----------------|----------|
| 1 | * 74.3815 | 49.65 | Pk | 14.1 | -31 | 32.75 | 40 | -7.25 | 0-360 | 197 | Н |
| 2 | * 113.832 | 44.31 | Pk | 19.6 | -30.7 | 33.21 | 43.52 | -10.31 | 0-360 | 295 | Н |
| 3 | 33.8865 | 44.96 | Qp | 24.9 | -31.5 | 38.36 | 40 | -1.64 | 301 | 105 | V |
| 4 | * 114.894 | 47.29 | Pk | 19.7 | -30.8 | 36.19 | 43.52 | -7.33 | 0-360 | 97 | V |
| 5 | 708.066 | 29.29 | Pk | 26.6 | -28.4 | 27.49 | 46.02 | -18.53 | 0-360 | 199 | Н |
| 6 | 708.266 | 35.5 | Pk | 26.6 | -28.4 | 33.7 | 46.02 | -12.32 | 0-360 | 199 | V |

 * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band Pk - Peak detector

Qp - Quasi-Peak detector

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I 47173 Benicia Street, Fremont, CA 94538, USA TEL:(510) 319-4000 FAX:(510) 66 This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc. FAX:(510) 661-0888

Page 20 of 21

9. DESCRIPTION OF TEST SETUP AND SETUP PHOTOS

Please refer to 14497921-EP1 (FCC) for description of test up and setup photo.

END OF TEST REPORT

Page 21 of 21