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Health informatics — Device interoperability —

Part 20601: Personal health device communication — Application profile — Optimized exchange protocol

Informatique de santé — Interopérabilité des dispositifs —

*Partie 20601: Communication entre dispositifs de santé personnels —
Profil d'application — Protocole d'échange optimisé*

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This third edition cancels and replaces the second edition (ISO/IEEE 11073-20601:2016), which has been technically revised. It also incorporates the Technical Corrigendum ISO/IEEE 11073-20601:2016/Cor 1:2016.

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Health informatics—Personal health device communication

Part 20601: Application profile— Optimized Exchange Protocol

Developed by the

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of the
IEEE Engineering in Medicine and Biology Society

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IEEE SA Standards Board

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Abstract: Within the context of the ISO/IEEE 11073 family of standards for device communication, a common framework for making an abstract model of personal health data available in transport-independent transfer syntax required to establish logical connections between systems and to provide presentation capabilities and services needed to perform communication tasks is described in this standard. The protocol is optimized to personal health usage requirements and leverages commonly used methods and tools wherever possible.

Keywords: IEEE 11073-20601™, medical device communication, personal health devices

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Introduction

This introduction is not part of IEEE Std 11073-20601-2019, Health informatics—Personal health device communication—Part 20601: Application profile—Optimized Exchange Protocol.

ISO and IEEE 11073 standards enable communication between medical devices and external computer systems. This standard and corresponding IEEE 11073-104zz standards address a need for a simplified and optimized communication approach for personal health devices, which may or may not be regulated devices. These standards align with, and draw upon, the existing clinically focused standards to provide easy management of data from either a clinical or personal health device.

This document addresses a need for an openly defined, independent standard for converting the collected information into an interoperable transmission format so the information can be exchanged between agents and managers.

Other closely related standards include the following:

- IEEE Std 11073-00103™ [B6]¹ provides an overview of the personal health space and defines the underlying use cases and usage models.
- ISO/IEEE 11073-10201:2004 [B17] documents the extensive domain information model (DIM) leveraged by this standard.
- ISO/IEEE 11073-104zz standards define specific device specializations. For example, ISO/IEEE 11073-10404 [B18] defines how interoperable pulse oximeters work.
- ISO/IEEE 11073-20101:2004 [B21] defines the medical device encoding rules (MDER) used in this standard.

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