RF EXPOSURE REPORT

Applicant	Consumer Lighting (U.S.) LLC dba GE Lighting, a Savant company.
Address	1975 Noble Road, Cleveland, Ohio 44112, United States.

Manufacturer or Supplier	Consumer Lighting (U.S.) LLC dba GE Lighting, a Savant company.
Address	1975 Noble Road, Cleveland, Ohio 44112, United States.
Product	C-Start Smart Switch Motion Sensing + Dimmer
Additional Product	C-Start Smart Switch Dimmer
Brand Name	GE
Model	CSWDMOCBWF1NN
Additional Model & Model Difference	CSWDMBLBWF1NN
Date of tests	Aug. 21, 2020 ~ Aug. 27. 2020

☒ **FCC Part 2 (Section 2.1091)**

☒ **KDB 447498 D01**

☒ **IEEE C95.1**

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

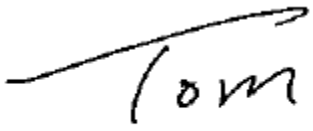
Tested by Tom Chen Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	 Date: Sep. 07, 2020

TABLE OF CONTENTS

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM2008WDG0008	Original release	Sep. 07, 2020

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch

No. 96, Guantai Road (Houjie Section), Houjie Town, Dongguan City, Guangdong Province. 523942. People's Republic of China.

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com

1. CERTIFICATION

FCC ID:	PUU-CSWDMXXBWF2NN
PRODUCT:	C-Start Smart Switch Motion Sensing + Dimmer
ADDITIONAL PRODUCT:	C-Start Smart Switch Dimmer
BRAND NAME:	GE
MODEL NO.:	CSWDMOCBWF1NN
ADDITIONAL NO.:	CSWDMBLBWF1NN
TEST SAMPLE:	Engineering Sample
APPLICANT:	Consumer Lighting (U.S.) LLC dba GE Lighting, a Savant company.
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

2. 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

3. MPE CALCULATION FORMULA

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

4. 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**.

5. ANTENNA GAIN

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

Mode	Transmitter Circuit	Peak Gain (dBi)	Antenna Type
BT	Chain 0	1.6	PCB Antenna
WIFI	Chain 0	2	PCB Antenna

6. 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	2	+-1	1	3
802.11b	2412-2462MHz	15	+-1	14	16
802.11g	2412-2462MHz	13	+-1	12	14
802.11n HT20	2412-2462MHz	13	+-1	12	14
802.11n HT40	2422-2452MHz	13	+-1	12	14

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
BT-LE (GFSK)	2440	1.99
802.11b	2437	14.82
802.11g	2412	13.09
802.11n HT20	2437	12.79
802.11n HT40	2437	13.21

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
BT 2402-2480	3	1.6	20	0.000574	1.0
WiFi 2412-2462	16	2	20	0.012552	1.0

CONCLUSION:

The BT and WLAN can transmit simultaneously, the formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1
CPD = Calculation power density
LPD = Limit of power density

(0.000574/1)+(0.012552/1) = 0.013126<1, which is less than the “1” limit.

--- END ---