

RF Exposure Evaluation Report

Product : Pulse Oximeter
Trade mark : N/A
Model/Type reference : PO6, PO6A
Serial Number : N/A
Report Number : EED32M00324202
FCC ID : 2AD XK-4708
Date of Issue : Nov. 09, 2020
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, China.
Manufacturer:	Shenzhen Viatom Technology Co., Ltd.
Address of Manufacturer:	4E, 3#, Tingwei Industrial Park, Honglang North 2nd Road, Baoan District, Shenzhen, China.
Factory:	Shenzhen Viatom Technology Co., Ltd.
Address of Factory:	4E, 3#, Tingwei Industrial Park, Honglang North 2nd Road, Baoan District, Shenzhen, China.

4.2 General Description of EUT

Product Name:	Pulse Oximeter
Model No.(EUT):	PO6, PO6A
Test Model No.:	PO6
Trade Mark:	N/A
EUT Supports Radios application:	2402MHz to 2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	DTM Tester
Antenna Type:	Chip antenna
Antenna Gain:	3.45dBi
Power Supply:	DC 5V
Max Conducted Peak Output Power:	-7.546dBm
	The Max Conducted Peak Output Power data refer to the report EED32M00324201
Sample Received Date:	Oct. 22, 2020
Sample tested Date:	Oct. 22, 2020 to Oct. 30, 2020

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

Model No.: PO6, PO6A

Only the model PO6 was tested, Their electrical circuit design, layout, components used and internal wiring are identical only the color of silicon finger-cot appearance is different.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 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 Max Conducted Peak Output Power is -7.546dBm in highest channel(2.440GHz);

The best case gain of the antenna is 3.45dBi.

$EIRP = -7.546\text{dBm} + 3.45\text{dBi} = -4.096\text{dBm}$

-4.096dBm logarithmic terms convert to numeric result is nearly 0.39mW

According to the formula. calculate the EIRP test result:

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot \left[\sqrt{f(\text{GHz})} \right]$$

General RF Exposure = $(0.39\text{mW} / 5 \text{ mm}) \times \sqrt{2.440\text{GHz}} = 0.1$ ①

SAR requirement:

$S = 3.0$ ② ;

① < ②.

So the SAR report is not required.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00324201 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 ***