

RF EXPOSURE REPORT



FCC Applicant: Wacom Co., Ltd.
2-510-1 Toyonodai, Kazo-shi, Saitama, 349-1148, Japan

Product Name: Active Pen

Brand Name: HP

Model No.: HSN-W004P

Report Number: ES/2022/10006-01

FCC ID HV4-HSNW004P

Issue Date: May. 12, 2022

Date of EUT Received: Jan. 12, 2022

Approved By

John Teh

John Yeh

We hereby certify that:

The above equipment was evaluate by SGS Taiwan Ltd. The evaluation in this report is in compliance with FCC Rule Part §2.1093.

The results of this report relate only to the sample identified in this report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

| Report Number | Revision | Description | Issue Date | Revised By | Remark |
|------------------|----------|---------------------|---------------|------------|--------|
| ES/2022/10006-01 | 00 | Update product name | May. 12, 2022 | Ruby Ou | |
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Note:

- 1、The remark "" indicates modification of the report upon requests from certification body.
- 2、Measurement results in the original test report ES/2022/10006 are fully leveraged in this test report.

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Table of Contents

| | | |
|----------|-------------------------------------------------------------|----------|
| 1 | DESCRIPTION OF EQUIPMENT UNDER TEST (EUT) | 4 |
| 1.1 | Product Description | 4 |
| 1.2 | Reference Test Report | 4 |
| 1.3 | Antenna Information: | 4 |
| 2 | rf EXPOSURE EVALUATION FOR PORTABLE CONDITIONS | 5 |
| 2.1 | SAR-based Exemption | 5 |
| 2.2 | Measurement Result: | 6 |

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 Product Description

| | |
|---------------|------------|
| Product Name: | Active Pen |
| Brand Name: | HP |
| Model No.: | HSN-W004P |
| Power Supply: | 2Vdc |

1.2 Reference Test Report

| | |
|----------------|--------------------------------|
| Test Lab: | SGS Taiwan Ltd. Central RF Lab |
| Report Number: | E2/2022/10045 |

1.3 Antenna Information:

1.3.1 BLE

| Antenna Type | Antenna Part No. | Freq. (MHz) | Peak Antenna Gain (dBi) |
|--------------|------------------|-------------|-------------------------|
| Chip | H2U34C1H1B0100 | 2.4GHz | 2.10 |

Note: Antenna information is provided by the applicant.

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2 RF EXPOSURE EVALUATION FOR PORTABLE CONDITIONS

2.1 SAR-based Exemption

SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum time-averaged power or maximum time-averaged ERP, whichever is greater.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}}(d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20\text{cm}}$ is per Formula (B.1).

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2.2 Measurement Result:

| Frequency Band (MHz) | Max. power (dBm) | Max. power (mW) | Peak gain (dBi) | EIRP (dBm) | ERP (dBm) | ERP (mW) | ERP (W) | d (cm) | f (GHz) | x | Pth (mW) |
|----------------------|------------------|-----------------|-----------------|------------|-----------|----------|---------|--------|---------|-------|----------|
| 2480 | -0.06 | 0.986 | 2.1 | 2.04 | -0.11 | 0.975 | 0.001 | 0.5 | 2.480 | 1.905 | 2.715 |

Both the maximum time-averaged power and effective radiated power (ERP) are less than the threshold Pth (mW), so the device can be excluded from SAR measurement.

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