

TEST REPORT

Reference No...... : WTH26D01015647W004
FCC ID : 2BU3H-K12
Applicant..... : Shenzhen Fixed Star Technology Co.,Ltd.
Address..... : No. 21, Tiankuo Road, Tianliao Community, Yutang Sub-district,
Guangming District, Shenzhen City, Guangdong Province,
P.R.China
Manufacturer : Shenzhen Zhengfangxin Technology Co., Ltd.
Address..... : Room 307, Building 3, Xifa Zone B, No. 149 Gonghe Industrial
Road, Bao'an District, Shenzhen City
Product..... : WIRELESS KARAOKE SPEAKER
Model(s) : K12
Standards..... : 47CFR FCC Part 2 Subpart J Section 2.1093
Date of Receipt Sample : 2026-01-28
Date of Test : 2026-02-05 to 2026-04-13
Date of Issue..... : 2026-04-13
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

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3. Revision History

Test Report No.	Date of Receipt Sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTH26D01015647W004	2026-01-28	2026-02-05 to 2026-04-13	2026-04-13	Original	-	Valid

4. General Information

4.1. General Description of E.U.T.

Product:	WIRELESS KARAOKE SPEAKER
Model(s):	K12
Model Description:	N/A
Test Sample No.:	1-1/1
Bluetooth Version:	5.3
Hardware Version:	ZFX-K12E-CEB-V1.0 2024.11.19
Software Version:	S313V125

4.2. Details of E.U.T.

Operation Frequency:	Bluetooth: 2402-2480MHz, 79 Channels in total LE: 2402-2480MHz, 40 Channels in total
Max. RF output power:	Bluetooth: 1.67dBm LE: 1.70dBm
Modulation Technology:	Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK LE: GFSK
Antenna installation:	PCB antenna
Antenna Gain:	5.3dBi

Note:

#: The antenna gain is provided by the applicant, and the applicant should be responsible for its authenticity, WALTEK lab has not verified the authenticity of its information.

Ratings:	Charging Voltage is DC 5V 3.7V 18650 battery 800mAh
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4.3. Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

4.4. Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

4.5. Abnormalities from Standard Conditions

None.

5. Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	47CFR FCC Part 2 Subpart J § 2.1093	PASS

6. RF Exposure

Test Requirement: 47CFR FCC Part 2 Subpart J § 2.1093

Evaluation Method: 47CFR FCC Part 1 Subpart I §1.1307,

KDB 447498 D01 General RF Exposure Guidance v06

6.1. Procedures and Requirements

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ 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

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

6.2. Calculation Method

$$\text{Result} = P \sqrt{F} / D$$

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm

6.3. Test Result

A distance of 5mm normally can be maintained between the user and the device.

LE

Modulation	CH	Freq. (GHz)	Max Power (dBm)	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Distance (mm)	Result	Limit
GFSK	Middle	2.440	1.70	2.70	1.86	5	0.58	3

Bluetooth

Modulation	CH	Freq. (GHz)	Max Power (dBm)	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Distance (mm)	Result	Limit
GFSK	Middle	2.441	1.67	2.67	1.85	5	0.57	3
$\pi/4$ DQPSK	Middle	2.441	1.64	2.64	1.84	5	0.57	3
8DPSK	Middle	2.441	1.61	2.61	1.82	5	0.57	3

Simultaneous Transmissions

Mode	Sum of the MPE rate	Limit
LE+ Bluetooth	0.38	1

Note:

1. Chose the maximum power to do MPE analysis.
2. Bluetooth and LE share the same antenna and can transmit simultaneously.

Conclusion:

No SAR measurement is required.

=====End of Report=====