



#### FCC RF EXPOSURE REPORT

For

**Tapo Smart Wi-Fi Light Bulb, Dimmable** 

**MODEL NUMBER: Tapo L510E** 

REPORT NUMBER: 4790874478-1-RF-2

**ISSUE DATE: July 14, 2023** 

FCC ID: 2AXJ4L510

Prepared for

TP-Link Corporation Limited
Room 901, 9/F., New East Ocean Centre, 9 Science Museum Road, Tsim Sha
Tsui, Kowloon, Hong Kong

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

> Tel: +86 769 22038881 Fax: +86 769 33244054 Website: www.ul.com



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## **Revision History**

| Rev. | Issue Date | Revisions     | Revised By |
|------|------------|---------------|------------|
| V0   | 07/14/2023 | Initial Issue |            |



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#### 1. ATTESTATION OF TEST RESULTS

**Applicant Information** 

Company Name: TP-Link Corporation Limited

Address: Room 901, 9/F., New East Ocean Centre, 9 Science Museum

Road, Tsim Sha Tsui, Kowloon, Hong Kong

**Manufacturer Information** 

Company Name: TP-Link Corporation Limited

Address: Room 901, 9/F., New East Ocean Centre, 9 Science Museum

Road, Tsim Sha Tsui, Kowloon, Hong Kong

**EUT Information** 

Sample ID:

Operations Manager

EUT Name: Tapo Smart Wi-Fi Light Bulb, Dimmable

6155166

Model: Tapo L510E

Brand: tp-link

Sample Received Date: June 6, 2023 Sample Status: Normal

Date of Tested: June 16, 2023 to July 14, 2023

| APPLICABLE STANDARDS                        |              |  |  |  |
|---|--------------|--|--|--|
| STANDARD                                    | TEST RESULTS |  |  |  |
| 447498 D01 General RF Exposure Guidance v06 | PASS         |  |  |  |
| FCC 47CFR§2.1091                            | PASS         |  |  |  |

| Prepared By:               | Checked By:             |
|----------------------------|-------------------------|
| Tammy Huang                | Danny Grany             |
| Fanny Huang                | Denny Huang             |
| Engineer Project Associate | Senior Project Engineer |
| Approved By:               |                         |
| Hepherono                  |                         |
| Stephen Guo                |                         |



## 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

|                              | A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187)   |
|------------------------------|---|
| Accreditation<br>Certificate | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Delcaration of Conformity (DoC) and Certification rules ISED (Company No.: 21320)  UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.  VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)  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 |

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<br>Range<br>(MHz) | E-field Strength<br>(E)<br>(V/m) | Magnetic Field<br>Strength (H)<br>(A/m) | Power Density<br>(S)<br>(mW/cm²) | Averaging Time<br> E ²,  H ² or S<br>(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/4πR<sup>2</sup>

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

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### **CALCULATED RESULTS**

| Worst Cast Mode |                     |              |                    |                     |                |
|-----------------|---------------------|--------------|--------------------|---------------------|----------------|
| Mode            | Max.Output<br>Power | Output Power | Power Density      | Power Density Limit | Test<br>Result |
|                 | dBm                 | mW           | mW/cm <sup>2</sup> | mW/cm <sup>2</sup>  |                |
| WIFI 2.4G       | 23                  | 2.98         | 0.02772            | 1.0                 | Complies       |

Note: 1. Antenna Gain=-1.56 dBi (Numeric 0.7),  $\pi$ =3.141.

- 2. The minimum separation distance of the device is greater than 20 cm.
- 3. Calculate by WORST-CASE mode.

**END OF REPORT**