



MPE Test Report

Report No.: LDF-ESH-P24010624B-2

FCC ID: DWN-SCER1

IC ID: 12049A-SCER1

Product: SCE-R1 FCC 433.42MHz

Model: 9029144

Received Date: Jan.10, 2024

Test Date: Jan.10 to Mar.04, 2024

Issued Date: Mar.07, 2024

Applicant: Somfy Systems, Inc.

Address: 121 Herrod Blvd. Dayton NJ 08810

Manufacturer: Zhejiang Lianda Science and Technology Co., Ltd

Address: Technological and Industrial District 2# Road, Nanxun, Huzhou, Zhejiang, China 313009

Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

Lab Address: No. 829, Xinzhuan Road, Shanghai, P.R.China (201612)



Test Lab
Cert 2343.01

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Release Control Record

Issue No.	Description	Date Issued
LDF-ESH-P24010624B-2	Original release	Mar.07, 2024



1 Certificate of Conformity

Product: SCE-R1 FCC 433.42MHz

Brand: --

Model: 9029144

Applicant: Somfy Systems, Inc. 121 Herrod Blvd. Dayton NJ 08810

Test Date: Jan.10 to Mar.04, 2024

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

RSS 102 Issue 6 (2023-12)

The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :

, Date:

Mar.07, 2024

Yan ZHOU

Project Engineer

Approved by :



Sean YU

RF Supervisor

, Date:

Mar.07, 2024

2 General Information

2.1 General Description of EUT

Product	SCE-R1 FCC 433.42MHz
Brand	--
Test Model	9029144
Power Rating	3Vdc, Powered by battery
Modulation Type	ASK
Operating Frequency	433.42MHz
Number of Channel	1
Antenna Type	PCB antenna
Antenna Gain	-2.81 dB
Antenna Connector	--
FVIN	01

Note:

1. For more details, please refer to the User's manual of the EUT.



2.2 Test Facility

Laboratory Name: Bureau Veritas ADT (ShangHai) Corporation

Laboratory Address: No.829, Xin Zhuan Road, Song Jiang District, Shanghai, China

Test Location: No.829, Xin Zhuan Road, Song Jiang District, Shanghai, China

A2LA Lab Code: 2343.01

FCC-Recognized Accredited Testing Lab: CN1213

ISED Recognized Lab: 6392A

FCC Accredited Test Site Number: 176467

3 RF Exposure

The corresponding SAR Exclusion Threshold condition, listed below:

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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 is applied to determine SAR test exclusion.

2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:

a) [Threshold at 50 mm in step1) + (test separation distance - 50 mm) · ($f(\text{MHz})/150$)] mW, at 100MHz to 1500 MHz

b) [Threshold at 50 mm in step1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz

3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.

a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by $[1 + \log(100/f(\text{MHz}))]$ for test separation distances > 50 mm and < 200 mm.

b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$ for test separation distances ≤ 50 mm.

c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

3.1 Classification

The antenna of this product, under normal use condition, is at less than 20cm from the body of the user. So the device is classified as **Portable Device**.

3.2 SAR Test Exclusion Thresholds

The tuned conducted Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
GFSK	433.42	-20	± 1	-21	-19

The measured conducted Power

$\text{dBm} = \text{dBuV} - 90 - 10\log(Z)$; Max. Conducted output power(dBm) = $87.96 - 90 - 10\log(50) = -19.02$ dBm

Mode	Frequency (MHz)	Max. Conducted Output power(dBm)
GFSK	433.42	-19.02

Frequency Band (MHz)	Max. Conducted output power(dBm)	Distance (mm)	Result of Eq. 1	Limit for 1-g SAR	Limit for 10-g Extremity SAR	Verdict
433.42	-19	5	0.0017	3	7.5	Exempt from SAR

Conclusion:

Therefore this device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.

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