



Test Report No.:  
**FCCSZ2023-0011-H**

## RF Test Report

**FCC ID** : O3Q10-8231  
**EUT** : Smart PDM assembly  
**MODEL** : 10-8231  
**BRAND NAME** : N/A  
**APPLICANT** : THERMASOL STEAMBATH CO.  
**Classification Of Test** : N/A

**CVC Testing Technology (Shenzhen) Co., Ltd.**



<b>Applicant</b>		Name: THERMASOL STEAMBATH CO. Address: 1958 STEAM WAY ROUND ROCK, TX 78665 USA	
<b>Manufacturer</b>		Name: Chengdu Vantron Technology Co., Ltd. Address: No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China	
<b>Equipment Under Test</b>		Product Name: Smart PDM assembly Model/Type: 10-8231 Brand Name: N/A Serial NO.: N/A Sample NO.: 2-1	
Date of Receipt.	2023.10.16	Date of Testing	2023.10.16~2023.11.02
Test Specification		Test Result	
FCC Part 2 (Section 2.1091) KDB 447498 D04 IEEE C95.3		PASS	
<b>Evaluation of Test Result</b>		The equipment under test was found to comply with the requirements of the standards applied.	
		Seal of CVC	
		Issue Date: 2023.11.06	
Tested by:   <u>Liang Jiatong</u> Name	Tested by:   <u>Huang Meng</u> Name	Approved by:   <u>Dong Sanbi</u> Name	Signature
<b>Other Aspects: NONE.</b>			
Abbreviations: OK, Pass= passed		Fail = failed	N/A= not applicable
EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCCSZ2023-0011-H	Original release	2023.11.06

## 1 GENERAL PRODUCT INFORMATION

<b>PRODUCT</b>	Smart PDM assembly
<b>BRAND</b>	N/A
<b>TEST MODEL</b>	10-8231
<b>ADDITIONAL MODEL</b>	N/A
<b>POWER SUPPLY</b>	DC 24V host unit
<b>STANDARDS</b>	FCC Part 2 (Section 2.1091)
	KDB 447498 D04
	IEEE C95.3

## 2 RF EXPOSURE LIMITGENERAL INFORMATION

### 2.1 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**.

### 2.2 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (FCC)

(Option C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least  $\lambda /2\pi$ , where  $\lambda$  is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of  $\lambda /4$  or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

RF SOURCE FREQUENCY (MHZ)	THRESHOLD ERP(W)
0.3 - 1.34	$1,920 R^2$
1.34 - 30	$3,450 R^2 F^2$
30 -300	$3.83 R^2$
300-1500	$0.0128 R^2 F$
1500-100,000	$19.2R^2$



## 2.3 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The measured conducted Power

Mode	Conducted Power (dBm)
BT-EDR	6.04(Note)
BT-LE	4.91
2.4G WIFI	13.87
5.1G WIFI	14.84
5.8G WIFI	11.67

Note:BT-EDR is peak power

The tuned conducted Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
BT-EDR	2402-2480	6	±1	5	7
BT-LE	2402-2480	5	±1	4	6
2.4G WIFI	2412-2472	14	±1	13	15
5.1G WIFI	5180-5240	15	±1	14	16
5.8G WIFI	5745-5825	12	±1	11	13

**MAXIMUM PERMISSIBLE EXPOSURE (FCC)**

Mode	Frequency (MHz)	Max Power (dBm)	Antenna Gain (dBi)	R (cm)	EIRP (dBm)	ERP (dBm)	EIRP (W)	Threshold ERP(W)	Ratio
BT-EDR	2402-2480	7	2.75	20	9.75	7.6	0.0057	0.77	0.007
BT-LE	2402-2480	6	2.75	20	8.75	6.6	0.0046	0.77	0.006
2.4G WIFI	2412-2472	15	2.75	20	17.75	15.6	0.0363	0.77	0.047
5.1G WIFI	5180-5240	16	2.64	20	18.64	16.49	0.0446	0.77	0.058
5.8G WIFI	5745-5825	13	3.20	20	16.2	14.05	0.0254	0.77	0.033
Sum of ratio = BT-EDR + 5.1G WIFI									0.065

**Note1:** This device can operate simultaneously in BT and WIFI.

**Note2:** ERP=EIRP-2.15dB

**Conclusion:**

Therefore, the worst-case situation is 0.065(Sum of Ratios), which is less than "1". This confirmed that the device compliance with FCC RF exposure requirements..

----- End of the Report -----



## Important

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- (2) Any part photocopies of the test report are forbidden without the written permission from CVC;
- (3) The test report is invalid without the signatures of Approval and Reviewer;
- (4) The test report is invalid if altered;
- (5) Objections to the test report must be submitted to CVC within 15 days.
- (6) Generally, commission test is responsible for the tested samples only.
- (7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

*\*\*The test data and test results given in this test report should only be used for purposes of scientific research, teaching and internal quality control when the CMA symbol is not presented.\*\**

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