

FCC RF EXPOSURE TEST REPORT

For

BOOST † CHARGE Wireless Charging Stand 10W

MODEL NUMBER: WIB001

FCC ID: K7SWIB001

REPORT NUMBER: 4789310744-3

ISSUE DATE: January 3, 2020

Prepared for

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

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	1/3/2020	Initial Issue	



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Belkin International, Inc.

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

Manufacturer Information

Company Name: Belkin International, Inc.

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

EUT Information

EUT Name: BOOST ↑ CHARGE Wireless Charging Stand 10W

Model: WIB001

Serial Model: /

Brand: Belkin

Sample Received Date: December 19, 2019

Sample Status: Normal Sample ID: 2742458

Date of Tested: December 19, 2019 ~ December 26, 2019

APPLICABLE STANDARDS				
STANDARD	TEST RESULTS			
FCC 47CFR§1.1307	PASS			
FCC 47CFR§1.1310	PASS			
FCC 47CFR§2.1093	PASS			
FCC 47CFR§2.1091	PASS			

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC 47CFR§1.1307(b)(1), FCC 47CFR§1.1310, FCC 47CFR§2.1093, 680106 D01 RF Exposure wireless charging apps v03.

3. FACILITIES AND ACCREDITATION

	A2LA (Certificate No.: 4102.01)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with A2LA.
	FCC (FCC Designation No.: CN1187)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	Has been recognized to perform compliance testing on equipment subject
	to the Commission's Declaration of Conformity (DoC) and Certification
	rules
A	IC (Company No.: 21320)
Accreditation	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Certificate	has been registered and fully described in a report filed with
	Industry Canada. The Company Number is 21320.
	VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with VCCI, the
	Membership No. is 3793.
	Facility Name:
	Chamber D, the VCCI registration No. is G-20019 and R-20004
	Shielding Room B, the VCCI registration No. is C-20012 and T-20011

Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China



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4. DESCRIPTION OF EUT

EUT Name	BOOST ↑ CHARGE Wireless Charging Stand 10W		
EUT Description	The EUT is a wireless charger.		
Model	WIB001		
Product Description	Operation Frequency 111 ~ 130kHz		
Rated Output Power	Maximum 10W		
Antenna Type	Coil		
Antenna Number	1		
Ratings	Input: DC 5V 2A Output:5W Input: DC 9V 2A / DC 12V 1.5A Output: 10W		

Note:

1. The EUT contains following accessory devices

Product	Brand	Model	Description	Remark
Adapter 1	belkin	A138A-120150U-US5	AC Input: 100-240Vac~50/60Hz, 0.5A DC Output: 5V/2A, 9V/2A,12V/1.5A	Black and White (Optional)
Adapter 2	belkin	DSA-18QFB FUS A	AC Input: 100-240Vac~50/60Hz, 0.8A DC Output: 3.6V-6V/2A, 6V-9V/2A, 9V-12V/1.5A	Black and White (Optional)
USB cable	Belkin	F2CU012bt04	Length:1.3m	Black and White (Optional)

2. The above EUT information is declared by manufacturer and for more detailed features description, please refer the manufacturer's or user's manual.



5. REQUIREMENT

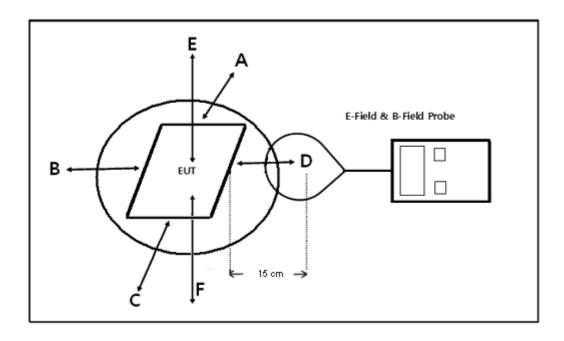
<u>LIMIT</u>

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time E ², H ² or S (Minutes)
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

METHOD OF MEASUREMENT

- a) The RF exposure test was performed in shielded chamber.
- b) The measurement probe was placed at test distance (15cm) which is between the edge of the charger and the geometric centre of probe.
- c) The measurement probe used to search of highest strength.
- d) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- e) The EUT were measured according to the dictates of KDB 680106D01v03.

BLOCK DIAGRAM OF TEST SETUP





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Note: As bottom point is not required to test for desktop devices, so we scanning all the surfaces and recorded the worst level in F.

EQUIPMENT APPROVAL CONSIDERATIONS

The EUT does comply with KDB 680106D01v03.

1) Power transfer frequency is less than 1MHz.
Yes; The device operated in the frequency range from 110kHz to 205kHz.

2) Output power from each primary coil is less than or equal to 15 watts. Yes; The maximum output power of each primary coil is 10 watts.

3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.

Yes; The transfer system includes only single coils.

4) Client device is placed directly in contact with the transmitter. Yes; Client device is placed directly in contact with the transmitter.

- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion). Yes: The EUT is a mobile device.
- 6) 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.

Yes; The EUT field strength levels are less than 50% of the MPE limit.

MEASURING INSTRUMENT USED

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Electric and Magnetic Field Analyzer	Narda	EHP-200A	170WX90204	April 21, 2019	April 21, 2020



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E FIELD AND H FIELD STRENGTH TEST RESULT

Test mode for wireless charger:

Config	Test Mode	Description
Mode 1	Standby	WIB001 Wireless Charger powered by A138A-120150U-US5 adapter.
Mode 2	Operating	WIB001 Wireless Charger powered by A138A-120150U-US5 adapter and with 5W wireless charging load at center.
Mode 3	Operating	WIB001 Wireless Charger powered by A138A-120150U-US5 adapter and with 10W wireless charging load at center.
Mode 4	Operating	WIB001 Wireless Charger powered by A138A-120150U-US5 adapter and with 5W wireless charging load and 3mm airgap at center.
Mode 5	Operating	WIB001 Wireless Charger powered by A138A-120150U-US5 adapter and with 10W wireless charging load and 3mm airgap at center.
Mode 6	Standby	WIB001 Wireless Charger powered by DSA-18QFB FUS A adapter.
Mode 7	Operating	WIB001 Wireless Charger powered by DSA-18QFB FUS A adapter and with 5W wireless charging load at center.
Mode 8	Operating	WIB001 Wireless Charger powered by DSA-18QFB FUS A adapter and with 10W wireless charging load at center.
Mode 9	Operating	WIB001 Wireless Charger powered by DSA-18QFB FUS A adapter and with 5W wireless charging load and 3mm airgap at center.
Mode 10	Operating	WIB001 Wireless Charger powered by DSA-18QFB FUS A adapter and with 10W wireless charging load and 3mm airgap at center.

Note:

- 1. Phone 5W, 20-50% power charging.
- 2. 10W Load, >90% power charging.



H-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the FUT

	H-Filed			
Test Position	Mode 1	Mode 2	Mode 3	Limits (A/m)
	A/m		(AVIII)	
А	0.5585	0.0715	0.5152	1.63
В	0.1580	0.1716	0.1614	1.63
С	0.4605	0.0778	0.4442	1.63
D	0.1324	0.1121	0.2131	1.63
E	0.0641	0.0654	0.1140	1.63
F	0.5601	0.1801	0.5241	1.63

	H-Filed Strength		
Test Position	Mode 4	Mode 5	Limits (A/m)
	Α/	m	(A/III)
А	0.0781	0.5203	1.63
В	0.1824	0.1694	1.63
С	0.0815	0.4419	1.63
D	0.1148	0.2144	1.63
Е	0.0631	0.1184	1.63
F	0.1857	0.5298	1.63

	H-File			
Test Position	Mode 6	Mode 7	Mode 8	Limits (A/m)
		A/m		(2011)
Α	0.5603	0.0775	0.5121	1.63
В	0.1610	0.1724	0.1633	1.63
С	0.4706	0.0751	0.4423	1.63
D	0.1385	0.1160	0.2121	1.63
Ē	0.0655	0.0612	0.1156	1.63
F	0.5633	0.1791	0.5203	1.63

	H-Filed Strength Measure Result		
Test Position	Mode 9	Mode 10	Limits (A/m)
	A/m		(A/III)
Α	0.0787	0.5169	1.63
В	0.1869	0.1521	1.63
С	0.0767	0.4449	1.63
D	0.1198	0.2152	1.63
E	0.0675	0.1199	1.63
F	0.1903	0.5235	1.63



E-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the FUT

	E-Filed Strength Measure Result			
Test Position	Mode 1	Mode 2	Mode 3	Limits (V/m)
		V/m		((((((((((((((((((((
А	0.5707	1.1481	3.2433	614
В	0.4638	0.9566	1.3804	614
С	0.5940	0.8561	1.4537	614
D	0.4936	0.7575	1.4282	614
Ē	0.6164	0.8125	1.8841	614
F	0.6176	1.1615	3.2679	614

	E-Filed Strength Measure Result		
Test Position	Mode 4	Mode 5	Limits (V/m)
	V/m		- (V/III)
Α	1.1323	3.2698	614
В	0.9659	1.3931	614
С	0.8731	1.4441	614
D	0.7682	1.4159	614
Е	0.8239	1.8714	614
F	1.1498	3.2987	614

	E-Filed Strength Measure Result			
Test Position	Mode 6	Mode 7	Mode 8	Limits (V/m)
	V/m		(((((((((((((((((((
Α	0.5614	1.0791	2.8409	614
В	0.4447	0.9502	1.2008	614
С	0.5890	0.8683	1.3398	614
D	0.4730	0.7403	1.5201	614
Е	0.5903	0.8140	1.5844	614
F	0.6039	1.1003	2.8712	614

	E-Filed Strength Measure Result		
Test Position	Mode 9	Mode 10	Limits (V/m)
	V/m		- (V/III)
Α	1.0543	2.8311	614
В	0.9414	1.2131	614
С	0.8731	1.3501	614
D	0.7508	1.5317	614
Е	0.8088	1.5795	614
F	1.0755	2.8659	614