# FCC RF EXPOSURE REPORT

## FCC ID: 2BH7FH110

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|---|---|---|
| **Report No.** | : | BTL-FCCP-4-2502G006 |
| **Equipment** | : | Smart IOT & IR Hub |
| **Model Name** | : | Tapo H110 |
| **Brand Name** | : | tp-link, tapo |
| **Applicant** | : | TP-Link Systems Inc. |
| **Address** | : | 10 Mauchly, Irvine, CA 92618 |
| **Manufacturer** | : | TP-Link Systems Inc. |
| **Address** | : | 10 Mauchly, Irvine, CA 92618 |
| **Radio Function** | : | Bluetooth Low Energy & WLAN 2.4GHz & Sub-1G |
| **FCC Rule Part(s)** | : | FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091<br>FCC Title 47 Part 2.1091 & KDB 447498 D01 v06 |
| **Date of Receipt** | : | 2025/2/25 |
| **Date of Test** | : | 2025/3/6 ~ 2025/3/11 |
| **Issued Date** | : | 2025/4/14 |

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

**Prepared by** : Poken Huang

Poken Huang, Engineer

**Approved by** : Peter Chen

Peter Chen, Manager

**BTL Inc.**
No.18, Ln. 171, Sec. 2, Jiuzong Rd., Neihu Dist., Taipei City 114, Taiwan
Tel: +886-2-2657-3299 Fax: +886-2-2657-3331 Web: www.newbtl.com Service mail: btl_qa@newbtl.com

## REVISION HISTORY

| Report No. | Version | Description | Issued Date | Note |
|---|---|---|---|---|
| BTL-FCCP-4-2502G006 | R00 | Original Report. | 2025/4/14 | Valid |

## 1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

where:
S = power density
P = power input to the 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

## 2. ANTENNA SPECIFICATION

For BLE & 2.4GHz:

| Ant. | Brand | P/N | Antenna Type | Connector | Gain (dBi) |
|---|---|---|---|---|---|
| 1 | tp-link | 6035500079 | PIFA | N/A | 2.00 |

Note: The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

For Sub-1G:

| Ant. | Brand | P/N | Antenna Type | Connector | Gain (dBi) |
|---|---|---|---|---|---|
| 1 | tp-link | Tapo H110(US)1.0-Ant2 | IFA | N/A | -1.00 |

Note: The above Antenna information are derived from the antenna data sheet provided by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

## 3. CALCULATED RESULT

For BT LE:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) ($mW/cm^2$) | Limit of Power Density (S) ($mW/cm^2$) | Test Result |
|---|---|---|---|---|---|---|
| 2 | 1.5849 | 5.63 | 3.6559 | 0.00115 | 1 | Complies |

For 2.4GHz:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) ($mW/cm^2$) | Limit of Power Density (S) ($mW/cm^2$) | Test Result |
|---|---|---|---|---|---|---|
| 2 | 1.5849 | 19.33 | 85.7038 | 0.02704 | 1 | Complies |

For Sub-1G:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) ($mW/cm^2$) | Limit of Power Density (S) ($mW/cm^2$) | Test Result |
|---|---|---|---|---|---|---|
| -1 | 0.7943 | 16.18 | 41.4954 | 0.00656 | 1 | Complies |

**For the max simultaneous transmission MPE:**

| Ratio | | Total | Limit of Ratio | Test Result |
|---|---|---|---|---|
| 2.4GHz | Sub-1G | | | |
| 0.02704 | 0.00656 | 0.0336 | 1 | Complies |

Note:
(1) The calculated distance is 20 cm.
(2) Ratio=Power Density (S) ($mW/cm^2$)/Limit of Power Density (S) ($mW/cm^2$)

**End of Test Report**