NVLAP LAB CODE 600341-0

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:	**2AGBW9290038563X**
Standard(s):	**47 CFR §1.1310, 47 CFR §2.1091**
Report Number:	**2402Y98930E-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**	**Approved By:** **Gavin Xu**
Title: **Project Engineer**	Title: **RF Supervisor**

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GENERAL INFORMATION

General Description Of Equipment under Test

EUT Name:	LED lamp
EUT Model:	9290038563
Rated Input Voltage:	110-130 Vac
EUT Received Date:	2024/10/21
EUT Received Status:	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^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f²)	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^2);
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▲**		**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
		(dBi)	**(numeric)**	**(dBm)**	**(mW)**			
BLE	2402-2480	-2	0.63	12.57	18.07	20.00	0.002	1.0
ZigBee	2405-2480	-2	0.63	12.58	18.11	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

Please refer to the attachment 2402Y98930E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Y98930E-RF-INP EUT INTERNAL PHOTOGRAPHS.

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