

RF Exposure Evaluation Report

Product : D50 OralCam Electric Toothbrush
Trade mark : usmile
Model/Type reference : USM521, USM502, USM551
Serial Number : N/A
Report Number : EED32S80572802
FCC ID : 2A5YZ-D50
Date of Issue : Apr. 24, 2026
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
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

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2 General Information

2.1 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

2.2 General Description of EUT

Product Name:	D50 OralCam Electric Toothbrush
Model No.:	USM521, USM502, USM551
Test model No.:	USM551
Model difference:	They have the same electrical, PCB and layout, only the model name and color, USM551, and USM521, USM502 are different for marketing requirements.
Trade Mark:	usmile

2.3 Product Specification subjective to this standard

Frequency Range:	BLE: 2402MHz~2480MHz	
Modulation Type:	BLE: GFSK	
Test Power Grade:	Default	
Test Software of EUT:	GRDirect_Test_Mode_Tool_Windows_V1.5.6	
Antenna Type:	Ceramic antenna	
Antenna Gain:	2.67 dBi	
Power Supply:	Battery:	DC 3.6V
Sample Received Date:	Mar. 20, 2026	
Sample tested Date:	Mar. 20, 2026 to Apr. 15, 2026	

2.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Hongwei Industrial Park, Zone 70, Bao'an District, Shenzhen, Guangdong, China

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

No tests were sub-contracted.

FCC Designation No.: CN1164, Test Firm Registration No.: 260439

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.

2.7 Other Information Requested by the Customer

None.

3 SAR Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 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

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

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).

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

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.

3.1.2 Test Procedure

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

3.1.3 EUT RF Exposure Evaluation

For Stand alone:

Band	Freq. (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
BLE	2480	0.5	5.04	2.67	5.56	3.60	2.717	1.3240	Pass

Note:

①EIRP=conducted power+antenna gain;

②ERP=EIRP-2.15;

③EIRP(dBm) = Field strength of the fundamental signal(dBuV/m@3m) – 95.23;

④ERP(mW) = $10^{(ERP \text{ (dBm)}/10)}$;

⑤The estimation distance is 0.5cm;

⑥The test data please refer to the report of EED32S80572801 and only the worst case data was recorded in the report.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***