

RF Exposure Evaluation Report

Product : Wrist-type Fully Automatic Blood Pressure Monitor

Trade mark : N/A

Model/Type reference : DBP-21E8b

Serial Number : N/A

Report Number : EED32Q82051202

FCC ID : 2AQVU0057

Date of Issue : Apr. 08, 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:

JOYTECH HEALTHCARE CO., LTD.
No.365, Wuzhou Road, 311100 Hangzhou, Zhejiang Province, PEOPLE'S
REPUBLIC OF CHINA

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:

Zhenxia Wen

Reviewed by:

Frazer Li

Zhenxia Wen

Frazer Li

Approved by:

Aaron Ma

Date:

Apr. 08, 2025

Aaron Ma

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1 Version

Version No.	Date	Description
00	Feb. 25, 2025	Original

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3 General Information

3.1 Client Information

Applicant:	JOYTECH HEALTHCARE CO., LTD.
Address of Applicant:	No.365, Wuzhou Road, 311100 Hangzhou, Zhejiang Province, PEOPLE' S REPUBLIC OF CHINA
Manufacturer:	JOYTECH HEALTHCARE CO., LTD.
Address of Manufacturer:	No.365, Wuzhou Road, 311100 Hangzhou, Zhejiang Province, PEOPLE' S REPUBLIC OF CHINA
Factory:	JOYTECH HEALTHCARE CO., LTD.
Address of Factory:	No.365, Wuzhou Road, 311100 Hangzhou, Zhejiang Province, PEOPLE' S REPUBLIC OF CHIN

3.2 General Description of EUT

Product Name:	Wrist-type Fully Automatic Blood Pressure Monitor
Model No.(EUT):	DBP-21E8b
Trade Mark:	N/A

3.3 Product Specification subjective to this standard

Frequency Range:	2400MHz~2483.5MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	RFTest_0421_disableRTSDTR_boxed
Antenna Type:	PCB Antenna
Antenna Gain:	-1.37dBi
Power Supply:	DC 1.5V*2
Sample Received Date:	Feb. 10, 2025
Sample tested Date:	Feb. 10, 2025 to Apr. 08, 2025

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)	MPE ratio	Result
2402	0.5	1.2	-1.37	-0.95	0.8035	2.7877	0.2882	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 0.5cm;

⑥ The test data please refer to the report of EED32Q82051201 and only the worst case data was recorded in the report.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***