

RF Exposure Evaluation Report

Product : karaoke machine with screen
Trade mark : N/A
Model/Type reference : V-08
Serial Number : N/A
Report Number : EED32R81684004
FCC ID : 2BNFO-V08
Date of Issue : Nov. 13, 2025
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

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Unit 301, Dawangshan Rainbow Residence, No. 1007 Xihuan Road,
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2 General Information

2.1 Client Information

Applicant:	Shenzhen Xutao Electronics Co., Ltd
Address of Applicant:	Unit 301, Dawangshan Rainbow Residence, No. 1007 Xihuan Road, Dawangshan Community, Shajing District, Bao'an District, Shenzhen
Manufacturer:	Shenzhen Tuobu Electronics Technology Co., Ltd.
Address of Manufacturer:	Top Step Industrial Co., Ltd. Unit 101, Building B1 ,Tongfu Industrial, Zone Heping Road, Heping Community, Fuhai Subdistrict,Bao'an District, Shenzhen
Factory:	Shenzhen Tuobu Electronics Technology Co., Ltd.
Address of Factory:	Top Step Industrial Co., Ltd. Unit 101, Building B1 ,Tongfu Industrial, Zone Heping Road, Heping Community, Fuhai Subdistrict,Bao'an District, Shenzhen

2.2 General Description of EUT

Product Name:	karaoke machine with screen
Model No.(EUT):	V-08
Trade Mark:	N/A

2.3 Product Specification subjective to this standard

Frequency Range:	BT: 2402MHz~2480MHz 2.4G Wi-Fi: IEEE 802.11b/g/n(HT20)/ax(HE20): 2412MHz to 2462MHz IEEE 802.11n(HT40)/11ax(HE40): 2422MHz to 2452MHz 5G Wi-Fi: U-NII-1: 5150-5250MHz U-NII-3:5745-5825MHz
Modulation Type:	BT: GFSK, $\pi/4$ DQPSK, 8DPSK 2.4G Wi-Fi: IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40) : OFDM (64QAM, 16QAM,QPSK,BPSK) IEEE for 802.11ax(HE20 and HE40) : OFDM (1024QAM, 256QAM, 64QAM, 16QAM,QPSK,BPSK) 5G Wi-Fi: IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11n(HT20/HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11ac(VHT20/VHT40): OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) IEEE 802.11ax(HE20/HE40): OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM,1024QAM)
Test Power Grade:	Default
Test Software of EUT:	adb.exe
Antenna Type:	FPC Antenna
Antenna Gain:	BT: 1.57dBi 2.4G Wi-Fi: 1.96dBi 5G Wi-Fi: U-NII-1: 2.37 dBi, U-NII-3: 1.74 dBi
Power Supply:	USB Port: DC 5V
Sample Received Date:	Sep. 10, 2025
Sample tested Date:	Sep. 10, 2025 to Oct. 27, 2025

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 P_{th} (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). P_{th} 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 $ERP_{20 \text{ cm}}$ 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:

Freq. (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@BT	20	6.74	1.57	6.17	4.14	3060.00	0.0014	Pass
@2.4G Wi-Fi	20	15.86	1.96	15.67	36.90	3060.00	0.0121	Pass
@5G Wi-Fi	20	15.18	2.37	15.4	34.67	3060.00	0.0113	Pass

Note:

- ① EIRP=conducted power+antenna gain;
- ② $ERP = EIRP - 2.15$;
- ③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;
- ④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;
- ⑤ The estimation distance is 20cm;
- ⑥ The test data please refer to the report of EED32R81684001, EED32R81684002, EED32R8168403 only the worst case data was recorded in the report.

For Simultaneous Transmission:

As MPE ratio (BT+2.4G Wi-Fi)=0.0014+0.0121=0.0135 < 1, it's deemed to fulfil the RF exposure requirement.

Statement

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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;
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*** End of Report ***