

Somfy Systems, Inc.

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

Model:

1871260, 1871260A, 1871260B, 1871260C, 1871260* (* represents D to Z for marketing purpose)

REPORT NUMBER:

230302367SHA-003

ISSUE DATE:

August 14, 2023

DOCUMENT CONTROL NUMBER:

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www.intertek.com

Report no.: 230302367SHA-003

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

Manufacturer: Somfy Systems, Inc.

121 Herrod Blvd. Dayton, NJ 08810 United States

Product Name: LIGHTING RECEIVER Zigbee

Type/Model: 1871260, 1871260A, 1871260B, 1871260C, 1871260*

(* represents D to Z for marketing purpose)

FCC ID: DWNIZYMO-LIGHT

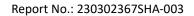
SUMMARY:

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:	REVIEWED BY:	
Project Engineer	Reviewer	
Alexander Li	Wakeyou Wang	

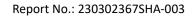
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Revision History

Report No.	Version	Description	Issued Date
230302367SHA-003	Rev. 01	Initial issue of report	August 14, 2023





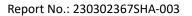
1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	LIGHTING RECEIVER Zigbee
	1871260, 1871260A, 1871260B, 1871260C, 1871260*
Type/Model:	(* represents D to Z for marketing purpose)
	The product covered by this report is a smart ZigBee switch for
	electrical installation, all models are identical except model name.
Description of EUT:	Model 1871260A 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:	ВРЅК
Channel Number:	16
Channel Separation:	5MHz
Antenna Information:	Monopole Antenna, gain is 2dBi



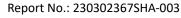


TEST REPORT

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,	CNAS Accreditation Lab Registration No. CNAS L0139
certified, or accredited by these organizations:	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





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/cm²)	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 \leq 1.0

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2.2 Assessment Results

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

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

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Where $S = power density in mW/cm^2$

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

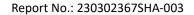
As we can see from the test report 230302367SHA-001:

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	10.36	2	20	0.0034	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.





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.