

RF Exposure Report

Report No.: MFBCBS-WTW-P24050227

FCC ID: K7SWIA008V2

Test Model: WIA008V2

Received Date: May 09, 2024

Test Date: Jun. 06, 2024

Issued Date: Jun. 27, 2024

Applicant: Belkin International, Inc.

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

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FCC Registration / 788550 / TW0003
Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
MFBCBS-WTW-P24050227	Original release	Jun. 27, 2024

1 Certificate of Conformity

Product: BoostCharge Pro Convertible Magnetic Charging Stand
Brand: belkin
Test Model: WIA008V2
Sample Status: Engineering sample
Applicant: Belkin International, Inc.
Test Date: Jun. 06, 2024
FCC Rule Part: FCC Part 1 (Section 1.1307(b), Section 1.1310)
FCC Part 2 (Section 2.1091)
Standards: KDB 680106 D01 Wireless Power Transfer v04

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 : Polly Chien , **Date:** Jun. 27, 2024
Polly Chien / Specialist

Approved by : Jeremy Lin , **Date:** Jun. 27, 2024
Jeremy Lin / Project Engineer

2 General Information

2.1 General Description of EUT

Product	BoostCharge Pro Convertible Magnetic Charging Stand
Brand	belkin
Test Model	WIA008V2
Sample Status	Engineering sample
Power Supply Rating	5 or 9 or 12 Vdc (adapter)
Modulation Type	FSK
Operating Frequency	127.7kHz for iPhone (8-11 series) 360.0kHz for iPhone (12 series up)
Antenna Type	Coil antenna
Field Strength	360.0kHz: -25.2dBuV/m (PK) (300m) -33.2dBuV/m (AV) (300m) 127.7kHz: -11.5dBuV/m (PK) (300m) -13.0dBuV/m (AV) (300m)
Accessory Device	Refer to Note as below
Data Cable Supplied	Refer to Note as below
Maximum Power Output for Qi2 charging coil	15W
Dimension for Qi2 charging coil	1195mm ² (Diameter=39mm)

Note:

1. The EUT contains following accessory devices.

Item	Brand	Model	Description
Adapter (Option)	belkin	A784-120167C-US1	I/P: 100-240Vac, 50/60Hz, 0.5A O/P: 5Vdc, 3.0A; 9Vdc, 2.23A; 12Vdc, 1.67A; 5-11Vdc, 2.2A, 20W Max.
Type C to Type C USB Cable	CE-Link	UTC-C-5FT-BK-01/ UTC-C-5FT-WH-01	1.5m shielding cable

2. The EUT has two exterior colors: black and white.

3. Due to radiated measurements are made and the antenna gain is already accounted for this device, so provide an antenna datasheet and/or antenna measurement report is not required. The antenna dimensions and pictures (include antenna wire length if have) are stated in EUT photo exhibit.

4. Only radiated measurements are used to show compliance with FCC limits for fundamental and spurious emissions.

2.2 Description of Test Modes

Test Mode	Tested Frequency
A	Charging Mode (EUT with iPhone 11) – 127.7kHz
B	Charging Mode (EUT with iPhone 15) – 360.0kHz
C	Standby Mode

Note:

1. The charging mode has been pre-tested in three modes: 10%, 50% and 90%. After verification, 10% was chosen for final test and presented in the test report.
2. EUT can be used in the following ways: Standing w/ Charging Pad_Vertical & Horizontal. Pre-scan these ways and find the worst case as a representative test condition. The horizontal was the worst case for final test and presented in the test report.

3.

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.	Adapter	belkin	A784-120167C-US1	NA	NA	Option
B.	iPhone 15	APPLE	A3090	NA	BCG-E8429A	360kHz Provided by manufacturer
C.	iPhone 11	APPLE	A2215	NA	BCG-E3307A	127.7kHz Provided by manufacturer

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Type C to Type C USB Cable	1	1.5	Y	1	Accessory of EUT

3.1.1 Configuration of System under Test

Charging Mode:

Test Mode A



Test Mode B

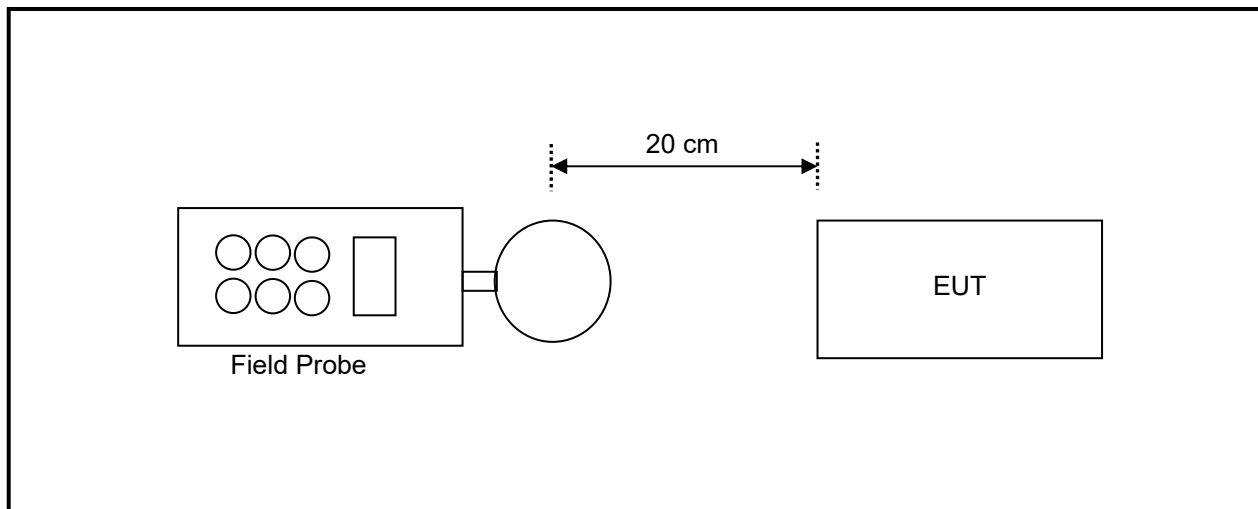


Standby Mode:

Test Mode C



3.2 Test Setup



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

3.3 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
EM Field Meter	Wavecontrol	SMP2 Dual	-	Jul. 06, 2023	Jul. 05, 2024
Magnetic Probe	Wavecontrol	WPH60	300kHz – 60MHz	Jul. 10, 2023	Jul. 09, 2024
EM Field Probe	Wavecontrol	WP400	1Hz – 400kHz	Jul. 06, 2023	Jul. 05, 2024
E-Field Probe	Wavecontrol	WPF3	100kHz – 3GHz	Jul. 06, 2023	Jul. 05, 2024

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa RF Chamber

3.4 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 ²)	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/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
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

* = 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.

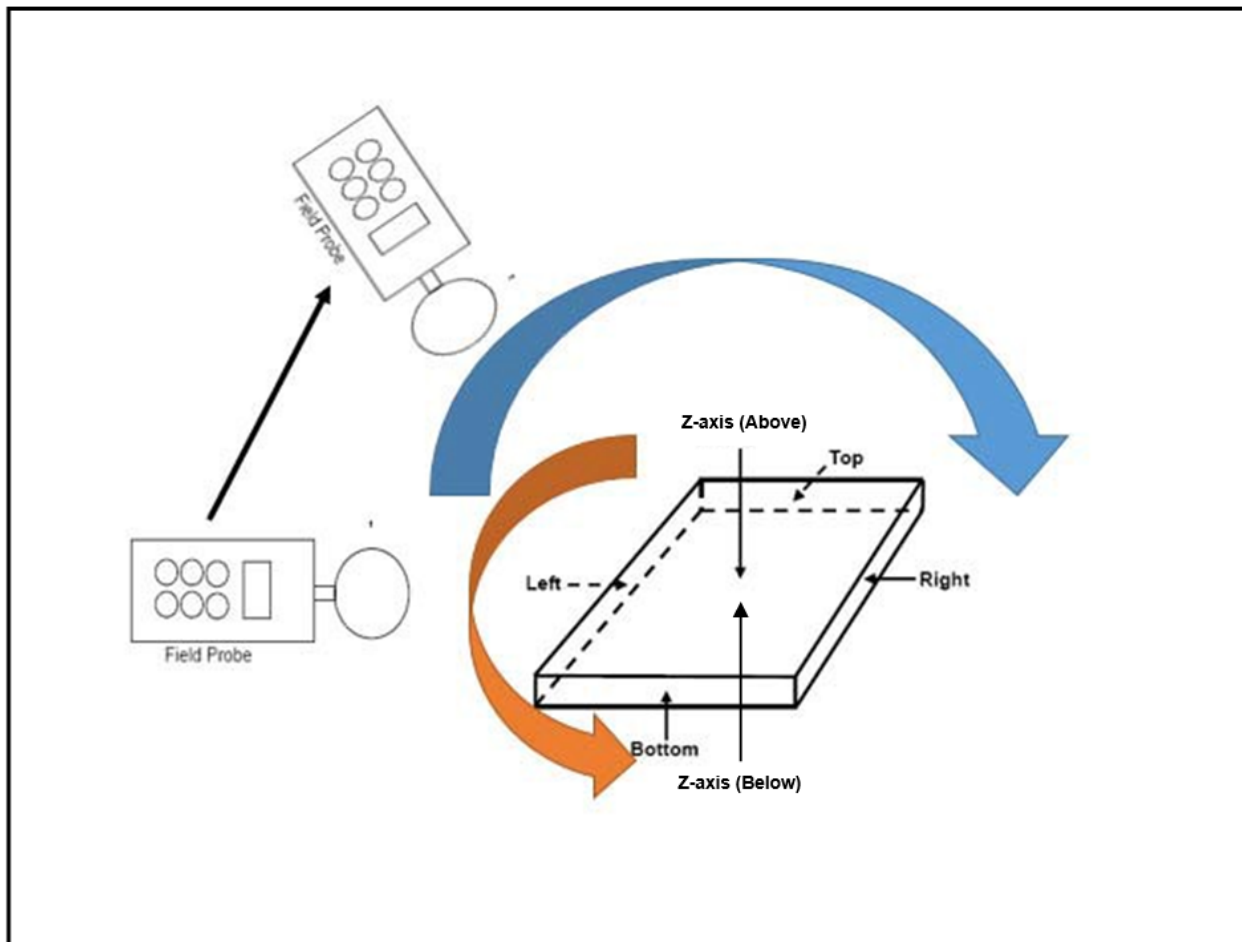
KDB 680106 D01 Wireless Power Transfer v04, section 3.2 as reproduced below:

3.2 Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz

The RF exposure limits, as set forth in § 1.1310, do not cover the frequency range below 100 kHz for Specific Absorption Rate (SAR) and below 300 kHz for Maximum Permitted Exposure (MPE). In addition, present limitations of RF exposure evaluation systems prevent an accurate evaluation of SAR below 4 MHz. For these reasons, a specific MPE-based RF Exposure compliance procedure for devices operating in the aforementioned low-frequency ranges has been set in place. Accordingly, for § 2.1091-Mobile devices, the MPE limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310, that is, 614 V/m and 1.63 A/m, for the electric field and magnetic field, respectively.

3.5 Test Point Description

The aggregate Fields strengths at 20 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.



4. Calculation Result of Maximum Conducted Power

Test Mode A

Operated Mode: Charging 10%

E-Field (20cm)							
Frequency (kHz)	EUT Side	Left	Right	Top	Bottom	Z-axis (Below)	Z-axis (Above)
127.7	Max E-field (V/m)	0.2600	0.2700	0.2800	0.2700	0.2300	0.2200
127.7	Limit (V/m)	614	614	614	614	614	614
127.7	Margin (V/m)	-613.7400	-613.7300	-613.7200	-613.7300	-613.7700	-613.7800

H-Field (20cm)							
Frequency (kHz)	EUT Side	Left	Right	Top	Bottom	Z-axis (Below)	Z-axis (Above)
127.7	Max H-field (uT)	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400
127.7	Max H-field (A/m)	0.0320	0.0320	0.0320	0.0320	0.0320	0.0320
127.7	Limit (A/m)	1.63	1.63	1.63	1.63	1.63	1.63
127.7	Margin (A/m)	-1.5980	-1.5980	-1.5980	-1.5980	-1.5980	-1.5980

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

Test Mode B

Operated Mode: Charging 10%

E-Field (20cm)							
Frequency (kHz)	EUT Side	Left	Right	Top	Bottom	Z-axis (Below)	Z-axis (Above)
360.0	Max E-field (V/m)	0.1700	0.1800	0.2000	0.1800	0.2200	0.2800
360.0	Limit (V/m)	614	614	614	614	614	614
360.0	Margin (V/m)	-613.8300	-613.8200	-613.8000	-613.8200	-613.7800	-613.7200

H-Field (20cm)							
Frequency (kHz)	EUT Side	Left	Right	Top	Bottom	Z-axis (Below)	Z-axis (Above)
360.0	Max H-field (uT)	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400
360.0	Max H-field (A/m)	0.0320	0.0320	0.0320	0.0320	0.0320	0.0320
360.0	Limit (A/m)	1.63	1.63	1.63	1.63	1.63	1.63
360.0	Margin (A/m)	-1.5980	-1.5980	-1.5980	-1.5980	-1.5980	-1.5980

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

Test Mode C

Standby Mode

E-Field (20cm)						
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)	Z-axis (Below)
Max E-field (V/m)	0.0900	0.1000	0.0800	0.1200	0.1000	0.1000
Limit (V/m)	614	614	614	614	614	614
Margin (V/m)	-613.9100	-613.9000	-613.9200	-613.8800	-613.9000	-613.9000

H-Field (20cm)						
EUT Side	Left	Right	Top	Bottom	Z-axis (Above)	Z-axis (Below)
Max H-field (uT)	0.0400	0.0400	0.0400	0.0400	0.0400	0.0400
Max H-field (A/m)	0.0320	0.0320	0.0320	0.0320	0.0320	0.0320
Limit (A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.5980	-1.5980	-1.5980	-1.5980	-1.5980	-1.5980

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

5. Photographs of the Test Configuration

Please refer to the attached file (Test Setup Photo).

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