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Health informatics — Personal health device communication —

Part 10420: Device specialization — Body composition analyzer

Informatique de santé — Communication entre dispositifs de santé personnels —

Partie 10420: Spécialisation de dispositif — Analyseur de la composition du corps



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Contents

1. Overview	1
1.1 Scope	1
1.2 Purpose	2
1.3 Context	2
2. Normative references	2
3. Definitions, acronyms, and abbreviations	3
3.1 Definitions	3
3.2 Acronyms and abbreviations	4
4. Introduction to ISO/IEEE 11073 personal health devices	4
4.1 General	4
4.2 Introduction to IEEE 11073-20601 modeling constructs	4
5. Body composition analyzer device concepts and modalities	5
5.1 General	5
5.2 Body fat	6
5.3 Body height	6
5.4 Body weight	6
5.5 Body mass index	6
5.6 Fat free mass	6
5.7 Soft lean mass	6
5.8 Body water	6
6. Body composition analyzer domain information model	7
6.1 Overview	7
6.2 Class extensions	7
6.3 Object instance diagram	7
6.4 Types of configuration	8
6.5 Medical device system object	9
6.6 Numeric objects	12
6.7 Real-time sample array objects	19
6.8 Enumeration objects	19
6.9 PM-store objects	20
6.10 Scanner objects	20
6.11 Class extension objects	20
6.12 Body composition analyzer information model extensibility rules	20
7. Body composition analyzer service model	20
7.1 General	20
7.2 Object access services	20
7.3 Object access event report services	21
8. Body composition analyzer communication model	22
8.1 Overview	22
8.2 Communications characteristics	22
8.3 Association procedure	22
8.4 Configuring procedure	24
8.5 Operating procedure	26
8.6 Time synchronization	27

9. Test associations	27
9.1 Behavior with standard configuration	27
9.2 Behavior with extended configurations	28
10. Conformance	28
10.1 Applicability	28
10.2 Conformance specification	28
10.3 Levels of conformance	28
10.4 Implementation conformance statements	29
Annex A (informative) Bibliography	34
Annex B (normative) Any additional ASN.1 definitions	35
Annex C (normative) Allocation of identifiers	36
Annex D (informative) Message sequence examples	37
Annex E (informative) Protocol data unit examples	39
E.1 General	39
E.2 Association information exchange	39
E.3 Configuration information exchange	42
E.4 GET MDS attributes service	47
E.5 Data reporting	48
E.6 Disassociation	49
Annex F (informative) IEEE list of participants	51

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ISO/IEEE 11073-10420 was prepared by the IEEE 11073 Standards Committee of the IEEE Engineering in Medicine and Biology Society (as IEEE Std 11073-10420-2010). It was adopted by Technical Committee ISO/TC 215, *Health informatics*, in parallel with its approval by the ISO member bodies, under the “fast-track procedure” defined in the Partner Standards Development Organization cooperation agreement between ISO and IEEE. IEEE is responsible for the maintenance of this document with participation and input from ISO member bodies.

ISO/IEEE 11073 consists of the following parts, under the general title *Health informatics — Personal health device communication* (text in parentheses gives a variant of subtitle):

- *Part 10101: (Point-of-care medical device communication) Nomenclature*
- *Part 10201: (Point-of-care medical device communication) Domain information model*
- *Part 10404: Device specialization — Pulse oximeter*
- *Part 10407: Device specialization — Blood pressure monitor*
- *Part 10408: Device specialization — Thermometer*
- *Part 10415: Device specialization — Weighing scale*

- *Part 10417: Device specialization — Glucose meter*
- *Part 10420: Device specialization — Body composition analyzer*
- *Part 10421: Device specialization — Peak expiratory flow monitor (peak flow)*
- *Part 10471: Device specialization — Independent living activity hub*
- *Part 10472: Device specialization — Medication monitor*
- *Part 20101: (Point-of-care medical device communication) Application profiles — Base standard*
- *Part 20601: Application profile — Optimized exchange protocol*
- *Part 30200: (Point-of-care medical device communication) Transport profile — Cable connected*
- *Part 30300: (Point-of-care medical device communication) Transport profile — Infrared wireless*
- *Part 30400: (Point-of-care medical device communication) Interface profile — Cabled Ethernet*
- *Part 90101: (Point-of-care medical device communication) Analytical instruments — Point-of-care test*
- *Part 91064: (Standard communication protocol) Computer-assisted electrocardiography*
- *Part 92001: (Medical waveform format) — Encoding rules*

Introduction

This introduction is not part of IEEE Std 11073-10420-2010, Health Informatics—Personal health device communication— Part 10420: Device specialization—Body composition analyzer.

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 personal telehealth body composition analyzer devices. In this context, body composition analyzer devices are being used broadly to cover body composition analyzer devices that measure body impedances, and compute the various body components including body fat from the impedance.

Health informatics — Personal health device communication —

Part 10420: Device specialization — Body composition analyzer

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1 Overview

1.1 Scope

Within the context of the ISO/IEEE 11073 family of standards for device communication, this standard establishes a normative definition of the communication between personal body composition analyzing 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 IEEE Std 11073-20601™-2008¹ information models. It specifies the use of specific term codes, formats, and behaviors in telehealth environments restricting optionality in base frameworks in favor of interoperability. This standard defines a common core of communication functionality for personal telehealth body composition analyzer devices. In this context, body composition analyzer devices are being used broadly to cover body composition analyzer devices that measure body impedances, and compute the various body components including body fat from the impedance.

¹ Information on references can be found in Clause 2.