# RF Exposure Evaluation Report

| | | |
|---|---|---|
| **Product** | : | Wireless Sensor H1, testo 164 H1 |
| **Trade mark** | : | Testo |
| **Model/Type reference** | : | 0572 2211 02 |
| **Serial Number** | : | N/A |
| **Report Number** | : | EED32Q81995202 |
| **FCC ID** | : | WAF-0572221102 |
| **Date of Issue** | : | Feb. 20, 2025 |
| **Test Standards** | : | 47 CFR Part 1.1307<br>47 CFR Part 1.1310<br>47 CFR Part 2.1091<br>47 CFR Part 2.1093<br>KDB 447498 D04 Interim General RF Exposure Guidance v01 |
| **Test result** | : | PASS |

Prepared for:

**Testo SE & Co. KGaA**
**Celsiusstr. 2, 79822 Titisee-Neustadt, Germany**

Prepared by:

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| | | | |
|---|---|---|---|
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| Approved by: | Aaron Ma | Date: | Feb. 20, 2025 |

Check No.: 8947021224

# 1 Version

| Version No. | Date | Description |
|---|---|---|
| 00 | Feb. 20, 2025 | Original |
| | | |
| | | |

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# 3 General Information

## 3.1 Client Information

| | |
|---|---|
| Applicant: | Testo SE & Co. KGaA |
| Address of Applicant: | Celsiusstr. 2, 79822 Titisee-Neustadt, Germany |
| Manufacturer: | Testo SE & Co. KGaA |
| Address of Manufacturer: | Celsiusstr. 2, 79822 Titisee-Neustadt, Germany |

## 3.2 General Description of EUT

| | |
|---|---|
| Product Name: | Wireless Sensor H1, testo164 H1 |
| Model No.(EUT): | 0572 2211 02 |
| Test model No.: | 0572 2211 02 |
| Trade Mark: | Testo |

## 3.3 Product Specification subjective to this standard

| | | |
|---|---|---|
| Frequency Range: | 915MHz~928MHz | |
| Modulation Type: | GFSK | |
| Test Power Grade: | Default | |
| Test Software of EUT: | SmartRF Studio 7.exe | |
| Antenna Type: | FPC Antenna | |
| Antenna Gain: | -1.13dBi | |
| Power Supply: | Battery: | DC 3.6V |
| Sample Received Date: | Dec. 11, 2024 | |
| Sample tested Date: | Dec. 11, 2024 to Jan. 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

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

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).

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

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 |
|---|---|---|---|---|---|---|---|
| 915.2 | 20 | 13.40 | -1.13 | 11.25 | 13.3352 | 1867.008 | Pass |

**Note：**

①EIRP=conducted power+antenna gain；

②ERP=EIRP-2.15;

③EIRP(dBm) = Field strength of the fundamental signal(dBuV/m@3m) – 95.23;

④ERP(mW) = 10^(ERP (dBm)/10);

⑤The estimation distance is 20cm;

⑥The test data please refer to the report of EED32Q81995201 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 ***