

RF Exposure Evaluation Report

Product : Sonic Electric Toothbrush
Trade mark : fairywill
Model/Type reference : P80S
Serial Number : N/A
Report Number : EED32N80162602
FCC ID : 2AZJKP80S
Date of Issue : Apr. 16, 2021
: 47 CFR Part 1.1307
: 47 CFR Part 2.1093
Test Standards : KDB447498D01 General RF
Exposure Guidance v06
Test result : PASS

Prepared for:

zhuhai zonghengyupin kuajingdianshang youxiangongsi
HENGQIN XINQU BAOHUALU 6HAO 105SHI-17877 ZHUHAI
GUANGDONG China 519031

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:

Martin Lee

Martin Lee

Approved by:

David Wang

David Wang

Reviewed by:

Aaron Ma

Aaron Ma

Date:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	zhuhai zonghengyupin kuajingdianshang youxiangongsi
Address of Applicant:	HENGQIN XINQU BAOHUALU 6HAO 105SHI-17877 ZHUHAI GUANGDONG China 519031
Manufacturer:	Thumbs Up Innovations Technology Co., Ltd.
Address of Manufacturer:	Building 5, No.12, Pingdong 3 Rd , Nanping Science Industrial Park, Zhuhai, Guangdong, China
Factory:	Shenzhen Risun Technology Co.,Ltd
Address of Factory:	Buiding A, No.6 of Xinmu Road, Xinmu community, Pinghu, Longgang District, Shenzhen, China

4.2 General Description of EUT

Product Name:	Sonic Electric Toothbrush
Mode No.:	P80S
Trade Mark:	fairywill
EUT Supports Radios application:	BT 5.0 Single module 2402MHz to 2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	BT 5.0 Single module 2402MHz to 2480MHz;
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	nRFgo Studio
Antenna Type:	Ceramic antenna
Antenna Gain:	2.0dBi
Power Supply:	Lithium battery: DC 3.7V, Charge by DC 5.0V
Max Conducted Peak Output Power:	-1.59dBm The Max Conducted Peak Output Power data refer to the report EED32N80162601
Sample Received Date:	Mar. 26, 2021
Sample tested Date:	Mar. 26, 2021 to Apr. 8, 2021
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:

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

$f(\text{GHz})$ 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

5.1.2 EUT RF Exposure

Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-1.59	-2.0±0.5	-1.5	0.708
Middle(2440MHz)	-2.65	-3.0±0.5	-2.5	0.562
Highest(2480MHz)	-3.92	-4.0±0.5	-3.5	0.447

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-1.59	-2.0±0.5	-1.5	0.708	0.219	3.0
Middle (2440MHz)	-2.65	-3.0±0.5	-2.5	0.562	0.176	
Highest (2480MHz)	-3.92	-4.0±0.5	-3.5	0.447	0.141	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32N80162601

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N80162601 for EUT external and internal photos.

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 ***