FCC ID: 2BA8X-JRWQN05

Product Name:	2-in-1 Foldable Wireless Charger
Trade Mark:	JOYROOM
Model No.:	JR-WQN05
Model Difference:	N/A
Transmitting mode	Keep the EUT in continuously wireless charging mode
Power supply:	Input: DC 5V/3A, DC 9V/3A, DC 12V/2A Mobile phone wireless output: 5W, 7.5W, 10W, 15W Watch wireless output: 2.5W
Date of Receipt:	Jun. 16, 2023
Test Date:	Jun. 16, 2023 - Jun. 28, 2023
Date of Report:	Jun. 28, 2023

Test Modes:		
Mode1: Mobile phone wireless output Mode(5W)		Mode2: Mobile phone wireless output Mode(7.5W)
Mode3: Mobile phone wireless output Mode(10W)		Mode4: Mobile phone wireless output Mode(15W)
Mode5: Watch wireless output Mode(2.5W)		
Mode6: Mobile phone wireless output Mode(5W)+Watch wireless output Mode(2.5W)		
Mode7: Mobile phone wireless output Mode(7.5W)+Watch wireless output Mode(2.5W)		
Mode8: Mobile phone wireless output Mode(10W)+Watch wireless output Mode(2.5W)		
Mode9: Mobile phone wireless output Mode(15W)+Watch wireless output Mode(2.5W)		
ote: 1. We have evaluated 1%, 50% and 99% battery charging mode, and the worst mode (99%) is howed in this report. . All modes have been tested, and the report only shows the results of the worst mode9.		

RF Exposure Evaluation

1 Measuring Standard

KDB 680106 RF Exposure Wireless Charging Apps v03r01

2 Requirements

According to the item 5 of KDB 680106 v03r01:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

(1) Power transfer frequency is less than 1MHz.	Yes; the device operate in the frequency range from 115 KHz to 205 KHz
(2) Output power from each primary coil is less than or equal to 15 watts.	Yes; the maximum output power of the primary coil is 15W.
(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.	Yes; the transfer system includes only two primary 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, mobile exposure conditions only.
(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away	Yes, see test result in item 6.

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.

Remark: Meet all the above requirements.

Limits

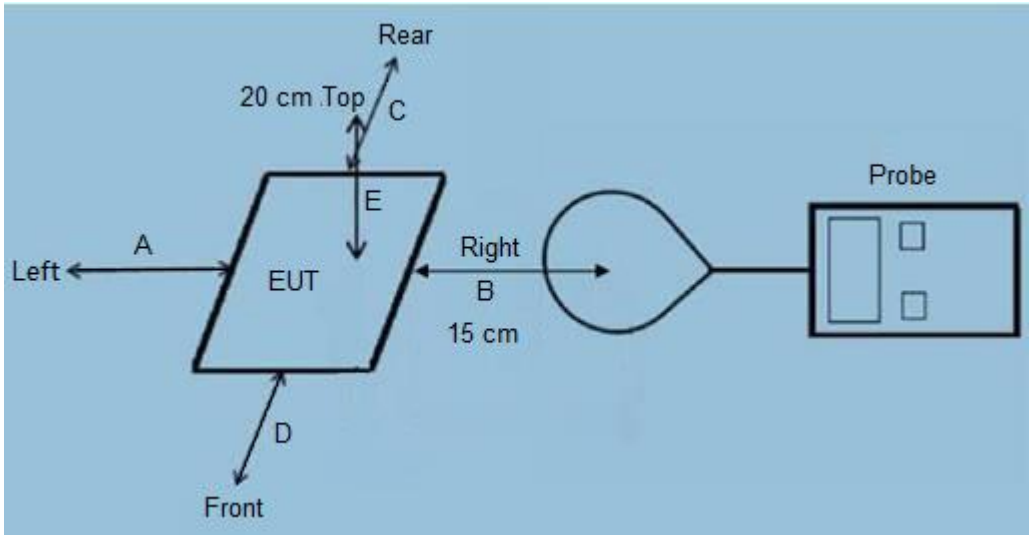
The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

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).

3 Test Setup



4 Test Procedure

1) The RF exposure test was performed in anechoic chamber.

2) The measurement probe was placed at test distance (15 cm from all sides and 20 cm from the top) which is between the edge of the charger and the geometric center of probe.

3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.

4) The EUT was measured according to the dictates of KDB 680106 v03r01.

Remark：The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

5 Description of Support Units

Adapter (Provide by test lab): Manufacturer: XIAOMI Model: AD65G I/P: AC 100-240V 50/60Hz O/P: DC 5V/3A, DC 9V/3A, DC 10V/5A, DC 12V/3A, DC 15V/3A, DC 20V/3.25A	Cell Phone(Provide by test lab): Manufacturer: Apple Model: iPhone 11 Pro Watch (Provide by test lab): Manufacturer: Apple Model: Series 6

6 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	N-0231	June. 25 2023	June. 26 2024
Magnetic field probe 100cm^2	Narda	ELT probe 100cm^2	M0675	June. 25 2023	June. 26 2024
Field Probe	ETS	HI-6105	/	June. 25 2023	June. 26 2024
Laser Data Interface	ETS	HI-6113	/	June. 25 2023	June. 26 2024

7 Test Uncertainty

E-Filed Strength	:	±0.08V/m
H-Filed Strength	:	±0.02A/m
uT	:	±0.01

Note: The field intensity value A/m in the report is converted from uT, and the formula is as follows:

uT to A/m $A/m = \frac{\mu T}{1.25}$

8 Test Result

E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (V/m)
0.115-0.205	0.17	0.15	0.13	0.18	614

E-Filed Strength at 20 cm from the top of the EUT (V/m)

Frequency Range (MHz)	Test Position E	Limits (V/m)
0.115-0.205	0.14	614

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)
0.115-0.205	0.06	0.15	0.04	0.13	1.63

H-Filed Strength at 20 cm from the top of the EUT (A/m)

Frequency Range (MHz)	Test Position E	Limits (A/m)
0.115-0.205	0.16	1.63

9 Test Set-up Photo

Please see annex test setup photos.