

RF Exposure Evaluation Report

Product	: Non-contact Infrared Forehead Thermometer
Trade mark	: Microlife
Model/Type reference	: FR1MF1-B, NC150 BT
Serial Number	: N/A
Report Number	: EED32M00334202
FCC ID	: U7I-FR1MF1-B
Date of Issue	: Dec. 01, 2020
Test Standards	: 47 CFR Part 1.1307 47 CFR Part 1.1310 KDB447498D01 General RF Exposure Guidance v06
Test result	: PASS

Prepared for:

Microlife Corporation
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Prepared by:

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Dec. 01, 2020

Check No.:4538060328



2 Version

Version No.	Date	Description
00	Dec. 01, 2020	Original



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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:	Non-contact Infrared Forehead Thermometer
Model No.(EUT):	FR1MF1-B, NC150 BT
Trade Mark:	Microlife
EUT Supports Radios application:	4.0(BLE)

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	Default
Antenna Type:	PCB Antenna
Antenna Gain:	-2.39dBi
Power Supply:	DC 3.0V
Max Conducted Peak Output Power:	BT4.0: -4.401dBm The Max Conducted Peak Output Power data refer to the report EED32M00334201
Sample Received Date:	Nov. 16, 2020
Sample tested Date:	Nov. 16, 2020 to Nov. 24, 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.: FR1MF1-B, NC150 BT Only the model FR1MF1-B, NC150 BT was tested, Their electrical circuit design, layout, components used, internal wiring, software and outer decoration are identical, only the model name are different, the tested product has two model names, FR1MF1-B is the market model name; NC150 BT is the factory internal model name.	

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 tune-up power is -5.0 dBm +/- 1.0dB, therefore the highest tune-up power is

-4.0dBm (0.40mW) @2402 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,

$$(0.40\text{mW} / 5\text{mm}) * (2.402\text{GHz}^{0.5}) = 0.12$$

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] = 0.12 < 3.0$

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



PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00334201 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 ***