RF Exposure Evaluation

FCC ID: 2A9V5-S1800

Measuring Standard

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

KDB 680106 D01 RF Exposure Wireless Charging Base App v03

Test Configuration

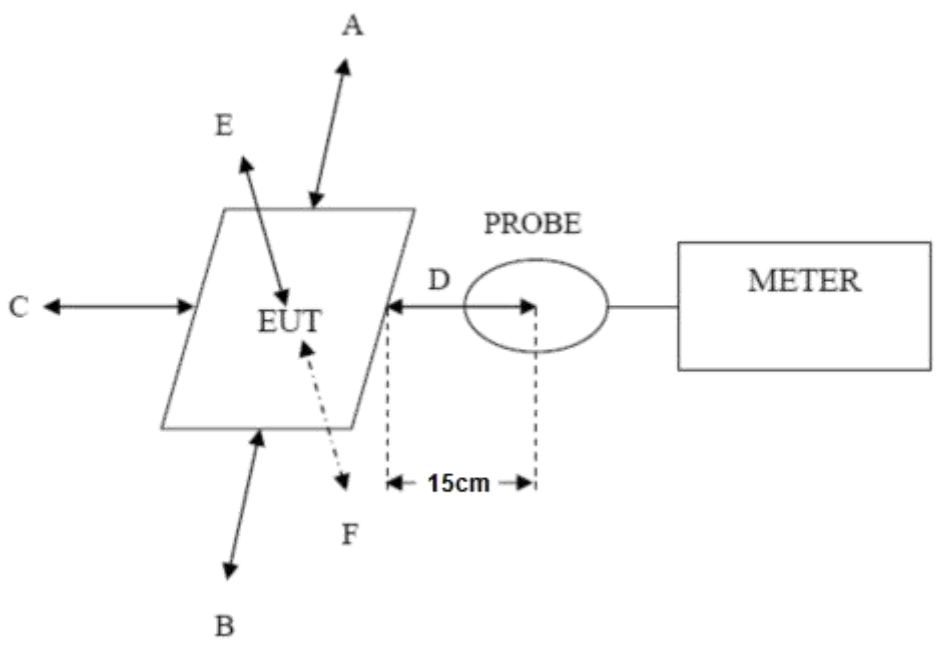
The test distance of Position E on the front side is 20cm, the test distance of Position A,B,C,D is 15cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.

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



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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
Adapter	N/A	KT200A19 51026B3	N/A	N/A
PHONE 1	HUAWEI	P40	N/A	N/A
PHONE 2	HUAWEI	MATE40	N/A	N/A

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TEST MODE

MODE	TEST MODE DESCRIPTION
1	Two Coil wireless simultaneous charging mode(Full load)
2	Two Coil wireless simultaneous charging mode(Null load)
3	Coil 1-Wireless charging mode(Full load)
4	Coil 1-Wireless charging mode(Null load)
5	Coil 2-Wireless charging mode(Full load)
6	Coil 2-Wireless charging mode(Null load)
Note: 1. The Mode 1 was the worst case and only the data of the worst case record in this report.	

TEST RESULT

☒ **Passed** ☐ **Not Applicable**

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EUT	Portable Power Station	Model Name. :	S1800
Pressure:	1011hPa	Test Date:	2023-01-18
Test Voltage:	Output:15W(Max)	Test Mode:	Mode 1 (worse case)

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	0.85	0.86	0.89	0.91	3.02	614	307
Half load	115~205	0.82	0.83	0.84	0.85	2.91		
Null load	115~205	0.73	0.73	0.75	0.77	2.88		

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	0.45	0.44	0.45	0.46	0.79	1.63	0.815
Half load	115~205	0.42	0.42	0.41	0.42	0.66		
Null load	115~205	0.41	0.42	0.42	0.41	0.62		

Remark: The device meets the mobile RF exposure limit at a 15cm separation distance as specified in §2.1091 of the FCC Rules.

Note:Only the Mode1 worst case modes is recorded in the report.

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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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