

RF Exposure Evaluation Report

Product : Digital Blood Pressure Monitor
Trade mark : **microlife**
Model/Type reference : BP3KV1-5W
Serial Number : N/A
Report Number : EED32Q81055302
FCC ID : U7I-BP3KV1-5W
Date of Issue : Aug. 30, 2024
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF
Exposure Guidance v06
Test result : PASS

Prepared for:

Microlife Corporation

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Prepared by:

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Aug. 30, 2024

Check No.: 7739220724



1 Version

Version No.	Date	Description
00	Aug. 30, 2024	Original

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3 General Information

3.1 Client Information

Applicant:	Microlife Corporation
Address of Applicant:	9F, 431, RuiGuang Road, Nei-Hu Taipei 114 Taiwan, China
Manufacturer:	ONBO Electronic (Shenzhen) Co., Ltd.
Address of Manufacturer:	No.138, Huasheng Road, Langkou Community, Dalang Street, Longhua District, Shenzhen, China
Factory:	ONBO Electronic (Shenzhen) Co., Ltd.
Address of Factory:	No.138, Huasheng Road, Langkou Community, Dalang Street, Longhua District, Shenzhen, China

3.2 General Description of EUT

Product Name:	Digital Blood Pressure Monitor
Test Model No.:	BP3KV1-5W
Trade mark:	microlife
Product Type:	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Power Supply:	Batteries: 4xAA DC 1.5V
Test Voltage:	DC 6V
Sample Received Date:	Dec. 24, 2021
Sample tested Date:	Dec. 24, 2021 to Dec. 27, 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>This report changed the adapter, canceled the USB function, updated the product photos, retested the Radiated Spurious Emission, other test data come from the report of No. EED32N81431802.</p>

3.3 General Description of BLE

Operation Frequency:	2402MHz~2480MHz
Modulation Technique:	DSSS
Modulation Type:	GFSK
Number of Channel:	40
Test Power Grade:	Default
Software Version:	nRFgo Studio
Antenna Type and Gain:	Type: Chip Antenna Gain: 3dBi

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.

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

4.1.2 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)	0.3	1±1	2	1.585
Middle(2440MHz)	0.86	1±1	2	1.585
Highest(2480MHz)	1.04	1±1	2	1.585

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	0.3	1±1	2	1.585	0.5	3.0
Middle (2440MHz)	0.86	1±1	2	1.585	0.5	
Highest (2480MHz)	1.04	1±1	2	1.585	0.5	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32Q81055301.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32Q81055301 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 ***