RF Exposure evaluation

Report Reference No.....:	**CTA26092901202**
FCC ID..... :	**2BXYZ-CXZ617**
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Date of issue .....:	Oct. 17, 2026
Testing Laboratory Name.....:	**Shenzhen CTA Testing Technology Co., Ltd.**
Address.....:	Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Applicant's name.....:	**Shenzhen Chenxinzheng Technology Co., Ltd**
Address.....:	Room 1305, Building T1, Lijincheng Center, Yousong Community, LonghuaSubdistrict, Longhua District Shenzhen City, China
Standard.....:	**47CFR §1.1310** **47CFR §2.1093** **KDB447498 D01 General RF Exposure Guidance v06**

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Test item description .....:	**Karaoke machine**
Trade Mark .....:	N/A
Manufacturer .....:	Dongguan Chenxin Zheng hardware plastic technology Co., LTD
Model/Type reference .....:	CXZ617
Listed Models .....:	CXZ611, CXZ612, CXZ613, CXZ614, CXZ615, CXZ616, CXZ618, CXZ619, CXZ620, CXZ621, CXZ622, CXZ623, CXZ624, CXZ625, CXZ626, CXZ627, CXZ628, CXZ629
Rating .....:	Input: 5V ⎓ 1.5A Battery: 3.7V 125mAh 0.463Wh
Result .....:	**PASS**

TEST REPORT

Equipment under Test	:	Karaoke machine
Model /Type	:	CXZ617
Listed Models	:	CXZ611, CXZ612, CXZ613, CXZ614, CXZ615, CXZ616, CXZ618, CXZ619, CXZ620, CXZ621, CXZ622, CXZ623, CXZ624, CXZ625, CXZ626, CXZ627, CXZ628, CXZ629
Model difference	:	The PCB board, circuit, structure and internal of these models are the same, Only model number and colour is different for these model. So the tests were performed on model CXZ617 and the test results for the main test model can cover the listed models.
Applicant	:	**Shenzhen Chenxinzheng Technology Co., Ltd**
Address	:	Room 1305, Building T1, Lijincheng Center, Yousong Community, LonghuaSubdistrict, Longhua District Shenzhen City, China
Manufacturer	:	**Dongguan Chenxin Zheng hardware plastic technology Co., LTD**
Address	:	Room 301, Building 2, No. 78 Qinglin Road, Qingxi Town, Dongguan City, Guangdong Province, China

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
FCC KDB 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures.
FCC CFR 47 part1 1.1310: Radiofrequency radiation exposure limits.
FCC CFR 47 part2 2.1093: Radiofrequency radiation exposure evaluation: portable devices

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Sep. 29, 2026
Testing commenced on	:	Sep. 29, 2026
Testing concluded on	:	Oct. 17, 2026

2.2 Product Description

Product Name:	Karaoke machine
Model/Type reference:	CXZ617
Power supply:	Input: 5V ⎓ 1.5A Battery: 3.7V 125mAh 0.463Wh
Hardware version:	V1.0
Software version:	V1.0
Testing sample ID：	CTA260929012-1# (Engineer sample) CTA260929012-2# (Normal sample)
Bluetooth BLE	
Supported type:	Bluetooth low Energy
Modulation:	GFSK
Operation frequency:	2402MHz to 2480MHz
Channel number:	40
Channel separation:	2 MHz
Antenna type:	Ceramic antenna
Antenna gain:	2.0 dBi

2.3 Special Accessories

The following is the EUT test of the auxiliary equipment provided by the laboratory:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
/	/	/	/	/	/

2.4 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,
Fuhai Street, Bao'an District, Shenzhen, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:
FCC-Registration No.: 517856 Designation Number: CN1318
Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01
Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

ISED#: 27890 CAB identifier: CN0127
Shenzhen CTA Testing Technology Co., Ltd. has been listed by Innovation, Science and Economic Development Canada to perform electromagnetic emission measurement.

3.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.
Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd. :

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)
Time	/	±2%	(1)

4 Test limit

4.1 Requirement

According to KDB447498 D01 General RF Exposure Guidance v06 Section 4.3.1 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 Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.22 The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops & tablets etc.23 "

[(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
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

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 according to 5) in section 4.1 is applied to determine SAR test exclusion.

4.2 Conducted Power Results

Type	Channel	Output power (dBm)
GFSK 1Mbps	00	0.15
	19	0.00
	39	-0.31

4.3 Manufacturing tolerance

Mode	Max. Peak Conducted Output Power (dBm)	Max. tune-up
BLE	0.15	0.0±1

4.4 Evaluation Result

Evaluation Results

Band/Mode	f (GHz)	Antenna Distance (mm)	RF output power (including tune-up tolerance)		SAR Test Exclusion Threshold	SAR Test Exclusion Threshold Limit	SAR Test Exclusion
			dBm	mW			
BLE	2.480	5	1.0	1.2589	0.3965	3.0	Yes

4.5 Simultaneous Transmission for SAR Exclusion

N/A

5 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 D01v06

********** **End of Report** **********