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Somfy Systems, Inc.
MPE ASSESSMENT REPORT

Report Type:
FCC MPE assessment report

Model:
1871259, 1871259A, 1871259B, 1871259C, 1871259*
(* represents D to Z for marketing purpose)

REPORT NUMBER:
230302367SHA-007

ISSUE DATE:
August 14, 2023

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Report no.: 230302367SHA-007

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TEST REPORT

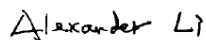|	
Applicant:	Somfy Systems, Inc.
	121 Herrod Blvd. Dayton, NJ 08810 United States
Manufacturer:	Somfy Systems, Inc.
	121 Herrod Blvd. Dayton, NJ 08810 United States
Product Name:	MOTOR RECEIVER Zigbee
Type/Model:	1871259, 1871259A, 1871259B, 1871259C, 1871259* (* represents D to Z for marketing purpose)
FCC ID:	DWNIZYMO-MOTOR

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:
KDB447498 D01 General RF Exposure Guidance v06   FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:

Project Engineer
Alexander Li

REVIEWED BY:

Reviewer
Wakeyou Wang

TEST REPORT

Revision History

Report No.	Version	Description	Issued Date
230302367SHA-007	Rev. 01	Initial issue of report	August 14, 2023

TEST REPORT

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	MOTOR RECEIVER Zigbee
Type/Model:	1871259, 1871259A, 1871259B, 1871259C, 1871259* (* represents D to Z for marketing purpose)
Description of EUT:	The product covered by this report is a smart ZigBee switch for electrical installation, all models are identical except model name. Model 1871259A was selected to perform all tests.
Brand name:	**somfy.**
Rating:	110V-230V~, 50/60Hz
Category of EUT:	Class B
EUT type:	☒ Tabletop ☐ Floor standing
Software Version:	/
Hardware Version:	/
Sample received date:	April 11, 2023
Date of test:	April 11, 2023 – May 28, 2023

1.2 Technical Specification

Frequency Band:	2400MHz ~ 2483.5MHz
Support Standards:	ZigBee
Type of Modulation:	BPSK
Channel Number:	16
Channel Separation:	5MHz
Antenna Information:	Monopole Antenna, gain is 2dBi

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1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L0139
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

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2 MPE Assessment

Test result: **Pass**

2.1 MPE Assessment Limit

According to§1.1310, the limit for general population/uncontrolled exposures

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=Frequency in MHz; *Plane-wave equivalent power density

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0**

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2.2 Assessment Results

Power density (S) is calculated according to the formula:

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

Where S = power density in mW/cm^2

   P = Radiated transmit power in mW

   G = numeric gain of transmit antenna

   R = distance (cm)

As we can see from the test report 230302367SHA-005:

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

Mode	Frequency band	Max Power	Antenna Gain	R	S	Limits
	(MHz)	dBm	dBi	(cm)	(mW/cm2)	(mW/cm2)
ZigBee	2405 -2480	10.64	2	20	0.0037	1

Note: 1 mW/cm2 from §1.1310 Table 1

Result: Compliance, the device meets MPE requirement for Devices Used by the General Public (Uncontrolled Environment) at distance ≥20 cm.

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Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended.

** END **