

RF Exposure Evaluation

FCC ID:2A852-OR989

Measuring Standard

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

KDB 680106 D01 RF Exposure Wireless Charging Base App v03

Test Configuration

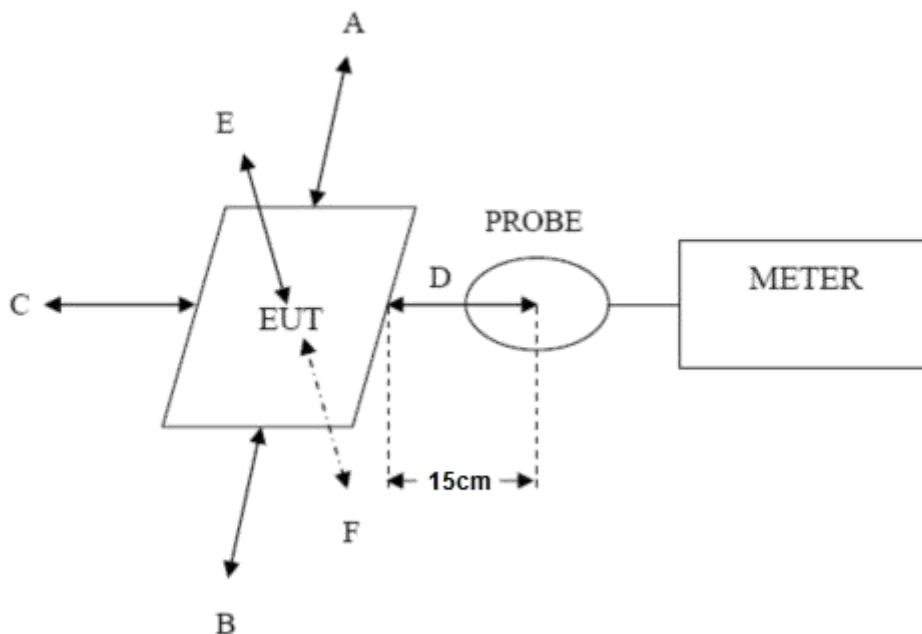
The test distance of Position E on the front side is 20cm, the test distance of Position A,B,C,D is 15cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.

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 127.5KHz . 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

Measuring Device and Test Equipment

Description	Maker	Model	S/N	Cal. Until
Probe FHP(9kHz-30MHz)	Narda Safety Test Solutions GmbH	EHP-200A	J-0015	Nov 11, 2022
Adapter	N/A	CH-810	N/A	N/A
Electric Toothbrush	N/A	OR989, R02	N/A	N/A

TRF No. FCC RF Exposure R4

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

Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdkesign.cn Web: www.gdkesign.com

TEST MODE

MODE	TEST MODE DESCRIPTION
1	Coil -Wireless charging mode(Full 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**

EUT	Electric Toothbrush	Model Name. :	OR989, R02
Pressure:	1010hPa	Test Date:	2022-09-30
Test Voltage:	Output:1.2W(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	127.5	0.89	0.88	0.86	0.88	3.02	614	307
Half load	127.5	0.83	0.83	0.84	0.83	2.90		
Null load	127.5	0.76	0.73	0.75	0.73	2.89		

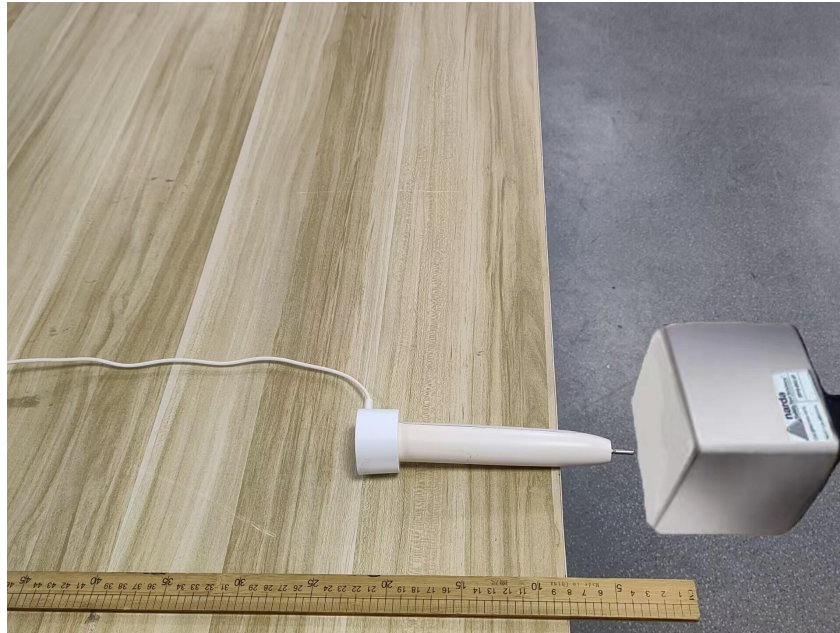
H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT								
EUT Side	Frequency Range (KHz)	Probe A (A/m)	Probe B (A/m)	Probe C (A/m)	Probe D (A/m)	Probe E (A/m)	Limits (A/m)	50% Limit (A/m)
Full load	127.5	0.43	0.43	0.45	0.46	0.78	1.63	0.815
Half load	127.5	0.41	0.40	0.42	0.42	0.65		
Null load	127.5	0.42	0.42	0.43	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.

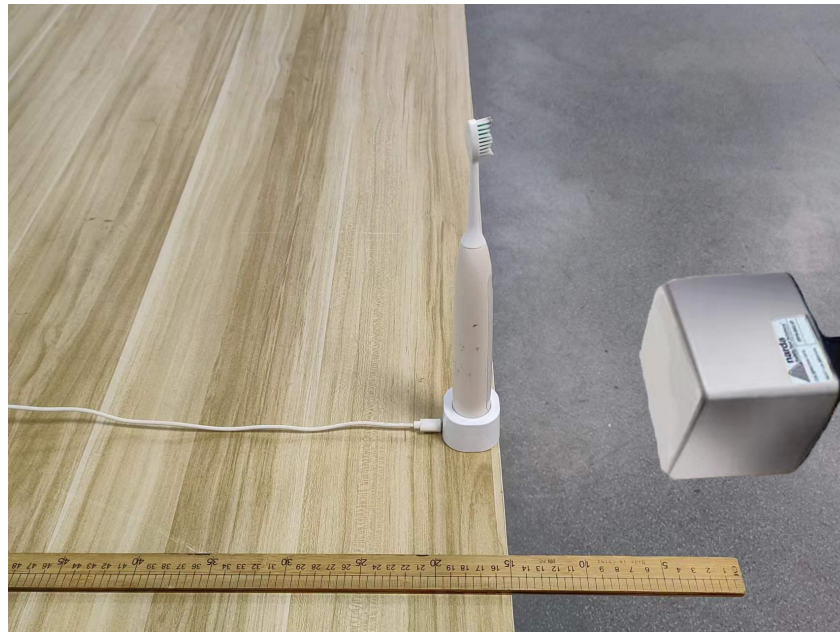
Note:Only the Mode1 worst case modes is recorded in the report.

PHOTOGRAPHS OF TEST SETUP

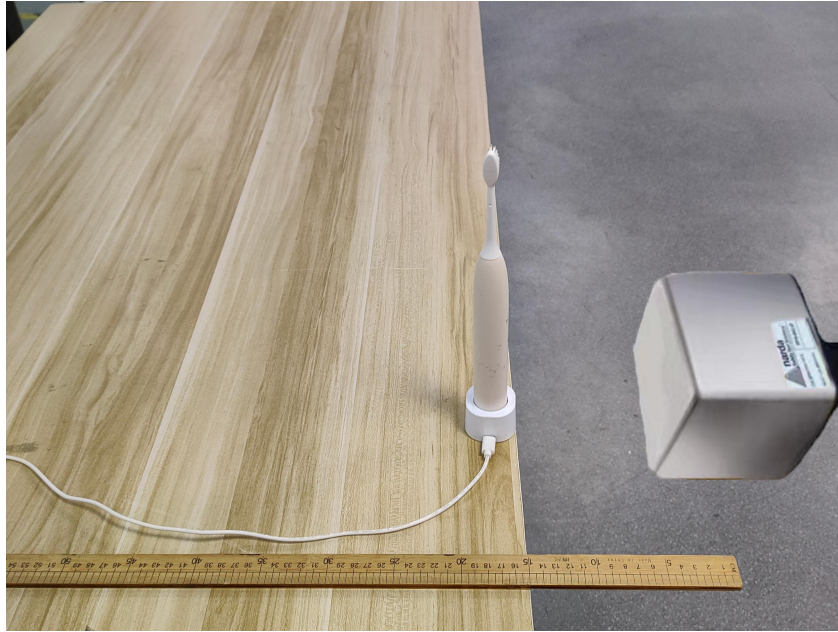
Position E



Position A



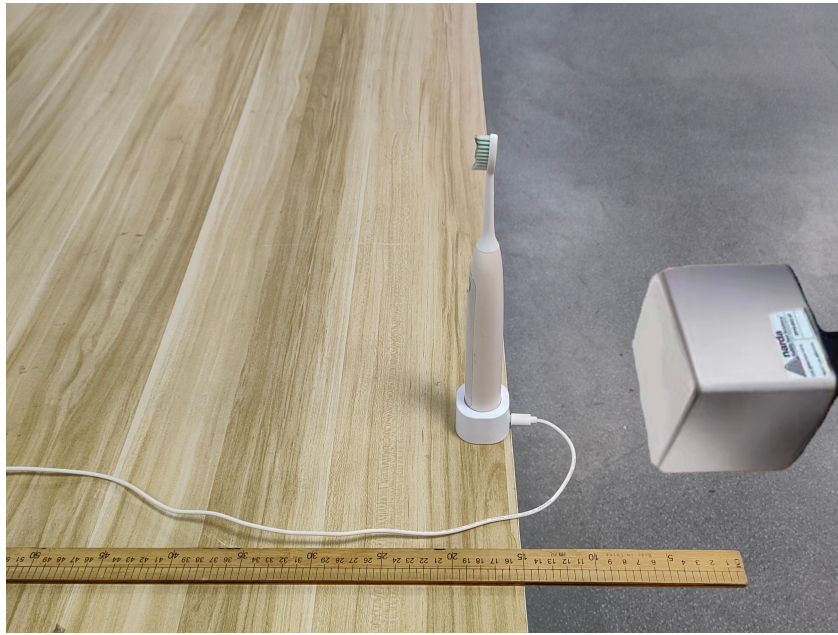
Position B



Position C



Position D



*****THE END*****