RF Exposure Evaluation Report

Product	:	Future One Smart Sonic Electric Toothbrush
Trade mark	:	usmile
Model/Type reference	:	Future One
Serial Number	:	N/A
Report Number	:	EED32O804196
FCC ID	:	2A5YZ-FUTURE-ONE
Date of Issue	:	Apr. 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:

Guangzhou Stars Pulse Co., Ltd.
Room 2001, 2002, 2003, 2004, 2005, No. 239 Tianhe North Road, Tianhe District, Guangzhou City, Guangdong Province, China

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. Mark Chen

Reviewed by: Aaron Ma Aaron Ma

Approved by: David Wang David Wang

Date: Apr. 18, 2022

Check No.:8144240322

CENTRE TESTING INTERNATIONAL GROUP CO.,LTD. CTI Report Seal

2 Version

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

3 Contents

4 General Information

4.1 Client Information

Applicant:	Guangzhou Stars Pulse Co., Ltd.
Address of Applicant:	Room 2001, 2002, 2003, 2004, 2005, No. 239 Tianhe North Road, Tianhe District, Guangzhou City, Guangdong Province, China
Manufacturer:	Guangzhou Stars Pulse Co., Ltd.
Address of Manufacturer:	Room 2001, 2002, 2003, 2004, 2005, No. 239 Tianhe North Road, Tianhe District, Guangzhou City, Guangdong Province, China
Factory:	Province Enterprise(Shenzhen) Limited
Address of Factory:	Building 1-5, No. 10, Neihuan Ave, Shanxia Community, Longgang District, Shenzhen, Guangdong, China

4.2 General Description of EUT

Product Name:	Future One Smart Sonic Electric Toothbrush
Model No.(EUT):	Future One
Trade Mark:	usmile

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	BLE_DTM
Antenna Type:	PCB Antenna
Antenna Gain:	5dBi
Power Supply:	DC 3.7V
Max Conducted Peak Output Power:	-0.77dBm
	The Max Conducted Peak Output Power data refer to the report EED32O80149601
Sample Received Date:	Mar. 24,2022
Sample tested Date:	Mar. 24,2022 to Apr. 07, 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:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
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

For Bluetooth LE

Measurement Data:

BLE 1M:

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-1.42	-1±1	0	1.000
Middle(2440MHz)	-1.22	-1±1	0	1.000
Highest(2480MHz)	-0.78	-1±1	0	1.000

BLE 2M:

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-1.42	-1±1	0	1.000
Middle(2440MHz)	-1.22	-1±1	0	1.000
Highest(2480MHz)	-0.77	-1±1	0	1.000

Worst case is BLE 2M: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-1.42	-1±1	0	1.000	0.315	3.0
Middle (2441MHz)	-1.22	-1±1	0	1.000	0.315	
Highest (2480MHz)	-0.77	-1±1	0	1.000	0.315	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32O80149601.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32O80149601 for EUT external and internal photos.

*** End of Report ***