

RF Exposure Evaluation Report

Product : LED controller
Trade mark : N/A
Model/Type reference : MX-FOB
Serial Number : N/A
Report Number : EED32Q81030402
FCC ID : 2BCKBMX-FOB
Date of Issue : Feb. 19, 2025
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

XKGLOW Inc

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Prepared by:

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Check No.: 1118170724



1 Version

Version No.	Date	Description
00	Feb. 19, 2025	Original

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3 General Information

3.1 Client Information

Applicant:	XKGLOW Inc
Address of Applicant:	2801 N Farmer Market Rd Springfield, IL, 62707 USA
Manufacturer:	Shenzhen Mage E-commerce Co.,Ltd
Address of Manufacturer:	A2003, Baifu Building, Dengliang Road,Nanshan District, Shenzhen, Guangdong, China

3.2 General Description of EUT

Product Name:	LED controller
Model No.:	MX-FOB
Test model No.:	MX-FOB
Trade mark:	N/A

3.3 Product Specification subjective to this standard

Frequency Range:	915MHz
Number of Channels:	1
Modulation type:	ASK
Antenna Type:	Internal Antenna
Test Software of EUT:	RF test
Test Power Grade:	Default
Power Supply:	DC 3.0V
Test Voltage:	DC 3.0V
Sample Received Date:	Jul. 23, 2024
Sample tested Date:	Jul. 23, 2024 to Aug. 27, 2024

3.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at the only channel individually.

4.1.3 EUT RF Exposure Evaluation

Frequency (MHz)	Field strength of the fundamental signal (dBuV/m@3m)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
915	67.26	-27.97	0.0016	≤7.0540	PASS

Note:

① EIRP=conducted power+antenna gain;

② ERP=EIRP-2.15;

③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;

④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;

⑤ The estimation distance is 0.5cm;

⑥ The test data please refer to the report of EED32Q81030401 and only the worst case data was recorded in the report.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
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*** End of Report ***