RF Exposure Evaluation Report

Product	:	Laifen Wave SE Electric Toothbrush
Trade mark	:	laifen
Model/Type reference	:	LFTB01 SE
Serial Number	:	N/A
Report Number	:	EED32Q80875702
FCC ID	:	2BE2Y-LFTB01SE
Date of Issue	:	Jul. 16, 2024
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 1.1310 47 CFR Part 2.1091 47 CFR Part 2.1093 447498 D04 Interim General RF Exposure Guidance v01
Test result	:	PASS

Prepared for:

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Prepared by:

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Check No.: 3208240624

2 Version

Version No.	Date	Description
00	Jul. 16, 2024	Original

3 Contents

4 General Information

4.1 Client Information

Applicant:	Shenzhen Shuye Technology Co.,Ltd.
Address of Applicant:	Room 1301, Building T7, Qianwan 1st Road No.399, Qianhai Kerry Business Center, Nanshan, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen Shuye Technology Co.,Ltd.
Address of Manufacturer:	Room 1301, Building T7, Qianwan 1st Road No.399, Qianhai Kerry Business Center, Nanshan, Shenzhen, Guangdong, China
Factory:	Shenzhen Laifen Intelligent Manufacturing Technology Co., Ltd.
Address of Factory:	Building E1, 2nd Floor, Jiehe Industrial City, Shuitian Community, Shiyan Street, Baoan District, Shenzhen, Guangdong, China

4.2 General Description of EUT

Product Name:	Laifen Wave SE Electric Toothbrush
Model No.(EUT):	LFTB01 SE
Trade Mark:	laifen

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz	
Modulation Type:	GFSK	
Test Power Grade:	Default	
Test Software of EUT:	Serial Port Utility	
Antenna Type:	Ceramic Antenna	
Antenna Gain:	-1.16 dBi	
Power Supply:	Adapter:	DC 5V
	USB port:	tepy c
Sample Received Date:	Jun. 27, 2024	
Sample tested Date:	Jun. 27, 2024 to Jul. 04, 2024	
Remark: 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 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).
This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula

$$P_{\text{th}}\,(\text{mW}) = \begin{cases} ERP_{20\text{ cm}}(d/20\text{ cm})^{x} & d \le 20\text{ cm} \\ ERP_{20\text{ cm}} & 20\text{ cm} < d \le 40\text{ cm} \end{cases}$$

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\text{ cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and ERP20cm is per Formula (B.1).

$$P_{\text{th}}\,(\text{mW}) = ERP_{20\text{ cm}}\,(\text{mW}) = \begin{cases} 2040f & 0.3\text{ GHz} \le f < 1.5\text{ GHz} \\ 3060 & 1.5\text{ GHz} \le f \le 6\text{ GHz} \end{cases} \qquad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

5.1.3 EUT RF Exposure Evaluation

For Stand alone:

For BLE

Frequency (MHz)	Available maximum time-averaged power (dBm)	Antenna gain (dBi)	ERP (dBm)	Available maximum time-averaged power (mW)	Limit (mW)	Result
2480	3.45	-1.16	0.14	2.213	⩽2.717	PASS

Note：

①EIRP=Available maximum time-averaged power+Antenna gain；

②ERP=EIRP-2.15;

③According to § 1.1307(b)(3)(i)(B),RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

④The test data refer to the report of No. EED32Q80875701. Only the worst case data was recorded in the report.

*** End of Report ***