

RF Exposure Evaluation Report

Product : Electrical Thermometer
Trade mark : N/A
Model/Type reference : DT-20B、DT-10B
Serial Number : N/A
Report Number : EED32N00028602
FCC ID : 2ADXK-7611
Date of Issue : Aug. 22, 2022
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Test result : PASS

Prepared for:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Shenzhen Viatom Technology Co., Ltd.
Address of Applicant:	4E, 3#, Tingwei Industrial Park, Honglang North 2nd Road, Baoan District, Shenzhen, 518057, Guangdong, China
Manufacturer:	Shenzhen Viatom Technology Co., Ltd.
Address of Manufacturer:	4E, 3#, Tingwei Industrial Park, Honglang North 2nd Road, Baoan District, Shenzhen, 518057, Guangdong, China
Factory:	Shenzhen Viatom Technology Co., Ltd.
Address of Factory:	4E, 3#, Tingwei Industrial Park, Honglang North 2nd Road, Baoan District, Shenzhen, 518057, Guangdong, China

4.2 General Description of EUT

Product Name:	Electrical Thermometer
Mode No.(EUT):	DT-20B、DT-10B
Test model:	DT-20B
Trade Mark:	N/A
EUT Supports Radios application:	BT 4.2 Single module 2402MHz to 2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	BT 4.2 Single module 2402MHz to 2480MHz;
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	nRFgo studio
Antenna Type:	Chip Antenna
Antenna Gain:	3.4dBi
Power Supply:	Li-ion Battery, DC 3.7V
Max Conducted Peak Output Power:	-1.44dBm
	The Max Conducted Peak Output Power data refer to the report EED32N00028601
Sample Received Date:	Apr. 30, 2021
Sample tested Date:	May. 14, 2021 to May. 30, 2021
Remark:	<p>Company Name and Address shown on Report, the sample(s) and sample Information were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.</p> <p>Model:DT-20B、DT-10B</p> <p>Only test one DT-20B, Because the digital thermometer (model: DT-10B, DT-20B) has the same motherboard, the same structure, the same material, the same circuit schematic, the same PCB layout, basically the same. The differences are different components, keys, parameters and software functions. DT-10B has no pulse rate function, DT-20B has pulse rate function.</p>

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

5.1.2 EUT RF Exposure

The tune-up power is -1.5 dBm +/- 0.5dB, therefore the highest tune-up power is

-1.000 (0.79 mW) @ 2402 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

$$\left(\frac{0.79}{5\text{mm}} \right) * \left(2.402\text{GHz}^{0.5} \right) = 0.2$$

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] *

$$[\sqrt{f(\text{GHz})}] = 0.2 < 3.0$$

Therefore, standalone SAR measurements are not required for both head and body

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N00028601 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***