



## **FCC RF EXPOSURE REPORT**

### **CERTIFICATION TEST REPORT**

*For*  
**HUE Smart plug**

**MODEL: 9290022406A**

**FCC ID: 2AGBW9290022406AX**

**REPORT NUMBER: 4789870985-3**

**ISSUE DATE: April 8, 2021**

*Prepared for*

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*Prepared by*

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V0	04/08/2021	Initial Issue	



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# 1. ATTESTATION OF TEST RESULTS

## Applicant Information

Company Name: Signify (China) Investment Co., Ltd.  
Address: Building no.9, Lane 888, Tianlin Road, Minhang District Shanghai  
China

## Manufacturer Information

Company Name: Signify (China) Investment Co., Ltd.  
Address: Building no.9, Lane 888, Tianlin Road, Minhang District Shanghai  
China

## EUT Information

EUT Name: HUE Smart plug  
Model: 9290022406A  
Brand: PHILIPS  
Sample Received Date: March 29, 2021  
Sample Status: Normal  
Sample ID: 3750387  
Date of Tested: March 29 ~ April 7, 2021

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	PASS

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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p><b>A2LA (Certificate No.: 4102.01)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>FCC (FCC Designation No.: CN1187)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p><b>ISED (Company No.: 21320)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320.</p> <p><b>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B, the VCCI registration No. is C-20012 and T-20011</p>
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Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China.



## 4. REQUIREMENT

### LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR 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.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

### RF EXPOSURE LIMIT

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (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

### CALCULATION METHOD

$$S = PG / 4\pi R^2$$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

**CALCULATED RESULTS**

BLE Mode (Worst Case)					
Frequency	Max. Tune Up Power	Output Power	Power Density	Power Density Limit	Test Result
MHz	dBm	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
2402 -2480	11	12.59	0.00354	1	Complies

Zigbee Mode (Worst Case)					
Frequency	Max. Tune Up Power	Output Power	Power Density	Power Density Limit	Test Result
MHz	dBm	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
2405 -2480	11	12.59	0.00354	1	Complies

- Note: 1. Antenna Gain=1.5 dBi (Numeric 1.41),  $\pi=3.141$ .  
 2. BLE and Zigbee cannot simultaneously transmitting.  
 3. The Power comes from operation description.  
 4. The minimum separation distance of the device is greater than 20 cm.  
 5. Calculate by WORST-CASE mode.  
 6. Owing to the maximum Calculated Result is below the limit, so it deemed to comply with the basic restrictions without testing which means that no SAR is required.

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**END OF REPORT**