

RF EXPOSURE REPORT



FCC Applicant: FocalTech Smart Sensors Co., Ltd.
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30274, Taiwan

Product Name: Mobile Blood Pressure Monitoring Device, Multi-Function
Physiological Monitoring Device

Brand Name: VITOM, VITOM Plus

Model No.: VITOM3, VITOM3 Plus

Model Difference: Please refer to section 1.2

Report Number: TESA2205000136ES

FCC ID 2BAIO471FTSVTMP01

Issue Date: Jun. 17, 2023

Date of EUT Received: This report is only calculated based on the test results, there
will be no date of EUT received.

Approved By

John Yeh

We hereby certify that:

The above equipment was evaluate by SGS Taiwan Ltd. The evaluation in this report is in
compliance with FCC Rule Part §2.1093.

The results of this report relate only to the sample identified in this report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TESA2205000136ES	00	Original	Mar. 16, 2023	Kimmy Chiou	*
TESA2205000136ES	01	Update applicant address, product name, model difference and EUT series number.	Jun. 17, 2023	Kimmy Chiou	

Note:

- 1、The remark "*" indicates modification of the report upon requests from certification body.
- 2、Variant information of model numbers is provided by the applicant, test results of this report are applicable to the sample EUT(s) received.
Spurious Emissions have been assessed for passive component changes of the variant model to ensure compliance.

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 Product Description

Product Name:	Mobile Blood Pressure Monitoring Device, Multi-Function Physiological Monitoring Device
Brand Name:	VITOM, VITOM Plus
Model No.:	VITOM3, VITOM3 Plus
Model Difference:	Please refer to section 1.2
Hardware Version:	V6
Firmware Version:	V3P0V1.0.0BD1
EUT Series No.:	VITOM3 : PJ214258002 VITOM3 Plus : TE_SP_20220501971
Power Supply:	3.7 Vdc from Rechargeable Li-polymer Battery or 5 Vdc from AC/DC Adapter

1.2 Model Difference

Product Name	Mobile Blood Pressure Monitoring Device	Multi-Function Physiological Monitoring Device
Brand Name	VITOM	VITOM Plus
Model No.	VITOM3	VITOM3 Plus
Model Difference (1)		Add ECG function (Only software)
Model Difference (2)		Add SpO2 function (Only software)
Model Difference (3)	POLYTRANS, PTLC0521NS (D2,D17)	x
Model Difference (4)	CROWNPO, ESDQR3V3BS (D9,D11,D13,D15,D16)	x
Model Difference (5)	Vishay, PhotoDiode_TEMD5080X01 (D10)	OSRAM,SFH 2200 Photodiode
Model Difference (6)	MURATA, Bead600R0.1A (L1,L2,L3,L5,L8,L12)	PANASONIC,ERJ-1GN0R00C, 0R, 1%, 0201
Model Difference (7)	MURATA, DLW31SN900SQ2L (L9)	TE,CRG0402ZR, 0R, 1%, 0402 (Change to R18,R25)
Model Difference (8)	YAGEO, RC0402FR-075M1L, 5.1M, 1%, 0402 (R21,R23)	x

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1.3 Reference Test Report

Test Lab:	SGS Taiwan Ltd. Central RF Lab
Report Number:	TERF2205000735E2

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2 RF EXPOSURE EVALUATION FOR PORTABLE CONDITIONS

2.1 FCC Standard Applicable:

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

2.1.1 As per KDB 447498 D01 4.3.1,

Step a: For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

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

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as numeric thresholds in **step b)** below

Step b: For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following (also illustrated in Appendix B):

- 1) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)]\}$ mW, for 100 MHz to 1500 MHz
- 2) $\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$ mW, for > 1500 MHz and ≤ 6 GHz

Step c: For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

- 1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by $[1 + \log(100/f(\text{MHz}))]$
- 2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$
- 3) SAR measurement procedures are not established below 100 MHz

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2.2 Measurement Result:

Step a:

This is a portable device and the max. output power including tune-up tolerance is 1.738 (mW), lower than the threshold given and derived as formula given above, where

$$=1.738(\text{mW})/5(\text{mm})*\sqrt{2.402(\text{GHz})} = 0.539 < 3.0$$

Frequency (MHz)	Max. output power including tune-up tolerance(dBm)	Max. output power including tune-up tolerance(mW)	Distance (mm)	Result	≤ 3.0 for 1-g SAR
2402	2.4	1.738	5	0.539	TRUE

The maximum time-averaged power is less than the threshold Pth (mW), so the device can be excluded from SAR measurement.

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