Certificate # 2951.01

RF EXPOSURE TEST REPORT

Applicant	Belkin International, Inc.
Address	12045 East Waterfront Drive, Playa Vista, CA 90094 USA

Manufacturer or Supplier	Belkin International, Inc.
Address	12045 East Waterfront Drive, Playa Vista, CA 90094 USA
Product	BOOST↑CHARGE™ Magnetic Wireless Car Charger
Brand Name	belkin
Model	WIC004
Additional Model & Model Difference	N/A
Date of tests	Jul. 20, 2021~ Jul. 26, 2021

The submitted sample of the above equipment has been tested according to the requirements of the following standard:

☒ **47 CFR PART 1, Subpart I, Section 1.1310**
☒ **KDB 680106 D01**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Lucas Chen Project Engineer / EMC Department	Approved by Glyn He Assistant Manager/ EMC Department
	 Data: Aug. 12, 2021

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS2104WDG0462	Original release	Aug. 12, 2021

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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

FCC ID	K7SWIC004
PRODUCT	BOOST↑CHARGE™ Magnetic Wireless Car Charger
MODEL NO.	WIC004
ADDITIONAL MODEL	N/A
POWER SUPPLY	DC 12V or 24V
MODULATION TECHNOLOGY	FSK
OPERATING FREQUENCY RANGE	111KHz ~ 200KHz
ANTENNA TYPE	Coil Antenna
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB-C cable: Shielded, detachable 1.2m

NOTES:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions, but only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 2104WDG0462-1) for detailed product photo.

2. RF EXPOSURE MEASUREMENT

2.1 LIMITS

§ 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 Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f²)	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.

Reference KDB 680106 D01 RF Exposure Wireless Charging App 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.

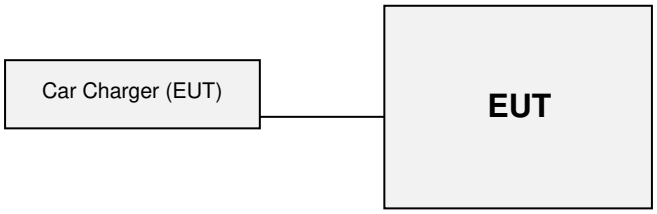
2.2 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested with associated equipment below

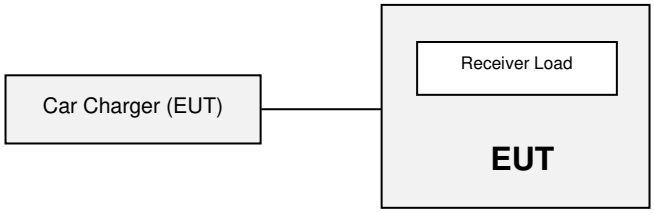
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Receiver Load	N/A	N/A	N/A	N/A

2.3 CONFIGURATION OF SYSTEM UNDER TEST

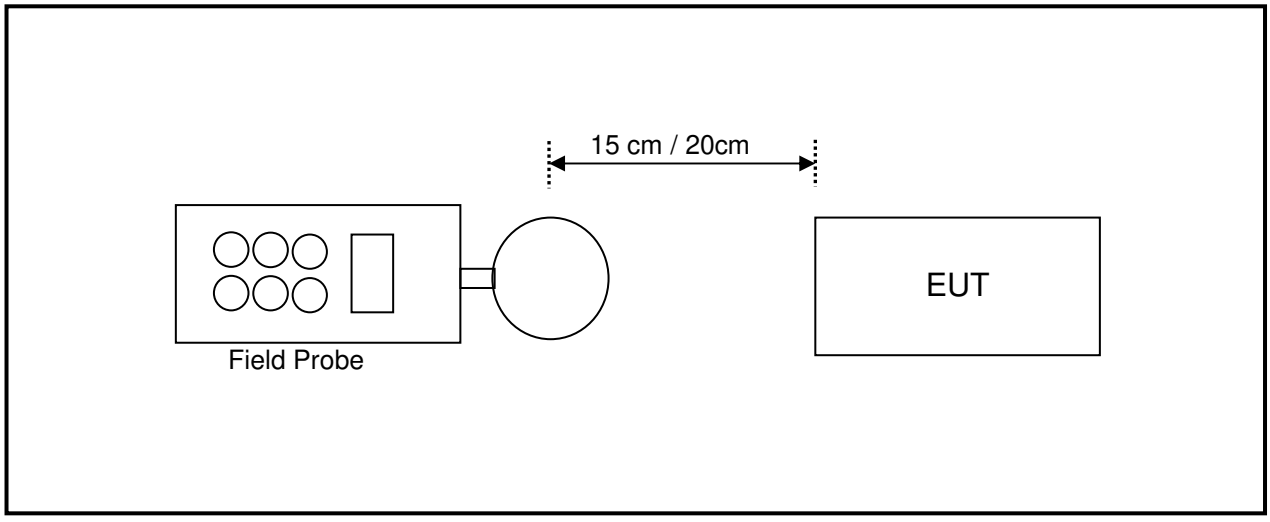
Standby
(DC 24V)



Charging Mode with Receiver Load
(DC 24V)



2.4 TEST SETUP FOR WPC



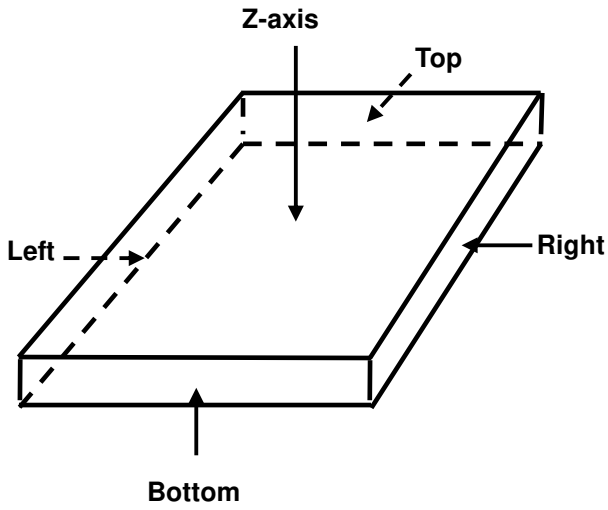
Note: Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm or 20 cm measured from the center of the probe(s) to the edge of the device.

2.5 EQUIPMENTS USED DURING TEST

Item	Test Equipment	Manufacturer	Model No.	Frequency Range	Next Cal.
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	7m*4m*3m	NSEMC003	2022-03-19
2	Narda Broadband Field Meter	Narda	NBM-520	100KHz-90GHz	2021-12-23
3	E-Field probe	Narda	EF0691	100KHz-6GHz	2021-12-23
4	Exposure Level Tester	Narda	ELT-400	1Hz-400KHz	2021-12-23

NOTE: 1. The test was performed in RS chamber.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2.6 TEST POINT DESCRIPTION



2.7 TEST RESULTS

Mode1 USB-C port input + Standby

E-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max E-field (V/m)	0.34	0.5	0.93	0.46	0.58
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.66	-613.5	-613.07	-613.54	-613.42
50% Limit (V/m)	307	307	307	307	307
50% Margin (V/m)	-306.66	-306.5	-306.07	-306.54	-306.42

H-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max H-field (uT)	0.227	0.227	0.229	0.227	0.23
Max H-field (A/m)	0.181	0.181	0.182	0.181	0.183
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.449	-1.449	-1.448	-1.449	-1.447
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.634	-0.634	-0.633	-0.634	-0.632

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

Mode2 EUT USB-C port input + Receiving Load Operating

E-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max E-field (V/m)	0.95	0.9	1.04	0.49	1.34
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.05	-613.1	-612.96	-613.51	-612.66
50% Limit (V/m)	307	307	307	307	307
50% Margin (V/m)	-306.05	-306.1	-305.96	-306.51	-305.66

H-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max H-field (uT)	0.231	0.231	0.233	0.227	0.23
Max H-field (A/m)	0.184	0.184	0.186	0.181	0.183
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.446	-1.446	-1.444	-1.449	-1.447
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.631	-0.631	-0.629	-0.634	-0.632

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

Mode3 EUT USB-C port input + Receiving Load Operating with 3mm airgap

E-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max E-field (V/m)	1.54	2.58	3.09	1.4	2.32
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-612.46	-611.42	-610.91	-612.6	-611.68
50% Limit (V/m)	307	307	307	307	307
50% Margin (V/m)	-305.46	-304.42	-303.91	-305.6	-304.68

H-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max H-field (uT)	0.233	0.236	0.234	0.23	0.238
Max H-field (A/m)	0.186	0.188	0.186	0.183	0.189
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.444	-1.442	-1.444	-1.447	-1.441
50% Limit (A/m)	0.815	0.815	0.815	0.815	0.815
50% Margin (A/m)	-0.629	-0.627	-0.629	-0.632	-0.626

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

3. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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