

RF Exposure Evaluation Report

Product : Digital Blood Pressure Monitor
Trade mark : **microlife**
Model/Type reference : WatchBP Office Vascular, TWIN200 VSR
Serial Number : N/A
Report Number : EED32M00235002
FCC ID : U7I-TWIN200VSR
Date of Issue : Aug. 31, 2020
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

9F, 431, RuiGuang Road, NeiHu Taipei 11492, Taiwan

Prepared by:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District,

Shenzhen, Guangdong, China

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385

Compiled by:

Sunlight Sun

Sunlight Sun

Reviewed by:

Jok Yang

Jok Yang

Approved by:

Sam Chuang

Sam Chuang

Date:

Aug. 31, 2020



Check No.3970340721

2 Version

Version No.	Date	Description
00	Aug. 31, 2020	Original

3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 GENERAL INFORMATION	4
4.1 CLIENT INFORMATION.....	4
4.2 GENERAL DESCRIPTION OF EUT.....	4
4.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD.....	4
4.4 TEST LOCATION.....	5
4.5 DEVIATION FROM STANDARDS.....	5
4.6 ABNORMALITIES FROM STANDARD CONDITIONS.....	5
4.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER.....	5
5 SAR EVALUATION	6
5.1 RF EXPOSURE COMPLIANCE REQUIREMENT.....	6
5.1.1 Standard Requirement.....	6
5.1.2 Limits.....	6
5.1.3 EUT RF Exposure.....	7
PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	8

4 General Information

4.1 Client Information

Applicant:	Microlife Corporation
Address of Applicant:	9F, 431, RuiGuang Road, NeiHu Taipei 11492, Taiwan
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

4.2 General Description of EUT

Product Name:	Digital Blood Pressure Monitor
Model No.(EUT):	WatchBP Office Vascular,TWIN200 VSR
Test Model No.:	WatchBP Office Vascular
Trade Mark:	microlife
EUT Supports Radios application:	BT 4.2 Single mode, 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:	NRF	
Antenna Type:	Ceramic Antenna	
Antenna Gain:	0dBi	
Power Supply:	Adapter	MODEL No:UE15WCP1-075150SPA PART No:UE140425DGHD03-R INPUT:100-240V~50/60Hz,500mA OUTPUT:7.5V --- 1.5A
	Battery	GPRHC252C236 GP250AAHC4BMXZ 4.8V 2400mAh
Max Conducted Peak Output Power:	-2.58 dBm	
	The Max Conducted Peak Output Power data refer to the report EED32M00235001	
Sample Received Date:	Aug. 04, 2020	
Sample tested Date:	Aug. 04, 2020 to Aug.10, 2020	
<p>The tested sample(s) and the sample information are provided by the client. Model No.: WatchBP Office Vascular,TWIN200 VSR Only the model WatchBP Office Vascular was tested,Their electrical circuit design, layout, components used, internal wiring, software and outer decoration are identical. Only the model names are different.The tested product has two model names, WatchBP Office Vascular is the market model name;TWIN200 VSR is the factory internal model name.</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.

5.1.2 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:

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

$[\sqrt{f(\text{GHz})}] \leq 3.0$ 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

5.1.3 EUT RF Exposure

The tune-up power is -3 dBm +/- 0.5dB, therefore the highest tune-up power is

-2.5 dBm (0.56 mW) @ 2440 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,

$$(0.56\text{mW} / 5\text{mm}) * (2.440\text{GHz}^{0.5}) = 0.2$$

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] = 0.2 < 3.0$$

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

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00235001 for EUT external and internal photos.

*** End of Report ***

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.