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Report No.: 2201RSU057-U4 Report Version: V01 Issue Date: 04-18-2022

# **RF Exposure Evaluation Declaration**

FCC ID: 2A5R6AASA-2B-2C

**Applicant:** AXEND, Inc.

**Product:** AeroSense Assure Home Care Assistant

Model No.: AASA-2B, AASA-2C, AASA-2B/N, AASA-2C/N

**Brand Name:** AEROSENSE

FCC Classification: Digital Transmission System (DTS)

Part 15 Low Power Communication Device Transmitter

(DXX)

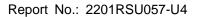
FCC Rule Part(s): KDB 447498 D01v06

| Reviewed By: |           | THE STATE OF THE PARTY OF THE P |   |
|--------------|-----------|--|---|
|              | Jame Yuan | ilac-MRA   |   |
| Approved By: |           |  | ACCREDITED                              |
|              | Robin Wu  | "Inhahala  | TESTING LABORATORY CERTIFICATE #3628.01 |

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.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.





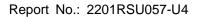
## **Revision History**

| Report No.    | Version | Description    | Issue Date | Note  |
|---------------|---------|----------------|------------|-------|
| 2201RSU057-U4 | Rev. 01 | Initial report | 04-18-2022 | Valid |
|               |         |                |            |       |



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## 1. General Information

## 1.1. Applicant

AXEND, Inc.

12045 E. Waterfront Drive, Ste 450 Los Angeles CA 90094

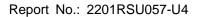
### 1.2. Manufacturer

Time Varying Transmission Co. Ltd

No.9 Venture Road, High-tech District, Xiangtan, Hunan, 411102, China

## 1.3. Testing Facility

| $\boxtimes$                  | Test Site - MRT   | Suzhou Laborator  | у                   |                     |                         |  |  |
|------------------------------|---|---|---------------------|---------------------|-------------------------|--|--|
|                              | Laboratory Location (Suzhou - Wuzhong)  |   |                     |                     |                         |  |  |
|                              | D8 Building, No.2   | D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) |                     |                     |                         |  |  |
|                              | Laboratory Loca   |   |                     |                     |                         |  |  |
|                              | 4b Building, Liand  | do U Valley, No.200   | Xingpu Rd., Shengpu | u Town, Suzhou Indu | ıstrial Park, China     |  |  |
|                              | Laboratory Accre  | editations  |                     |                     |                         |  |  |
|                              | A2LA: 3628.01   |   | CNAS                | S: L10551           |                         |  |  |
|                              | FCC: CN1166   |   | ISED:               | : CN0001            |                         |  |  |
|                              | VCCI:   | □R-20025  | □G-20034            | □C-20020            | □T-20020                |  |  |
|                              | VCCI:   | □R-20141  | □G-20134            | □C-20103            | □T-20104                |  |  |
|                              | Test Site - MRT   | Shenzhen Laborat  | ory                 |                     |                         |  |  |
|                              | Laboratory Loca   | tion (Shenzhen)   |                     |                     |                         |  |  |
|                              | 1G, Building A, Ju  | ınxiangda Building,   | Zhongshanyuan Roa   | ad West, Nanshan Di | strict, Shenzhen, China |  |  |
|                              | Laboratory Accre  | editations  |                     |                     |                         |  |  |
|                              | A2LA: 3628.02   | LA: 3628.02 CNAS: L10551  |                     |                     |                         |  |  |
|                              | FCC: CN1284   |   | ISED:               | CN0105              |                         |  |  |
|                              | Test Site - MRT   | Taiwan Laboratory   | /                   |                     |                         |  |  |
| Laboratory Location (Taiwan) |   |   |                     |                     |                         |  |  |
|                              | No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)  Laboratory Accreditations |   |                     |                     |                         |  |  |
|                              |   |   |                     |                     |                         |  |  |
|                              | TAF: L3261-19072  | 25  |                     |                     |                         |  |  |
|                              | FCC: 291082, TW   | V3261   | ISED:               | TW3261              |                         |  |  |





#### 1.4. Product Information

| Product Name        | AeroSense Assure Home Care Assistant   |  |
|---------------------|--|--|
| Model No.           | AASA-2B, AASA-2C, AASA-2B/N, AASA-2C/N |  |
| Brand Name          | AEROSENSE                              |  |
| Wi-Fi Specification | 802.11b/g/n                            |  |
| Radar Specification | 60-64G                                 |  |
| Antenna Information | Refer to clause 1.6                    |  |
| Accessory           |  |  |
|                     | MODEL: XSC-0502000SWCNU                |  |
| Adapter             | INPUT: 100-240V ~ 50/60Hz 0.4A         |  |
|                     | OUTPUT: 5V = 2A                        |  |
|                     |  |  |

#### Remark:

- 1.The models (AASA-2B and AASA-C) use the different software algorithms, but the same hardware. The difference between AASA-2B and AASA-2B/N only external packing.
- 2. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.

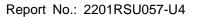
## 1.5. Radio Specification

| Frequency Range    | 802.11b/g/n-HT20: 2412 ~ 2462MHz   |  |
|--------------------|------------------------------------|--|
| Channel Number     | 802.11b/g/n-HT20: 11               |  |
| Type of Modulation | 802.11b: DSSS                      |  |
|                    | 802.11g/n: OFDM                    |  |
| Data Rate          | 802.11b: 1/2/5.5/11Mbps            |  |
|                    | 802.11g: 6/9/12/18/24/36/48/54Mbps |  |
|                    | 802.11n: up to 72.2Mbps            |  |

Note: For other features of this EUT, test report will be issued separately.

### 1.6. Antenna Details

| Antenna Type     | Frequency Band | T <sub>X</sub> | Max Antenna Gain |
|------------------|----------------|----------------|------------------|
|                  | (MHz)          | Paths          | (dBi)            |
| on-board ceramic | 2412 ~ 2462    | 1              | 2.0              |
| Patch            | 60000-64000    | 1              | 3.5              |





## 2. RF Exposure Evaluation

#### 2.1. Test Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency Range | Electric Field  | Magnetic Field | Power Density         | Average Time |  |
|-----------------|---|----------------|-----------------------|--------------|--|
| (MHz)           | Strength (V/m)  | Strength (A/m) | (mW/cm <sup>2</sup> ) | (Minutes)    |  |
|                 | (A) Limits for Occupational/ Control Exposures            |                |                       |              |  |
| 300-1500        | -   |                | f/300 6               |              |  |
| 1500-100,000    |   |                | 5                     | 6            |  |
|                 | (B) Limits for General Population/ Uncontrolled Exposures |                |                       |              |  |
| 300-1500        | f/1500  |                | 6                     |              |  |
| 1500-100,000    |   |                | 1                     | 30           |  |

f= Frequency in MHz

Calculation Formula:  $Pd = (Pout*G)/(4*pi*r^2)$ 

Where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.





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#### 2.2. Test Result

| Product   | AeroSense Assure Home Care Assistant |
|-----------|--------------------------------------|
| Test Item | RF Exposure Evaluation               |

Antenna Gain: Refer to clause 1.6.

| Test Mode   | Frequency Band<br>(MHz) | Conducted Power (dBm) | Antenna Gain<br>(dBi) | Maximum EIRP<br>(dBm) |
|-------------|-------------------------|-----------------------|-----------------------|-----------------------|
| 802.11b/g/n | 2412 ~ 2462             | 25.22                 | 2                     | 27.22                 |
| 60GHz Radar | 57000 ~ 71000           | -13.21                | 3.5                   | -9.71                 |

| Test Mode   | Frequency Band<br>(MHz) | Maximum EIRP<br>(dBm) | Compliance Distance (cm) | Power Density<br>(mW/cm²) | Limit of Power Density (mW/cm²) |
|-------------|-------------------------|-----------------------|--------------------------|---------------------------|---------------------------------|
| 802.11b/g/n | 2412 ~ 2462             | 27.22                 | 20                       | 0.104889                  | 1                               |
| 60GHz Radar | 57000 ~ 71000           | -9.71                 | 20                       | 0.000021                  | 1                               |

### **CONCLUSION:**

WLAN 2.4GHz Band, 60G Radar can transmit simultaneously.

The max Power Density at R (20 cm) =  $0.104889 \text{mW/cm}^2 + 0.000021 \text{mW/cm}^2 = 0.10491 \text{mW/cm}^2 < 1 \text{mW/cm}^2$ .

Therefore, the compliance distance is 20cm.



## Appendix A - EUT Photograph

Refer to "2201RSU057-UE" file.

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