RF Exposure Evaluation

FCC ID: 2A98M-PM2400PRO

Measuring Standard

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

KDB 680106 D01 Wireless Power Transfer v04

Test Configuration

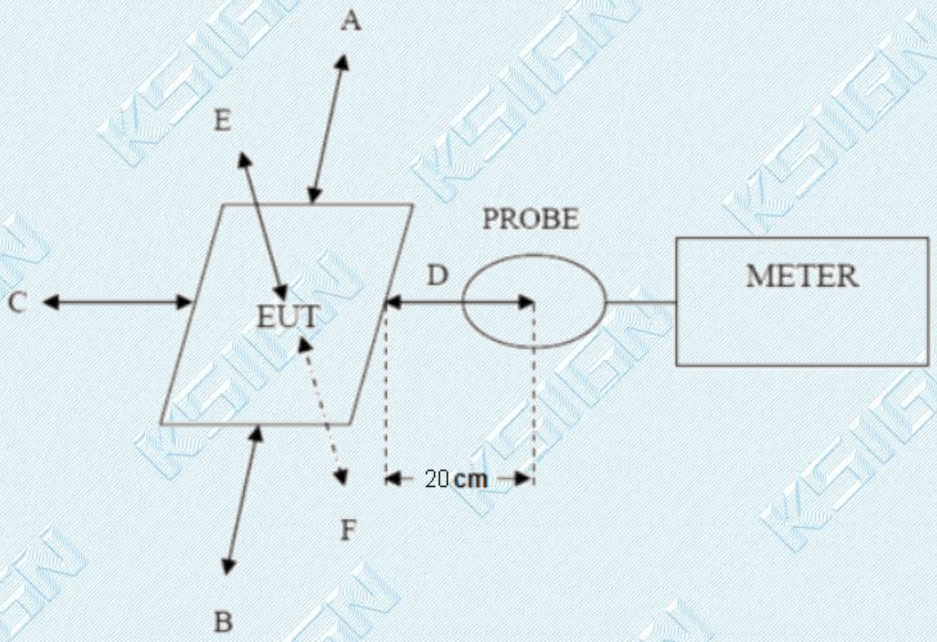
The test distance of Position A,B,C,D,E is 20cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.

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

The 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



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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	ELT-400	Q-0731/M-2 177	2026.01.16
Wireless charging load	YBZ	N/A	N/A	N/A

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TEST MODE

No.	Title	Description of Mode
Test Mode1	Two Coil wireless simultaneous charging mode(15W, 99%)	Worst case
Test Mode2	Two Coil wireless simultaneous charging mode(15W, 50%)	
Test Mode3	Two Coil wireless simultaneous charging mode(15W, 1%)	
Test Mode4	Two Coil wireless simultaneous charging mode(10W, 99%)	
Test Mode5	Two Coil wireless simultaneous charging mode(10W, 50%)	
Test Mode6	Two Coil wireless simultaneous charging mode(10W, 1%)	
Test Mode7	Two Coil wireless simultaneous charging mode(7.5W, 99%)	
Test Mode8	Two Coil wireless simultaneous charging mode(7.5W, 50%)	
Test Mode9	Two Coil wireless simultaneous charging mode(7.5W, 1%)	
Test Mode10	Two Coil wireless simultaneous charging mode(5W, 99%)	
Test Mode11	Two Coil wireless simultaneous charging mode(5W, 50%)	
Test Mode12	Two Coil wireless simultaneous charging mode(5W, 1%)	
Test Mode13	Coil 1-Wireless charging mode(15W, 99%)	
Test Mode14	Coil 1-Wireless charging mode(15W, 50%)	
Test Mode15	Coil 1-Wireless charging mode(15W, 1%)	
Test Mode16	Coil 1-Wireless charging mode(10W, 99%)	
Test Mode17	Coil 1-Wireless charging mode(10W, 50%)	
Test Mode18	Coil 1-Wireless charging mode(10W, 1%)	
Test Mode19	Coil 1-Wireless charging mode(7.5W, 99%)	
Test Mode20	Coil 1-Wireless charging mode(7.5W, 50%)	
Test Mode21	Coil 1-Wireless charging mode(7.5W, 1%)	
Test Mode22	Coil 1-Wireless charging mode(5W, 99%)	
Test Mode23	Coil 1-Wireless charging mode(5W, 50%)	
Test Mode24	Coil 1-Wireless charging mode(5W, 1%)	
Test Mode25	Coil 2-Wireless charging mode(15W, 99%)	
Test Mode26	Coil 2-Wireless charging mode(15W, 50%)	
Test Mode27	Coil 2-Wireless charging mode(15W, 1%)	
Test Mode28	Coil 2-Wireless charging mode(10W, 99%)	
Test Mode29	Coil 2-Wireless charging mode(10W, 50%)	
Test Mode30	Coil 2-Wireless charging mode(10W, 1%)	
Test Mode31	Coil 2-Wireless charging mode(7.5W, 99%)	
Test Mode32	Coil 2-Wireless charging mode(7.5W, 50%)	
Test Mode33	Coil 2-Wireless charging mode(7.5W, 1%)	
Test Mode34	Coil 2-Wireless charging mode(5W, 99%)	
Test Mode35	Coil 2-Wireless charging mode(5W, 50%)	
Test Mode36	Coil 2-Wireless charging mode(5W, 1%)	
Test Mode37	Standby mode	
Note: All test modes were pre-tested, The Mode 1 was the worst case and only the data of the worst case record in this report.		

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TEST RESULT

☒ **Passed** ☐ **Not Applicable**

EUT	Portable Power Station	Model Name. :	PowerMax 2400 Pro
Pressure:	1012hPa	Test Date:	2025-06-04

Test Data:

Test Mode 1(Worst case)

EUT Side	Frequency Range (KHz)	Probe A (uT)	Probe B (uT)	Probe C (uT)	Probe D (uT)	Probe E (uT)
99% powe(15W)	115~205	0.435	0.421	0.400	0.409	0.519
50% powe(15W)	115~205	0.424	0.411	0.386	0.399	0.495
1% powe(15W)	115~205	0.421	0.401	0.377	0.397	0.484

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)
99% powe(15W)	115~205	0.345	0.334	0.317	0.325	0.412	1.63	0.815
50% powe(15W)	115~205	0.337	0.326	0.306	0.317	0.393		
1% powe(15W)	115~205	0.334	0.318	0.299	0.315	0.384		

Remark:

1.The device meets the mobile RF exposure limit at a 20cm separation distance as specified in §2.1091 of the FCC Rules.

2.Only the Mode1 worst case modes is recorded in the report.

3.1 A/m=1.26uT

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The EUT does comply with item 5.2 of KDB 680106 D01 v04 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 transmitting coil is less than or equal to 15 watts.	Yes	The output power is 15W
(3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)	Yes	EUT can be directly charged
(4)Only §2.1091-Mobile exposure conditions apply	Yes	EUT is a mobile device
(5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1.	Yes	EUT coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.
(6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions.	Yes	ETU has only one radiating structure

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PHOTOGRAPHS OF TEST SETUP

Position E

Position A

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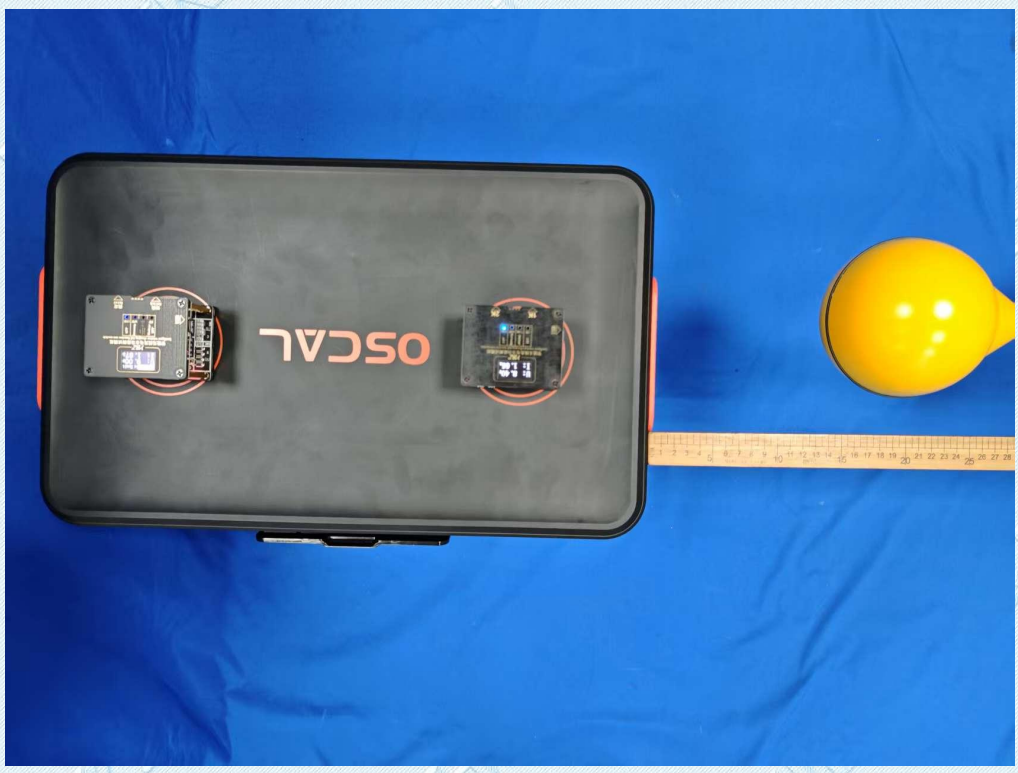
Position B



Position C

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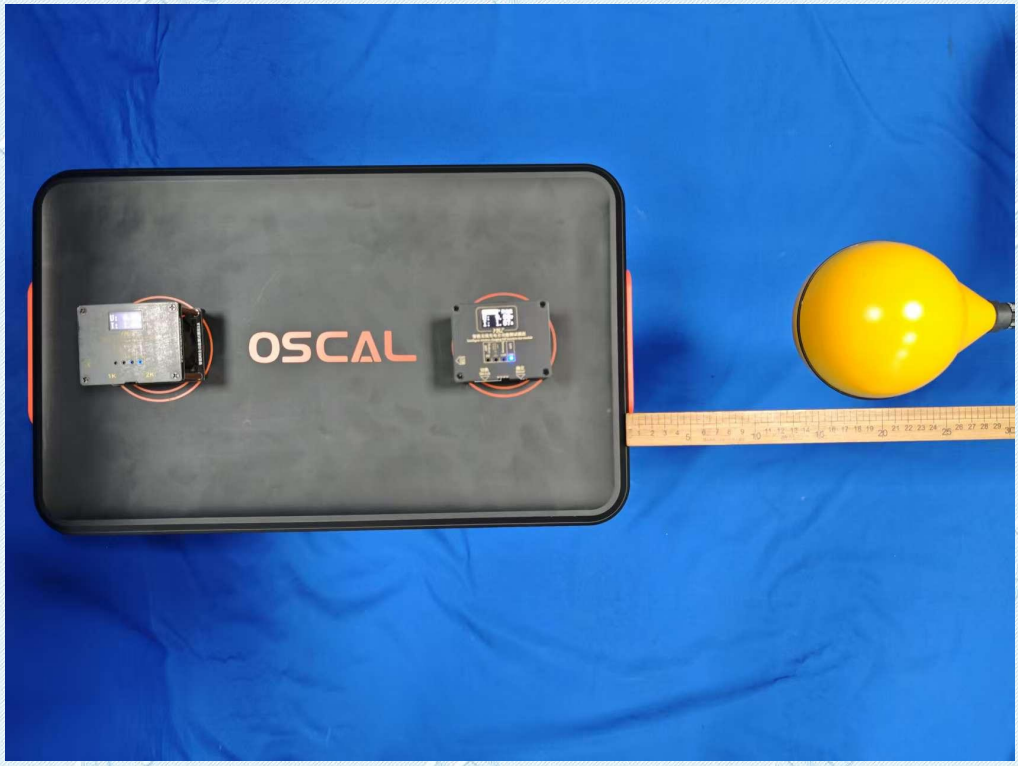
Position D



--THE END--

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