

RF Exposure Evaluation

FCC ID: 2A6IU-WX22A

Measuring Standard

FCC Part 1(1.1310) and Part 2(2.1091)

KDB 680106 D01 RF Exposure Wireless Charging Base App v03

Test Configuration

The test distance of Position E on the front side is 20cm, the test distance of Position A,B,C,D is 15cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.

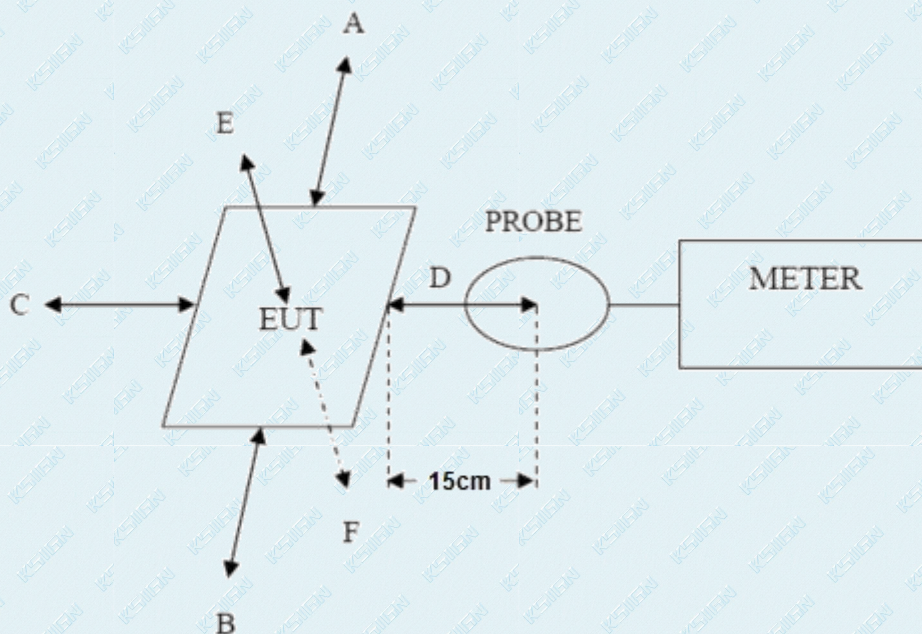
The RF power density was measured at Under maximum load test.

The test distance of Position E on the front side is 20cm, the test distance of Position A,B,C,D is 15cm, the field probes were positioned at the location where there is maximum field strength. The maximum E-field and H-field is reported below.

This device uses a wireless charging circuit for power transfer operating at the frequency of 115KHz -205kHz.

Thus, the 300kHz limits were used: E-field Limit = 614 (V/m); H-field limit = 1.63 (A/m).

TEST Setup



TRF No. FCC RF Exposure_R4

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

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TEST Limits

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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

Measuring Device and Test Equipment

Description	Manufacturer	Model	S/N	Cal. Until
Probe FHP(1Hz-400KHz)	Narda Safety Test Solutions GmbH	EHP-50F	J-0015	Nov. 01, 2023
EHP50-TS	Narda	EHP50-TSR el 1.77	N/A	N/A
PHONE 1	Apple	iPhone13	N/A	N/A

TEST MODE

MODE	TEST MODE DESCRIPTION
1	Coil 1-Wireless charging mode(Full load)
2	Coil 1-Wireless charging mode(Half load)
3	Coil 1-Wireless charging mode(Null load)
4	Coil 2-Wireless charging mode(Full load)
5	Coil 2-Wireless charging mode(Half load)
6	Coil 2-Wireless charging mode(Null load)
Note: The wireless charging module is a dual coil single charging system, Coil 1 and coil 2 cannot emit simultaneously	

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TEST RESULT

☒ Passed

☐ Not Applicable

EUT	Car Wireless Fast Charger	Model Name. :	WX22A
Pressure:	1011hPa	Test Date:	2023-08-28

Coil 1

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT								
EUT Side	Frequency Range (KHz)	Probe A (V/m)	Probe B (V/m)	Probe C (V/m)	Probe D (V/m)	Probe E (V/m)	Limits (V/m)	50% Limit (V/m)
Full load	115~205	0.81	0.79	0.82	0.82	3.01	614	307
Half load	115~205	0.78	0.77	0.79	0.80	2.88		
Null load	115~205	0.74	0.73	0.75	0.77	2.81		

H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT								
EUT Side	Frequency Range (KHz)	Probe A (A/m)	Probe B (A/m)	Probe C (A/m)	Probe D (A/m)	Probe E (A/m)	Limits (A/m)	50% Limit (A/m)
Full load	115~205	0.41	0.43	0.44	0.42	0.76	1.63	0.815
Half load	115~205	0.38	0.39	0.40	0.39	0.74		
Null load	115~205	0.35	0.35	0.37	0.36	0.68		

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Coil 2

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT								
EUT Side	Frequency Range (KHz)	Probe A (V/m)	Probe B (V/m)	Probe C (V/m)	Probe D (V/m)	Probe E (V/m)	Limits (V/m)	50% Limit (V/m)
Full load	115~205	0.79	0.80	0.82	0.81	2.99	614	307
Half load	115~205	0.76	0.77	0.77	0.78	2.89		
Null load	115~205	0.74	0.74	0.75	0.73	2.78		

H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT								
EUT Side	Frequency Range (KHz)	Probe A (A/m)	Probe B (A/m)	Probe C (A/m)	Probe D (A/m)	Probe E (A/m)	Limits (A/m)	50% Limit (A/m)
Full load	115~205	0.42	0.41	0.43	0.43	0.77	1.63	0.815
Half load	115~205	0.39	0.38	0.39	0.40	0.73		
Null load	115~205	0.34	0.35	0.36	0.36	0.66		

Remark: RF exposure should be assessed at 15 cm from all sides of the WPT device and 20 cm from the top of the device.

Measure from the center of the probe to the edge of the WPT device.

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The EUT does comply with item 5.2 of KDB 680106 D01v03 as follows table

Requirements of KDB 680106 D01	Yes/No	Description
(1) Power transfer frequency is less than 1 MHz	Yes	The EUT frequency range is: 115kHz-205kHz
(2) Output power from each primary coil is less than or equal to 15 watts.	Yes	The output power 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	EUT has two coil
(4) Client device is placed directly in contact with the transmitter.	Yes	EUT can be directly charged
(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Yes	EUT is a mobile device
(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	EUT coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.demonstrated to be less than 50% of the applicable MPE limit.

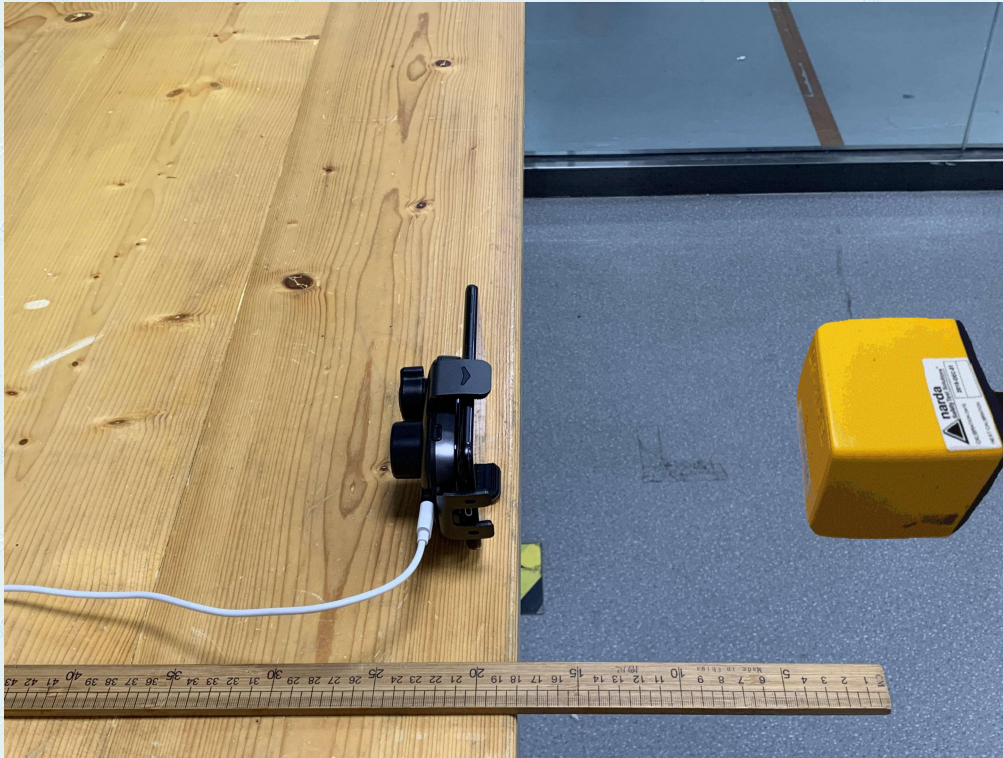
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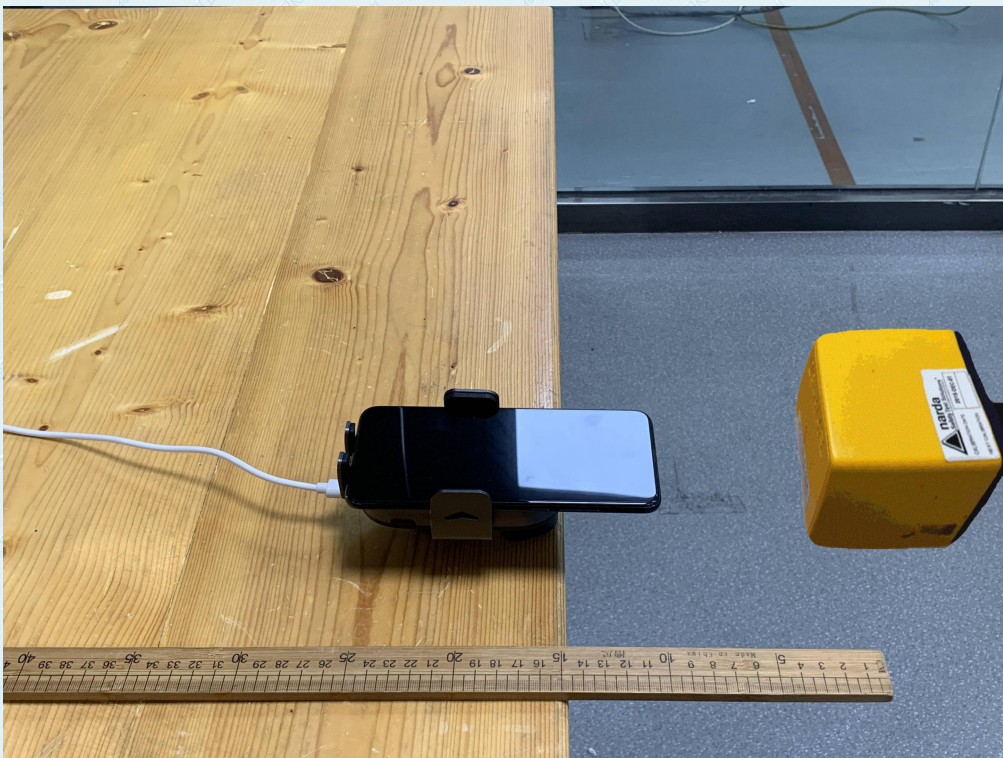
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PHOTOGRAPHS OF TEST SETUP

Position E



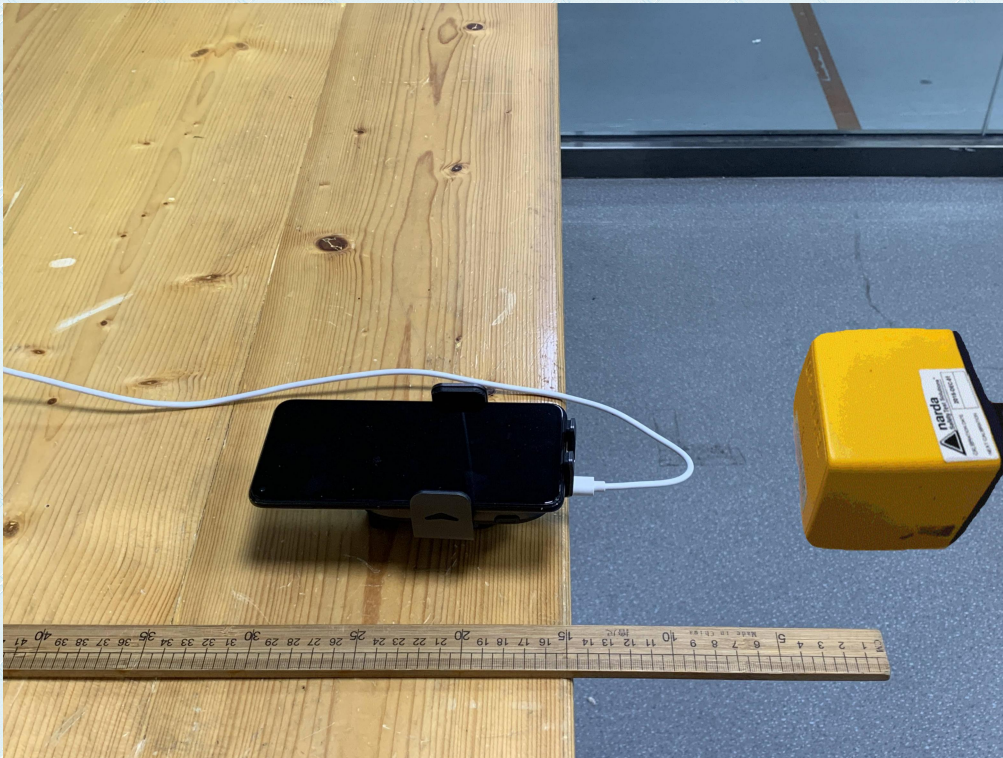
Position A



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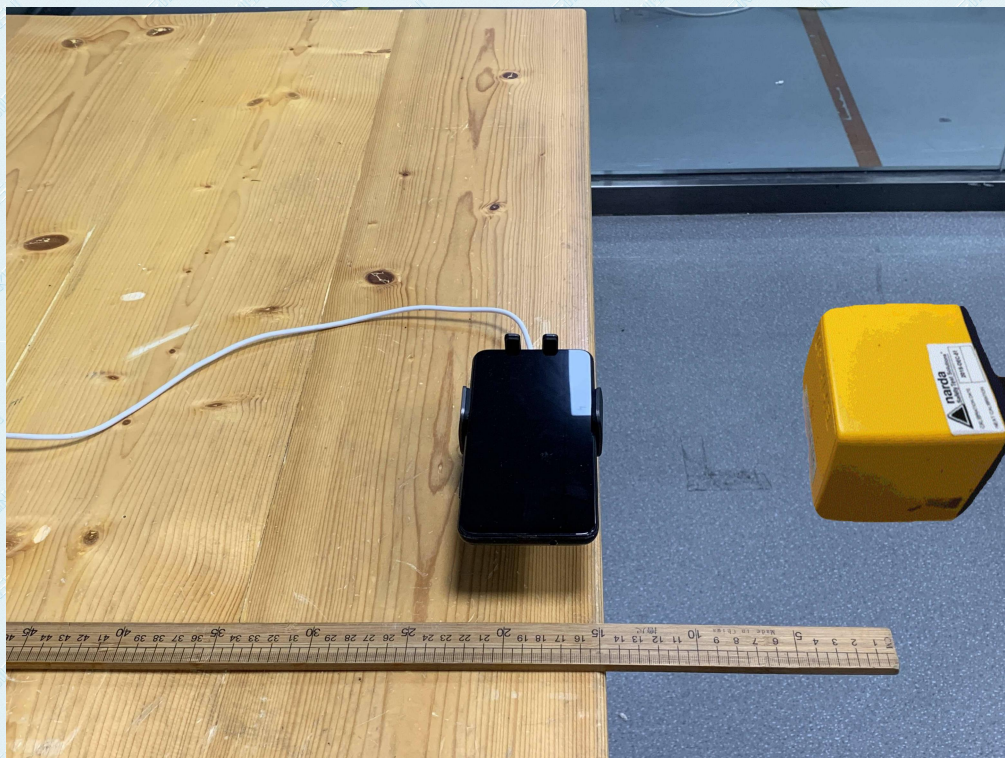
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Position C





--THE END--