

RF Exposure Evaluation Report

Product : Sleep Tracker
Trade mark : N/A
Model/Type reference : BM8701-2
Serial Number : N/A
Report Number : EED32Q82017302
FCC ID : 2ADIOBM8701-2
Date of Issue : Jan. 09, 2025
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

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1 Version

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3 General Information

3.1 Client Information

Applicant:	Shenzhen Medica Technology Development Co., Ltd
Address of Applicant:	12F, Building A, Block 7, Vanke Cloud City, Xingke 1st Street, Nanshan District, Shenzhen, China.
Manufacturer:	Shenzhen Medica Technology Development Co., Ltd
Address of Manufacturer:	12F, Building A, Block 7, Vanke Cloud City, Xingke 1st Street, Nanshan District, Shenzhen, China.
Factory:	Shenzhen Medica Technology Development Co., Ltd
Address of Factory:	12F, Building A, Block 7, Vanke Cloud City, Xingke 1st Street, Nanshan District, Shenzhen, China.

3.2 General Description of EUT

Product Name:	Sleep Tracker
Model No.(EUT):	BM8701-2
Trade Mark:	N/A

3.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz	
Modulation Type:	GFSK	
Test Power Grade:	Default	
Test Software of EUT:	ESP32.exe	
Antenna Type:	PCB Antenna	
Antenna Gain:	2dBi	
Power Supply:	Adapter:	Manufacture: SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO., LTD. Model No.: KA06E-0501000US Input: AC 100-240V 50/60Hz 0.25A Max Output: DC 5V/1A
Sample Received Date:	Dec. 18, 2024	
Sample tested Date:	Dec. 18, 2024 to Dec. 29, 2024	

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 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and ERP20cm is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.1.3 EUT RF Exposure Evaluation**For Stand alone:**

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
@2.4GHz	20	8.5	2.00	8.35	6.8391	3060	Pass

Note:

- ① EIRP=conducted power+antenna gain;
- ② $ERP=EIRP-2.15$;
- ③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;
- ④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;
- ⑤ The estimation distance is 20cm;
- ⑥ The test data please refer to the report of EED32Q82017301 and only the worst case data was recorded in the report.

声明

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*** 报告结束 ***

*** End of Report ***