

Report No.: SZEM181100004202

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Human Exposure Report

Application No.: SZEM1811000042CR

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: Dongguan DBK Energy Technology Co., Ltd

Address of Manufacturer: No.51 Zhangshen Middle Road, Xuzhen Community, Zhangmutou Town,

Dongguan City, Guangdong Province, China

Factory: Dongguan DBK Energy Technology Co., Ltd

Address of Factory: No.51 Zhangshen Middle Road, Xuzhen Community, Zhangmutou Town,

Dongguan City, Guangdong Province, China

Equipment Under Test (EUT):

EUT Name: Wireless Charging Mouse Pad

Model No.: BWA19HO008

Trade mark: blackweb_{TM}

FCC ID: 2ARVRWC044

Standards: 47 CFR PART 1, Subpart I, Section 1.1310

Date of Receipt: 2018-11-28

Date of Test: 2018-11-30 to 2018-12-11

Date of Issue: 2018-12-20

Test Result : Pass*

中国・深圳・科技园中区M-10栋一号厂房

Keny Xu EMC Laboratory Manager

Ceny. Ku



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^{*} In the configuration tested, the EUT complied with the standards specified above.



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	Revision Record									
Version	Version Chapter Date Modif									
01		2018-11-21		Original						

Authorized for issue by:		
	leo.61	
	Leo Li /Project Engineer	
	EvicFu	
	Eric Fu /Reviewer	



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2 General Information

2.1 Details of E.U.T.

Power supply: DC 5V from USB port

Input: DC 5V/2A Max

Output: Wireless 5W(DC 5V/1A) Max

Cable: USB cable: 100cm shielded

Antenna Type: Loop Antenna Modulation Type: Load Modulation

Operation Frequency: 99.52kHz to 176.20kHz

2.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Mobile Phone	Apple	A1863	F4GVQ656JC6D
Adapter	LeTV	EQ-248CN	16041847014



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2.3 Test Location

All tests were performed at:

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

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.



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3 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date (yyyy-mm-dd)
1	Electric and Magnetic Field Analyzer	narda	NBM-550/EHP-50F	EMC092	2019-02-06



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4 Test Results

4.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310

Measurement Distance: 0cm

Test voltage: AC 120V/60Hz (Voltage of the AC/DC adapter)

Limit:

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 Genera	l Population/Uncontrolle	d 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

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: 25.0 °C Humidity: 51 % 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 mobile phone at zero charge, intermediate charge, and full charge.



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^{*=}Plane-wave equivalent power density



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4.1.2 Measurement Data

Output Voltage=DC 5V; The max output power =5W; Calculation of resistor value=5Ω **Electric Field Emissions**

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
		Side 1	5.96	307
	0	Side 2	5.21	307
139.3 kHz		Side 3	5.84	307
		Side 4	7.39	307
		Тор	6.44	307

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
139.3 kHz		Side 1	0.0367	0.815
	0	Side 2	0.0428	0.815
		Side 3	0.0499	0.815
		Side 4	0.0664	0.815
		Тор	0.0535	0.815



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Mobile phone has been charge at zero charge, intermediate charge, and full charge.

Electric Field Emissions

Operation	Test	Test	Probe Measure Result(V/m)			50%Limit
frequency	Distance (cm)	Position	zero charge	intermediate charge	full charge	(V/m)
	Sic Sic Sic	Side 1	5.91	5.97	5.88	307
		Side 2	6.15	5.98	5.94	307
139.3 kHz		Side 3	5.97	5.82	5.88	307
		Side 4	7.85	8.08	8.04	307
		Тор	6.74	6.37	6.41	307

Magnetic Field Emissions

Operation	Test	Test	Probe Measure Result(A/m)			50%Limit
frequency	Distance (cm)	Position	zero charge	intermediate charge	full charge	(A/m)
	0	Side 1	0.0345	0.0338	0.0332	0.815
		Side 2	0.0453	0.0462	0.0458	0.815
139.3 kHz		Side 3	0.0544	0.0549	0.0543	0.815
		Side 4	0.0685	0.0672	0.0687	0.815
		Тор	0.0538	0.0541	0.0534	0.815



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5 Photographs

Please refer to RF Setup Photos.

- End of the Report -



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