

# ISO/IEEE 11073-10404:2022-12 (E)

## Health informatics - Device interoperability - Part 10404: Personal health device communication - Device specialization - Pulse oximeter

---

<b>Contents</b>	<b>Page</b>
1. Overview .....	12
1.1 Scope .....	12
1.2 Purpose .....	12
1.3 Context .....	12
2. Normative references.....	13
3. Definitions, acronyms, and abbreviations .....	13
3.1 Definitions .....	13
3.2 Acronyms and abbreviations .....	14
4. Introduction to ISO/IEEE 11073 personal health devices .....	14
4.1 General .....	14
4.2 Introduction to IEEE 11073-20601 modeling constructs.....	15
4.3 Compliance with other standards.....	15
5. Pulse oximeter device concepts and modalities.....	16
5.1 General .....	16
5.2 Device types .....	16
5.3 General concepts.....	16
5.4 Collected data .....	17
5.5 Derived data.....	19
5.6 Stored data.....	19
5.7 Device configurations .....	19
6. Pulse oximeter DIM .....	20
6.1 Overview .....	20
6.2 Class extensions.....	20
6.3 Object instance diagram .....	20
6.4 Types of configuration.....	21
6.5 MDS object.....	22
6.6 Numeric objects.....	26
6.7 Real-time sample array (RT-SA) objects.....	36
6.8 Enumeration objects .....	37
6.9 PM-store objects .....	41
6.10 Scanner objects .....	45
6.11 Class extension objects.....	48
6.12 Pulse oximeter information model extensibility rules .....	48
7. Pulse oximeter service model .....	48
7.1 General .....	48
7.2 Object access services.....	48
7.3 Object access EVENT REPORT services .....	52
8. Pulse oximeter communication model.....	52
8.1 Overview .....	52
8.2 Communications characteristics .....	52
8.3 Association procedure .....	53
8.4 Configuring procedure.....	55
8.5 Operating procedure .....	56
8.6 Time synchronization .....	57

9. Test associations .....	57
9.1 Behavior with standard configuration.....	57
9.2 Behavior with extended configurations .....	58
10. Conformance .....	58
10.1 Applicability .....	58
10.2 Conformance specification .....	58
10.3 Levels of conformance .....	58
10.4 Implementation conformance statements (ICSs) .....	59
Annex A (informative) Bibliography .....	63
Annex B (normative) Additional ASN.1 definitions .....	64
Annex C (normative) Allocation of identifiers.....	65
Annex D (informative) Message sequence examples.....	67
Annex E (informative) PDU examples.....	69
Annex F (informative) Revision history.....	81