

Duracell U.S. Operations, Inc.

MPE ASSESSMENT REPORT

Report Type:
FCC MPE assessment report

Model:
MBA250W-219Wh-120V

REPORT NUMBER:
231000636SHA-002

ISSUE DATE:
October 21, 2023

DOCUMENT CONTROL NUMBER:
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Applicant : Duracell U.S. Operations, Inc.
Berkshire Corporate Park, 14 Research Drive, BETHEL CT 06801

Manufacturer : Duracell U.S. Operations, Inc.
Berkshire Corporate Park, 14 Research Drive, BETHEL CT 06801

Manufacturer Site : NanChang Innotech International Co., Ltd
Building No.6, Guowei Industrial Park, No.669 Huangtang E Rd, Linkong
Economic Zone, NANCHANG, Jiangxi

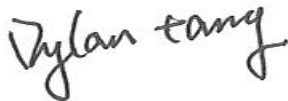
Type/Model: : MBA250W-219Wh-120V

FCC ID : 2AMUD-M250

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

FCC PART 1 SECTION 1.1310
KDB447498 D01 General RF Exposure Guidance v06
KDB 680106 D01 RF Exposure Wireless Charging App v03r01

PREPARED BY:

Project Engineer
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REVIEWED BY:

Reviewer
Wakeyou Wang

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Revision History

Report No.	Version	Description	Issued Date
231000636SHA-002	Rev. 01	Initial issue of report	October 21, 2023

Measurement result summary

TEST ITEM	FCC REFERENCE	TEST RESULT	NOTE
RF Exposure	1.1310	Pass	-

Notes: 1: NA =Not Applicable

2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

3: Additions, Deviations and Exclusions from Standards: None.

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Portable Power Station
Type/Model:	MBA250W-219Wh-120V
Description of EUT:	The EUT is Portable Power Station which supports Wireless Charger function, it has only one model.
Rating:	219Wh, 14.6V, 15Ah Dock Input: 24VDC 2.5A (60W Max.) USB-C Input/Output: 5VDC 3A, 9VDC 3A, 15VDC 3A, 20VDC 3A, 20VDC 5A (100W Max) AC Output: 120V~, 0.83A, 60Hz, 100W Max. USB-C Output: 5VDC 3A, 9VDC 3A, 15VDC 3A, 20VDC 3A (60W Max.) USB-Ax2 Output: 5VDC 3A, 9VDC 3A, 12VDC 3A, 20VDC 3A (60W Max.) Wireless charger output: 15W Max. AC and DC total output: 248W Max. Ring Light: 2W Max.
Category of EUT:	Class B
EUT type:	<input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing
Software Version:	0
Hardware Version:	V3
Sample received date:	October 17, 2023
Date of test:	October 17, 2023 ~ October 21, 2023

1.2 Technical Specification

Frequency Range:	111kHz – 145kHz
Modulation:	ASK
Antenna:	Inductive loop coil antenna

TEST REPORT

1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L0139
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

2 TEST SPECIFICATIONS

2.1 Standards or specification

FCC PART 1 SECTION 1.1310

KDB 680106 D01 RF Exposure Wireless Charging App v03r01

KDB447498 D01 General RF Exposure Guidance v06

2.2 Mode of operation during the test

Within this test report, EUT was tested under all modes and tested under its rating voltage and frequency. Other voltage and frequency are specified if used. The worst data was listed in the report.

2.3 Test peripherals list

Item No.	Name	Band and Model	Description
1	Wireless load	iphone x	100% power level
2	Wireless load	iphone x	50% power level
3	Wireless load	iphone x	0% power level

2.4 Record of climatic conditions

Test Item	Temperature (°C)	Relative Humidity (%)	Pressure (kPa)
RF Exposure	24	53	101

2.5 Instrument list

Used	Equipment	Manufacturer	Type	Internal no.	Due date
<input checked="" type="checkbox"/>	Exposure Level Tester	Narda	NBM-550	EC 6113	2024-04-07
<input checked="" type="checkbox"/>	E-Field sensor(100kHz-3GHz)	Narda	EF 0391	EC 6113-1	2024-04-07
<input checked="" type="checkbox"/>	H-Field sensor(300kHz-30MHz)	Narda	HF 3061	EC 6113-2	2024-04-07
<input checked="" type="checkbox"/>	Exposure Level Tester(1Hz-400kHz)	Narda	ELT-400	EC 2928	2024-07-02

2.6 Measurement uncertainty

Test Items	Expanded Uncertainty (k=2)
H-field	0.9 dB
E-field	1.1 dB

3 RF Exposure Assessment

Test result: Pass

3.1 Assessment Limit

Reference: 47 CFR §1.1310, KDB 680106

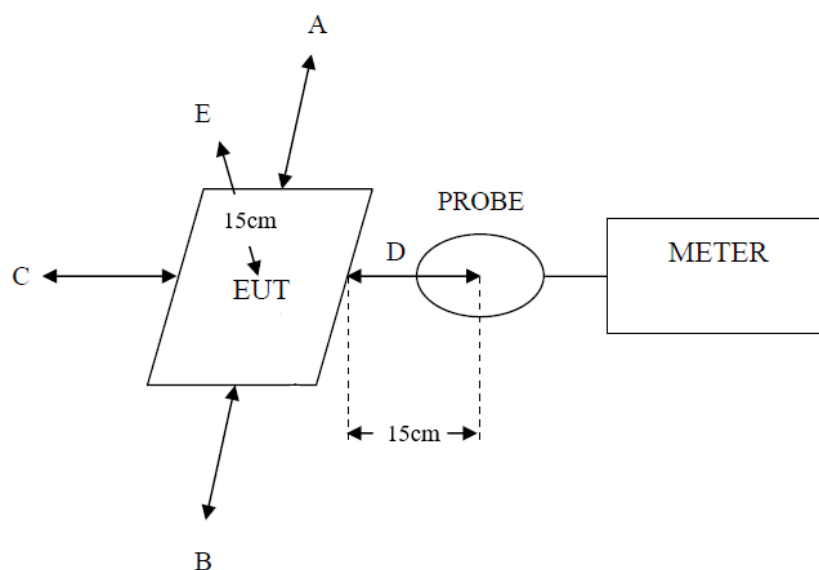
Limits for General Population/Uncontrolled Exposure

Frequency range [MHz]	Electric field strength [V/m]	Magnetic field strength [A/m]	Power density [mW/cm ²]	Averaging time [minutes]
0.1 – 0.3	614	1.63	*100	30
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 – 1 500	-	-	f/1500	30
1 500 – 100 000	-	-	1.0	30

Limits for Occupational/Controlled Exposure

Frequency range [MHz]	Electric field strength [V/m]	Magnetic field strength [A/m]	Power density [mW/cm ²]	Averaging time [minutes]
0.1 – 0.3	614	1.63	*100	6
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 – 1 500	-	-	f/300	6
1 500 – 100 000	-	-	5	6

3.2 Assessment Configuration



3.3 Assessment Results

Test result of Magnetic Field Strength:

Test Position	Test distance (cm)	Test result (A/m)	Limit (A/m)	Result (Pass/Fail)
A: Right	15	0.205	1.63	Pass
B: Left	15	0.205	1.63	Pass
C: Front	15	0.201	1.63	Pass
D: Back	15	0.205	1.63	Pass
E: Top	15	0.204	1.63	Pass

Test result of Electric Field Strength:

Test Position	Test distance (cm)	Test result (V/m)	Limit (V/m)	Result (Pass/Fail)
A: Right	15	2.642	614	Pass
B: Left	15	3.087	614	Pass
C: Front	15	1.753	614	Pass
D: Back	15	1.962	614	Pass
E: Top	15	8.267	614	Pass

***** END *****