TCT 通测检测 TESTING CENTRE TECHNOLOGY

TEST REPORT

FCC ID. ..... :	2AV7NTSM7-1000
Test Report No..... :	TCT231128E037
Date of issue..... :	Jan. 18, 2024
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 1 ..... :	Quanzhou Moyin Musical Instrument Co., Ltd.
Address 1..... :	No.2 Ningmei Road, Food Park, Jinjiang Economic Development Zone, Quanzhou City, Fujian Province, China 362200
Factory's name 2 ..... :	Jiangmen Duole Technology Co., Ltd.
Address 2..... :	Building9, No.52, BaotangRoad, TangxiaTown, PengjiangDistrict, JiangmenCity
Standard(s) ..... :	FCC CFR Title 47 Part 1.1307
Product Name..... :	BackBeat Electronic Drum Set
Trade Mark ..... :	Donner
Model/Type reference..... :	Refer to model list of page 3
Rating(s)..... :	Refer to EUT description of page 3
Date of receipt of test item ..... :	Nov. 28, 2023
Date (s) of performance of test..... :	Nov. 28, 2023 ~ Jan. 18, 2024
Tested by (+signature) ... :	Onnado YE
Check by (+signature).... :	Beryl ZHAO
Approved by (+signature):	Tomsin

General disclaimer:

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1. General Product Information

1.1. EUT description

Product Name.....:	BackBeat Electronic Drum Set
Model/Type reference.....:	TSM7-1000
Sample Number.....:	TCT231128E021-0101
Operation Frequency.....:	For BT/BLE: 2402MHz~2480MHz
Modulation Type.....:	For BT: GFSK, π/4-DQPSK, 8DPSK For BLE: GFSK
Antenna Type.....:	PCB Antenna
Antenna Gain.....:	0.59dBi
Rating(s).....:	Adapter Information: Model: MS-V2000R120-024Q0-US Input: AC 100-240V, 50/60Hz, 0.7A max Output: DC 12.0V, 2.0A

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	TSM7-1000	☒
Other models	TSM7-1000K, TSM7-1000KC, TSM7-1000KD, TSM7-1000KCD, TSM7-1000KL, TSM7-1000KLC, TSM7-1000KLD, TSM7-1000KLCD, TSM7-1000KSE, TSM7-1000KSEC, TSM7-1000KSED, TSM7-1000KSECD, TSM7-1000KX, TSM7-1000KXC, TSM7-1000KXD, TSM7-1000KXCD, TSM7-1000KM, TSM7-1000KMC, TSM7-1000KMD, TSM7-1000KMCD, TSM7-1000KP, TSM7-1000KPC, TSM7-1000KPD, TSM7-1000KPCD	☐
Note: TSM7-1000 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model name. So the test data of TSM7-1000 can represent the remaining models.		

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2. General Information

2.1. Test environment and mode

Item	Normal condition
Temperature	+25ºC
Voltage	AC 230V
Humidity	56%
Atmospheric Pressure:	1008 mbar
Test Mode:	
Transmitting 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.

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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 §1.1307(b), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Remark: 1) **For BT:** The maximum output power for antenna is 2.43dBm (1.75mW) at 2441MHz, 0.59dBi antenna gain(with 1.15 numeric antenna gain.)
For BLE: The maximum output power for antenna is 3.44dBm (2.21mW) at 2440MHz, 0.59dBi antenna gain(with 1.15 numeric antenna gain.)
2) For mobile or fixed location transmitters, no SAR consideration applied. The minimum separation generally be used is at least 20cm, even if the calculation indicate that the MPE distance would be lesser.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{3770}$

Where E = *Field Strength in Volts / meter*
P = *Power in Watts*
G=*Numeric antenna gain*
d=*Distance in meters*
S=*Power Density in milliwatts / square centimeter*

Substituting the MPE safe distance using d=20cm into above equation.
Yields: S=0.000199*P*G

Mode	Power(mW)	numeric antenna gain	Power density (mW/cm^2)	Limit (mW/cm^2)	Result
BT	1.75	1.15	0.000400	1.0	PASS
WIFI	2.21	1.15	0.000506		

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

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