



## RF Exposure Evaluation Declaration

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**FCC ID:** Q9DAPIN0635

**APPLICANT:** Hewlett Packard Enterprise Company

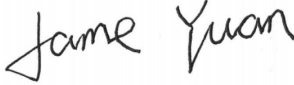
**Product:** ACCESS POINT

**Model No.:** APIN0635

**Trademark:**  

**FCC Classification:** Digital Transmission System (DTS)  
Unlicensed National Information Infrastructure (NII)  
15E 6GHz Low Power Indoor Access Point (6ID)

**Reviewed By:**

  
\_\_\_\_\_  
Jame Yuan

**Approved By:**

  
\_\_\_\_\_  
Robin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

**Revision History**

| Report No.    | Version | Description    | Issue Date | Note  |
|---------------|---------|----------------|------------|-------|
| 2201RSU050-U2 | Rev. 01 | Initial report | 2022-02-15 | Valid |
|               |         |                |            |       |

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## 1. General Information

### 1.1. Applicant

Hewlett Packard Enterprise Company  
3333 Scott Blvd, Santa Clara, CA 95054, USA

## 1.2. Manufacturer

Hewlett Packard Enterprise Company  
3333 Scott Blvd, Santa Clara, CA 95054, USA

### 1.3. Testing Facility

|                                     |                                                                                                 |                                  |                                  |                                  |  |
|-------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|--|
| <input checked="" type="checkbox"/> | <b>Test Site – MRT Suzhou Laboratory</b>                                                        |                                  |                                  |                                  |  |
|                                     | <b>Laboratory Location (Suzhou - Wuzhong)</b>                                                   |                                  |                                  |                                  |  |
|                                     | D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China              |                                  |                                  |                                  |  |
|                                     | <b>Laboratory Location (Suzhou - SIP)</b>                                                       |                                  |                                  |                                  |  |
|                                     | 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China    |                                  |                                  |                                  |  |
|                                     | <b>Laboratory Accreditations</b>                                                                |                                  |                                  |                                  |  |
| A2LA: 3628.01                       |                                                                                                 | CNAS: L10551                     |                                  |                                  |  |
| FCC: CN1166                         |                                                                                                 | ISED: CN0001                     |                                  |                                  |  |
| VCCI:                               | <input type="checkbox"/> R-20025                                                                | <input type="checkbox"/> G-20034 | <input type="checkbox"/> C-20020 | <input type="checkbox"/> T-20020 |  |
|                                     | <input type="checkbox"/> R-20141                                                                | <input type="checkbox"/> G-20134 | <input type="checkbox"/> C-20103 | <input type="checkbox"/> T-20104 |  |
| <input type="checkbox"/>            | <b>Test Site – MRT Shenzhen Laboratory</b>                                                      |                                  |                                  |                                  |  |
|                                     | <b>Laboratory Location (Shenzhen)</b>                                                           |                                  |                                  |                                  |  |
|                                     | 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China |                                  |                                  |                                  |  |
|                                     | <b>Laboratory Accreditations</b>                                                                |                                  |                                  |                                  |  |
|                                     | A2LA: 3628.02                                                                                   |                                  | CNAS: L10551                     |                                  |  |
|                                     | FCC: CN1284                                                                                     |                                  | ISED: CN0105                     |                                  |  |
| <input type="checkbox"/>            | <b>Test Site – MRT Taiwan Laboratory</b>                                                        |                                  |                                  |                                  |  |
|                                     | <b>Laboratory Location (Taiwan)</b>                                                             |                                  |                                  |                                  |  |
|                                     | No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)                        |                                  |                                  |                                  |  |
|                                     | <b>Laboratory Accreditations</b>                                                                |                                  |                                  |                                  |  |
|                                     | TAF: L3261-190725                                                                               |                                  | FCC: 291082, TW3261              |                                  |  |
| ISED: TW3261                        |                                                                                                 |                                  |                                  |                                  |  |

## 2. Product Information

### 2.1. Equipment Description

|                                                                                                                                                          |                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Product Name                                                                                                                                             | ACCESS POINT               |
| Model No.                                                                                                                                                | APIN0635                   |
| Wi-Fi Specification                                                                                                                                      | 802.11a/b/g/n/ac/ax        |
| Bluetooth Specification                                                                                                                                  | v5.0 single mode, BLE only |
| Zigbee Specification                                                                                                                                     | 802.15.4                   |
| GNSS Specification                                                                                                                                       | GPS, GLONASS, Galileo      |
| Operating Temperature                                                                                                                                    | 0 ~ 50 °C                  |
| Power Type                                                                                                                                               | AC Adapter or PoE input    |
| Operating Environment                                                                                                                                    | Indoor Use                 |
| Remark:<br>The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer. |                            |

### 2.2. Description of Available Antennas

| Antenna Type                        | Frequency Band (GHz) | Max Peak Gain (dBi) | CDD Directional Gain (dBi) |         | BF Directional Gain (dBi) |
|-------------------------------------|----------------------|---------------------|----------------------------|---------|---------------------------|
|                                     |                      |                     | For Power                  | For PSD |                           |
| Wi-Fi Internal Antenna (2*2 MIMO)   |                      |                     |                            |         |                           |
| PIFA                                | 2.4 ~ 2.5            | 2.90                | 2.90                       | 5.91    | 5.91                      |
|                                     | 5.15 ~ 5.9           | 4.90                | 4.90                       | 7.91    | 7.91                      |
|                                     | 5.9 ~ 7.2            | 4.30                | 4.30                       | 4.30    | 4.30                      |
| Bluetooth / ZigBee Internal Antenna |                      |                     |                            |         |                           |
| PIFA                                | 2.4 ~ 2.5            | 3.0                 |                            |         |                           |

Note:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac/ax, not include 802.11a/b/g. Directional gain =  $G_{ANT} + \text{BF Gain}$ . For beamforming operation, Aruba OS automatically backs power down based on a  $10\log(N)$  factor based on CDD power.
3. All antenna information is from antenna specification provided by the manufacturer.

### 3. RF Exposure Evaluation

#### 3.1. Test Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency Range<br>(MHz)                                  | Electric Field<br>Strength (V/m) | Magnetic Field<br>Strength (A/m) | Power Density<br>(mW/cm <sup>2</sup> ) | Average Time<br>(Minutes) |
|-----------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------------|---------------------------|
| (A) Limits for Occupational/ Control Exposures            |                                  |                                  |                                        |                           |
| 300-1500                                                  | --                               | --                               | f/300                                  | 6                         |
| 1500-100,000                                              | --                               | --                               | 5                                      | 6                         |
| (B) Limits for General Population/ Uncontrolled Exposures |                                  |                                  |                                        |                           |
| 300-1500                                                  | --                               | --                               | f/1500                                 | 6                         |
| 1500-100,000                                              | --                               | --                               | 1                                      | 30                        |

f= Frequency in MHz

Calculation Formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

$G$  = gain of antenna in linear scale

$\pi$  = 3.1416

$r$  = distance between observation point and center of the radiator in cm

$P_d$  is the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance  $r$  where the MPE limit is reached.

### 3.2. Test Result

|           |                        |
|-----------|------------------------|
| Product   | ACCESS POINT           |
| Test Item | RF Exposure Evaluation |

| Test Mode       | Frequency Band (MHz)                               | Max Conducted Power (dBm) | Antenna Gain (dBi) | Max EIRP (dBm) |
|-----------------|----------------------------------------------------|---------------------------|--------------------|----------------|
| Bluetooth-LE    | 2402 ~ 2480                                        | 8.0                       | 3.0                | 11.0           |
| ZigBee          | 2405 ~ 2480                                        | 8.0                       | 3.0                | 11.0           |
| 802.11b/g/n/ax  | 2412 ~ 2462                                        | 22.0                      | 2.9                | 24.9           |
| 802.11a/n/ac/ax | 5180 ~ 5320, 5500 ~ 5720, 5745 ~ 5825, 5845 ~ 5885 | 22.0                      | 4.9                | 26.9           |
| 802.11ax        | 5955~7095                                          | 21.0                      | 4.3                | 25.3           |

Note: Turn-up power from operation description was taken into account for above max conducted power.

| Test Mode       | Frequency Band (MHz)                               | Maximum EIRP (dBm) | Power Density at R = 20 cm (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|-----------------|----------------------------------------------------|--------------------|--------------------------------------------------|-----------------------------|
| Bluetooth-LE    | 2402 ~ 2480                                        | 11.0               | 0.0025                                           | 1                           |
| ZigBee          | 2405 ~ 2480                                        | 11.0               | 0.0025                                           | 1                           |
| 802.11b/g/n/ax  | 2412 ~ 2462                                        | 24.9               | 0.0615                                           | 1                           |
| 802.11a/n/ac/ax | 5180 ~ 5320, 5500 ~ 5720, 5745 ~ 5825, 5845 ~ 5885 | 26.9               | 0.0974                                           | 1                           |
| 802.11ax        | 5955~7095                                          | 25.3               | 0.0611                                           | 1                           |

#### CONCLUSION:

WLAN 2.4GHz, WLAN 5GHz, WLAN 6GHz and Bluetooth-LE or ZigBee can transmit simultaneously.

The max Power Density at R (20 cm) =  $0.0025\text{mW/cm}^2 + 0.0615\text{mW/cm}^2 + 0.0974\text{mW/cm}^2 + 0.0611\text{mW/cm}^2 = 0.2226\text{mW/cm}^2 < 1\text{mW/cm}^2$ .

Therefore, the Min Compliance Distance is 20cm.

— The End —