



MPE Report

Report No.: STS2512131H01

Issued for

Guangdong Crearoma Scent Tech Limited

Room 601, Building 13, No. 1 Jingdong Road, Fenggang town, Dongguan City, Guangdong province, China 523690

Product Name: Aroma Diffuser

Brand Name: N/A

Model Name: Rad-8

Series Model(s): OV-1,OV-2,OV-2 Pro,OV-3,OV-5,OV-5 Pro,OV-8,OV-10,5-Air,B-Air, B-Air Pro, C-Air,D-Air,D-Air Pro,F-Air,G-Air,I-Air, K-Air,T-Air,X-Air,Y-Air,Z-Air,U2,U3,U5,U10, U15,U50,U100,Scent Pocket,Scent Station,i-0,i-1,i-3,i-X,Rad-0,Rad-2,H2,H5,N D130,ND300,ND500,OY-2,OY-3,OY-5,R3, POLARIS,Pro300,Airing6-L,OS-5,Starlight, OY-5E,OY-8,ECO,OW-008,SUB5.0,OW-49 9B,OY-1A

FCC ID: 2BCCLRAD-8

Test Standard: FCC 47CFR §2.1091

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the ShenZhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name: Guangdong Crearoma Scent Tech Limited
Address: Room 601, Building 13, No. 1 Jingdong Road, Fenggang town,
Dongguan City, Guangdong province, China 523690
Manufacturer's Name: Guangdong Crearoma Scent Tech Limited
Address: Room 601, Building 13, No. 1 Jingdong Road, Fenggang town,
Dongguan City, Guangdong province, China 523690

Product Description

Product Name: Aroma Diffuser
Brand Name: N/A
Model Name: Rad-8
Series Model(s): OV-1,OV-2,OV-2 Pro,OV-3,OV-5,OV-5 Pro,OV-8,OV-10,5-Air,B-Air,
B-Air Pro,C-Air,D-Air,D-Air Pro,F-Air,G-Air,I-Air,K-Air,T-Air,X-Air,
Y-Air,Z-Air,U2,U3,U5,U10,U15,U50,U100,Scent Pocket,Scent
Station,i-0,i-1,i-3,i-X,Rad-0,Rad-2,H2,H5,ND130,ND300,ND500,OY-
2,OY-3,OY-5,R3,POLARIS,Pro300,Airing6-L,OS-5,Starlight,OY-5E,
OY-8,ECO,OW-008,SUB5.0,OW-499B,OY-1A
Test Standards: FCC 47CFR §2.1091
447498 D01 Interim General RF Exposure Guidance v06

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Date of Test

Date of receipt of test item. 12 December.2025

Date (s) of performance of tests 12 December.2025~15 December.2025

Date of Issue 17 December 2025

Test Result **Pass**

Testing Engineer :

Aaron Bu

(Aaron Bu)

Technical Manager :

Skylar Li

(Skylar Li)

Authorized Signatory :

Bovey Yang

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	15 December 2025	STS2512132H01	ALL	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Aroma Diffuser	
Brand Name	N/A	
Model Name	Rad-8	
Series Model(s)	OV-1,OV-2,OV-2 Pro,OV-3,OV-5,OV-5 Pro,OV-8,OV-10,5-Air,B-Air, B-Air Pro,C-Air,D-Air,D-Air Pro,F-Air,G-Air,I-Air,K-Air,T-Air,X-Air,Y-Air,Z-Air,U2,U3,U5,U10,U15,U50,U100,Scent Pocket,Scent Station,i-0,i-1,i-3,i-X,Rad-0, Rad-2,H2,H5,ND130,ND300,ND500,OY-2,OY-3,OY-5,R3,POLARIS,P ro300,Airing6-L,OS-5,Starlight,OY-5E, OY-8,ECO,OW-008,SUB5.0,OW-499B,OY-1A	
Model Difference	The main model and subsequent models tested in this test differ only in naming and color.All other aspects,including materials,other manufacturing processes,circuit design,and manufacturers,are exactly the same. We finally decided on the Rad-8 as the test model.	
Product Description	The EUT is Bluetooth low energy module	
	Operation Frequency:	802.11b/g/n 20: 2412~2462 MHz 802.11n40:2422~2452MHz
	Modulation Type:	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM
	Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6Mbps 802.11n(20MHz): 65/58.5/52/39/26/19.5/13/6.5Mbps 802.11n(40MHz): 135/121.5/108/81/54/40.5/37/13.5Mbps
	Number of Channel:	802.11b/g/n20: 11CH 802.11n 40: 7CH
	Antenna Type:	Internal antenna
	Antenna Gain (dBi):	-1.8
	Operation Frequency:	2402~2480 MHz
	Modulation Type:	GFSK
	Radio Technology:	BLE
	Bluetooth Configuration:	BLE(Support 1M)
	Number Of Channel:	40
	Antenna Type:	Internal antenna
	Antenna Gain (dBi)	-1.8
Power Rating	Input: DC 12V/2A	
Adapter	Input: AC 100-240V,50/60Hz,0.8A Output: DC 12.0V/2.0A	
Battery	N/A	
Hardware Version	N/A	



Software Version

N/A

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
3.0-30	1842/f	4.89/f	*(900/f ²)
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1.34-30	824/f	2.19/f	*(180f ²)
1500 – 100000	--	--	1.0

F= Frequency in MHz

Friss Formula

Friss Transmission Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

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 the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.



2.3 TEST RESULT

Tune up

Mode	Detector	Tune up Power
WIFI	PK	15±1dBm
BLE	PK	4±1dBm

Protocol	Fre. (GHz)	Separation distance (cm)	Max Tune up power (dBm)	ANT Gain (dBi)	Conducted Output Power (dBm)	Conducted Output Power (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Ratio	Result
WIFI	2.462	20	16	-1.8	16	39.8	0.0079	1	0.0079	Pass
BLE	2.480	20	5	-1.8	5	3.16	0.0006	1	0.0006	Pass

Multiple transmission:

$$\text{WIFI} + \text{BLE} = 0.0079 + 0.0006 = 0.0085 < 1$$

Note: 1. The Maximum power is less than the limit, complies with the exemption requirements.

*****END OF THE REPORT*****