

RF Exposure Evaluation Report

Product : Sonic Electric Toothbrush
Trade mark : N/A
Model/Type reference : S3
Serial Number : N/A
Report Number : EED32O80906002
FCC ID : 2A4CS-S3XXL
Date of Issue : Jul. 13, 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:

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2 Version

Version No.	Date	Description
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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:	SPECIALIFE INDUSTRIES LTD
Address of Factory:	SHENGPING AVENUE #36, PINGSHA TOWN, JINWAN DISTRICT, ZHUHAI CITY, GD CHINA

4.2 General Description of EUT

Product Name:	Sonic Electric Toothbrush
Model No.(EUT):	S3
Trade Mark:	N/A

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz	
Modulation Type:	GFSK	
Test Power Grade:	Default	
Test Software of EUT:	sscom5.12.exe	
Antenna Type:	chip antenna	
Antenna Gain:	2.0dBi	
Power Supply:	Battery:	DC 3.7V
	USB port:	DC 5.0V
Max Conducted Peak Output Power:	1.94 dBm	
	The Max Conducted Peak Output Power data refer to the report EED32O80906001	
Sample Received Date:	Jun. 29, 2022	
Sample tested Date:	Jun. 29, 2022 to Jul. 06, 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.

5.1.2 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:

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

$f(\text{GHz})$ 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

5.1.3 EUT RF Exposure

1) For Bluetooth LE

Measurement Data:

The BLE 1M of data is worst, only the worst case is recorded in the report.

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	1.94	1.00±1	2.00	1.585
Middle(2440MHz)	1.27	0.50±1	1.50	1.413
Highest(2480MHz)	0.85	0±1	1.00	1.259

Worst case is BLE 1M :

Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	1.94	1.00±1	2.00	1.585	0.491	3.0
Middle (2440MHz)	1.27	0.50±1	1.50	1.413	0.441	
Highest (2480MHz)	0.85	0±1	1.00	1.259	0.397	

Conclusion: the calculated value ≤3.0, SAR is exempted.

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32O80906001.

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 ***