

RF Exposure Evaluation Report

Product : Sleep Tracker
Trade mark : N/A
Model/Type reference : ZP100,ZP100X,X is -1,-2,-3,-4...-20 and -A,-B,-C,-D...-Z
Serial Number : N/A
Report Number : EED32M80086902
FCC ID : 2ADIOZP100
Date of Issue : Dec. 11, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB447498D01 General RF Exposure
Guidance v06
Test result : PASS

Prepared for:

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Dec. 11, 2020



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2 Version

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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 EUT RF Exposure.....	7
PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS.....	8

4 General Information

4.1 Client Information

Applicant:	Shenzhen Medica Technology Development Co., Ltd
Address of Applicant:	Floor 12,Block A,Building 7,Vanke Cloud city,XingKe 1st street,NanShan District,Shenzhen City.
Manufacturer:	Shenzhen Medica Technology Development Co., Ltd
Address of Manufacturer:	Floor 12,Block A,Building 7,Vanke Cloud city,XingKe 1st street,NanShan District,Shenzhen City.
Factory:	Shenzhen Medica Technology Development Co., Ltd
Address of Factory:	Floor 12,Block A,Building 7,Vanke Cloud city,XingKe 1st street,NanShan District,Shenzhen City.

4.2 General Description of EUT

Product Name:	Sleep Tracker
Model No.(EUT):	ZP100,ZP100X,X is -1,-2,-3,-4...-20 and -A,-B,-C,-D...-Z
Trade Mark:	N/A
EUT Supports Radios application:	4.1(BLE)

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	nRFgo Studio
Antenna Type:	Chip Antenna
Antenna Gain:	2.5dBi
Power Supply:	DC 5V
	Battery +CLY553452 3.7V -900mAh LB2JQ0-1
Max Conducted Peak Output Power:	BT4.1: -4.708dBm
	The Max Conducted Peak Output Power data refer to the report EED32M80086901
Sample Received Date:	Nov. 25, 2020
Sample tested Date:	Nov. 27, 2020 to Dec. 04, 2020
Remark: 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.: ZP100,ZP100X,X is -1,-2,-3,-4...-20 and -A,-B,-C,-D...-Z Only the model ZP100 was tested,Their electrical circuit design, layout, components used and internal wiring are identical. These models only differ in model name. The applicant and ,the manufacturer information, the product name ,are same.	

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 +/- 1.5dB, therefore the highest tune-up power is

-3.5dBm (0.447mW) @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,

$$(0.3447\text{mW} / 5\text{mm}) * (2.440\text{GHz}^{0.5}) = 0.10$$

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] = 0.14 < 3.0$$

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

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M80086901 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 ***