

FCC TEST REPORT

Report No.....: AB26040541FW02

FCC ID.....: **2BWEA-TSB31000**

Applicant.....: Terra Supreme Battery LLC

Address.....: 1563 E State Rd 8, PO Box 28, Albion, IN 46701

Manufacturer.....: Terra Supreme Battery LLC

Address.....: 1563 E State Rd 8, PO Box 28, Albion, IN 46701

Product Name.....: TSB-31000 Battery with BLE Module

Trade Mark.....: 

Test Model.....: TSB-31000

Additional Model(s).....: /

Standard.....: FCC Part 2 (Section 2.1091)
KDB 447498 D01
IEEE C95.1

Date of Receipt.....: 2026.04.29

Date of Issue.....: 2026.05.11

Test Result.....: Pass

Compiled by: Huaijie Li

(Printed Name + Signature)

Huaijie Li

Supervised by: David Huang

(Printed Name + Signature)

David Huang

Approved by: Jay Liu

(Printed Name + Signature)

Jay Liu

Testing Laboratory Name.....: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address.....: 101, Building B, Tuori New Energy Industrial Park, High-tech Park,
Tianliao Community, Yutang Street, Guangming District, Shenzhen
City, Guangdong Province, China

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FCC TEST REPORT

EUT.....	: TSB-31000 Battery with BLE Module
Test Model.....	: TSB-31000
Applicant.....	: Terra Supreme Battery LLC
Address.....	: 1563 E State Rd 8, PO Box 28, Albion, IN 46701
Manufacturer.....	: Terra Supreme Battery LLC
Address.....	: 1563 E State Rd 8, PO Box 28, Albion, IN 46701

Test Result	Positive
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

REPORT VERSION

Version No.	Issue Date	Description
01	2026.05.11	Initial Issue

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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	TSB-31000 Battery with BLE Module
Trade Mark:	
Test Model:	TSB-31000
Additional Model(s):	/
Model Difference:	/
Hardware Version:	1.0
Software Version:	1.0.
Power Supply:	Input:DC 14.4-14.8V; Output:12V DC nominal, 105 Ah
EUT Supports Function: (Provided by the customer)	2.4GHz ISM Bands
Test Sample(s) Number:	AB26040541-01 (Engineer Sample) AB26040541-01 (Normal Sample)
Radio Specification Subject to this Report	
Bluetooth Version:	Bluetooth LE
Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Channel Spacing:	2MHz
Channel Number(s):	40
Antenna Type:	PCB Antenna
Antenna Gain:	3.25dBi

1.2. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +86 755 85250797

E-mail: aibo@aibonorm.com

Website: www.aibonorm.com

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

ISED Wireless Device Testing Laboratories

Company Number: 33924

CAB identifier: CN0185

2. RF EXPOSURE EVALUATION

2.1 Limit

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

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)
(A) Limits for Occupational/Controlled Exposures				
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
300-1500			f/300	6
1500-100,000			5	6
(B) 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
300-1500			f/1500	30
1500-100,000			1.0	30

f = frequency in MHz

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm², P_{out} = output power to antenna in mW;

G = gain of antenna in linear scale, $\pi = 3.1416$;

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

2.2 Evaluation Result

Mode	Total Power (dBm)	Antenna Gain	Max.EIRP (dBm)	Max.EIRP (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
BLE	3.21	3.25	6.46	4.426	0.000881	1.0	PASS

So a SAR test is not required

*****THE END*****