



RF EXPOSURE Test Report

Report No.: MTi210624014-01E2

Date of issue: July 08, 2021

Applicant: Best Case and Accessories, Inc.

Product name: Magnetic Wireless Power Bank

Model(s): 20019

FCC ID: 2AH8S-20019

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.com>



Instructions

1. The report shall not be partially reproduced without the written consent of the laboratory;
2. The test results of this report are only responsible for the samples submitted;
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5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.



TEST RESULT CERTIFICATION

Applicant's name	Best Case and Accessories, Inc.
Address	140 58th Street, Suite 2-I Brooklyn New York United States 11220
Manufacturer's Name	ShenZhen Difung Energy Technology Co.,Ltd.
Address	2/F, Building B, Bada Industrial Zone, Bada Road, Heping Community, Fuhai Street, Baoan District, Shenzhen

Product description

Product name	Magnetic Wireless Power Bank
Trademark	JW
Model Name	20019
Serial Model	N/A
Standards	FCC CFR 47 PART 1 , 1.1310
Test procedure	KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01

Date of Test

Date (s) of performance of tests	June 29, 2021 ~July 08, 2021
Test Result	Pass

This device described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Testing Engineer

:

Danny Xu

(Danny Xu)

Technical Manager

:

Leo Su

(Leo Su)

Authorized Signatory

:

Tom Xue

(Tom Xue)



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1 General Information

1.1 Description of EUT

Product name:	Magnetic Wireless Power Bank
Brand name:	JW
Model name:	20019
Series model:	N/A
Deference in serial model:	N/A
Operation frequency:	115–205 kHz
Operational mode:	Wireless charging
Modulation type:	ASK
Antenna type:	Coil Antenna
Power source:	DC 5V from adapter AC 120V/60Hz
Input:	DC 5V/2A
Battery:	DC 3.7V 5000mAh
Adapter information:	N/A

1.2 Ancillary equipment list

Equipment	Model	S/N	Manufacturer
Adapter	HW-090200CH0	/	Huizhou BYD Electronics Co., Ltd.
Load	YBZ1.1	/	YBZ
Mobile phone	S9+	/	SAMSUNG

1.3 Measurement uncertainty

Measurement Uncertainty for a Level of Confidence of 95 %, $U=2 \times U_c(y)$

Radiated emission(150kHz~30MHz)	± 2.5 dB
Radiated emission(30MHz~1GHz)	± 4.2 dB



Radiated emission (above 1GHz)	± 4.3 dB
Temperature	± 1 degree
Humidity	± 5 %



2 Testing site

Test Site	Shenzhen Microtest Co., Ltd
Test Site Location	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinghe Community, Fuhai Street, Bao' an District, Shenzhen, Guangdong, China.
FCC Registration No.:	448573

Address: 101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinghe Community, Fuhai Street, Bao' an District, Shenzhen, Guangdong, China.



3 List of test equipment

Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration date	Due date
MTI-E115	Electric and Magnetic Field Probe - Analyzer	Narda Safety Test Solutions GmbH	EHP-200A	/	2021/06/02	2022/06/01



4 Test Results

4.4 Maximum permissible exposure

4.4.1 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 Exposure				
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	6
300-1500			f/300	6
1500-100000			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
1500-100000			1	30
f = frequency in MHz * = Plane-wave equivalent power density				

4.4.2 Test Procedures

E and H-field measurements should be made with the center of the probe at a distance of 15 cm surrounding the device and 20 cm above the top surface of the primary/client pair.

These measurements should be repeated for three different client battery levels, 1%, 50%, and 99%.

Record the test results.

KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01:

- (1) Power transfer frequency is less than 1 MHz
- (2) Output power from each primary coil is less than or equal to 15 watts.
- (3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.
- (4) Client device is placed directly in contact with the transmitter.
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- (6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

Note: The device is in compliance with KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01 6 conditions.

For portable wireless exposure conditions test method:



According to the November 2019 TCB workshop RF Exposure, and October 2018 TCB workshop RF Exposure.

November 2019 TCB workshop RF Exposure:

For portable devices that do not physically attach to phone, desktop WPT testing guidance from FCC KDB 680106 D01 (see October 2018 TCB Workshop slides)

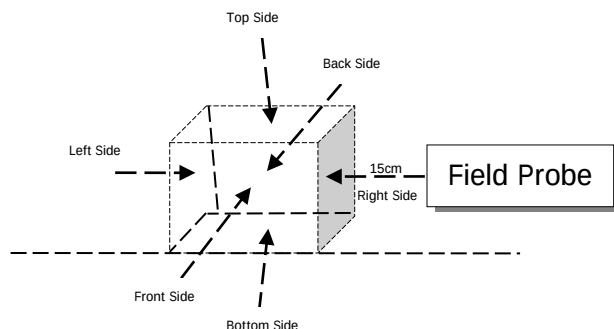
If measurements are < 10% respective limit, no additional testing is necessary. If not, submit a KDB Inquiry

October 2018 TCB workshop RF Exposure:

See guidance from April 2018 TCB Workshop.

- 15 cm from edges, 20 cm from top
- No need to report E-field measurements. Only H-field required

4.4.3 Test Setup



4.4.4 Test Result

Maximum permissible Exposure			
Battery levels	Test sides	Test distance(cm)	H-field(A/m)
<10%	Top	20	0.0181
<10%	Bottom	15	0.0196
<10%	Left	15	0.0178
<10%	Right	15	0.0191
<10%	Front	15	0.0186
<10%	Back	15	0.0189
Limit			1.63
Measurement / Limit (%)			1.2
Conclusion: The Measurement value is less than 10% MPE limit, which meets the requirements.			



Maximum permissible Exposure			
Battery levels	Test sides	Test distance(cm)	H-field(A/m)
<50%	Top	20	0.0173
<50%	Bottom	15	0.0199
<50%	Left	15	0.0178
<50%	Right	15	0.0196
<50%	Front	15	0.0184
<50%	Back	15	0.0185
Limit			1.63
Margin Limit (%)			1.22
Conclusion: The Measurement value is less than 10% MPE limit, which meets the requirements.			

Maximum permissible Exposure			
Battery levels	Test sides	Test distance(cm)	H-field(A/m)
<90%	Top	20	0.0172
<90%	Bottom	15	0.0193
<90%	Left	15	0.0178
<90%	Right	15	0.0191
<90%	Front	15	0.0189
<90%	Back	15	0.0184
Limit			1.63
Margin Limit (%)			1.18
Conclusion: The Measurement value is less than 10% MPE limit, which meets the requirements.			



4.4.5 MPE Setup photo



----END OF REPORT----