

TEST REPORT

FCC ID. :	2AV7N-DOK1
Test Report No..... :	TCT220809E044
Date of issue..... :	Sep. 19, 2022
Testing laboratory	SHENZHEN TONGCE TESTING LAB
Testing location/ address:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China
Applicant's name..... :	GUANGZHOU RANTION TECHNOLOGY CO., LTD.
Address..... :	Room 7002 and 7003, 7th Floor, Digital Entertainment Industrial Park, Greater Bay Area, No.28 Huangpu Park West Road, Huangpu District, Guangzhou, China
Manufacturer's name ... :	GUANGZHOU RANTION TECHNOLOGY CO., LTD.
Address..... :	Room 7002 and 7003, 7th Floor, Digital Entertainment Industrial Park, Greater Bay Area, No.28 Huangpu Park West Road, Huangpu District, Guangzhou, China
Factory's name	ZHEJIANG TONCH ELECTRONICS CO., LTD
Address..... :	No.1111 Jinhai Road, Cixi Coastal Economic Development District(315311), Zhejiang, China
Standard(s)	FCC CFR Title 47 Part 1.1307
Product Name..... :	Soundwin Karaoke, Soundwin
Trade Mark	DONNER
Model/Type reference..... :	DO-K1, DO-S1, Soundwin, Soundwin Karaoke
Rating(s)..... :	USB rated input: DC 5V, 3.0A Internal Battery: DC7.4V, 5000mAh, 37Wh
Date of receipt of test item	Aug. 09, 2022
Date (s) of performance of test..... :	Aug. 09, 2022 - Sep. 19, 2022
Tested by (+signature) ... :	Onnado YE
Check by (+signature).... :	Beryl ZHAO
Approved by (+signature):	Tomsin

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1. General Product Information

1.1. EUT description

Product Name.....:	Soundwin Karaoke, Soundwin
Model/Type reference.....:	DO-K1
Sample Number.....:	TCT220809E006-0101
Operation Frequency	2402MHz~2480MHz
Modulation Type.....:	For BT: GFSK, $\pi/4$ -DQPSK, 8DPSK For BLE: GFSK
Antenna Type.....:	PCB Antenna
Antenna Gain.....:	-2dBi
Rating(s).....:	USB rated input: DC 5V, 3.0A Internal Battery: DC7.4V, 5000mAh, 37Wh

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

No.	Model No.	Tested with
1	DO-K1	<input checked="" type="checkbox"/>
Other models	DO-S1, Soundwin, Soundwin Karaoke	<input type="checkbox"/>

Note: 1. DO-K1 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of DO-K1 can represent the remaining models.
2. Model DO-K1 has one more built-in MIC receiver than the DO-S1; Model DO-K1 and Soundwin Karaoke are identical except model name; Model DO-S1 and Soundwin are identical except model name.

2. General Information

2.1. Test environment and mode

Item	Normal condition
Temperature	+25°C
Voltage	DC 7.4V
Humidity	56%
Atmospheric Pressure:	1008 mbar
Test Mode:	
Engineering mode:	Keep the EUT in continuous transmitting by select channel

2.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

3. Facilities and Accreditations

3.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

3.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4. Test Results and Measurement Data

According to § 15.247(i) and § 1.1307b(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 guidance.

The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, 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
- When the minimum test separation distance is < 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.
- The result is rounded to one decimal place for comparison

- For BDR+EDR:

Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 00	2.402	-0.04	-1 \pm 1	0	1.00	5	0.31	3.0

- For BLE:

Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 00	2.402	-0.75	-1.5 \pm 1	-0.5	0.89	5	0.28	3.0

Result:

Base on the calculation value, No SAR measurement is required.

*******END OF REPORT*******