




TEST REPORT

FCC ID. :	2A986-QX3600	
Test Report No..... :	TCT230227E028	
Date of issue..... :	Apr. 26, 2023	
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..... :	Zhengzhou Zhengfang Technology Co., Ltd	
Address..... :	No.503, 5th Floor, Building3, Yida Science and Technology New Town, No.16, Jinzhan Street, High-tech Zone, Zhengzhou, China	
Manufacturer's name ... :	Zhengzhou Zhengfang Technology Co., Ltd	
Address..... :	No.503, 5th Floor, Building3, Yida Science and Technology New Town, No.16, Jinzhan Street, High-tech Zone, Zhengzhou, China	
Standard(s)	FCC CFR Title 47 Part 1.1307	
Product Name..... :	Outdoor Portable Power Station	
Trade Mark	N/A	
Model/Type reference..... :	QX3600	
Rating(s)..... :	AC 120V/60Hz Rechargeable Li-ion Battery DC 57.6V	
Date of receipt of test item	Feb. 27, 2023	
Date (s) of performance of test..... :	Feb. 27, 2023 - Apr. 26, 2023	
Tested by (+signature) ... :	Aaron MO	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	

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1. General Product Information

1.1. EUT description

Product Name.....:	Outdoor Portable Power Station
Model/Type reference.....:	QX3600
Sample Number.....:	TCT230227E016-0101
Operation Frequency	For BLE: 2402MHz~2480MHz For WIFI: 2412MHz~2462MHz (802.11b/802.11g/802.11n(HT20)) LTE Band 2: TX: 1850 MHz ~ 1910 MHz, RX: 1930 MHz ~ 1990 MHz LTE Band 5: TX: 824 MHz ~ 849 MHz, RX: 869 MHz ~ 894 MHz
Modulation Type.....:	For BLE: GFSK For WIFI: DSSS(802.11b), OFDM (802.11g/802.11n) For LTE: QPSK, 16-QAM
Antenna Type.....:	For BLE/WIFI: PCB Antenna For LTE: Internal Antenna
Antenna Gain.....:	BLE: 2.41dBi WIFI: 2.41dBi LTE Band 2: 1.5dBi LTE Band 5: 0.5dBi
Rating(s).....:	AC 120V/60Hz Rechargeable Li-ion Battery DC 57.6V

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

None.

2. General Information

2.1. Test environment and mode

Item	Normal condition
Temperature	+25°C
Voltage	DC 57.6V
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 §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 BLE: The tune-up Power for antenna is 8dBm (6.32mW) at 2402MHz,
2.41dBi antenna gain(with 1.74 numeric antenna gain.)

For WIFI: The tune-up Power for antenna is 18dBm (63.10mW) at 2462MHz,
2.41dBi antenna gain(with 1.74 numeric antenna gain.)

For LTE Band 2: The tune-up Power for antenna is 24dBm (251.19mW) at 1880MHz,
1.5dBi antenna gain(with 1.41 numeric antenna gain.)

For LTE Band 5: The tune-up Power for antenna is 23dBm (199.53mW) at 836.5MHz,
0.5dBi antenna gain(with 1.12 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 $E = \frac{\sqrt{30 \cdot P \cdot G}}{d}$ & $S = \frac{E^2}{3770}$

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 $d=20\text{cm}$ into above equation.

Yields: $S=0.000199 \cdot P \cdot G$

Mode	Power(mW)	numeric antenna gain	Power density (mW/cm ²)	Limit (mW/cm ²)	Result
BLE	6.32	1.74	0.002188	1.0	PASS
WIFI	63.10	1.74	0.021849		
LTE Band 2	251.19	1.41	0.070481		
LTE Band 5	199.53	1.12	0.044471		

The device contain transmitters (BT & LTE, WIFI & LTE) can transmit multiple transmission modes at the same time.

Maximum Emissions Level			
Mode	Power density	Limit	Result
BT & LTE	0.072669	1.0	Pass
WIFI & LTE	0.092330		

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