TEST REPORT

Reference No.	:	WTF22F01009262W002
FCC ID	:	2ALA3-CBM003C
Applicant	:	Casambi Technologies Oy
Address	:	Bertel Jungin aukio 1 E, Espoo, Finland 02600
Manufacturer	:	Sanmina Corporation
Address	:	312, Qing Yang South Road, Economic and Technical Development Zone, Kunshan Jiangsu Sheng, 215300, China
Product Name	:	Lighting control system
Model No.	:	CBM-003C
Standards	:	FCC CFR47 Part 15 Subpart C (Section 15.247): 2020
Date of Receipt sample	:	2021-12-13
Date of Test	:	2021-12-20
Date of Issue	:	2022-02-18
Test Result	:	**Pass**

Remarks:
The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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1 Revision History

Test Report No.	Date of Issue	Description	Status
WTF22F01009262W002	2022-02-18	Original	Valid

2 Contents

3 General Information

3.1 General Description of E.U.T

Product Name ..... : Lighting control system

Model No. ..... : CBM-003C

Model Description ..... : ---

Rated Voltage..... : DC 2.5-3.6V

Battery Capacity ..... : ---

Power Adapter ..... : ---

3.2 Technical Characteristics of EUT

Bluetooth Version ..... : V4.0(BLE mode)

Frequency Range ..... : 2402-2480MHz

RF Output Power ..... : 6.753dBm (Conducted) @1Mbps (2402MHz)

Modulation ..... : GFSK

Data Rate ..... : 125kbps, 500kbps, 1Mbps, 2Mbps

Quantity of Channels ..... : 40

Channel Separation..... : 2MHz

Type of Antenna ..... : Whip Antenna

Antenna Gain ..... : 2.0dBi

Lowest Oscillation..... : 32MHz

4 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

4.1 Standard Applicable

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

(a) Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times | $E|^2$, | $H|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times | $E|^2$, | $H|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

Note: f = frequency in MHz: * = Plane-wave equivalents power density

4.2 MPE Calculation Method

$S = (30*P*G) / (377*R^2)$

S = power density (in appropriate units, e.g., mw/cm^2)

P = power input to the antenna (in appropriate units, e.g., mw)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor is normally numeric gain.

R = distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

4.3 MPE Calculation Result

Prediction distance (mm)	Prediction frequency (MHz)	Antenna Gain (dBi)	Numeric gain	Maximum Tune-up output power (dBm)	Maximum peak output power (mW)	PD (mW/cm2)	Limit (mW/cm2)
>200	2402	2.0	1.58	6.753	4.735	0.0014929	1.0

Result: Pass

======End of Report======