

RF Exposure Evaluation Report

Product : Headlight
Trade mark : MORIMOTO
Model/Type reference : LF2-520R
Serial Number : N/A
Report Number : EED32R81959902
FCC ID : 2A73A-LF2-520R
Date of Issue : Jan. 29, 2026
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

Morimoto Lighting
2281 Defoor Hills Rd Atlanta GA 30318, United States

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Park, Zone 70, Bao'an District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by:

Lucas_Lu

Reviewed by:

Keven Tan.

Lucas_Lu

Keven Tan

Approved by:

Aaron Ma

Date:

Jan. 29, 2026

Aaron Ma



Check No.:1028231025

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2 General Information

2.1 Client Information

Applicant:	Morimoto Lighting
Address of Applicant:	2281 Defoor Hills Rd Atlanta GA 30318, United States
Manufacturer:	Zhejiang Hongguan Technology Co.,Ltd.
Address of Manufacturer:	No. 185, Fengdu 2nd Road, Tangxia Town, Rui'an City, Zhejiang Province 325200, China
Factory:	Zhejiang Hongguan Technology Co.,Ltd.
Address of Factory:	No. 185, Fengdu 2nd Road, Tangxia Town, Rui'an City, Zhejiang Province 325200, China

2.2 General Description of EUT

Product Name:	Headlight
Model No.(EUT):	LF2-520R
Trade Mark:	MORIMOTO

2.3 Product Specification subjective to this standard

Frequency Range:	BLE: 2402MHz~2480MHz
Modulation Type:	BLE: GFSK
Test Power Grade:	Default
Test Software of EUT:	sscom.exe
Antenna Type:	Chip Antenna
Antenna Gain:	2.8dBi
Power Supply:	DC 12V
Sample Received Date:	Nov. 10, 2025
Sample tested Date:	Nov. 10, 2025 to Dec. 23, 2025

2.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Hongwei Industrial Park, Zone 70, Bao'an District, Shenzhen, Guangdong, China

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

No tests were sub-contracted.

FCC Designation No.: CN1164, Test Firm Registration No.: 260439

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.

2.7 Other Information Requested by the Customer

None.

3 SAR Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 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.

3.1.2 Test Procedure

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

3.1.3 EUT RF Exposure Evaluation**For Stand alone:**

Freq. (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
BLE	20	-5.01	2.8	-4.36	0.37	3060.00	0.0001	Pass

Note:

- ① EIRP=conducted power+antenna gain;
- ② ERP=EIRP-2.15;
- ③ $\text{EIRP(dBm)} = \text{Field strength of the fundamental signal(dBuV/m@3m)} - 95.23$;
- ④ $\text{ERP(mW)} = 10^{(\text{ERP (dBm)}/10)}$;
- ⑤ The estimation distance is 20cm;
- ⑥ The test data please refer to the report of EED32R81798401 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;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***