



International
Standard

ISO/IEEE
11073-10472

**Health informatics — Device
interoperability —**

Part 10472:
**Personal health device
communication — Device
specialization — Medication monitor**

Informatique de santé — Interopérabilité des dispositifs —

*Partie 10472: Communication entre dispositifs de santé
personnels — Spécialisation des dispositifs — Moniteur de
surveillance de médication*

Second edition
2024-09

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ISO/IEEE 11073-10472 was prepared by the IEEE 11073 Standards Committee of the IEEE Engineering in Medicine and Biology Society (as IEEE Std 11073-10472) and drafted in accordance with its editorial rules. It was adopted, under the "fast-track procedure" defined in the Partner Standards Development Organization cooperation agreement between ISO and IEEE, by Technical Committee ISO/TC 215, *Health informatics*.

This second edition cancels and replaces the first edition (ISO/IEEE 11073-10472:2012), which has been technically revised.

The main changes are as follows:

- added support for Base-Offset-Time;
- defined new standard configurations based on BaseOffsetTime;
- updated Clause 2 to include ISO/IEEE 11073-20601 and IEEE Std 11073-10101;
- updated version of this device specialization;
- updated the association details based on new version;
- updated the wording in 6.3 regarding the Observational;

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- updated the examples in 8.4.2 and Annex E, to indicate the support of BaseOffsetTime;
- updated the qualifier in MDS and other objects to recommend BaseOffsetTime; also updated the description of the qualifiers in 6.5;
- added some text to 6.12 to further elaborate the DIM extensibility rule;
- corrected the use condition of GET MDS at E.4.1;
- updated the text in 8.5.2 regarding attribute-id-list, in order to be compliant with ISO/IEC 11073-20601;
- added subclause 3.4—Compliance with other standards;
- removed the year in bibliography to represent the latest version;
- extended Table 1 to specify qualifier details for all possible configurations;
- updated the wording at 1.3 and 4.1 regarding the precedence of nomenclature between 11073-10101, 11073-20601, 11073-104xx and this standard;
- updated the usage of nomenclature-version. Tied it with the corresponding protocol-version.

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Abstract: Within the context of the ISO/IEEE 11073 family of standards for device communication, a normative definition of communication between personal telehealth medication monitor devices and compute engines (e.g., cell phones, personal computers, personal health appliances, set top boxes) is established by this standard in a manner that enables plug-and-play interoperability. Appropriate portions of existing standards including ISO/IEEE 11073 terminology, information models, application profile standards, and transport standards are leveraged. The use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability are specified. A common core of communication functionality for personal telehealth medication monitor devices is defined in this standard.

Keywords: device communication, IEEE 11073-10472™, medication monitor, personal health devices

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Introduction

This introduction is not part of IEEE Std 11073-10472-2023, IEEE Standard for Health Informatics—Device Interoperability—Part 10472: Personal Health Device Communication—Device Specialization—Medication Monitor.

ISO/IEEE 11073 standards enable communication between medical devices and external computer systems. Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of the communication between medication monitoring devices and managers (e.g., cell phones, personal computers, personal health appliances, set top boxes) in a manner that enables plug-and-play interoperability. It leverages appropriate portions of existing standards, including ISO/IEEE 11073 terminology and information models. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting ambiguity in base frameworks in favor of interoperability. This standard defines a common core of communication functionality for medication monitors. In this context, medication monitors are defined as devices that have the ability to determine and communicate (to a manager) measures of a user's adherence to a medication regime.

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