RF Exposure Evaluation Report

Product	:	Blood Pressure Monitor
Trade mark	:	N/A
Model/Type reference	:	BP2V, BP2W
Serial Number	:	N/A
Report Number	:	EED32O80001003
FCC ID	:	2ADXK-8622
Date of Issue	:	Mar. 17, 2022
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Test result	:	PASS

Prepared for:

Shenzhen Viatom Technology Co., Ltd.
4E, 3#, Tingwei Industrial Park, Honglang North 2nd Road, Baoan District, Shenzhen, China

Prepared by:

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2 Version

Version No.	Date	Description
00	Mar. 17, 2022	Original

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3 General Information

3.1 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:	501, Building B, Ganghongji High-tech Intelligent Industrial Park, No.1008 Songbai Road, Xili Street, Nanshan District, 518055 Shenzhen, China
Factory:	Shenzhen Viatom Technology Co., Ltd.
Address of Factory:	501, Building B, Ganghongji High-tech Intelligent Industrial Park, No.1008 Songbai Road, Xili Street, Nanshan District, 518055 Shenzhen, China

3.2 General Description of EUT

Product Name:	Blood Pressure Monitor
Model No.(EUT):	BP2V, BP2W
Test Model No.:	BP2V
Trade Mark:	N/A

3.3 Product Specification subjective to this standard

Frequency Range:	BLE: 2402MHz~2480MHz 2.4G WIFI: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz
Modulation Type:	BLE: GFSK 2.4G WIFI: IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20) : OFDM (64QAM, 16QAM,QPSK,BPSK)
Test Power Grade:	Default
Test Software of EUT:	BLE: NRFgo 2.4G WIFI: EspRFTestTool
Antenna Type:	BLE:Chip Antenna 2.4GWIFI: PCB Antenna
Antenna Gain:	BLE:3.53 dBi 2.4GWIFI: 3 dBi
Power Supply:	Battery DC 3.7V, 580mAh
Max Conducted Peak Output Power:	BLE: -10.13 dBm 2.4GWIFI: 9.43 dBm
	The Max Conducted Peak Output Power data refer to the report EED32O80001001 and EED32O80001002
Sample Received Date:	Jan. 05, 2022
Sample tested Date:	Jan. 05, 2022 to Jan. 20, 2022

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.:BP2V, BP2W.

Only the model BP2V was tested,the only one difference between BP2V and BP2W is the enclousure colour, BP2V is White, while BP2W is darkgreen.

3.4 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

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 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.

4.1.2 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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation[17]

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

4.1.3 EUT RF Exposure

1) For BLE

Measurement Data:

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-10.26	-10±1	-9	0.126
Middle(2440MHz)	-10.56	-10±1	-9	0.126
Highest(2480MHz)	-10.13	-10±1	-9	0.126

Worst case is 2.4GWIFI 802.11b						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest(2402MHz)	-10.26	-10±1	-9	0.126	0.04	3.0
Middle(2440MHz)	-10.56	-10±1	-9	0.126	0.04	
Highest(2480MHz)	-10.13	-10±1	-9	0.126	0.04	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32O80001001.

2) For 2.4G WIFI

802.11b mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2412MHz)	9.38	8.5±1	9.5	8.913
Middle(2437MHz)	9.41	8.5±1	9.5	8.913
Highest(2462MHz)	9.43	8.5±1	9.5	8.913

802.11g mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2412MHz)	8.69	8±1	9	7.943
Middle(2437MHz)	8.11	8±1	9	7.943
Highest(2462MHz)	8.32	8±1	9	7.943

802.11n20 mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2412MHz)	8.51	8±1	9	7.943
Middle(2437MHz)	8.11	8±1	9	7.943
Highest(2462MHz)	8.52	8±1	9	7.943

Worst case is 2.4GWIFI 802.11b						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2412MHz)	9.38	8.5±1	9.5	8.913	2.807	3.0
Middle (2437MHz)	9.41	8.5±1	9.5	8.913	2.807	
Highest (2462MHz)	9.43	8.5±1	9.5	8.913	2.807	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32O80001002.

3) For BLE Classic and 2.4G WIFI

Calculated value :(0.04/3)+(2.807/3)=0.949≤1.0

Conclusion: the calculated value ≤1.0, SAR is exempted.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32O80001001 for EUT external and internal photos.

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*** End of Report ***