

FCC RF EXPOSURE REPORT

For

LED Lamp

FCC MODEL NUMBER: KO-A19-09-OMNI-DC1-01

FCC SERIES MODEL: KO-A19-09-OMNI-DC1-xx ("xx" may be "00" to "99")

REPORT NUMBER: 4791745571-1-RF-3

FCC ID: 2BOODA1909OMNI

ISSUE DATE: May 7, 2025

Prepared for

**Korrus, Inc
843 N Spring Street, Suite 404 Los Angeles, CA 90012 United States**

Prepared by

**UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch
Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan,
Guangdong, China**

Tel: +86 769 22038881

Fax: +86 769 33244054

Website: www.ul.com

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	May 7, 2025	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Korrus, Inc
Address: 843 N Spring Street, Suite 404 Los Angeles, CA 90012 United States

Manufacturer Information

Company Name: Korrus, Inc
Address: 843 N Spring Street, Suite 404 Los Angeles, CA 90012 United States

EUT Information

EUT Name: LED Lamp
FCC Model: KO-A19-09-OMNI-DC1-01
FCC Series Model: KO-A19-09-OMNI-DC1-xx ("xx" may be "00" to "99")
FCC Model difference: Please refer to section 4.1
Brand: Korrus
Sample Received Date: April 10, 2025
Sample Status: Normal
Sample ID: 8340887
Date of Tested: April 11, 2025 to May 7, 2025

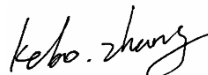
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
447498 D04 Interim General RF Exposure Guidance v01	PASS

Prepared By:



Daniel Zhang
Project Engineer

Checked By:



Kebo Zhang
Senior Project Engineer

Approved By:



Stephen Guo
Operations Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 1 Subpart I, section 1.1307 and KDB 447498 D04 Interim General RF Exposure Guidance v01.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. ISED (Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.
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Note 1:

All tests measurement facilities use to collect the measurement data are located at Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China.

Note 2:

The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3:

For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

4. DESCRIPTION OF EUT

EUT Name		LED Lamp
FCC Model		KO-A19-09-OMNI-DC1-01
FCC Series Model		KO-A19-09-OMNI-DC1-xx ("xx" may be "00" to "99")
FCC Model difference		Where "xx" may be "00" to "99", which designates for different beam angle, color of eyelet contact, different package of style and CCT.
Product Description (BLE)	Frequency Range:	2402 MHz to 2480 MHz
	Type of Modulation:	GFSK
	Data Rate:	1Mbps/2Mbps
Product Description (2.4G WLAN)	Frequency Range:	2412 MHz to 2462 MHz
	Type of Modulation:	IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g/n: OFDM(64-QAM, 16-QAM, QPSK, BPSK)
	Radio Technology:	IEEE 802.11b/g/n HT20/n HT40
Normal Test Voltage:		AC 120 V, 60 Hz

5. REQUIREMENT

LIMIT AND CALCULATION METHOD

According to 447498 D04 Interim General RF Exposure Guidance v01,

2.1.4 MPE-Based Exemption

An alternative to the SAR-based exemption is provided in § 1.1307(b)(3)(i)(C), for a much wider frequency range, from 300 kHz to 100 GHz, applicable for separation distances greater or equal to $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. The MPE-based test exemption condition is in terms of ERP, defined as the product of the maximum antenna gain and the delivered maximum time-averaged power.¹⁰ For this case, a RF source is an RF exempt device if its ERP (watts) is no more than a frequency-dependent value, as detailed tabular form in Appendix B. These limits have been derived based on the basic specifications on Maximum Permissible Exposure (MPE) considered for the FCC rules in § 1.1310(e)(1).

MPE-based Exemption

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

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

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).

CALCULATED RESULTS**For Single RF Source**

Operating Mode	Max. Tune up Power	Max. Antenna Gain	EIRP	ERP	ERP	Distance	Limit Threshold
	(dBm)	(dBi)	(dBm)	(dBm)	(mW)	(cm)	(mW)
BLE	13	-0.37	12.63	10.48	11.17	20	3060
WIFI2.4G	17	-0.37	16.63	14.48	28.05	20	3060

Note:

1. The calculated distance is 20 cm.
2. The power comes from operation description.
3. BLE&WLAN 2.4G can't transmit simultaneously. (declared by client)
4. ERP is calculated as $ERP(dBm) = \text{Max. Tune up Power} + \text{Max. Antenna Gain} - 2.15$.

END OF REPORT