RF Exposure Evaluation
FCC ID: 2AQXX-CIT-062022

1 General Information

Product Name:	qCharge 2.0
Product Model No.:	CIT-062022
Test Auxiliary:	Apple Watch, Adapter
Model No.:	N/A
Transmitting mode	Keep the EUT in continuously wireless charging mode
Power supply:	Type-C Input: DC 5V/1A Wireless Output: 5W Battery: DC 3.7V 2000mAh 7.4Wh
Test description:	Watch Battery>98%, =50%and <1% are tested, and the worst is <1%.

Test Auxiliary					
A1	Adapter	HONOR	/	/	Auxiliary
A2	Apple Watch	Apple	/	/	Auxiliary
Transmitting mode	Keep the EUT in continuously wireless charging mode				

2 Test Modes

Test Modes		
Mode 1	Wireless Output(iWatch)	Record

Note: all modes of the equipment have been evaluated and tested, and the report only reflects the data of the worst mode.

3 Measuring Standard

KDB 680106 RF Exposure Wireless Charging Apps v03r01

4 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.

Requirement	Device
1. Power transfer frequency is less than 1 MHz.	Yes. The operating frequencies: 326.5kHz
2. Output power from each primary coil is less than or equal to 15 watts	Yes. The maximum output power: 5W
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 EUT have one source primary coils.
4. Client device is placed directly in contact with the transmitter.	Yes. The client device is placed directly in contact with the transmitter.
5. Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	No. The EUT has portable exposure condition.

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.	Yes, the H-field measurements for each edge/top surface of the host/client pair at every 2 cm, starting from as close as possible out to 20 cm were also evaluated for portable use condition.

Limits

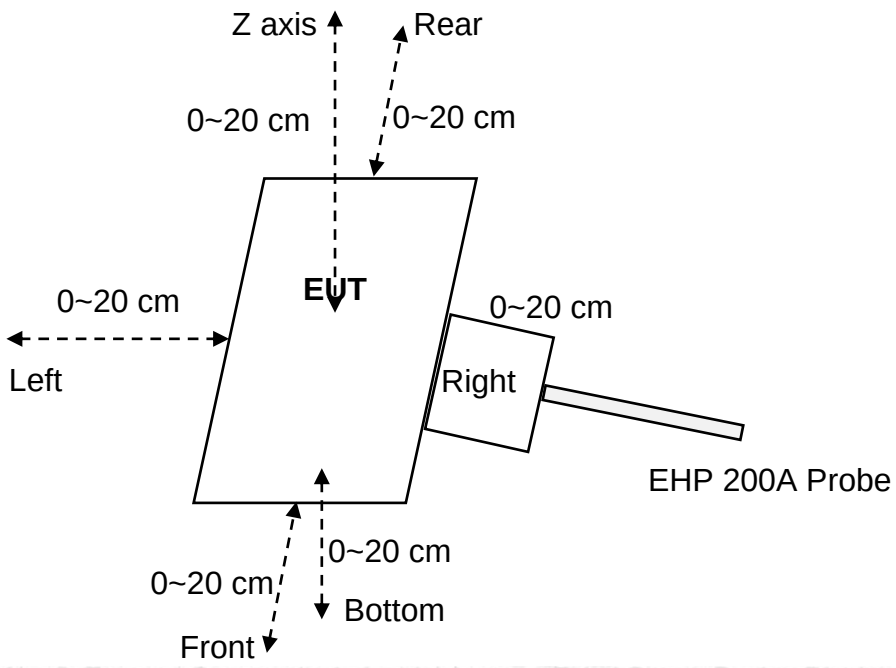
The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

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).

5 Test Setup



6 Test Procedure

For mobile exposure conditions:

a. The RF exposure test was performed in anechoic chamber.

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

c. The highest emission level was recorded and compared with limit.

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

For portable exposure conditions:

a. The RF exposure test was performed in anechoic chamber.

b. Perform H-field measurements for each edge/top surface of the host/client pair at every 2 cm, starting from as close as possible out to 20 cm

c. The highest emission level was recorded and compared with limit.

d. The EUT was measured according to the dictates of TCB Workshop “41-Part-18-&-Wireless-Power-Transfer - April 27, 2022”

Notes: The EUT was setted to transmit continuously with the duty cycle of 100%.

7 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX11013	May. 26 2022	May. 25 2023

8 Test Result

For portable exposure condition:

Note: operating modes with client device (1 %, 50%, 99% battery status of client device) have been test, only show the data of worst case of 1% battery status of client device.

Test condition 1: Mode 1 operating mode with client device (1 % battery status of client device)

-test distance: 0cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0512	1.63	8.52%
	Left	0.0612		
	Right	0.0510		
	Front	0.1078		
	Rear	0.0893		
	Bottom	0.1388		

Test condition 1: Mode 1 operating mode with client device (1 % battery status of client device)

-test distance: 2cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0505	1.63	8.46%
	Left	0.0609		
	Right	0.0504		
	Front	0.1075		
	Rear	0.0888		
	Bottom	0.1379		

Test condition 1: Mode 1 operating mode with client device (1 % battery status of client device)

-test distance: 4cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0508	1.63	8.47%
	Left	0.0612		
	Right	0.0509		
	Front	0.1082		
	Rear	0.0887		
	Bottom	0.1381		

Test condition 2: Mode 1 operating mode with client device (1 % battery status of client device)
- Test distance 6cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0502	1.63	8.49%
	Left	0.0605		
	Right	0.0515		
	Front	0.1082		
	Rear	0.0889		
	Bottom	0.1384		

Test condition 3: Mode 1 operating mode with client device (1 % battery status of client device)
- Test distance 8cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0515	1.63	8.39%
	Left	0.0662		
	Right	0.0532		
	Front	0.1088		
	Rear	0.0875		
	Bottom	0.1368		

Test condition 4: Mode 1 operating mode with client device (1 % battery status of client device)
- Test distance 10cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0512	1.63	8.52%
	Left	0.0612		
	Right	0.0510		
	Front	0.1078		
	Rear	0.0893		
	Bottom	0.1388		

Test condition 5: Mode 1 operating mode with client device (1 % battery status of client device)
- Test distance 12cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0518	1.63	5.85%
	Left	0.0564		
	Right	0.0505		

	Front	0.0932		
	Rear	0.0604		
	Bottom	0.0954		

Test condition 6: Mode 1 operating mode with client device (1 % battery status of client device)

- Test distance 14cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0517	1.63	5.27%
	Left	0.0516		
	Right	0.0505		
	Front	0.0851		
	Rear	0.0697		
	Bottom	0.0859		

Test condition 7: Mode 1 operating mode with client device (1 % battery status of client device)

- Test distance 16cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0513	1.63	3.41%
	Left	0.0482		
	Right	0.0505		
	Front	0.0556		
	Rear	0.0571		
	Bottom	0.0485		

Test condition 8: Mode 1 operating mode with client device (1 % battery status of client device)

- Test distance 18cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0505	1.63	3.26%
	Left	0.0506		
	Right	0.0527		
	Front	0.0532		
	Rear	0.0501		
	Bottom	0.0504		

Test condition 9: Mode 1 operating mode with client device (1 % battery status of client device)

- Test distance 20cm

Antenna	**Probe Position**	**H–field (A/m)**

		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0486	1.63	3.20%
	Left	0.0484		
	Right	0.0488		
	Front	0.0522		
	Rear	0.0493		
	Bottom	0.0495		

Test Set-up Photo

See the Appendix - Test Setup Photos.

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