RF Exposure Evaluation Report

Product	:	led table lamp
Trade mark	:	Ottlite
Model/Type reference	:	M2A
Serial Number	:	N/A
Report Number	:	EED32K00216402
FCC ID	:	2AI7B-M2A1
Date of Issue	:	Apr. 30, 2019
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 1.1310 KDB 447498 D01v06
Test result	:	PASS

Prepared for:

OttliteTechnologies Inc.
220 West 7th Avenue, STE 100 Tampa, FL 33602 USA

Prepared by:

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

Tested By:	Jay	Compiled by:	Kevin Ian
Reviewed by:	Ware xin	Approved by:	Kevin yang
Date:	Apr. 30, 2019		

Check No.: 2447635856

2 Version

Version No.	Date	Description
00	Apr. 30, 2019	Original

3 Contents

4 General Information

4.1 Client Information

Applicant:	OttliteTechnologies Inc.
Address of Applicant:	220 West 7th Avenue, STE 100 Tampa, FL 33602 USA
Manufacturer:	Shenzhen Feihe Electronics Co., Ltd
Address of Manufacturer:	3/F, Bldg 3, Hongfa Innovative Park, Jiuwei, Bao'an district, Shenzhen, China
Factory:	Shenzhen Feihe Electronics Co., Ltd
Address of Factory:	3/F, Bldg 3, Hongfa Innovative Park, Jiuwei, Bao'an district, Shenzhen, China

4.2 General Description of EUT

Product Name:	led table lamp
Model No.(EUT):	M2A
Trade Mark:	Ottlite
EUT Supports Radios application	Bluetooth 2.1+EDR, 2402-2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402-2480MHz	
Test Power Grade:	2(manufacturer declare)	
Test Software of EUT:	Eclipse Mars.1 Release(manufacturer declare)	
Antenna Type:	Printed Antenna	
Antenna Gain:	0dBi	
Power Supply:	Adapter:	Model: TY1200200A1mn Input: AC 100-240V, 50/60Hz, 0.8A Output: 12.0V⎓2.0A
Max Conducted Peak Output Power:	-2.938dBm	
	The Max Conducted Peak Output Power data refer to the report EED32K00216401	
AC/DC ADAPTER:	185cm(Unshielded)	
AUX in Line:	83.5cm(shielded)	
Hardware Version:	V1.0(manufacturer declare)	
Firmware version:	V3.2(manufacturer declare)	
Sample Received Date:	Aug. 09, 2018	
Sample tested Date:	Aug. 09, 2018 to Dec. 28, 2018	
Remark: The tested sample(s) and the sample information are provided by the client.		

4.4 Test Location

All tests were performed at:
Centre Testing International Group Co., Ltd
Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385
No tests were sub-contracted.
FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	6
30–300	61.4	0.163	1.0	6
300–1500	.....	.....	f/300	6
1500–100,000	.....	.....	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30
30–300	27.5	0.073	0.2	30
300–1500	.....	.....	f/1500	30
1500–100,000	.....	.....	1.0	30

A rough estimation of the expected exposure in power flux density on a given point can be made with the following equation:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R= distance to the centre of radiation of the antenna

EIRP = P*G

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user. Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. Therefore, the S of the device is calculated with R=20cm, and if it is below the limit S, then we can conclude the device complies with the rules.

5.1.2 Test Procedure

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

5.1.3 EUT RF Exposure Evaluation

Antenna Gain: 0dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Max Conducted Peak Output Power(dBm)	Gain (dBi)	EIRP* (dBm)	EIRP (mW)	R (cm)	S (mW/cm^2)	Limit (mW/cm^2)	Result
Highest	2480	-2.938	0	-2.938	0.508	20	0.0001	1.0	Pass

Note: Refer to report No. EED32K00216401 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32K00216401 for EUT external and internal photos.

*** End of Report ***