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Report No.: 1410RSU00903 Report Version: Issue Date: 10-27-2014

RF Exposure Evaluation Declaration

FCC ID: 2ABX8SH-000000005

APPLICANT: Zhejiang shenghui lighting Co., Ltd. Shanghai Branch

Application Type: Certification

Product: LED Lamp

Model No.: C01-A66XXE26(where X can be 0-9, A-Z, a-z or blank

for different customer code which will not influence

safety)

Brand Name: sengled

FCC Classification: Digital Transmission System (DTS)

Reviewed By : Robin Wu)

Approved By : Marlinchen

(Marlin Chen)



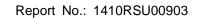
The test results relate only to the samples tested.

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

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Revision History

Report No.	Version	Description	Issue Date
1410RSU00903	Rev. 01	Initial report	10-27-2014

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1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	LED Lamp	
Model No.	C01-A66XXE26(where X can be 0-9, A-Z, a-z or blank for	
	different customer code which will not influence safety)	
Power Type	120VAC / 60Hz	
Frequency Range	2402 ~ 2480 MHz	
Type of Modulation	FHSS	
Antenna Type	Internal Antenna	
Antenna Gain	1.35dBi	

Note: The difference of models is for different marketing requirement.



2. RF Exposure Evaluation

2.1. 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	Electric Field	Magnetic Field	Power Density	Average Time
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(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

Calculation Formula: Pd = (Pout*G)/(4*pi*r2)

Where

Pd = power density in mW/cm2

Pout = 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

Pd is the limit of MPE, 1mW/cm². 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.

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2.2. Test Result of RF Exposure Evaluation

Product	LED Lamp
Test Item	RF Exposure Evaluation

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.35dBi for 2.4GHz in logarithm scale.

For 2.4G ISM Band:

Test Mode	Frequency Band	Maximum Average	Power Density at	Limit
	(MHz)	Output Power	R = 20 cm	(mW/cm ²)
		(dBm)	(mW/cm ²)	
Bluetooth	2402 ~ 2480	2.56	0.0005	1

CONCULISON:

Therefore, the Max Power Density at R (20 cm) = 0.0005mW/cm² < 1mW/cm². So the EUT complies with the requirement.

— The End —	
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