

Human Exposure Report

Application No.: SZEM1903011897CR
Applicant: SHENZHEN DBK ELECTRONICS CO., LTD
Address of Applicant: No.8 Qinghua Road, Zhu Village, Fucheng New Community, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province, China
Manufacturer: SHENZHEN DBK ELECTRONICS CO., LTD
Address of Manufacturer: No.8 Qinghua Road, Zhu Village, Fucheng New Community, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province, China
Factory: SHENZHEN DBK ELECTRONICS CO., LTD
Address of Factory: No.8 Qinghua Road, Zhu Village, Fucheng New Community, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province, China
Equipment Under Test (EUT):
EUT Name: Wireless Charging RAPID Car Mount, Wireless Car Charger Mount
Model No.: QC10RCMBK, CP510 ♣
 ♣ Please refer to section 2.1 of this report which indicates which model was actually tested and which were electrically identical.
Trade mark: ALOGIC, DBK
FCC ID: 2ARVRCP510
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
Date of Receipt: 2019-03-21
Date of Test: 2019-03-25
Date of Issue: 2019-03-27

Test Result :	Pass*
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* In the configuration tested, the EUT complied with the standards specified above

Keny Xu
EMC Laboratory Manager



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2 General Information

2.1 Details of E.U.T.

Power supply: Input: DC 5V/2A DC 9V/1.67A
 Output:
 Wireless 5W(DC 5V/1A), 7.5W(DC 5V/1.5A), 10W(DC 9V/1.1A)

Cable: USB line: 100cm, shielded

Antenna Type: Loop Antenna

Antenna Gain: 0dBi

Modulation Type: Load Modulation

Operation Frequency: 114.50kHz to 177.50kHz

Remark: Tests were conducted in all three load modes and the worst case(10W) is reported only.

Remark:

Model No.: QC10RCMBK, CP510

Only the model CP510 was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, with only difference as below:

Product description:	Wireless Car Charger Mount	Wireless Charging RAPID Car Mount
Model No.:	CP510	QC10RCMBK
Trademark:	DBK	ALOGIC
Surface treatment:	Texture	Rubber Painting

2.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	SAMSUNG	EP-TA200	R37J8YA7W71DK3
iPhone 8	Apple	A1863	F4GVQ656JC6D
Mobile Phone	SAMSUNG	SM-G9500	R28J9140LPB



2.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

2.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 3816.01.

• VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.



3 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date
1	Electric and Magnetic Field Analyzer	Narda	EHP-50F	EMC092	2020-02-05



4 Test Results

4.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310
 Measurement Distance: 0/2/4/8/10/15cm
 Test voltage: DC 5V/9V
 Limit:

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

RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

4.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.4 °C Humidity: 55 % RH Atmospheric Pressure: 1015 mbar

EUT Operation:

This device has been tested the worst status of full load and the device has been tested with load at zero charge, intermediate charge, and full charge.



4.1.2 Measurement Data

All three load modes were conducted and the worst case(10W) is reported only.

Output Voltage=DC 9V; The max output power =10W;Calculation of resistor value=8.1Ω

Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
147.2 kHz	0	Side 1	10.77	307
		Side 2	8.85	307
		Side 3	7.52	307
		Side 4	7.27	307
		Top	9.35	307

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
147.2 kHz	0	Side 1	0.0834	0.815
		Side 2	0.0759	0.815
		Side 3	0.0644	0.815
		Side 4	0.0649	0.815
		Top	0.0778	0.815

Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
147.2 kHz	2	Side 1	5.34	307
		Side 2	3.55	307
		Side 3	3.43	307
		Side 4	3.51	307
		Top	3.67	307



Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
147.2 kHz	2	Side 1	0.0411	0.815
		Side 2	0.0368	0.815
		Side 3	0.0292	0.815
		Side 4	0.0313	0.815
		Top	0.0381	0.815

Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
147.2 kHz	4	Side 1	2.95	307
		Side 2	2.57	307
		Side 3	1.91	307
		Side 4	1.88	307
		Top	2.24	307

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
147.2 kHz	4	Side 1	0.0253	0.815
		Side 2	0.0239	0.815
		Side 3	0.0195	0.815
		Side 4	0.0204	0.815
		Top	0.0267	0.815



Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
147.2 kHz	8	Side 1	1.75	307
		Side 2	1.57	307
		Side 3	1.28	307
		Side 4	1.09	307
		Top	1.37	307

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
147.2 kHz	8	Side 1	0.0164	0.815
		Side 2	0.0149	0.815
		Side 3	0.0134	0.815
		Side 4	0.0129	0.815
		Top	0.0164	0.815

Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
147.2 kHz	10	Side 1	1.09	307
		Side 2	0.95	307
		Side 3	0.88	307
		Side 4	0.65	307
		Top	0.84	307



Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
147.2 kHz	10	Side 1	0.0094	0.815
		Side 2	0.0093	0.815
		Side 3	0.0075	0.815
		Side 4	0.0066	0.815
		Top	0.0091	0.815

Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
147.2 kHz	15	Side 1	0.45	307
		Side 2	0.57	307
		Side 3	0.46	307
		Side 4	0.37	307
		Top	0.48	307

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
147.2 kHz	15	Side 1	0.0069	0.815
		Side 2	0.0062	0.815
		Side 3	0.0044	0.815
		Side 4	0.0047	0.815
		Top	0.0062	0.815



Mobile phone has been charge at full charge.

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)	50%Limit (A/m)
			Full Charge	
147.2 kHz	0	Side 1	0.0847	0.815
	2	Side 1	0.0239	0.815
	4	Side 1	0.0134	0.815
	8	Side 1	0.0089	0.815
	10	Side 1	0.0081	0.815
	15	Side 1	0.0072	0.815

5 Photographs- RF exposure Setup photos

Refer to RF setup photos.

- End of the Report -

