



RF Exposure Evaluation Declaration

Product Name: LED lamp

Model No. : 9290018215

FCC ID : 2AGBW9290022175X

Applicant: Signify (China) Investment Co., Ltd.

Address: Building no.9, Lane 888, Tianlin Road, Minhang

District, Shanghai 200233, China

Date of Receipt: Feb. 25, 2019

Issued Date : May. 21, 2019

Report No. : 1922077R-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. 21, 2019

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Product Name : LED lamp

Applicant : Signify (China) Investment Co., Ltd.

Address : Building no.9, Lane 888, Tianlin Road, Minhang District,

Shanghai 200233, China

Manufacturer : Signify (China) Investment Co., Ltd.

Address : Building no.9, Lane 888, Tianlin Road, Minhang District,

Shanghai 200233, China

Model No. : 9290018215

FCC ID : 2AGBW9290022175X

Brand Name : PHILIPS

EUT Voltage : 110-130 Vac, 50-60 Hz, 10W

Test Voltage : AC 120V/60Hz Applicable Standard : KDB 447498D01V06

FCC Part1.1310

Test Result : Complied

Performed Location : DEKRA Testing & Certification (Suzhou) Co., Ltd.

No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006,

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Approved By

(Engineer Supervisor: Jack Zhang)

Jack zhang



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/cm2)	Average Time (Minutes)			
(A) Limits for ((A) Limits for Occupational/ Control Exposures						
300-1500			F/300	6			
1500-100,000			5	6			
(B) Limits for ((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: 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, 1 mW/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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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 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	\boxtimes	1*TX+1*RX ☐ 2*TX+2*RX ☐ 3*TX+3*RX				3*TX+3*RX		
Antenna technology	\boxtimes	SISO)					
		МІМО		Basic				
				CDD				
				Beam-forming				
Antenna Type		External		Dipole				
		Internal		PIFA				
			\boxtimes	PCB				
				Ceramic Chip Antenna				
				Stamping Antenna				
				Metal plate type F antenna				
				Monopole antenna				
Antenna Gain	-1dBi							

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• Power Density:

The tune-up power is 0.5dB, so the maximum conducted power of BT we used to calculate RF exposure is 12.23dBm.

Test Mode	Frequency Band (MHz)	EIRP (dBm)	Limit of Power Density S(mW/cm²)	Power Density at R = 20 cm (mW/cm²)
ВТ	2400 ~ 2483.5	11.23	1	0.0026

Note: The maximum power density is 0.0026mW/cm² for LED lamp without any other radio equipment.

——— The End	