RF Exposure Evaluation

FCC ID: 2A4UPMP330MV1000

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 is from the center of the probe to the edge of the EUT.

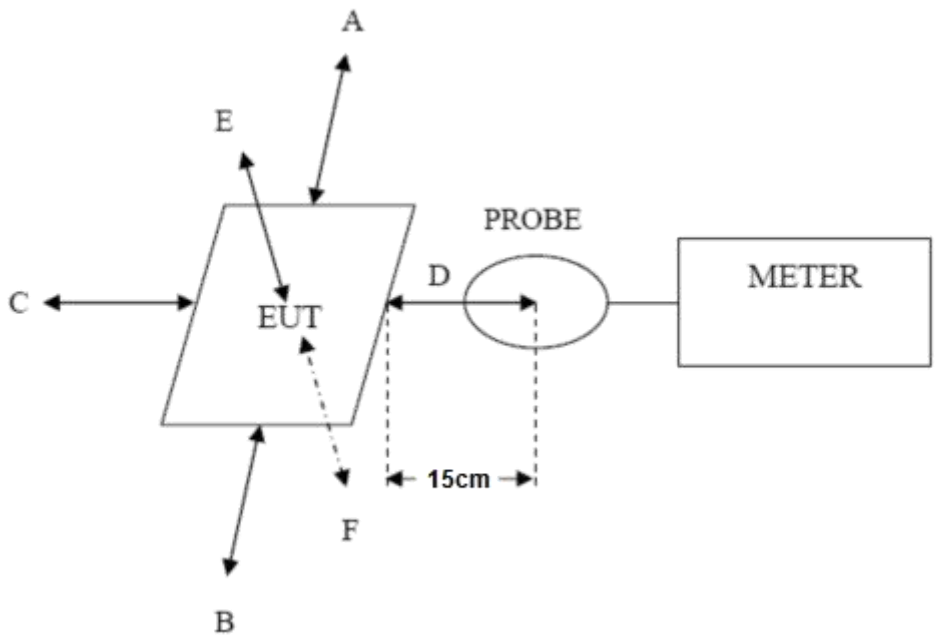
The test distance of Position E on the front side is 20cm, the test distance of Position A,B,C,D is 15cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.

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 112KHz -205kHz. Thus, the 300kHz limits were used: E-field Limit = 614 (V/m); H-field limit = 1.63 (A/m).

TEST Setup



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

Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the KSIGN Testing Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device. Below is the best measurement capability for KSIGN Testing Co., Ltd.

Test Items	Measurement Uncertainty	Notes
All emissions,radiated(<30M)(9kHz-30MHz)	2.20 dB	(1)

Note(1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

Measuring Device and Test Equipment

Description	Manufacturer	Model	S/N	Cal. Until
Probe FHP(1kHz-400kHz)	Narda Safety Test Solutions GmbH	EHP-50F	J-0015	June 10, 2022
Broadband Field Meter	Narda	NBM-550	Q201455	Sep 10, 2022
PHONE 1	HUAWEI	P40	N/A	N/A

TEST MODE

MODE	TEST MODE DESCRIPTION
1	Wireless charging mode(Full load)
2	Wireless charging mode(Half load)
3	Wireless charging mode(Null load)

TEST RESULT

☒ **Passed** ☐ **Not Applicable**

EUT	Portable Power Station	Model Name. :	MP330
Pressure:	1010hPa	Test Date:	2022-03-20
Test Voltage:	Output:5W(Max)		

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)**
Full load	112~205	0.96	0.92	0.90	0.85	3.06	614
Half load	112~205	0.84	0.88	0.84	0.82	2.98	
Null load	112~205	0.76	0.83	0.70	0.79	2.80	

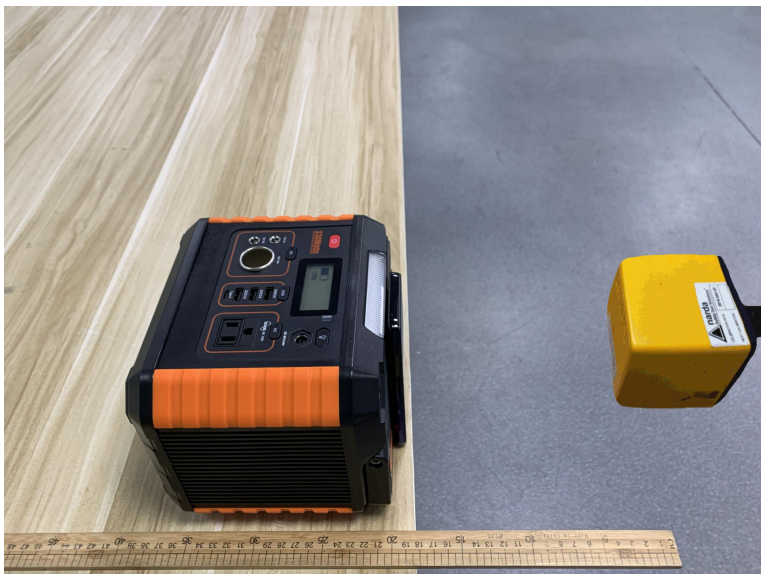
H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT							
EUT Side	**Frequency Range (kHz)**	**Probe A (A/m)**	**Probe B (A/m)**	**Probe C (A/m)**	**Probe D (A/m)**	**Probe E (A/m)**	**Limits (A/m)**
Full load	112~205	0.48	0.57	0.55	0.52	0.66	1.63
Half load	112~205	0.42	0.55	0.53	0.50	0.59	
Null load	112~205	0.37	0.49	0.48	0.42	0.55	

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

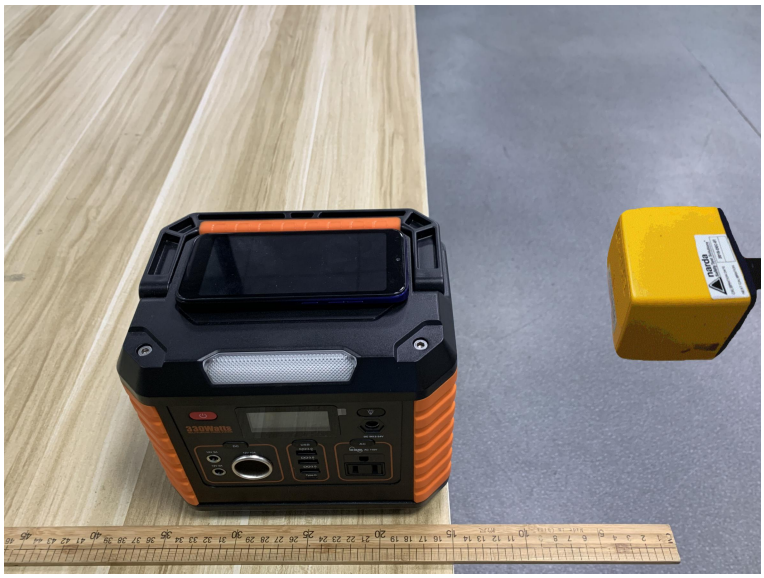
Note: H-Field Strength less than 50% of the applicable MPE limit.

PHOTOGRAPHS OF TEST SETUP

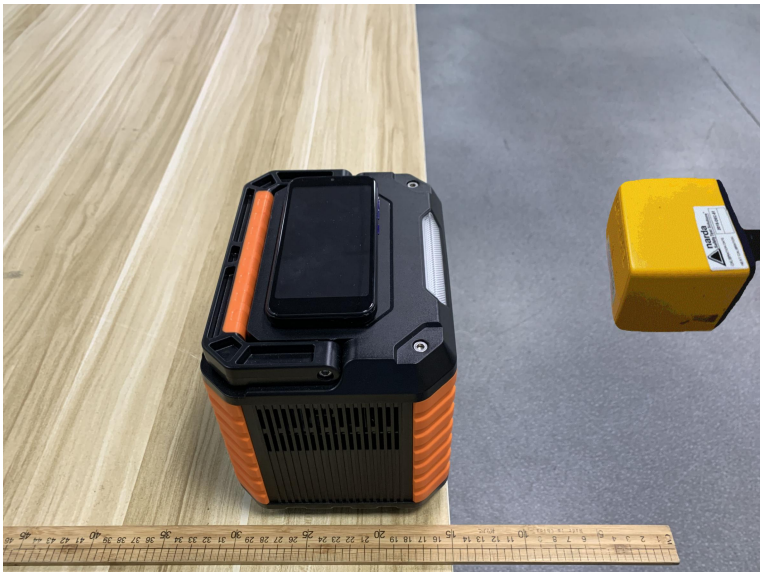
Position E



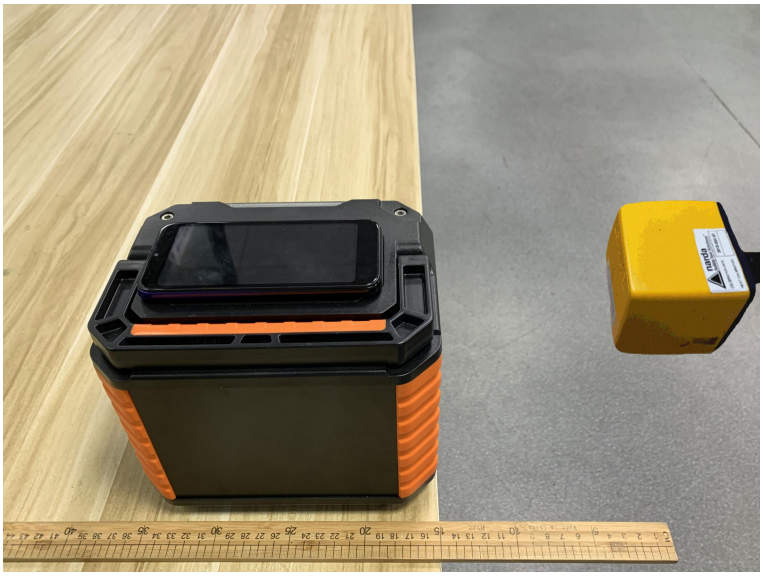
Position A



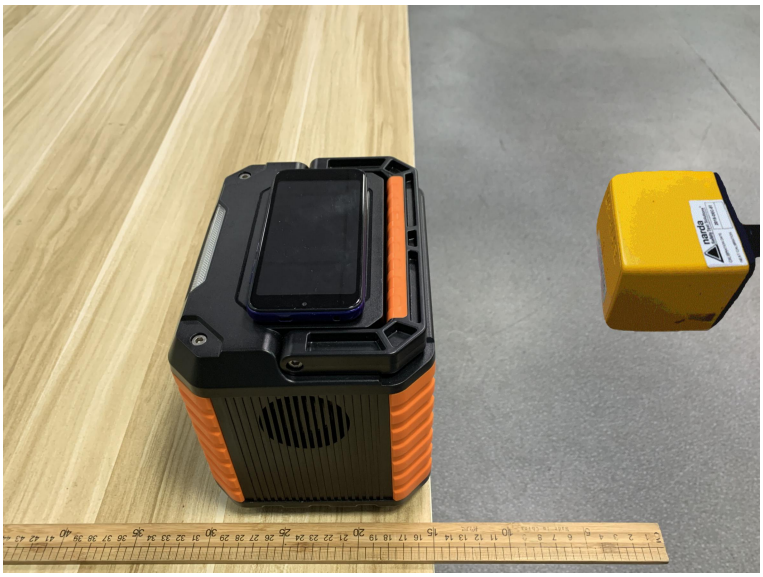
Position B



Position C



Position D



********** **End of Report** **********