



# RF Exposure Evaluation Report

**Report No.:** JYTSZ-R14-2400078  
**Applicant:** PORTMAN ELECTRONICS (DONGGUAN) CO., LTD.  
**Address of Applicant:** NO#10, Luyi 2 Road, Keyuancheng, Tangxia Town,  
DONGGUAN CITY, GUANGDONG PROVINCE CHINA  
523718

## Equipment Under Test (EUT)

**Product Name:** CAR ALARM  
**Model No.:** 7147VSEC, 7147X  
**Trade mark:** N/A  
**FCC ID:** TBQ7147V  
**Applicable standards:** KDB 447498 D04 Interim General RF Exposure Guidance v01  
**Date of sample receipt:** 10 Jul, 2024  
**Date of Test:** 11 Jul., to 19 Jul., 2024  
**Date of report issue:** 22 Jul., 2024  
**Test Result:** PASS

**Project by:**

*Robin Gu*  
Project Engineer

**Date:**

22 Jul., 2024

**Reviewed by:**

*Yeta Zhang*  
Senior Engineer

**Date:**

22 Jul., 2024

**Approved by:**

*Janet Wei*  
Manager

**Date:**

22 Jul., 2024

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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## 1 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | 22 Jul., 2024 | Original    |
|             |               |             |
|             |               |             |
|             |               |             |
|             |               |             |

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### 3 General Information

#### 3.1 Client Information

|               |                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------|
| Applicant:    | PORTMAN ELECTRONICS (DONGGUAN) CO., LTD.                                                      |
| Address:      | NO#10, Luyi 2 Road, Keyuancheng, Tangxia Town, DONGGUAN CITY, GUANGDONG PROVINCE CHINA 523718 |
| Manufacturer: | DONGGUAN PORTMAN ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD.                                  |
| Address:      | NO.10, LUYI 2 ROAD, TANGXIA TOWN, DONGGUAN CITY GUANGDONG PROVINCE                            |
| Factory:      | DONGGUAN PORTMAN ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD.                                  |
| Address:      | NO.10, LUYI 2 ROAD, TANGXIA TOWN, DONGGUAN CITY GUANGDONG PROVINCE                            |

#### 3.2 General Description of E.U.T.

|                        |                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:          | CAR ALARM                                                                                                                                                 |
| Model No.:             | 7147VSEC, 7147X                                                                                                                                           |
| Operation Frequency:   | 433.92 MHz                                                                                                                                                |
| Modulation technology: | ASK                                                                                                                                                       |
| Antenna Type:          | PCB Antenna                                                                                                                                               |
| Antenna gain:          | -2.48 dBi (declare by Applicant)                                                                                                                          |
| Power Supply:          | DC 3V                                                                                                                                                     |
| Test Sample Condition: | The test samples were provided in good working order with no visible defects.                                                                             |
| Remark:                | 7147VSEC, 7147X were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name. |

### 3.3 Operating Modes

| Operating mode | Detail description                             |
|----------------|------------------------------------------------|
| Tx mode        | Keep the EUT in continuously transmitting mode |

### 3.4 Additions to, Deviations, or Exclusions from the Method

|    |
|----|
| No |
|----|

### 3.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

### 3.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website:<http://jyt.lets.com>

## 4 Technical Requirements Specification

### 4.1 Limits

According to KDB 447498 D04 Interim General RF Exposure Guidance v01 RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices.

#### RF Exposure Test Exemptions for Single Source

##### 1-mW Test Exemption

Per § 1.1307(b)(3)(i)(A), a single RF source is *exempt RF device* (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance.

This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

### 4.2 Result

According to the calculation formula of power:

$$EIRP = P * G = (E * d)^2 / 30, \text{ So } P = (E * d)^2 / (30 * G).$$

Where:

P = transmitter output power in watts,

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator (unitless),

E = electric field strength in V/m, ---  $10^{((dBuV/m)/20)}/10^6$ ,

d = measurement distance in meters (m)---3m,

Thus, Worse case below:

| Frequency (MHz) | Maximum field strength@3m (dBuV/m) | Maximum field strength@3m (V/m) | Antenna Gain (dBi) | Antenna Gain (numeric) | Distance (m) | Output power (mW) | Limit for SAR test exemption(mW) |
|-----------------|------------------------------------|---------------------------------|--------------------|------------------------|--------------|-------------------|----------------------------------|
| 433.92          | 85.83                              | 0.0196                          | -2.48              | 0.56                   | 3            | 0.0649            | 1                                |

### 4.3 Conclusion

Cuz 0.0649mW < 1mW, The device is exempt from the SAR test and satisfies RF exposure evaluation.

-----End of report-----