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## RF EXPOSURE REPORT

**FCC Applicant:** CviLux Corporation

9F., No.9, Lane 3, Sec 1, Chung-Cheng East Road, Tamshui,

Taipei, 25147, Taiwan

FCC Manufacturer: Dongguan Fuchen Electronic Technology Co., Ltd.

> Room 401, Building 4, No. 10, Gaoke 3rd Road, Xinlian Village, Humen Town, Dongguan City, Guangdong Province,

P. R. China

2.4G DONGLE **Product Name:** 

**Brand Name:** Opro9

Model No.: FHH128-01-001D

**Model Difference:** N/A

**Report Number:** TESA2206000162ES

FCC ID 2AA5C-FHH128D

Issue Date: July 19, 2023

Date of EUT Received: June 09, 2022

Approved By

### 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 §2.1091.

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    | Report Number Revision |                           | Issue Date    | Revised By | Remark |  |  |  |
| TESA2206000162ES | 00                     | Original.                 | July 18, 2023 | Susan Lin  |        |  |  |  |
| TESA2206000162ES | 01                     | Update operation distance | July 19, 2023 | Susan Lin  | *      |  |  |  |
|                  |                        |                           |               |            |        |  |  |  |
|                  |                        |                           |               |            |        |  |  |  |
|                  |                        |                           |               |            |        |  |  |  |
|                  |                        |                           |               |            |        |  |  |  |
|                  |                        |                           |               |            |        |  |  |  |

### Note:

1 The remark "\*" indicates modification of the report upon requests from certification body.

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# **DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)**

### **Product Description**

| Product Name:     | 2.4G DONGLE    |  |  |  |  |
|-------------------|----------------|--|--|--|--|
| Brand Name:       | Opro9          |  |  |  |  |
| Model No.:        | FHH128-01-001D |  |  |  |  |
| Model Difference: | N/A            |  |  |  |  |
| Hardware Version: | N/A            |  |  |  |  |
| Firmware Version: | N/A            |  |  |  |  |
| EUT Series No.:   | FHH12801001DS  |  |  |  |  |
| Power Supply:     | 5 Vdc          |  |  |  |  |

#### 1.2 **Evaluation site**

| Laboratory                                            |             | Site Address                                                                                            | FCC<br>Designation<br>number | ISED<br>Company<br>Number | CAB<br>Identifier |  |
|-------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------|------------------------------|---------------------------|-------------------|--|
| SGS Taiwan Ltd.<br>Central RF Lab.<br>(TAF code 3702) | $\boxtimes$ | No. 134, Wu Kung Road, New Taipei<br>Industrial Park, Wuku District, New<br>Taipei City, 24803, Taiwan. | TW0027                       | 4620A                     |                   |  |
|                                                       |             | No. 2, Keji 1st Rd., Guishan Township,<br>Taoyuan County, 333 Taiwan.                                   | TW0028 4620E                 |                           | TW3702            |  |
|                                                       |             | 1F, No. 8, Alley 15, Lane 120, Sec. 1,<br>Nei Hu Road, Neihu District, Taipei<br>City, 222 Taiwan.      | TW0029                       | 23862                     |                   |  |

#### **Antenna Information:** 1.3

| Antenna          | Freq.     | Peak Antenna |
|------------------|-----------|--------------|
| Type             | (MHz)     | Gain (dBi)   |
| PCB sink antenna | 2405-2470 | 1.5          |

Note: Antenna information is provided by the applicant.

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## FCC MAXIMUM PERMISSIBLE EXPOSURE (MPE)

#### 2.1 **FCC Standard Applicable**

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissive Exposure (MPE)

| Frequency Range | Electric Field                                      | Magnetic Field | Power Density          | Averaging Time |  |  |  |  |  |
|-----------------|-----------------------------------------------------|----------------|------------------------|----------------|--|--|--|--|--|
| (MHz)           | Strength (V/m)                                      | Strength (A/m) | (mW/cm <sup>2</sup> )  | (minute)       |  |  |  |  |  |
|                 | Limits for General Population/Uncontrolled Exposure |                |                        |                |  |  |  |  |  |
| 0.3-1.34 614    |                                                     | 1.63           | *(100)                 | 30             |  |  |  |  |  |
| 1.34-30         | 824/f                                               | 2.19/f         | *(180/f <sup>2</sup> ) | 30             |  |  |  |  |  |
| 30-300 27.5     |                                                     | 0.073          | 0.2                    | 30             |  |  |  |  |  |
| 300-1500 /      |                                                     | 1              | f/1500                 | 30             |  |  |  |  |  |
| 1500-100000 /   |                                                     | 1              | 1.0                    | 30             |  |  |  |  |  |

f = frequency in MHz

Prediction of MPE limit at a given distance

 $S=PG/4\pi R^2$ 

Where: S = Power density

P = Power input to 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

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<sup>\* =</sup> Plane-wave equipment power density



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## **Power Density Calculation (Worst Case)**

| FCC Standalone MPE |                                  |   |                                          |                          |                   |                                      |                   |             |                             |
|--------------------|----------------------------------|---|------------------------------------------|--------------------------|-------------------|--------------------------------------|-------------------|-------------|-----------------------------|
| Operation<br>Mode  | Evaluation<br>Frequency<br>(MHz) | • | Max.Output Power Include Tolerance (dBm) | Antenna<br>Gain<br>(dBi) | Max. EIRP<br>(mW) | Power<br>Density<br>(PD)<br>(mW/cm²) | Limit<br>(mW/cm²) | Pass / Fail | Power<br>Density /<br>Limit |
| SRD 2.4G           | 2405.00                          | 1 | -22.24                                   | 1.50                     | 0.01              | 0.0008                               | 1.000             | Pass        | 0.001                       |

~ End of Report ~

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