RF Exposure Evaluation Report

Product	:	SATELLAI Collar
Trade mark	:	SATELLAI
Model/Type reference	:	D1
Serial Number	:	N/A
Report Number	:	EED32Q81916403
FCC ID	:	2BMT9STL24D1
Date of Issue	:	Jan. 09, 2025
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 1.1310 47 CFR Part 2.1091(mobile devices) 47 CFR Part 2.1093(portable devices) KDB 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.: 4223221124

1 Version

Version No.	Date	Description
00	Jan. 09, 2025	Original

2 Contents

3 General Information

3.1 Client Information

Applicant:	Shenzhen XingLian Future Technology Co., Ltd.
Address of Applicant:	Room 1007, Tower A, TCL Building, No. 6 Gaoxin South First Rd., Yuehai Street, Nanshan District, Shenzhen City, Guangdong Province, China
Manufacturer:	Shenzhen XingLian Future Technology Co., Ltd.
Address of Manufacturer:	Room 1007, Tower A, TCL Building, No. 6 Gaoxin South First Rd., Yuehai Street, Nanshan District, Shenzhen City, Guangdong Province, China
Factory:	Shenzhen Zowee Inteligent Manufacturing Co., Ltd.
Address of Factory:	No. 149, Tongfuyu Industrial Zone Songgang,Baoan District Shenzhen Guangdong 518105 China

3.2 General Description of EUT

Product Name:	SATELLAI Collar	
Model No.(EUT):	D1	
Trade Mark:	SATELLAI	
Power Supply:	USB port:	DC 5.0V
	Battery:	DC 3.8V,1600mAh,6.08Wh
Test Voltage:	DC 5.0V	
Sample Received Date:	Dec. 13, 2024	
Sample tested Date:	Dec. 13, 2024 to Dec. 26, 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.		

3.3 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

3.4 Deviation from Standards

None.

3.5 Abnormalities from Standard Conditions

None.

3.6 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 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.

4.1.2 Test Procedure

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

4.1.3 EUT RF Exposure Evaluation

For Stand alone:

Frequency	Estimation distance (cm)	Max. Conducted Tune-up Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@BLE	20	-1.27	2.14	-1.28	0.7447	3060	0.0002	Pass
@LTE Cat-M Band 2	20	24.00	0.81	24.81	302.6913	3060	0.0989	Pass
@LTE Cat-M Band 4	20	24.00	-0.65	24.00	251.1886	3060	0.0821	Pass
@LTE Cat-M Band 12	20	24.00	-3.43	24.00	251.1886	1425.960	0.1762	Pass
@LTE Cat-M Band 13	20	24.00	2.01	26.01	399.0249	1585.080	0.2517	Pass
@LTE Cat-M Band 25	20	24.00	0.81	24.81	302.6913	3060	0.0989	Pass
@LTE Cat-M Band 66	20	24.00	-0.65	24.00	251.1886	3060	0.0821	Pass
@LTE Cat-M Band 5	20	24.00	2.55	26.55	451.8559	1660.560	0.2721	Pass
@LTE Cat-M Band 26	20	24.00	2.55	26.55	451.8559	1679.532	0.2690	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 (dBm)/10);

⑤The estimation distance is 20cm;

⑥The Max. Conducted Tune-up Output power (dBm) declared by client;

⑦The test data please refer to the report of EED32Q81916401 and EED32Q81916402,and only the worst case data was recorded in the report.

For Simultaneous Transmission:

As MPE rato (BLE+LTE Cat-M Band 5)=0.0002+0.2721=0.2723 < 1,

it's deemed to fulfil the RF exposure requirement.

*** End of Report ***