



中国认可  
国际互认  
检测  
TESTING  
CNAS L5313



DEKRA

## RF Exposure Evaluation Declaration

Product Name : LED Lamp  
Model No. : 9290011369B  
FCC ID : 2AGBW9290011369BX

Applicant : Philips Lighting(China) Investment Co.,Ltd.  
Address : Building 9,Lane 888,Tian Lin Road,Minhang  
district,Shanghai,China

Date of Receipt : Apr. 19th, 2017  
Test Date : Apr. 19th, 2017~ Apr. 28th, 2017  
Issued Date : May. 05th, 2017  
Report No. : 1742090R-RF-US-P20V01  
Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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# Test Report Certification


Issued Date : May. 05th, 2017


Report No. : 1742090R-RF-US-P20V01



Product Name : LED Lamp  
Applicant : Philips Lighting(China) Investment Co.,Ltd.  
Address : Building 9,Lane 888,Tian Lin Road,Minhang district,Shanghai,China  
Manufacturer : Philips Lighting(China) Investment Co.,Ltd.  
Address : Building 9,Lane 888,Tian Lin Road,Minhang district,Shanghai,China  
Model No. : 9290011369B  
FCC ID : 2AGBW9290011369BX  
EUT Voltage : AC 110-130V/50/60Hz  
Test Voltage : AC 120V/60Hz  
Applicable Standard : KDB 447498D01V06  
FCC Part1.1310  
Test Result : Complied  
Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.  
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou,  
215006, Jiangsu, China  
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098  
FCC Registration Number: 800392

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(Senior Engineer: Frank He )

Approved By :   
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(Engineering Manager: Harry Zhao )

## 1. RF Exposure Evaluation

### 1.1. Limits

According to FCC 1.1310: 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 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

$P_d$  = power density in mW/ cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

R = distance between observation point and center of the radiator in cm

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

## 1.2. Test Procedure

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

The temperature and related humidity: 18°C and 78% RH.

## 1.3. Test Result of RF Exposure Evaluation

Product	:	LED Lamp
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

### ● Antenna Information

Antenna manufacturer	N/A					
Antenna Delivery	<input checked="" type="checkbox"/>	1*TX+1*RX	<input type="checkbox"/>	2*TX+2*RX	<input type="checkbox"/>	3*TX+3*RX
Antenna technology	<input checked="" type="checkbox"/>	SISO				
	<input type="checkbox"/>	MIMO	<input type="checkbox"/>	Basic		
			<input type="checkbox"/>	CDD		
			<input type="checkbox"/>	Beam-forming		
Antenna Type	<input type="checkbox"/>	External	<input type="checkbox"/>	Dipole		
	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/>	PIFA		
			<input checked="" type="checkbox"/>	PCB		
			<input type="checkbox"/>	Ceramic Chip Antenna		
			<input type="checkbox"/>	Microstrip Patch Antenna		
Antenna Gain	5dBi					

### ● Power Density

#### Standalone modes:

Test Mode	Frequency Band (MHz)	EIRP (dBm)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit of Power Density S(mW/cm <sup>2</sup> )
Zigbee	2405 ~ 2480	6.367	0.00086	1

Note: The standalone transmission power density is 0.00086 mW/cm<sup>2</sup> for LED Lamp without any other radio equipment.

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