

TEST REPORT

FCC ID.	2BOXS-APEX300	
Test Report No.	TCT250530E015	
Date of issue	Jun. 13, 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	BLUETTI POWER INC	
Address	6185 S VALLEY VIEW BLVD STE D, LAS VEGAS, Nevada 89118, United States	
Manufacturer's name ...	PT POWEROAK ENERGY INDONESIA	
Address	Horizon Industrial Park Type A Lot 07, Sungai Pelunggut Village, Sagulung District, Batam City 29439, Riau Islands Province, Indonesia	
Standard(s)	FCC CFR Title 47 Part 1.1307 FCC CFR Title 47 Part 2.1091 KDB 447498 D01 V06	
Product Name	Portable Power Station	
Trade Mark	BLUETTI	
Model/Type reference	Apex 300	
Rating(s)	Refer to EUT description of page 3	
Date of receipt of test item	May 30, 2025	
Date (s) of performance of test	May 30, 2025 ~ Jun. 13, 2025	
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	Portable Power Station
Model/Type reference	Apex 300
Hardware Version	V2.0
Software Version	2174-05 DSP
Sample Number	TCT250530E005-0101
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: DSSS (802.11b), OFDM (802.11g/802.11n)
Antenna Type	PCB Antenna
Antenna Gain	3.37dBi
Rating(s)	Battery Capacity: DC 51.2V, 54Ah, 2764.8Wh AC Input: AC 120V, 50/60Hz, 15A Max. AC IN/OUT Port: AC 120V/208V or AC 120V/240V, 50/60Hz, 50A Max. DC/PV Port: DC 12V-60V, 20A, 1200W each port AC Total Output Power (Discharge Only): 3840W AC Total Output Power (Bypass Mode): 12000W Output (Voltage Selector: 120V): 5-20R: AC 120V, 50/60Hz, 20A Max. each port TT-30R: AC 120V, 50/60Hz, 30A Max. 14-50R (Discharge Only): AC 120V, 50/60Hz, 32A Max. 14-50R (Bypass Mode): AC 120V, 50/60Hz, 50A Max. Output (Voltage Selector: 240V) 5-20R: AC 120V, 50/60Hz, 16A Max. each port (Every Two Ports: 1920W Max.) TT-30R: AC 120V, 50/60Hz, 16A Max. 14-50R (Discharge Only): AC 120V/240V, 50/60Hz, 16A Max. 14-50R (Bypass Mode): AC 120V/240V, 50/60Hz, 50A Max. AC IN/OUT Port: AC 120V/208V or AC 120V/240V, 50/60Hz, 16A Max. Battery Expansion Port: DC 51.2V, 90A Max.

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 51.2V
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. 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.

- A2LA-No.: 4320.01

SHENZHEN TONGCE TESTING LAB

The testing lab has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.

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. Limit

According to §1.1310, the limit is as follow,

TABLE 1 TO § 1.1310(e)(1)—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE
(MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
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(i) LIMITS FOR OCCUPATIONAL/CONTROLLED EXPOSURE

0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6

(ii) LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

*f = frequency in MHz. * = Plane-wave equivalent power density.*



5. 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 9.84dBm(9.64mW) at 2402MHz, 3.37dBi antenna gain(with 2.17 numeric antenna gain.)
For WIFI: The maximum output power for antenna is 18.52dBm(71.12mW) at 2437MHz, 3.37dBi antenna gain(with 2.17 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

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

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 (dBm)	Power (mW)	numeric antenna gain	Power density (mW/cm ²)	Limit (mW/cm ²)	Result
BLE	9.84	9.64	2.17	0.004163	1.00	PASS
WIFI	18.52	71.12	2.17	0.030712	1.00	

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