

# RF Exposure Evaluation Report

APPLICANT : OnePlus Technology (Shenzhen) Co., Ltd.  
EQUIPMENT : Pencil  
BRAND NAME : ONEPLUS  
MODEL NAME : OPN2405  
FCC ID : 2ABZ2-OPN2405  
STANDARD : 47 CFR PART 2.1093  
FCC KDB 447498 D01 v06

The product evaluation date was started from Sep. 29, 2024 and completed on Sep. 29, 2024. We, Sporton International Inc. (Shenzhen),, would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1093 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Shenzhen),, the test report shall not be reproduced except in full.



Approved by: Si Zhang



**Sporton International Inc. (Shenzhen)**

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055  
People's Republic of China



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**Revision History**

| REPORT NO. | VERSION | DESCRIPTION             | ISSUED DATE   |
|------------|---------|-------------------------|---------------|
| FA480202   | Rev. 01 | Initial issue of report | Oct. 29, 2024 |
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## **1. Administration Data**

### **1.1. Testing Laboratory**

Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

| Testing Laboratory |                                                                                                                                                                            |                     |                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------|
| Test Firm          | Sporton International Inc. (Shenzhen)                                                                                                                                      |                     |                                |
| Test Site Location | 1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055<br>People's Republic of China<br>TEL: +86-755-86379589<br>FAX: +86-755-86379595 |                     |                                |
| Test Site No.      | Sporton Site No.                                                                                                                                                           | FCC Designation No. | FCC Test Firm Registration No. |
|                    | SAR01-SZ                                                                                                                                                                   | CN1256              | 421272                         |

| Applicant    |                                                                                                                               |
|--------------|-------------------------------------------------------------------------------------------------------------------------------|
| Company Name | OnePlus Technology (Shenzhen) Co., Ltd.                                                                                       |
| Address      | 18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China |

| Manufacturer |                                                                                                                               |
|--------------|-------------------------------------------------------------------------------------------------------------------------------|
| Company Name | OnePlus Technology (Shenzhen) Co., Ltd.                                                                                       |
| Address      | 18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China |

## 2. Description of Equipment Under Test (EUT)

| Product Feature & Specification                                                                                                                 |                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| EUT Type                                                                                                                                        | Pencil                                                                    |
| Brand Name                                                                                                                                      | ONEPLUS                                                                   |
| Model Name                                                                                                                                      | OPN2405                                                                   |
| FCC ID                                                                                                                                          | 2ABZ2-OPN2405                                                             |
| Wireless Technology and Frequency Range                                                                                                         | Bluetooth: 2402 MHz ~ 2480 MHz<br>Specific RF technology: 111 KHz~489 KHz |
| Mode                                                                                                                                            | Bluetooth LE<br>Specific RF technology: BPSK                              |
| Antenna Type                                                                                                                                    | Bluetooth : ceramic Antenna                                               |
| Antenna Gain                                                                                                                                    | Bluetooth: gain 1.72 dBi                                                  |
| HW Version                                                                                                                                      | V4.0.9                                                                    |
| SW Version                                                                                                                                      | V0.2                                                                      |
| EUT Stage                                                                                                                                       | Production Unit                                                           |
| <b>Remark:</b>                                                                                                                                  |                                                                           |
| 1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description. |                                                                           |
| 2. Specific RF technology will be tested and reported separately.                                                                               |                                                                           |

| Comments and Explanations:                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification. |
| 2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.                                                                  |

### **3. Maximum RF Tune Up power among production units**

#### **<Bluetooth>**

| Mode         | Maximum Average Power (dBm) |
|--------------|-----------------------------|
| Bluetooth LE | -1.0                        |

### **4. RF Exposure Evaluation**

| Mode         | Maximum Average Power (dBm) |
|--------------|-----------------------------|
| Bluetooth LE | -1.0                        |

#### **Note:**

- Per KDB 447498 D01v06 the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:  

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$
  - f(GHz) is the RF channel transmit frequency in GHz
  - Power and distance are rounded to the nearest mW and mm before calculation
  - The result is rounded to one decimal place for comparison

| Bluetooth Max Power (dBm) | Separation Distance (mm) | Frequency (GHz) | exclusion thresholds |
|---------------------------|--------------------------|-----------------|----------------------|
| -1.0                      | < 5                      | 2.48            | 0.2                  |

#### **Conclusion:**

Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 0.2 which is ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, 1-g SAR and extremity SAR testing is not required, and complied with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for 1g SAR and 4.0 W/kg for extremity SAR) specified in FCC 47 CFR part 2 (2.1093).

-----THE END-----