





## RF Exposure Evaluation Declaration

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**FCC ID:** UV3-SFT81  
**APPLICANT:** AViTA Corporation  
**Application Type:** Certification  
**Product:** Multifunctional thermometer  
**Model No.:** SFT81  
**Trademark:** N/A  
**FCC Rule Part(s):** Part 2.1093 (Portable)  
**Test Procedure(s):** KDB 447498 D01v06  
**Test Date:** May 21 ~ June 8, 2020

**Reviewed By** :   
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( Paddy Chen )

**Approved By** :   
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( Chenz Ker )



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.

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## Revision History

| Report No.    | Version | Description     | Issue Date | Note |
|---------------|---------|-----------------|------------|------|
| 2005TW8602-U3 | 1.0     | Original Report | 2020-07-17 |      |

## 1. PRODUCT INFORMATION

### 1.1. Equipment Description

|                         |                             |
|-------------------------|-----------------------------|
| Product Name            | Multifunctional thermometer |
| Model No.               | SFT81                       |
| Trademark               | N/A                         |
| Supports Radios Spec.   | Bluetooth V4.2              |
| Bluetooth Specification | V4.2 LE                     |
| Operating Frequency     | 2402~2480MHz                |
| Type of modulation      | GFSK                        |

### 1.2. Antenna Description

| No. | Manufacturer | Part No. | Antenna Type | Peak Gain |
|-----|--------------|----------|--------------|-----------|
| 1   | N/A          | N/A      | PCB          | 1.22 dBi  |

## 2. RF Exposure Evaluation

### 2.1. FCC Limits

According to FCC KDB 447498 Section 4.3 - General SAR test exclusion guidance

For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR, and  $\leq 7.5$  for 10-g extremity SAR,

where

1.  $f(\text{GHz})$  is the RF channel transmit frequency in GHz
2. Power and distance are rounded to the nearest mW and mm before calculation
3. The result is rounded to one decimal place for comparison
4. The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

### 2.2. IC Limits

Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power. For controlled use devices where the 8 W/kg for 1 gram of tissue applies, the exemption limits for routine evaluation in Table 1 are multiplied by a factor of 5. For limb-worn devices where the 10 gram value applies, the exemption limits for routine evaluation in Table 1 are multiplied by a factor of 2.5. If the operating frequency of the device is between two frequencies located in Table 1, linear interpolation shall be applied for the applicable separation distance. For test separation distance less than 5 mm, the exemption limits for a separation distance of 5 mm can be applied to determine if a routine evaluation is required.

| Frequency (MHz) | Exemption Limits (mW)                 |                                 |                                 |                                 |  |
|-----------------|---------------------------------------|---------------------------------|---------------------------------|---------------------------------|--|
|                 | At separation distance of $\leq 5$ mm | At separation distance of 10 mm | At separation distance of 15 mm | At separation distance of 20 mm | At separation distance of 25 mm        |
| 300             | 71 mW                                 | 101 mW                          | 132 mW                          | 162 mW                          | 193 mW                                 |
| 450             | 52 mW                                 | 70 mW                           | 88 mW                           | 106 mW                          | 123 mW                                 |
| 835             | 17 mW                                 | 30 mW                           | 42 mW                           | 55 mW                           | 67 mW                                  |
| 1900            | 7 mW                                  | 10 mW                           | 18 mW                           | 34 mW                           | 60 mW                                  |
| 2450            | 4 mW                                  | 7 mW                            | 15 mW                           | 30 mW                           | 52 mW                                  |
| 3500            | 2 mW                                  | 6 mW                            | 16 mW                           | 32 mW                           | 55 mW                                  |
| 5800            | 1 mW                                  | 6 mW                            | 15 mW                           | 27 mW                           | 41 mW                                  |
| Frequency (MHz) | At separation distance of 30 mm       | At separation distance of 35 mm | At separation distance of 40 mm | At separation distance of 45 mm | At separation distance of $\geq 50$ mm |
| $\leq 300$      | 223 mW                                | 254 mW                          | 284 mW                          | 315 mW                          | 345 mW                                 |
| 450             | 141 mW                                | 159 mW                          | 177 mW                          | 195 mW                          | 213 mW                                 |
| 835             | 80 mW                                 | 92 mW                           | 105 mW                          | 117 mW                          | 130 mW                                 |
| 1900            | 99 mW                                 | 153 mW                          | 225 mW                          | 316 mW                          | 431 mW                                 |
| 2450            | 83 mW                                 | 123 mW                          | 173 mW                          | 235 mW                          | 309 mW                                 |
| 3500            | 86 mW                                 | 124 mW                          | 170 mW                          | 225 mW                          | 290 mW                                 |
| 5800            | 56 mW                                 | 71 mW                           | 85 mW                           | 97 mW                           | 106 mW                                 |

Table 1: SAR evaluation – Exemption limits for routine evaluation based on frequency and separation distance.

### 2.3. Test Result of RF Exposure Evaluation

| Mode | Frequency Band (MHz) | Output Power (dBm) | Output Power (mW) | Test Exclusion Threshold (mW) |
|------|----------------------|--------------------|-------------------|-------------------------------|
| BLE  | 2402~2480            | -2.5               | 0.56              | 10                            |

So, this device can complies the SAR test exclusion.

\_\_\_\_\_ The End \_\_\_\_\_