

RF EXPOSURE EVALUATION REPORT

Application No.: GZCR2508001175LM
Applicant: BETTERLIGHT TECHNOLOGY CO., LTD.
Address of Applicant: 7th Floor, Elevator 1, Jianghai Industrial Park, No. 7 Yonghe Road, Longteng Community, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China
Manufacturer: BETTERLIGHT TECHNOLOGY CO., LTD.
Address of Manufacturer: 7th Floor, Elevator 1, Jianghai Industrial Park, No. 7 Yonghe Road, Longteng Community, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China
Factory: BETTERLIGHT TECHNOLOGY CO., LTD.
Address of Factory: 7th Floor, Elevator 1, Jianghai Industrial Park, No. 7 Yonghe Road, Longteng Community, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province, China
Product Name: Garden Light
Model No.: GL001, GL002, GL003, GL004, GL005 ♣
 ♣ Please refer to section 2 of this report which indicates which item was actually evaluated and which were electrically identical.
Standard(s) : 47 CFR Part 2.1093
Date of Receipt: 2025-08-04
Date of Evaluation: 2025-08-19 to 2025-08-19
Date of Issue: 2025-08-22

Evaluation Result:	Pass*
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* In the configuration evaluated, the EUT complied with the standards specified above.



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Revision Record			
Version	Report No.	Date	Remark
01	GZCR250800117503	2025-08-22	Original

Authorized for issue by:			
Evaluated By		Key Liang	
		Key Liang/Project Engineer	
Approved By		Vico Cui	
		Vico Cui/Reviewer	



2 Evaluation Summary

Item	Standard	Method	Requirement	Result
RF Exposure	47 CFR Part 2.1093	47 CFR Part 2.1093	47 CFR Part 2.1093	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

♣ Declaration of EUT Family Grouping:

Model No.: GL001, GL002, GL003, GL004, GL005

According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference being the model name.

Therefore only one model GL001 was evaluated in this report.



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4 General Information

4.1 Details of E.U.T.

Power supply: Powered by AC/DC adapter for light unit (Receiver):
 Model: RKPO-UL040100IP44-1A
 Input: AC 120V 60Hz 0.2A
 Output: DC 4V 1000mA 4W
 DC 3 V (1*CR2032) for remote control (Transmitter)

Cable(s): 3.0m x 2 wires unscreened AC mains cable.

Test voltage: DC 3 V

Operation Frequency: 433.92 MHz

Channel Numbers: 1

Modulation Type: ASK

Antenna Type: PCB antenna

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Evaluating Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
 No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou,
 Guangdong, China 510663

Tel: +86 20 82155555

No tests were sub-contracted.



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4.3 Facility

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

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

- **ISED (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

- **VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.4 Deviation from Standards

None

4.5 Abnormalities from Standard Conditions

None



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5 Technical Requirements Specification

5.1 RF Exposure Evaluation

5.1.1 Limit & Test Method

KDB447498D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusion

5.1.2 Conclusion

1, Maximum transmit field strength

The field strength is based on the RF Test Report GZCR250800117502.

Test Mode	Test Channel [MHz]	Field Strength [dBuV/m]	Test distance [m]
ASK	433.92	62.29	3

2, RF Exposure Calculation

The max field strength is 62.29 dBuV/m@ 3 m = 0.001302 V/m@ 3 m

$P = (E \cdot d)^2 / 30 = 0.00050856 \text{ mW}$ according to formula G.1 of ANSI C63.10:2013

	Evaluation method	Exempt Limit(mW)	Verdict
<input checked="" type="checkbox"/>	Blanket 1 mW Blanket Exemption	1mW	Yes
<input type="checkbox"/>	MPE-based Exemption(ERP)	7mW(ERP)	N/A
<input type="checkbox"/>	SAR-based Exemption(P_{th})	2.744mW	N/A

So, the SAR report is not required.



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6 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for GZCR2508001175LM

- End of the Report -

