

APPLICATION FOR CERTIFICATION

On Behalf of

Philips (China) Investment Co., Ltd.

LED Lamp

Model No. : 9290002619

Brand : Philips

FCC ID : O3M9290002619X

Prepared for

**Philips (China) Investment Co., Ltd.**

No. 9, Lane 888, Tian Lin Road, 200233, Shanghai, China

Prepared by

**Audix Technology (Wujiang) Co., Ltd. EMC Dept.**

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Report Number : ACWE-F1308007A

Date of Test : Jul.02, 2014

Date of Report : Jul.17, 2014

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**TEST REPORT CERTIFICATION**

Applicant : Philips (China) Investment Co., Ltd.  
 Manufacturer #1 : Changan Win Channel Electronics Company Limited  
 Manufacturer #2 : Arts Electronics Co., Ltd.  
 EUT Description : LED Lamp  
 FCC ID : O3M9290002619X  
 (A) Model No. : 9290002619  
 (B) Brand : Philips  
 (C) Power Supply : AC 110-130V; 50/60Hz; 6.5W  
 (D) Test Voltage : AC 120V, 60Hz

Applicable Standards:

**KDB 4474498**

The device described above was tested by Audix Technology (Wujiang) Co., Ltd. EMC Dept. to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the KDB 4474498.

The measurement results are contained in this test report and Audix Technology (Wujiang) Co., Ltd. EMC Dept. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Wujiang) Co., Ltd. EMC Dept.


Date of Test: Jul.02, 2014

Date of Report: Jul.17, 2014


Prepared by :

  
 (Emma Hu/Assistant Administrator)

Reviewer :

  
 (Danny Sun/Deputy Section Manager)

Approved & Authorized Signer :

  
 (Ken Lu/Assistant General Manager)

## 1. Description of Version

Edition No.	Date of Rev.	Summary	Report No.
0	Mar.14, 2014	Original Report.	ACWE-F1308007
Rev. A	Jul.17, 2014	(1)Add RC latch before driver on power board. (2)Add alternative LED chip.	ACWE-F1308007A

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description	:	LED Lamp
Model No.	:	9290002619
FCC ID	:	O3M9290002619X
Brand	:	Philips
Applicant	:	Philips (China) Investment Co., Ltd. No. 9, Lane 888, Tian Lin Road, 200233, Shanghai, China
Manufacturer #1	:	Changan Win Channel Electronics Company Limited No.85, Tong Gu Xia Lu, Shangjiao Community, Changan Town, Dongguan City, Guangdong Province, China
Manufacturer #2	:	Arts Electronics Co., Ltd. Shangxing Lu, Shangjiao Community, Changan Town, Dongguan Guangdong523000 China
Radio Technology	:	IEEE 802.15.4 (ZigBee®)
Antenna Gain	:	-10dBi
Fundamental Range	:	2405 MHz -2480MHz
Tested Frequency	:	2405MHz (CH11) 2450MHz (CH20) 2480MHz (CH26)
Highest Working Frequency	:	2.4GHz
Power Rating	:	6.5W
Modulation type	:	O-QPSK
Date of Receipt of Sample	:	Jul.01, 2014
Date of Test	:	Jul.02, 2014

2.2. Description of Test Facility

Name of Firm : **Audix Technology (Wujiang) Co., Ltd. EMC Dept.**

Site Location : No. 1289 Jiangxing East Road, the Eastern Part of Wujiang Economic Development Zone  
Jiangsu China 215200

Test Facilities : **RF Fully Chamber**

NVLAP Lab Code : 200786-0  
(NVLAP is a NATA accredited body under Mutual Recognition Agreement)  
Valid until on Sep.30, 2014

2.3. Measurement Uncertainty

Test Item	Uncertainty
Maximum Peak Output Power	± 0.30dB

Remark: Uncertainty =  $ku_c(y)$

### 3. SUMMARY OF STADARDS AND RESULTS

#### 3.1. Applicable Standard

KBD 447498 D01 General RF Exposure Guidance v05

#### 3.2. Specification Limits

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/150	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

\*Plane-wave equivalent power density

NOTE: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

The limit value 1.0mW/cm<sup>2</sup> is available for this EUT.

#### 3.3. MPE Calculator Method

$$S = PG/(4 R^2)$$

$$R = [PG/(4 S)]^{0.5}$$

where: S = power density (in appropriate units, e.g. mW/ cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW) (the measured power value see Report: F12124 Section 6.6)

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

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

## 3.4. Calculated Result

## Radio Frequency Radiation Exposure Evaluation

Frequency	Output Power to Antenna	Antenna Gain		Power Density	Limit
(MHz)	(mW)	(dBi)	(Numeric)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )
2405	2.45	-10	0.1	0.0000488	1.0
2450	2.29	-10	0.1	0.0000456	1.0
2480	2.62	-10	0.1	0.0000364	1.0

Frequency	Output Power to Antenna	Antenna Gain		Limit	Distance
(MHz)	(mW)	(dBi)	(Numeric)	(mW/cm <sup>2</sup> )	(cm)
2405	2.45	-10	0.1	1.0	0.140
2450	2.29	-10	0.1	1.0	0.135
2480	2.62	-10	0.1	1.0	0.144

The antenna used for this transmitter must be installed to provide a separation distance of at least 0.144cm from all persons