

# RF Exposure Evaluation Report

**Product** : Infrared Ear Thermometer  
**Trade mark** : N/A  
**Model/Type reference** : DET-1115b  
**Serial Number** : N/A  
**Report Number** : EED32O81785502  
**FCC ID** : 2AQVU0033  
**Date of Issue** : Dec. 06, 2022  
**Test Standards** : 47 CFR Part 1.1307  
47 CFR Part 1.1310  
47 CFR Part 2.1093  
447498 D04 Interim General RF  
Exposure Guidance v01  
**Test result** : PASS

Prepared for:

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**No.365, Wuzhou Road, Yuhang Economic Development Zone,**  
**Hangzhou City, Zhejiang, 311100, China**

Prepared by:

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Date:

Dec. 06, 2022

Check No.: 4648101122

## 2 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | Dec. 06, 2022 | Original    |
|             |               |             |
|             |               |             |

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## 4 General Information

### 4.1 Client Information

|                          |                                                                                               |
|--------------------------|-----------------------------------------------------------------------------------------------|
| Applicant:               | JOYTECH Healthcare Co.,Ltd                                                                    |
| Address of Applicant:    | No.365, Wuzhou Road, Yuhang Economic Development Zone, Hangzhou City, Zhejiang, 311100, China |
| Manufacturer:            | JOYTECH Healthcare Co.,Ltd                                                                    |
| Address of Manufacturer: | No.365, Wuzhou Road, Yuhang Economic Development Zone, Hangzhou City, Zhejiang, 311100, China |
| Factory:                 | JOYTECH Healthcare Co.,Ltd                                                                    |
| Address of Factory:      | No.365, Wuzhou Road, Yuhang Economic Development Zone, Hangzhou City, Zhejiang, 311100, China |

### 4.2 General Description of EUT

|                 |                          |
|-----------------|--------------------------|
| Product Name:   | Infrared Ear Thermometer |
| Model No.(EUT): | DET-1115b                |
| Trade Mark:     | N/A                      |
| Device type:    | Portable                 |

### 4.3 Product Specification subjective to this standard

|                       |                                                                                                                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range:      | 2402MHz~2480MHz                                                                                                                                                                              |
| Modulation Type:      | GFSK                                                                                                                                                                                         |
| Test Power Grade:     | Default                                                                                                                                                                                      |
| Test Software of EUT: | PhyPluskit                                                                                                                                                                                   |
| Antenna Type:         | PCB antenna                                                                                                                                                                                  |
| Antenna Gain:         | 0dBi                                                                                                                                                                                         |
| Power Supply:         | DC 3.0V                                                                                                                                                                                      |
| Sample Received Date: | Nov. 10, 2022                                                                                                                                                                                |
| Sample tested Date:   | Nov. 10, 2022 to Nov. 16, 2022                                                                                                                                                               |
| 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. |

## 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 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.

#### 5.1.2 Test Procedure

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

**5.1.3 EUT RF Exposure Evaluation****For Stand alone:****For BLE**

| Frequency<br>(MHz) | Separation<br>distance<br>(cm) | Max.<br>Conducted<br>Output<br>power<br>(dBm) | Antenna<br>Gain<br>(dBi) | EIRP<br>(dBm) | ERP<br>(dBm) | ERP<br>(mW) | Limit<br>(mW) | Result |
|--------------------|--------------------------------|-----------------------------------------------|--------------------------|---------------|--------------|-------------|---------------|--------|
| 2402               | 0.50                           | 0.79                                          | 0                        | 0.79          | -1.36        | 0.731       | 2.788         | PASS   |

**Note:**

- ① EIRP=conducted power+antenna gain;
- ② ERP=EIRP-2.15
- ③ Only the worst case data was recorded in the report.

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