# RF EXPOSURE EVALUATION REPORT

| | | |
|---|---|---|
| FCC ID | : | 2A564141V40 |
| Equipment | : | PRM2141X-V-EGS |
| Brand Name | : | Peraso |
| Model Name | : | PRM2141X-V-EGS |
| Applicant | : | Peraso Inc<br>2309 Bering Dr. San Jose, CA 95131 |
| Manufacturer | : | Peraso Inc<br>2309 Bering Dr. San Jose, CA 95131 |
| Standard | : | 47 CFR Part 2.1091 |

**We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.**

**Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.**

**The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full**

Cona Huang

**Approved by: Cona Huang / Deputy Manager**

*SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory*
*No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)*

# Table of Contents

# History of this test report

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FA220826011 | Rev. 01 | Initial issue of report | Oct. 28, 2022 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

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

| Product Feature & Specification | |
|---|---|
| EUT Type | PRM2141X-V-EGS |
| Brand Name | Peraso |
| Model Name | PRM2141X-V-EGS |
| FCC ID | 2A564141V40 |
| Wireless Technology and Frequency Range | 60GHz: 58.32GHz ~ 69.12GHz |
| Mode | 60GHz |

**Reviewed by: Jason Wang**

**Report Producer: Daisy Peng**

## 2. Maximum RF average output power among production units

| Mode | Maximum Average EIRP power(dBm) |
|---|---|
| 60GHz | 38 |

## 3. Determination of exemption

Per 1.1307(b)(3), (i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$\text{Pth (mW)} = \text{ERP}_{20cm}\,(d / 20)^{x} \quad \text{for distance } d \le 20cm$$

$$\text{Pth (mW)} = \text{ERP}_{20cm} \quad \text{for distance } 20cm < d \le 40cm$$

$$x = -log10\left(\frac{60}{ERP_{20cm}\sqrt{f}}\right)$$

$$\text{ERP}_{20cm}\text{(mW)} \quad \begin{matrix} 0.3\ GHz \le f < 1.5\ GHz: & 2040\ f \\ 1.5\ GHz \le f \le 6\ GHz: & 3060 \end{matrix}$$

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

| RF Source frequency (MHz) | Threshold ERP (watts) |
|---|---|
| 0.3-1.34 | 1,920 $R^2$. |
| 1.34-30 | 3,450 $R^2/f^2$. |
| 30-300 | 3.83 $R^2$. |
| 300-1,500 | 0.0128 $R^2f$. |
| 1,500-100,000 | 19.2$R^2$. |

# 4. RF Exposure Evaluation

## 4.1. Standalone assessment

**General Note:**

1. ERPj is mean the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source j.
2. ERPth is mean exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least λ/2π, according to the applicable § 1.1307(b)(3)(i)(C) Table 1 formula at the location in question
3. The distance of 38.5cm is used in the calculation formula of part1.1307(b)(3)(i)(C)
4. In this report was used Part1.1307(b)(3)(i)(B) Part1.1307(b)(3)(i)(C) perfrom RF Exposure evaluation
5. The distance of 45cm is for this device

| Band | Maximum EIRP (dBm) | Maximum ERP (dBm) | Maximum EIRP (mW) | Maximum ERP (mW) | Pi (dBm) | Pi (mW) | Part1.1307 option(c) At 45cm Threshold (mW) |
|---|---|---|---|---|---|---|---|
| 60GHz | 38.0 | 35.85 | 6309.57 | 3845.92 | 35.85 | 3845.92 | 3888.000 |

## Conclusion:

According to 47 CFR §1.1307, the RF exposure analysis concludes that the RF Exposure is FCC compliant.