

TEST REPORT

FCC ID.	2AK6D-VTK-6800	
Test Report No.	TCT220228E015	
Date of issue	Mar. 09, 2022	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name	VORTEXGEAR CO., LTD.	
Address	4F., No.14, Ln. 181, Sec. 2, Jiuzong Rd., TAIPEI, Taiwan	
Manufacturer's name ...	ShenZhen Senbiz Industry Co., Ltd	
Address	Building A, No 11, 1st row, Xinfu Industrial Zone, XingQiao, Shajing Town, Bao'an District, Shenzhen, Guangdong, China 518125	
Standard(s)	FCC CFR Title 47 Part 1.1307	
Product Name	keyboard	
Trade Mark	Vortex	
Model/Type reference	VTK-6800, VTK-6801, VTK-6802, VTK-6803, VTK-6800A, VTK-6801A, VTK-6802A, VTK-6803A	
Rating(s)	DC 3V(2*AAA Battery)	
Date of receipt of test item	Feb. 28, 2022	
Date (s) of performance of test	Feb. 28, 2022 ~ Mar. 09, 2022	
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.....	keyboard
Model/Type reference.....	VTK-6800
Sample Number.....	TCT220228E014-0101
Operation Frequency	2402MHz~2480MHz
Modulation Type	GFSK
Antenna Type.....	PCB Antenna
Antenna Gain.....	3.85dBi
Rating(s).....	DC 3V(2*AAA Battery)

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	VTK-6800	<input checked="" type="checkbox"/>
Other models	VTK-6801, VTK-6802, VTK-6803, VTK-6800A, VTK-6801A, VTK-6802A, VTK-6803A	<input type="checkbox"/>

Note: VTK-6800 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names, shell material and shape. So the test data of VTK-6800 can represent the remaining models.

2. General Information

2.1. Test environment and mode

Item	Normal condition	
Temperature	+25°C	
Voltage	DC 3V	
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: TCT Testing Industrial Park Fugiao 5th Industrial Zone, Fuhai Street, 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 \leq 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

- 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	-0.26	-1±1	0	1	5	0.31	3.0

Result:

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

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