

## RF Exposure Report

**Report No.:** SA170629C07

**FCC ID:** K7SF2CU053

**Test Model:** F2CU053

**Received Date:** Jun. 29, 2017

**Test Date:** Jul. 04, 2017

**Issued Date:** Jul. 05, 2017

**Applicant:** Belkin Electronics (Changzhou) Co.,Ltd.

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Hi-Tech Industrial Zone, Changzhou City, Jiangsu, China

**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,  
R.O.C.

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, TAIWAN (R.O.C.)

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### Release Control Record

Issue No.	Description	Date Issued
SA170629C07	Original release	Jul. 05, 2017

## 1 Certificate of Conformity

**Product:** 4 feet Apple watch charging cable

**Brand:** belkin

**Test Model:** F2CU053

**Sample Status:** Engineering sample

**Applicant:** Belkin Electronics (Changzhou) Co.,Ltd.

**Test Date:** Jul. 04, 2017

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

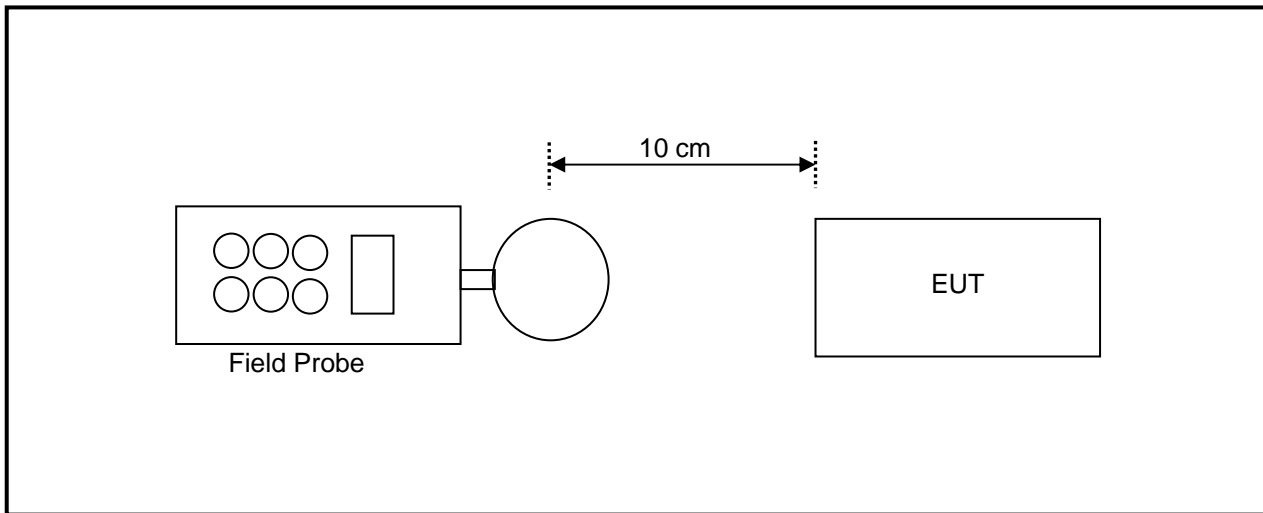
The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts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

**Prepared by :** Celine Chou , **Date:** Jul. 05, 2017  
Celine Chou / Specialist

**Approved by :** Ken Liu , **Date:** Jul. 05, 2017  
Ken Liu / Senior Manager

## 2 RF Exposure

### 2.1 Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device.

### 2.2 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Feb. 9, 2016	Feb. 8, 2018
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Feb. 11, 2016	Feb. 10, 2018
Magnetic Probe	NARDA	HF-3061	300kHz – 30MHz	Feb. 9, 2016	Feb. 8, 2018
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Feb. 9, 2016	Feb. 8, 2018
Broadband Field Meter	NARDA	NBM-550	-	Feb. 9, 2016	Feb. 8, 2018
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Oct. 16, 2016	Oct. 15, 2017
E-Field Probe	NARDA	EF-0391	100kHz – 3GHz	Feb. 9, 2016	Feb. 8, 2018
E-Field Probe	NARDA	EF-6091	100MHz – 60GHz	Feb. 9, 2016	Feb. 8, 2018

Note: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa RF Chamber

## 2.3 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/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	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

\* = Plane-wave equivalent power density

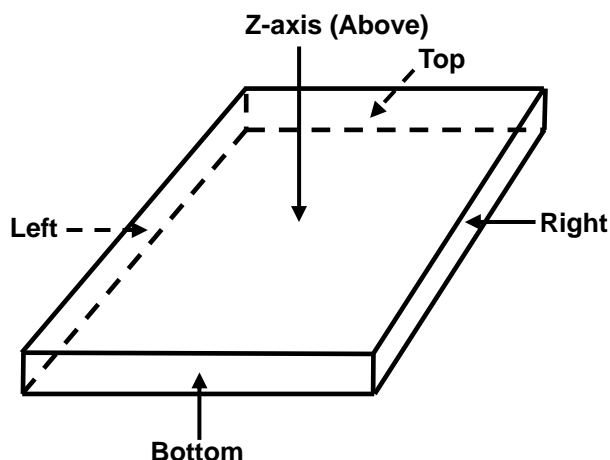
NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply 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.

## 680106 D01 RF Exposure Wireless Charging Apps v02

Aggregate leakage fields at 10 cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.

## 2.4 Test Point Description



### 3 Calculation Result Of Maximum Conducted Power

Charging mode

E-Field Measurement (10cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max E-field (V/m)	0.47	0.44	0.53	0.65	0.56
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.53	-613.56	-613.47	-613.35	-613.44
70 % Limit (V/m)	429.8	429.8	429.8	429.8	429.8
70 % Margin (V/m)	-429.471	-429.492	-429.429	-429.345	-429.408

H-Field Measurement (10cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max H-field (uT)	0.242	0.248	0.247	0.244	0.246
Max H-field (A/m)	0.1936	0.1984	0.1976	0.1952	0.1968
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.4364	-1.4316	-1.4324	-1.4348	-1.4332
70 % Limit (A/m)	1.141	1.141	1.141	1.141	1.141
70 % Margin (A/m)	-1.00548	-1.00212	-1.00268	-1.00436	-1.00324

# Standby mode

E-Field Measurement (10cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max E-field (V/m)	0.29	0.32	0.43	0.56	0.48
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.71	-613.68	-613.57	-613.44	-613.52
70 % Limit (V/m)	429.8	429.8	429.8	429.8	429.8
70 % Margin (V/m)	-429.597	-429.576	-429.499	-429.408	-429.464

H-Field Measurement (10cm)					
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)
Max H-field (uT)	0.242	0.242	0.243	0.244	0.241
Max H-field (A/m)	0.1936	0.1936	0.1944	0.1952	0.1928
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.4364	-1.4364	-1.4356	-1.4348	-1.4372
70 % Limit (A/m)	1.141	1.141	1.141	1.141	1.141
70 % Margin (A/m)	-1.00548	-1.00548	-1.00492	-1.00436	-1.00604

Measurements was made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

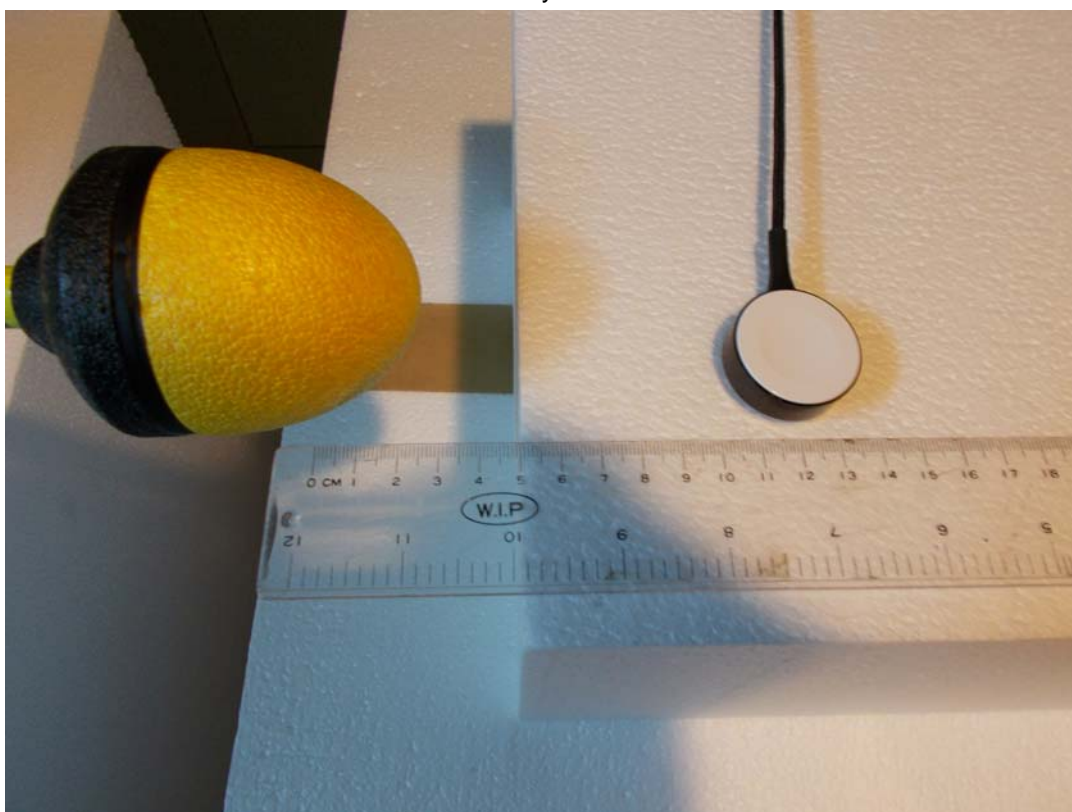


#### 4 Photographs of the Test Configuration

Charging mode



Standby mode



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