

## MAXIMUM PERMISSIBLE EXPOSURE EVALUATION REPORT

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

**Address:** Building no.9, Lane 888, Tianlin Road, Minhang District  
Shanghai, 200233 China

**Product Name:** LED lamp

**FCC ID:** 2AGBW9290038564X

**Standard(s):** 47 CFR §1.1310, 47 CFR §2.1091  
47 CFR Part 15.247 (i)

**Report Number:** 2402Y98931E-RF-00C

**Report Date:** 2025/1/6

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

**Reviewed By:** Pedro Yun

**Title:** Project Engineer

**Approved By:** Gavin Xu

**Title:** RF Supervisor

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## GENERAL INFORMATION

### General Description Of Equipment under Test

<b>EUT Name:</b>	LED lamp
<b>EUT Model:</b>	9290038564
<b>Rated Input Voltage:</b>	110-130 Vac
<b>EUT Received Date:</b>	2024/11/27
<b>EUT Received Status:</b>	Good

## RF EXPOSURE EVALUATION (MPE)

### RF Exposure Evaluation

#### Applicable Standard

According to subpart 15.247(i), and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (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/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; \* = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

#### Calculation formula

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$  = power density (in appropriate units, e.g. mW/cm<sup>2</sup>);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

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

#### Calculated Data:

Operation Modes	Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance <sup>▲</sup>		Evaluation Distance (cm)	Power Density (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
		(dBi)	(numeric)	(dBm)	(mW)			
BLE	2402-2480	-2	0.63	12.62	18.28	20.00	0.002	1.0
ZigBee	2405-2480	-2	0.63	12.57	18.07	20.00	0.002	1.0

Note:

The tune-up power is 1dB,

Conducted output power including Tune-up Tolerance= Maximum Conducted Power+ tune-up power.

The Conducted output power including Tune-up Tolerance provided by manufacturer.

BLE and ZigBee can't transmit simultaneously.

**Result:** The device meet FCC MPE at 20 cm distance

## **EXHIBIT A - EUT PHOTOGRAPHS**

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Please refer to the attachment 2402Y98931E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Y98931E-RF-INP EUT INTERNAL PHOTOGRAPHS.

**\*\*\*\*\* END OF REPORT \*\*\*\*\***