




**TEST REPORT**

FCC ID..... :	2AYT3-PREMIUM200	
Test Report No..... :	TCT241205E029	
Date of issue..... :	Jan. 14, 2025	
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..... :	SHENZHEN POWEROAK NEWENER CO., LTD	
Address..... :	F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street, Nanshan, Shenzhen, China	
Manufacturer's name ... :	SHENZHEN POWEROAK NEWENER CO., LTD	
Address..... :	F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street, Nanshan, Shenzhen, China	
Standard(s) .....	FCC CFR Title 47 Part 1.1307 KDB 447498 D01 V06	
Product Name..... :	Portable Power Station	
Trade Mark .....	BLUETTI	
Model/Type reference..... :	Premium 200 V2	
Rating(s)..... :	Refer to EUT description of page 3	
Date of receipt of test item .....	Dec. 05, 2024	
Date (s) of performance of test..... :	Dec. 05, 2024 ~ Jan. 14, 2025	
Tested by (+signature) ... :	Rleo LIU	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	

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## 1. General Product Information

### 1.1. EUT description

Product Name.....:	Portable Power Station
Model/Type reference.....:	Premium 200 V2
Sample Number.....:	TCT241205E014-0101
Operation Frequency .....	For BLE: 2402MHz~2480MHz For WIFI: 2412MHz~2462MHz (802.11b/802.11g/802.11n(HT20)) 2422MHz~2452MHz (802.11n(HT40))
Modulation Type.....:	For BLE: GFSK For WIFI: 802.11b: Direct Sequence Spread Spectrum (DSSS) 802.11g/802.11n: Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type.....:	PCB Antenna
Antenna Gain.....:	3.18dBi
Rating(s).....:	AC Input: AC 120V, 50/60Hz, 15A Max. DC/PV Input: DC 12V-60V, 20A, 1000W AC Output: AC 120V, 50/60Hz, 2700W Total USB-A Output: DC 5V, 3A, 15W Each port USB-C Output: DC 5/9/12/15/20V, 3A, DC 20V, 5A Each port (With E-Marker chip built in) Cigarette Lighter Port Output: DC 12V, 10A AC&DC Output: 2800W Total Battery Capacity: DC 38.4V, 54Ah, 2073.6Wh

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 38.4V
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.

### 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

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Innovation, Science and Economic Development 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 maximum output power for antenna is 18.20dBm(66.07mW) at 2440MHz, 3.18dBi antenna gain(with 2.08 numeric antenna gain.)

**For WIFI:** The maximum output power for antenna is 19.75dBm(94.41mW) at 2412MHz, 3.18dBi antenna gain(with 2.08 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  $d=20\text{cm}$  into above equation.

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

Mode	Power (dBm)	Power (mW)	numeric antenna gain	Power density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
BLE	18.20	66.07	2.08	0.027348	1.00	PASS
WIFI	19.75	94.41	2.08	0.039078	1.00	

Note: BLE/WIFI Can be transmitted simultaneously, MPE calculate is as follow,  
 $MPE=0.027348/1.0+0.039078/1.0=0.066426<1$ .

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