

RF Exposure Evaluation Report

Product : Digital Thermometer
Trade mark : N/A
Model/Type reference : DMT-4775p, DMT-4773p,
DMT-4765p, DMT-4763p,
DMT-4775b, DMT-4773b,
DMT-4765b, DMT-4763b
Serial Number : N/A
Report Number : EED32Q80499202
FCC ID : 2AQVU0050
Date of Issue : Oct. 23, 2024
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,
P.R. of China**

Prepared by:

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1 Version

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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, P.R. of China
Manufacturer:	JOYTECH Healthcare Co., Ltd.
Address of Manufacturer:	No. 365, Wuzhou Road, 311100 Hangzhou, Zhejiang Province, P.R. of China
Factory:	JOYTECH Healthcare Co., Ltd.
Address of Factory:	No. 365, Wuzhou Road, 311100 Hangzhou, Zhejiang Province, P.R. of China

3.2 General Description of EUT

Product Name:	Digital Thermometer
Model No.(EUT):	DMT-4775p, DMT-4773p, DMT-4765p, DMT-4763p, DMT-4775b, DMT-4773b, DMT-4765b, DMT-4763b
Test Model:	DMT-4775p
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:	SSCOM V5.13.1	
Antenna Type:	PCB Antenna	
Antenna Gain:	2.02dBi	
Power Supply:	Battery:	DC 3V
Sample Received Date:	Aug. 09, 2024	
Sample tested Date:	Aug. 09, 2024 to Aug. 11, 2024	
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.: DMT-4775p, DMT-4773p, DMT-4765p, DMT-4763p, DMT-4775b, DMT-4773b, DMT-4765b, DMT-4763b Only the model DMT-4775p was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference is only for color and housing.		

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 P_{th} (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). P_{th} 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 $ERP_{20 \text{ cm}}$ 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:****For Bluetooth LE:**

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2402	3.98	2.02	6	3.85	2.4266	2.788	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 EED32Q80499201 and only the worst case data was recorded in the report.

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***** End of Report *****