

RF EXPOSURE REPORT

Applicant	Savant Technologies LLC, dba GE Lighting, a Savant Company
Address	1975 Noble Road, Cleveland, Ohio 44112, United States

Manufacturer or Supplier	Savant Technologies LLC, dba GE Lighting, a Savant Company
Address	1975 Noble Road, Cleveland, Ohio 44112, United States
Product	Smart Switch Motion Sensing + Dimmer
Additional Product	Smart Switch Dimmer
Brand Name	GE
Model	CSWDMOCBWF1
Additional Model & Model Difference	CSWDMBLBWF1; see items 1
Date of tests	Aug. 02, 2022 ~ Aug. 19, 2022

- ☒ FCC Part 2 (Section 2.1091)
- ☒ KDB 447498 D01
- ☒ IEEE C95.1

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Lucas Chen Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	

Date: Sep. 14, 2022

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1. CERTIFICATION.....	4
2. RF EXPOSURE LIMIT	5
3. MPE CALCULATION FORMULA.....	5
4. CLASSIFICATION	5
5. ANTENNA GAIN	6
6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	6



Test Report No.: FM2208WDG0002

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM2208WDG0002	Original release	Sep. 14, 2022

1. CERTIFICATION

PRODUCT:	Smart Switch Motion Sensing + Dimmer
ADDITIONAL PRODUCT:	Smart Switch Dimmer
BRAND NAME:	GE
MODEL NO.:	CSWDMOCBWF1
ADDITIONAL MODEL:	CSWDMBLBWF1
FCC ID:	PUU-CSWDMXXBWF2
TEST SAMPLE:	ENGINEERING SAMPLE
APPLICANT:	Savant Technologies LLC, dba GE Lighting, a Savant Company
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

Notes:

1. Additional model CSWDMBLBWF1 is identical with the test model CSWDMOCBWF1 except the appearance, functions and model number for trading purpose, the model CSWDMOCBWF1 with motion sensing function.

RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

2. MPE CALCULATION FORMULA

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

3. CLASSIFICATION

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

4. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Mode	Peak Gain (dBi)	Antenna Type
BT-LE	2.6	PCB Antenna
WIFI	2.6	PCB Antenna

5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
BT-LE (GFSK)	2402-2480MHz	4	+ -2	2	6
802.11b	2412-2462MHz	18	+ -2	16	20
802.11g	2412-2462MHz	14	+ -2	12	16
802.11n HT20	2412-2462MHz	13	+ -2	11	15

The measured conducted Average Power (MAX.)

Mode	Frequency (MHz)	Averaged Power (dBm)
BT-LE (GFSK)	2440	4.16
802.11b	2462	18.19
802.11g	2462	14.83
802.11n HT20	2462	13.53



FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
BT 2402-2480	6	2.6	20	0.001441	1.0
WiFi 2412-2462	20	2.6	20	0.036202	1.0

Note: The BT and WLAN can't transmit simultaneously.

CONCLUSION: PASS

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