

RF Exposure Report

Report No.: SA160705C03A

FCC ID: K7SF8J201

Test Model: F8J201

Received Date: May 17, 2018

Test Date: May 24 ~ May 28, 2018

Issued Date: Jun. 05, 2018

Applicant: Belkin International, Inc.

Address: 12045 East Waterfront Drive, Playa Vista, CA 90094

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan,

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City

33383, TAIWAN (R.O.C.)

FCC Registration / 788550 / TW0003

Designation Number:





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Release Control Record

| Issue No. | Description | Date Issued |
|--------------|------------------|---------------|
| SA160705C03A | Original release | Jun. 05, 2018 |

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Report No.: SA160705C03A Reference No.: 180517C12



1 Certificate of Conformity

Product: Valet Charger[™] Power Pack 6700 mAh for Apple Watch + iPhone

Brand: belkin

Test Model: F8J201

Sample Status: Engineering sample

Applicant: Belkin International, Inc.

Test Date: May 24 ~ May 28, 2018

Standards: FCC Part 1 (Section 1.1307(b), 1.1310)

KDB 680106 D01 RF Exposure Wireless Charging Apps v03

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : , Date: Jun. 05, 2018

olly Chien / Specialist

Approved by: Jun. 05, 2018

Bruce Chen / Project Engineer



2 General Information

2.1 General Description of EUT

| Product | Valet Charger TM Power Pack 6700 mAh for Apple Watch + iPhone |
|---------------------------|--|
| Test Model | F8J201 |
| Sample Status | Engineering sample |
| | I/P: 5Vdc, 2.4A |
| Power Supply Rating | O/P: USB port with load 1A and wireless output with Apple watch |
| | 3.63Vdc (Battery) |
| Modulation Type | FSK |
| Operating Frequency | 326.5 kHz |
| Antenna Type | Coil antenna |
| Field Strength | 69.4dBuV/m |
| Dimensions | 7.95cm ² (diameter = 31.82mm) |
| Accessory Device | Battery |
| Data Cable Supplied | 1m shielded USB cable without core |
| Maximum Power Output from | Locathon 5VV |
| the Charging Coil | Less than 5W. |

Note:

1. The EUT uses following battery.

| Battery | |
|---------|------------------|
| Brand | LG CHEM, LTD. |
| Model | INR18650F1L |
| Rating | 3.63Vdc, 3350mAh |

2. The EUT has a wireless inductive charging coil for charging Apple watch.



3 RF Exposure

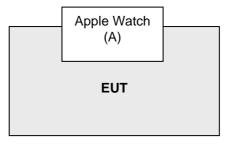
3.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| ID | Product | Brand | Model No. | Serial No. | FCC ID | Remarks |
|----|-------------|-------|-----------|------------|--------|--------------------|
| A. | Apple Watch | APPLE | A1553 | NA | NA | Provided by client |

3.1.1 Configuration of System Under Test

Charging Mode



Standby Mode

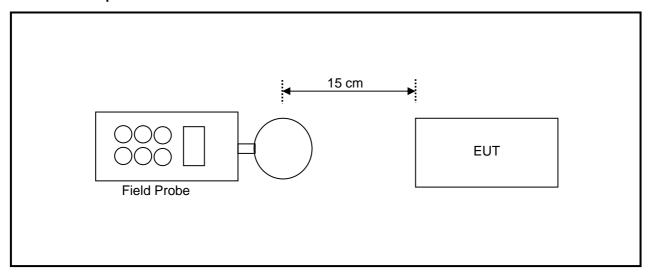
EUT

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3.2 Test Setup



Note: Measurements were made from all sides and the top of the primary/client pair, with the 15/20cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

3.3 Test Instruments

| Description | Brand | Model No. | Frequency Range | Calibrated Date | Calibrated Until |
|--------------------------|-------|------------|-----------------|-----------------|------------------|
| Broadband Field Meter | NARDA | NBM-550 | - | Mar. 28, 2018 | Mar. 27, 2020 |
| Magnetic Field Meter | NARDA | ELT-400 | 1 – 400kHz | Apr. 12, 2018 | Apr. 11, 2020 |
| Magnetic Probe | NARDA | HF 3061 | 300kHz – 30MHz | Apr. 16, 2018 | Apr. 15, 2020 |
| Magnetic Probe | NARDA | HF-0191 | 27 – 1000MHz | Apr. 17, 2018 | Apr. 16, 2020 |
| Broadband Field Meter | NARDA | NBM-550 | - | Mar. 28, 2018 | Mar. 27, 2020 |
| Magnetic Field Probe | NARDA | 2300/90.10 | 1Hz – 400kHz | Apr. 12, 2018 | Apr. 11, 2020 |
| E-Field Probe | NARDA | EF 0391 | 100kHz – 3GHz | Apr. 16, 2018 | Apr. 15, 2020 |
| E-Field Probe | NARDA | EF6091 | 100MHz – 60GHz | Apr. 17, 2018 | Apr. 16, 2020 |

Note: 1. The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa RF Chamber



Limits for Maximum Permissible Exposure (MPE)

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm²) | Averaging time (minutes) | | | | |
|--|-------------------------------------|-------------------------------------|---------------------------|-----------------------------|--|--|--|--|
| (A) Limits for Occupational/Controlled Exposures | | | | | | | | |
| 0.3–3.0 | 614 | 1.63 | *(100) | 6 | | | | |
| 3.0-30 | 1842/f | 4.89/f | *(900/f2) | 6 | | | | |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 | | | | |
| 300-1500 | | | f/300 | 6 | | | | |
| 1500-100,000 | | | 5 | 6 | | | | |
| (B) Limits | for General Populati | on/Uncontrolled Exp | oosure | | | | | |
| 0.3–1.34 | 614 | 1.63 | *(100) | 30 | | | | |
| 1.34-30 | 824/f | 2.19/f | *(180/f ²) | 30 | | | | |
| 30–300 | 27.5 | 0.073 | 0.2 | 30 | | | | |
| 300-1500 | | | f/1500 | 30 | | | | |
| 1500-100,000 | | | 1.0 | 30 | | | | |

f = frequency in MHz

T = frequency in MHz

* = Plane-wave equivalent power density

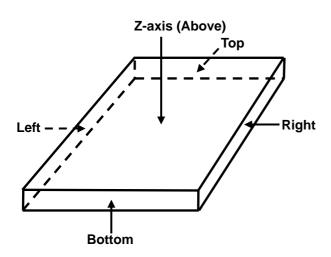
NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

KDB 680106 D01 RF Exposure Wireless Charging Apps v03

The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

3.5 **Test Point Description**



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4 Calculation Result Of Maximum Conducted Power

Charging Mode with watch, battery 10% Charge

| Charging Wood With Watch, Battery 1070 Charge | | | | | | | | |
|---|-------------------|----------|---------|----------|---------|---------|--|--|
| E-Field Measurement (15cm) | | | | | | | | |
| Frequency (kHz) | | | | | | | | |
| 326.5 | Max E-field (V/m) | 0.13 | 0.14 | 0.15 | 0.12 | 0.14 | | |
| 326.5 | Limit (V/m) | 614 | 614 | 614 | 614 | 614 | | |
| 326.5 | Margin (V/m) | -613.87 | -613.86 | -613.85 | -613.88 | -613.86 | | |
| 326.5 | 50 % Limit (V/m) | 307 | 307 | 307 | 307 | 307 | | |
| 326.5 | 70 % Margin (V/m) | -306.935 | -306.93 | -306.925 | -306.94 | -306.93 | | |

| H-Field Measurement (15cm) | | | | | | | |
|----------------------------|-------------------|---------|---------|---------|---------|-------------------|--|
| Frequency (kHz) | EUT Side | Left | Right | Тор | Bottom | Z-axis (Above) | |
| 326.5 | Max H-field (uT) | 0.253 | 0.261 | 0.263 | 0.262 | 0.263 | |
| 326.5 | Max H-field (A/m) | 0.2024 | 0.2088 | 0.2104 | 0.2096 | 0.2104 | |
| 326.5 | Limit (A/m) | 1.63 | 1.63 | 1.63 | 1.63 | 1.63 | |
| 326.5 | Margin (A/m) | -1.4276 | -1.4212 | -1.4196 | -1.4204 | -1.4196 | |
| 326.5 | 50 % Limit (A/m) | 0.815 | 0.815 | 0.815 | 0.815 | 0.815 | |
| 326.5 | 70 % Margin (A/m) | -0.7138 | -0.7106 | -0.7098 | -0.7102 | -0.7098 | |



Charging Mode with watch, battery 50% Charge

| E-Field Measurement (15cm) | | | | | | | |
|----------------------------|-------------------|---------|----------|---------|----------|-------------------|--|
| Frequency (kHz) | EUT Side | Left | Right | Тор | Bottom | Z-axis (Above) | |
| 326.5 | Max E-field (V/m) | 0.12 | 0.13 | 0.14 | 0.11 | 0.13 | |
| 326.5 | Limit (V/m) | 614 | 614 | 614 | 614 | 614 | |
| 326.5 | Margin (V/m) | -613.88 | -613.87 | -613.86 | -613.89 | -613.87 | |
| 326.5 | 50 % Limit (V/m) | 307 | 307 | 307 | 307 | 307 | |
| 326.5 | 70 % Margin (V/m) | -306.94 | -306.935 | -306.93 | -306.945 | -306.935 | |

| H-Field Measurement (15cm) | | | | | | | |
|----------------------------|-------------------|---------|---------|--------|---------|-------------------|--|
| Frequency (kHz) | EUT Side | Left | Right | Тор | Bottom | Z-axis (Above) | |
| 326.5 | Max H-field (uT) | 0.251 | 0.259 | 0.26 | 0.261 | 0.262 | |
| 326.5 | Max H-field (A/m) | 0.2008 | 0.2072 | 0.208 | 0.2088 | 0.2096 | |
| 326.5 | Limit (A/m) | 1.63 | 1.63 | 1.63 | 1.63 | 1.63 | |
| 326.5 | Margin (A/m) | -1.4292 | -1.4228 | -1.422 | -1.4212 | -1.4204 | |
| 326.5 | 50 % Limit (A/m) | 0.815 | 0.815 | 0.815 | 0.815 | 0.815 | |
| 326.5 | 70 % Margin (A/m) | -0.7146 | -0.7114 | -0.711 | -0.7106 | -0.7102 | |



Charging Mode with watch, battery 90% Charge

| E-Field Measurement (15cm) | | | | | | | |
|----------------------------|-------------------|----------|---------|----------|---------|---------|--|
| Frequency (kHz) | | | | | | | |
| 326.5 | Max E-field (V/m) | 0.11 | 0.12 | 0.13 | 0.1 | 0.12 | |
| 326.5 | Limit (V/m) | 614 | 614 | 614 | 614 | 614 | |
| 326.5 | Margin (V/m) | -613.89 | -613.88 | -613.87 | -613.9 | -613.88 | |
| 326.5 | 50 % Limit (V/m) | 307 | 307 | 307 | 307 | 307 | |
| 326.5 | 70 % Margin (V/m) | -306.945 | -306.94 | -306.935 | -306.95 | -306.94 | |

| H-Field Measurement (15cm) | | | | | H-Field Measurement (20cm) | |
|----------------------------|-------------------|--------|---------|---------|----------------------------------|-------------------|
| Frequency (kHz) | EUT Side | Left | Right | Тор | Bottom | Z-axis (Above) |
| 326.5 | Max H-field (uT) | 0.25 | 0.257 | 0.259 | 0.26 | 0.261 |
| 326.5 | Max H-field (A/m) | 0.2 | 0.2056 | 0.2072 | 0.208 | 0.2088 |
| 326.5 | Limit (A/m) | 1.63 | 1.63 | 1.63 | 1.63 | 1.63 |
| 326.5 | Margin (A/m) | -1.43 | -1.4244 | -1.4228 | -1.422 | -1.4212 |
| 326.5 | 50 % Limit (A/m) | 0.815 | 0.815 | 0.815 | 0.815 | 0.815 |
| 326.5 | 70 % Margin (A/m) | -0.715 | -0.7122 | -0.7114 | -0.711 | -0.7106 |



Standby Mode

| E-Field Measurement (15cm) | | | | | E-Field Measurement | |
|----------------------------|-------------------|----------|---------|----------|------------------------|-------------------|
| | | | | | (20cm) | |
| Frequency (kHz) | EUT Side | Left | Right | Тор | Bottom | Z-axis (Above) |
| 326.5 | Max E-field (V/m) | 0.15 | 0.12 | 0.11 | 0.14 | 0.11 |
| 326.5 | Limit (V/m) | 614 | 614 | 614 | 614 | 614 |
| 326.5 | Margin (V/m) | -613.85 | -613.88 | -613.89 | -613.86 | -613.89 |
| 326.5 | 50 % Limit (V/m) | 307 | 307 | 307 | 307 | 307 |
| 326.5 | 70 % Margin (V/m) | -306.925 | -306.94 | -306.945 | -306.93 | -306.945 |

| H-Field Measurement (15cm) | | | | | H-Field Measurement (20cm) | |
|----------------------------|-------------------|---------|---------|--------|----------------------------------|-------------------|
| Frequency (kHz) | EUT Side | Left | Right | Тор | Bottom | Z-axis (Above) |
| 326.5 | Max H-field (uT) | 0.261 | 0.266 | 0.26 | 0.264 | 0.265 |
| 326.5 | Max H-field (A/m) | 0.2088 | 0.2128 | 0.208 | 0.2112 | 0.212 |
| 326.5 | Limit (A/m) | 1.63 | 1.63 | 1.63 | 1.63 | 1.63 |
| 326.5 | Margin (A/m) | -1.4212 | -1.4172 | -1.422 | -1.4188 | -1.418 |
| 326.5 | 50 % Limit (A/m) | 0.815 | 0.815 | 0.815 | 0.815 | 0.815 |
| 326.5 | 70 % Margin (A/m) | -0.7106 | -0.7086 | -0.711 | -0.7094 | -0.709 |



| 5 Photographs of the Test Configuration |
|---|
| Please refer to the attached file (Test Setup Photo). |
| END |
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