

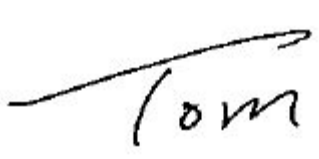
RF EXPOSURE REPORT

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	Ceiling Fan Smart Switch
Brand Name	GE
Model	CSWFSBLBWF1
Additional Model & Model Difference	N/A
Date of tests	Jun. 23, 2020 ~ Sep. 09, 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. 09, 2020

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Test Report No.: FM200623N006

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM200623N006	Original release	Sep 09, 2020

1. CERTIFICATION

PRODUCT:	Ceiling Fan Smart Switch
BRAND NAME:	GE
MODEL NO.:	CSWFSBLBWF1
ADDITIONAL MODEL:	N/A
FCC ID:	PUU-CSWFSBLBWF1
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

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

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

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:

Frequency Band	Antenna Gain (dBi)	Antenna Type
Wi-Fi 2.4GHz	3	PCB Antenna
BT 2.4GHz	2.8	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	1	+1	0	2
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

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
BT-LE (GFSK)	2402	0.61
802.11b	2412	15.12
802.11g	2412	13.59
802.11n HT20	2412	13.50

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
BT 2.4GHz	2	2.8	20	0.000601	1.0
Wi-Fi 2.4GHz	16	3	20	0.015803	1.0

CONCLUSION:

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

$$\text{CPD1} / \text{LPD1} + \text{CPD2} / \text{LPD2} + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$(0.000601/1) + (0.015803/1) = 0.016404 < 1, \text{ which is less than the "1" limit.}$$

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