

RF Exposure Evaluation Report

Product : Sonic Electric Toothbrush
Trade mark : N/A
Model/Type reference : S2
Serial Number : N/A
Report Number : EED32O80790502
FCC ID : 2A4CS-S2RST
Date of Issue : Jul. 18, 2022
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF
Exposure Guidance v06
Test result : PASS

Prepared for:

Clevo Innovation INC

2060 N COLLINS BLVD STE 110 RICHARDSON TX 75080

Prepared by:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District,

Shenzhen, Guangdong, China

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385

Compiled by:

mark.chen.

Reviewed by:

Tom chen

Mark Chen

Tom Chen

Approved by:

Aaron Ma

Date:

Jul. 18, 2022

Aaron Ma



Check No.:6213020622

2 Version

Version No.	Date	Description
00	Jul. 18, 2022	Original

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4 General Information

4.1 Client Information

Applicant:	Clevo Innovation INC
Address of Applicant:	2060 N COLLINS BLVD STE 110 RICHARDSON TX 75080
Manufacturer:	Clevo Innovation INC
Address of Manufacturer:	2060 N COLLINS BLVD STE 110 RICHARDSON TX 75080
Factory:	SHENZHEN RISUN TECHNOLOGY CO.,LTD
Address of Factory:	BUILDING A, NO.6 OF XINMU ROAD, SHENZHEN, GUANGDONG,CHINA 518111

4.2 General Description of EUT

Product Name:	Sonic Electric Toothbrush
Mode No.(EUT):	S2
Trade Mark:	N/A

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz to 2480MHz;
Modulation Type:	GFSK
Transfer Rate:	☒ 1Mbps ☒ 2Mbps
Test Software of EUT:	sscom
Antenna Type:	PCB Antenna
Antenna Gain:	2.64 dBi
Power Supply:	DC 3.7V
Max Conducted Peak Output Power:	3.17dBm The Max Conducted Peak Output Power data refer to the report EED32O80790501
Sample Received Date:	Jul. 21, 2022
Sample tested Date:	Jun. 21, 2022 to Jun. 30, 2022
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[\sqrt{f(\text{GHz})} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
$$f(\text{GHz}) \text{ is the RF channel transmit frequency in GHz}$$

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

5.1.2 EUT RF Exposure

The tune-up power is 3 dBm +/- 1.0dBm, therefore the highest tune-up power is

4.000 (2.51 mW) @ 2402 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

$$\left(\frac{4.00}{5\text{mm}} \right) * \left(2.402\text{GHz}^{0.5} \right) = 1.2$$

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] *

$$[\sqrt{f(\text{GHz})}] = 1.2 < 3.0$$

Therefore, standalone SAR measurements are not required for both head and body.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***