

RF Exposure Evaluation

FOR

Guangzhou Fengjiu New Energy Technology Co., Ltd

Multifunctional Light and Sound Power Supply

Test Model: FL9-A

Prepared for : Guangzhou Fengjiu New Energy Technology Co., Ltd
Address : Room 102, Building E, 228 Park No. 22, Xiaogang Garden Road,
Yuncheng Street, Baiyun District, Guangzhou, China

Prepared by : Guangzhou LCS Compliance Testing Laboratory Ltd.
Address : No.44-1,Qianfeng North Road, Shiqi, Panyu District, Guangzhou,
Guangdong, China
Tel : (+86) 020-39166689
Fax : (+86) 020-39166619
Web : www.LCS-cert.com
Mail : webmaster@LCS-cert.com

Date of receipt of test sample : July 21, 2025
Number of tested samples : 2
Sample No. : C250716003-1, C250716003-2
Serial number : Prototype
Date of Test : July 21, 2025 ~ August 01, 2025
Date of Report : August 04, 2025

RF Exposure Evaluation

Report Reference No. : **LCSC07165005EC**

Date of Issue : August 04, 2025

Testing Laboratory Name : **Guangzhou LCS Compliance Testing Laboratory Ltd.**

Address : No.44-1,Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China

: Full application of Harmonised standards

Testing Location/ Procedure : Partial application of Harmonised standards
Other standard testing method

Applicant's Name : **Guangzhou Fengjiu New Energy Technology Co., Ltd**

Address : Room 102, Building E, 228 Park No. 22, Xiaogang Garden Road, Yuncheng Street, Baiyun District, Guangzhou, China

Test Specification

Standard : FCC KDB publication 447498 D01 General RF Exposure Guidance v06
FCC CFR 47 part1 1.1310
FCC CFR 47 part2 2.1093

Test Report Form No. : TRF-4-E-215 A/0

TRF Originator : Guangzhou LCS Compliance Testing Laboratory Ltd.

Master TRF : Dated 2011-03

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Test Item Description : **Multifunctional Light and Sound Power Supply**

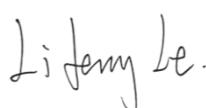
Trade Mark : N/A

Test Model : FL9-A

Ratings : Please Refer to Page 6

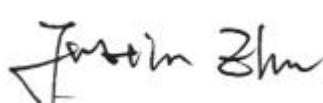
Result : **PASS**

Compiled by:



Lifeng Le / File administrators

Supervised by:



Justin Zhu / Technique Director

Approved by:



Gavin Liang/ Manager

RF Exposure Evaluation

| | |
|---|---|
| Test Report No. : LCSC07165005EC | <u>August 04, 2025</u> Date of issue |
|---|---|

| |
|---|
| Test Model..... : FL9-A |
| EUT..... : Multifunctional Light and Sound Power Supply |
| Applicant..... : Guangzhou Fengjiu New Energy Technology Co., Ltd |
| Address..... : Room 102, Building E, 228 Park No. 22, Xiaogang Garden Road, Yuncheng Street, Baiyun District, Guangzhou, China |
| Telephone..... : / |
| Fax..... : / |
| Manufacturer..... : Guangdong Lemark Electronics Technology Co., Ltd. |
| Address..... : Building 23, Zhongjingrun Industrial Park, Pingfeng Expansion Zone, Yuegui Cooperation Special Experimental Zone, Pingfeng Town, Fengkai County, Zhaoqing City, Guangdong Province, 526542, China. |
| Telephone..... : / |
| Fax..... : / |
| Factory..... : Guangdong Lemark Electronics Technology Co., Ltd. |
| Address..... : Building 23, Zhongjingrun Industrial Park, Pingfeng Expansion Zone, Yuegui Cooperation Special Experimental Zone, Pingfeng Town, Fengkai County, Zhaoqing City, Guangdong Province, 526542, China. |
| Telephone..... : / |
| Fax..... : / |

| | |
|--------------------|-------------|
| Test Result | PASS |
|--------------------|-------------|

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.

Revision History

| Report Version | Issue Date | Revision Content | Revised By |
|----------------|-----------------|------------------|------------|
| 000 | August 04, 2025 | Initial Issue | --- |
| | | | |
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1. Product Information

| | |
|---------------------|--|
| Product name | : Multifunctional Light and Sound Power Supply |
| Test Model | : FL9-A |
| Power Supply | : BatteryCapacity:56Wh(15600mAh/3.6V) OUTPUT: USB-A 5V/2.4A/USB-C 5~20V 45W INPUT: USB-C 5~20V 45W |
| Hardware Version | : / |
| Software Version | : / |
| Bluetooth | : 2402MHz ~ 2480MHz |
| Channel Number | : 79 channels for Bluetooth V5.3(DSS) 40 channels for Bluetooth V5.3 (DTS) |
| Channel Spacing | : 1MHz for Bluetooth V5.3 (DSS) 2MHz for Bluetooth V5.3 (DTS) |
| Modulation Type | : GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V5.3(DSS) GFSK for Bluetooth V5.3 (DTS) |
| Bluetooth Version | : V5.3 |
| Antenna Description | : PCB Antenna, 1.58dBi(Max.) |
| Exposure category | : General population/uncontrolled environment |
| EUT Type | : Production Unit |
| Device Type | : Portable Device |

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.

2. Evaluation method and Limit

According to KDB447498 D01 General RF Exposure Guidance v06 Section 4.3.1 Standalone SAR test exclusion considerations: "Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.22 The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops & tablets etc."

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f} (\text{GHz})] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where:}$

- f (GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.

When one of the following test exclusion conditions is satisfied for all combinations of simultaneous transmission configurations, further equipment approval is not required to incorporate transmitter modules in host devices that operate in the mixed mobile and portable host platform exposure conditions. The grantee is responsible for documenting this according to Class I permissive change requirements. Antennas that qualify for standalone SAR test exclusion must apply the estimated standalone SAR to determine simultaneous transmission test exclusion.

- a) The $[\sum \text{ (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance)} / 1.6 \text{ W/kg}] + [\sum \text{ of MPE ratios}]$ is ≤ 1.0 .
- b) The SAR to peak location separation ratios of all simultaneously transmitting antenna pairs operating in portable device exposure conditions are all ≤ 0.04 , and the $[\sum \text{ of MPE ratios}]$ is ≤ 1.0 .

3. Refer Evaluation Method

[ANSI C95.1-1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB publication 447498 D01 General RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1093](#): Radiofrequency radiation exposure evaluation: portable devices

4. Conducted Power Results

BT

| Mode | Channel | Frequency (MHz) | Peak Conducted Output Power (dBm) |
|---------------|---------|-----------------|-----------------------------------|
| GFSK | 0 | 2402 | -1.22 |
| | 39 | 2441 | -1.31 |
| | 78 | 2480 | -1.99 |
| $\pi/4$ DQPSK | 0 | 2402 | 0.63 |
| | 39 | 2441 | 0.93 |
| | 78 | 2480 | -0.17 |
| 8DPSK | 0 | 2402 | 1.11 |
| | 39 | 2441 | 1.39 |
| | 78 | 2480 | 0.32 |

BT LE

| Mode | Channel | Frequency (MHz) | Peak Conducted Output Power (dBm) |
|--------|---------|-----------------|-----------------------------------|
| BLE 1M | 0 | 2402 | 0.27 |
| | 19 | 2440 | 0.71 |
| | 39 | 2480 | -0.22 |

5. Manufacturing Tolerance

| BT | | | |
|----------------------|-----------|------------|------------|
| GFSK (Peak) | | | |
| Channel | Channel 0 | Channel 39 | Channel 78 |
| Target (dBm) | -1.0 | -1.0 | -1.0 |
| Tolerance \pm (dB) | 1.0 | 1.0 | 1.0 |
| $\pi/4$ DQPSK (Peak) | | | |
| Channel | Channel 0 | Channel 39 | Channel 78 |
| Target (dBm) | 0 | 0 | 0 |
| Tolerance \pm (dB) | 1.0 | 1.0 | 1.0 |
| 8DPSK (Peak) | | | |
| Channel | Channel 0 | Channel 39 | Channel 78 |
| Target (dBm) | 1.0 | 1.0 | 0 |
| Tolerance \pm (dB) | 1.0 | 1.0 | 1.0 |

<BLE 1M>

| GFSK (Peak) | | | |
|----------------------|-----------|------------|------------|
| Channel | Channel 0 | Channel 19 | Channel 39 |
| Target (dBm) | 0 | 0 | 0 |
| Tolerance \pm (dB) | 1.0 | 1.0 | 1.0 |

6. Evaluation Results

6.1 Standalone Evaluation

| Band/Mode | f (GHz) | Antenna Distance (mm) | RF output power | | SAR Test Exclusion Threshold | SAR Test Exclusion | |
|-----------|---------------|-----------------------|-----------------|----|------------------------------|--------------------|-----|
| | | | dBm | mW | | | |
| BT | GFSK | 2.480 | 5 | 0 | 1.0000 | 0.3150 < 3.0 | Yes |
| | $\pi/4$ DQPSK | 2.480 | 5 | 1 | 1.2589 | 0.3965 < 3.0 | Yes |
| | 8DPSK | 2.480 | 5 | 2 | 1.5849 | 0.4992 < 3.0 | Yes |
| BLE 1M | GFSK | 2.480 | 5 | 1 | 1.2589 | 0.3965 < 3.0 | Yes |

Remark:

1. Output power including tune up tolerance;
2. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to f) in section 4.1 is applied to determine SAR test exclusion.

6.2 Simultaneous Transmission for SAR Exclusion

The sample support one BT modular. No need consider simultaneous transmission.

7. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

8. Description of Test Facility

CNAS Registration Number is L11555
A2LA Certificate Number: 5099.01
FCC Designation Number is CN1379
Test Firm Registration Number: 729882

9. Measurement Uncertainty

BT/BLE:

| Test Item | | Frequency Range | Uncertainty | Note |
|--------------|---|-----------------|-------------|------|
| Output power | : | 1GHz-40GHz | ±0.57dB | (1) |

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

.....THE END OF REPORT.....