FCC ID: 2BF7H-BM01

Product Name:	Sonic electric toothbrush
Trade Mark:	BRUSHMO
Model No.:	BM01 BM04, BM05, BM06, BM07, BM08, BM09, BM10, BM11, BM12
Model Difference:	All samples are the same except the model name and appearance color, so we prepare " BM01" for test only.
Transmitting mode	Keep the EUT in continuously wireless charging mode
Power supply:	Input:5V⎓1A Wireless charging output:1.5W
Charger:	Model No.:FX202U Input: 100-240V~ 50/60Hz 0.7A USB-C: 5V/3A, 9V/2.22A, 12V/1.67A 20W Max
Date of Receipt:	Sep. 14, 2024
Test Date:	Sep. 14, 2024 - Oct. 10, 2024
Date of Report:	Oct. 10, 2024

Test Modes:	
Mode1.	Wireless Output Mode
Note: 1. We have evaluated 1%, 50% and 99% battery charging mode, and the worst mode (99%) is showed in this report.	

RF Exposure Evaluation

1 Measuring Standard

KDB 680106 D01 RF Exposure Wireless Power Transfer v04

2 Requirements

According to the item 5.2 of KDB 680106 V04:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

(1) The power transfer frequency is below 1 MHz.	Yes; the device operate in the frequency range from 200KHz
(2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.	Yes; the maximum output power of the primary coil is 1.5W.
(3) 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. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.	Yes; the transfer system includes only single primary coils.
(4) 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; Client device is placed directly in contact with the transmitter.
(5) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).	Yes, mobile exposure conditions only.
(6) 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. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.	Yes, see test result in item 8.

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.

Remark: Meet all the above requirements.

Limits

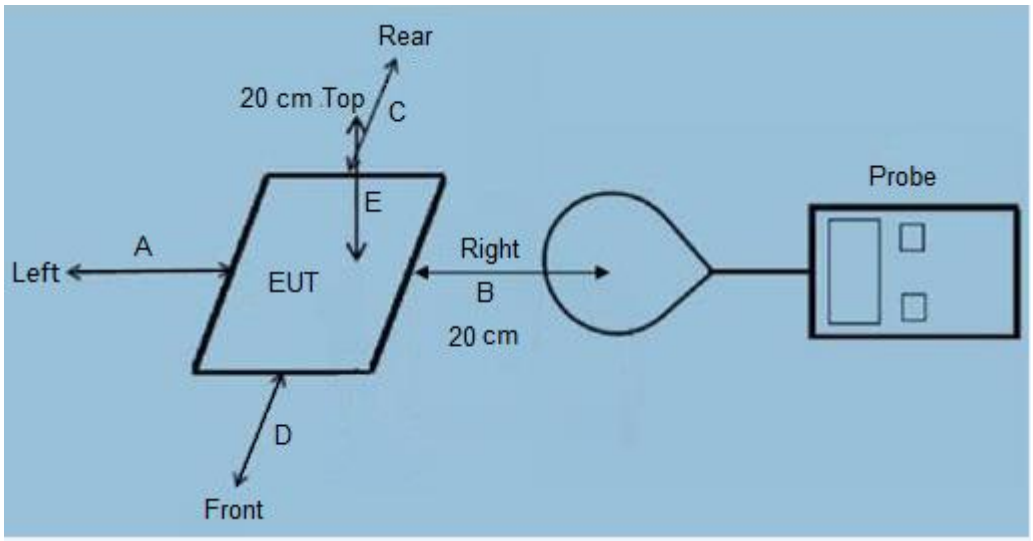
The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

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 Exposures				
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
300-1500	/	/	f/300	6
1500-100,000	/	/	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
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
*=Plane-wave equivalent power density
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

3 Test Setup



4 Test Procedure

1) The RF exposure test was performed in anechoic chamber.

2) The measurement probe was placed at test distance (20 cm from all sides and 20 cm from the top) which is between the edge of the charger and the geometric center of probe.

3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.

4) The EUT was measured according to the dictates of KDB 680106 v04.

Remark：The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

5 Description of Support Units

Model No.:FX202U Input: 100-240V~ 50/60Hz 0.7A USB-C: 5V/3A, 9V/2.22A, 12V/1.67A 20W Max	Brushmo BM01 Handle (Customer Provided): Manufacturer: Brushmo Battery:DC 3.7V

6 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	N-0231	June. 26 2024	June. 25 2025
Magnetic field probe 100cm^2	Narda	ELT probe 100cm^2	M0675	June. 26 2024	June. 25 2025
Field Probe	ETS	HI-6105	/	June. 26 2024	June. 25 2025
Laser Data Interface	ETS	HI-6113	/	June. 26 2024	June. 25 2025

7 Test Uncertainty

E-Filed Strength : ±0.08V/m

H-Filed Strength : ±0.02A/m

uT : ±0.01

Note: The field intensity value A/m in the report is converted from uT, and the formula is as follows:

uT to A/m $A/m = \frac{\mu T}{1.25}$

8 Test Result

E-Filed Strength at 20 cm from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (V/m)
0.200	0.15	0.14	0.14	0.15	614

E-Filed Strength at 20 cm from the top of the EUT (V/m)

Frequency Range (MHz)	Test Position E	Limits (V/m)
0.200	0.15	614

H-Filed Strength at 20 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)
0.200	0.06	0.11	0.06	0.13	1.63

H-Filed Strength at 20 cm from the top of the EUT (A/m)

Frequency Range (MHz)	Test Position E	Limits (A/m)
0.200	0.19	1.63

9 Test Set-up Photo