



# Maximum Permissible Exposure Evaluation

**FCC ID:2BNDD-SFBC1&IC:34868-SFBC1**

**Original Grant**

|                                                                                                                                                                                                                                                                                                                 |   |                                                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------|--|
| Report No.                                                                                                                                                                                                                                                                                                      | : | TBR-C-202605-0052-5                               |  |
| Applicant                                                                                                                                                                                                                                                                                                       | : | Sensforge Inc                                     |  |
| Equipment Under Test (EUT)                                                                                                                                                                                                                                                                                      |   |                                                   |  |
| EUT Name                                                                                                                                                                                                                                                                                                        | : | Window Camera                                     |  |
| Model No.                                                                                                                                                                                                                                                                                                       | : | SF-BC1WD                                          |  |
| Series Model No.                                                                                                                                                                                                                                                                                                | : | SF-BC1                                            |  |
| Brand Name                                                                                                                                                                                                                                                                                                      | : | Sensforge                                         |  |
| Sample ID                                                                                                                                                                                                                                                                                                       | : | HC-C-202605-0052-01-01# & HC-C-202605-0052-01-02# |  |
| Receipt Date                                                                                                                                                                                                                                                                                                    | : | 2026-05-21                                        |  |
| Test Date                                                                                                                                                                                                                                                                                                       | : | 2026-05-21 to 2026-08-03                          |  |
| Issue Date                                                                                                                                                                                                                                                                                                      | : | 2026-08-03                                        |  |
| Standards                                                                                                                                                                                                                                                                                                       | : | FCC Part 2.1091<br>RSS-102 Issue 6 December 2023  |  |
| Test Method                                                                                                                                                                                                                                                                                                     | : | KDB 447498 D01 General RF Exposure Guidance v06   |  |
| Conclusions                                                                                                                                                                                                                                                                                                     | : | <b>PASS</b>                                       |  |
| In the configuration tested, the EUT complied with the standards specified above.                                                                                                                                                                                                                               |   |                                                   |  |
| Test By                                                                                                                                                                                                                                                                                                         | : | Lily Zhang                                        |  |
| Reviewed By                                                                                                                                                                                                                                                                                                     | : | Lucase Yang                                       |  |
| Approved By                                                                                                                                                                                                                                                                                                     | : | IVAN SU                                           |  |
| This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report. |   |                                                   |  |

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## Revision History

| Report No.          | Version | Description             | Issued Date |
|---------------------|---------|-------------------------|-------------|
| TBR-C-202605-0052-5 | Rev.01  | Initial issue of report | 2026-08-03  |
|                     |         |                         |             |
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# 1. General Information about EUT

## 1.1 Client Information

|                     |   |                                                   |
|---------------------|---|---------------------------------------------------|
| <b>Applicant</b>    | : | Sensforge Inc                                     |
| <b>Address</b>      | : | 639 Alpha Dr, Pittsburgh, PA 15238, United States |
| <b>Manufacturer</b> | : | Sensforge Inc                                     |
| <b>Address</b>      | : | 639 Alpha Dr, Pittsburgh, PA 15238, United States |

## 1.2 General Description of EUT (Equipment Under Test)

|                                                                                                                                                                                                                       |   |                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EUT Name</b>                                                                                                                                                                                                       | : | Window Camera                                                                                                                                                                                                                                                                                        |
| <b>Models No.(FCC)</b>                                                                                                                                                                                                | : | SF-BC1WD,SF-BC1                                                                                                                                                                                                                                                                                      |
| <b>Models No.(IC)</b>                                                                                                                                                                                                 | : | SF-BC1WD                                                                                                                                                                                                                                                                                             |
| <b>HVIN</b>                                                                                                                                                                                                           | : | SF-BC1WD                                                                                                                                                                                                                                                                                             |
| <b>Model Different</b>                                                                                                                                                                                                | : | All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.                                                                                                                                                                                    |
| <b>Product Description</b>                                                                                                                                                                                            | : | <div>Operation Frequency:</div> <div> 802.11b/g/n(HT20)/ax(HE20):<br/> 2412MHz~2462MHz<br/> 802.11n(HT40)/ax(HE40): 2422MHz~2452MHz<br/> U-NII-1: 5180MHz~5240MHz<br/> U-NII-2A: 5260MHz~5320MHz<br/> U-NII-2C: 5500MHz~5700MHz<br/> U-NII-3: 5745MHz~5825MHz<br/> Bluetooth: 2402MHz~2480MHz </div> |
| <b>Power Rating</b>                                                                                                                                                                                                   | : | USB Input: 5V, 2A<br>DC 3.6V by 5000mAh Rechargeable Li-ion battery                                                                                                                                                                                                                                  |
| <b>Software Version</b>                                                                                                                                                                                               | : | 3.0.15                                                                                                                                                                                                                                                                                               |
| <b>Hardware Version</b>                                                                                                                                                                                               | : | V1.2                                                                                                                                                                                                                                                                                                 |
| <b>Remark:</b> The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible. |   |                                                                                                                                                                                                                                                                                                      |

## 1.3 Antenna Gain

| Band              | Antenna Type | Antenna Gain(dBi) |
|-------------------|--------------|-------------------|
| Bluetooth         | FPC          | 2.65              |
| 2.4G Wi-Fi        | FPC          | 2.65              |
| 5G Wi-Fi U-NII-1  | FPC          | 2.74              |
| 5G Wi-Fi U-NII-2A | FPC          | 2.74              |
| 5G Wi-Fi U-NII-2C | FPC          | 2.74              |
| 5G Wi-Fi U-NII-3  | FPC          | 2.74              |



## 2. Measurement Uncertainty

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

| Test Item          | Parameters                                        | Expanded Uncertainty (ULab)    |
|--------------------|---------------------------------------------------|--------------------------------|
| Conducted Emission | Level Accuracy:<br>9kHz~150kHz<br>150kHz to 30MHz | $\pm 3.50$ dB<br>$\pm 3.10$ dB |
| Radiated Emission  | Level Accuracy:<br>9kHz to 30 MHz                 | $\pm 4.60$ dB                  |
| Radiated Emission  | Level Accuracy:<br>30MHz to 1000 MHz              | $\pm 4.50$ dB                  |
| Radiated Emission  | Level Accuracy:<br>Above 1000MHz                  | $\pm 4.20$ dB                  |
| Temperature        | /                                                 | $\pm 0.6^{\circ}\text{C}$      |
| Humidity           | /                                                 | $\pm 4\%$                      |
| Supply voltages    | /                                                 | $\pm 2\%$                      |
| Time               | /                                                 | $\pm 4\%$                      |

## 3. Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

### CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

### A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

### IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.



## 4. Method of Measurement for FCC

### 4.1 EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

### 4.2 Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where

**S:** power density

**P:** power input to the 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

### 4.3 Simultaneous transmission MPE Considerations

According to KDB447498 D01 v06: All transmitters and antennas in the host must be either evaluated for MPE compliance, by measurement or computational modeling, or qualify for the standalone MPE test exclusion in section 7.1. Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is  $\leq 1.0$ .

This means that:

$$\sum \text{ of MPE ratios } \leq 1.0$$

## 5. Test Result

| Worst MPE Result                              |         |                            |                    |                             |                         |                   |                                          |
|-----------------------------------------------|---------|----------------------------|--------------------|-----------------------------|-------------------------|-------------------|------------------------------------------|
| Test Mode                                     | Antenna | Conducted Power(max) (dBm) | Turn-up Power (dB) | Max tune up power (dBm) [P] | Max. ANT Gain (dBi) [G] | Distance (cm) [R] | Power Density (mW/ cm <sup>2</sup> ) [S] |
| Bluetooth LE                                  | Ant.1   | 7.098                      | 7±1                | 8                           | 2.65                    | 20                | 0.0023                                   |
| 2.4G WIFI                                     | Ant.1   | 15.88                      | 16±1               | 17                          | 2.65                    | 20                | 0.0184                                   |
| 5G WIFI                                       | Ant.1   | 16.91                      | 17±1               | 18                          | 2.74                    | 20                | 0.0236                                   |
| Note: The antenna gain used max. antenna gain |         |                            |                    |                             |                         |                   |                                          |

### Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

### Limits for General Population/ Uncontrolled Exposure

| Frequency Range (MHz) | Power density (mW/ cm <sup>2</sup> ) |
|-----------------------|--------------------------------------|
| 300-1,500             | F/1500                               |
| 1,500-100,000         | 1.0                                  |

MPE limit S: 1mW/ cm<sup>2</sup>

The MPE is calculated as **0.0236mW / cm<sup>2</sup> < limit 1mW / cm<sup>2</sup>**.

So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091

(b). The RF Exposure Information page from the manual is included here for reference.



## 6. Method of Measurement for IC

### 6.1. Applicable Standard

[RSS-102 Issue 6 December 15, 2023](#): Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands), sets out the requirements and measurement techniques used to evaluate radio frequency (RF) exposure compliance of radio communication apparatus designed to be used within the vicinity of the human body.

[ANSI C95.1-1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

### 6.2 Evaluation Method and Limit

Field reference level (FRL) exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm (i.e. mobile devices), except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 1 W (adjusted for tune-up tolerance)
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than  $4.49/f^{0.5}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance)
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6824}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz
- at or above 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 5 W (adjusted for tune-up tolerance)

| Frequency Band                                                                                                                         | $f$<br>(MHz) | Limit<br>(W) |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| 2.4G                                                                                                                                   | 2402         | 2.68         |
| 5G                                                                                                                                     | 5180         | 4.52         |
| Note: Limit= $1.31 \times 10^{-2} f^{0.6824}$ W (where $f$ is in MHz).<br>The $f$ in the limit is the frequency of the lowest Channel. |              |              |

### 6.3 Calculation Formula

#### Simultaneous transmission MPE Considerations

All transmitters and antennas in the host must be either evaluated for MPE compliance, by measurement or computational modeling, or qualify for the standalone MPE test exclusion in section 7.1. Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is  $\leq 1.0$ .

This means that:

$$\sum \text{of MPE ratios} \leq 1.0$$



## 7. Test Result

| Worst MPE Result                              |         |                            |                    |                             |                         |                  |       |           |
|-----------------------------------------------|---------|----------------------------|--------------------|-----------------------------|-------------------------|------------------|-------|-----------|
| Test Mode                                     | Antenna | Conducted Power(max) (dBm) | Turn-up Power (dB) | Max tune up power (dBm) [P] | Max. ANT Gain (dBi) [G] | Distance (m) [R] | (W)   | Limit (W) |
| BLE                                           | Ant1    | 7.098                      | 7±1                | 8                           | 2.65                    | 0.2              | 0.012 | 2.68      |
| 2.4G WIFI                                     | Ant1    | 15.88                      | 16±1               | 17                          | 2.65                    | 0.2              | 0.092 | 2.68      |
| 5G WIFI                                       | Ant1    | 16.91                      | 17±1               | 18                          | 2.74                    | 0.2              | 0.119 | 4.52      |
| Note: The antenna gain used max. antenna gain |         |                            |                    |                             |                         |                  |       |           |

### 7.1 Summary simultaneous transmission results

Bluetooth and WiFi support Synchronization transmitter

| Maximum ratio<br>Bluetooth | Maximum ratio<br>WiFi | sum ration | Limit | Results |
|----------------------------|-----------------------|------------|-------|---------|
| 0.012                      | 0.119                 | 0.131      | 1     | PASS    |

Remark:

1. Output power including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.
3. ratio= (W)/Limit (W)

#### Note

For a more detailed features description, please refer to the RF Test Report.

-----END OF THE REPORT-----

