

ISO/IEEE 11073-10425:2019-03 (E)

Health informatics - Personal health device communication - Part 10425: Device specialization - Continuous glucose monitor (CGM)

Contents

- 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
 - 3.1 Acronyms and abbreviations 14
- 4. Introduction to ISO/IEEE 11073 personal health devices (PHDs)..... 15
 - 4.1 General 15
 - 4.2 Introduction to ISO/IEEE 11073-20601 modeling constructs 15
 - 4.3 Compliance with other standards..... 16
- 5. Glucose monitoring concepts and modalities 16
 - 5.1 General 16
 - 5.2 Device types 17
 - 5.3 CGM agent-to-manager communication 18
 - 5.4 Collected data 19
 - 5.5 Stored data 20
- 6. Continuous glucose monitor (CGM) domain information model (DIM) 20
 - 6.1 Overview 20
 - 6.2 Class extensions..... 21
 - 6.3 Object instance diagram 21
 - 6.4 Types of configuration..... 22
 - 6.5 Profiles..... 23
 - 6.6 MDS object..... 23
 - 6.7 Numeric objects..... 26
 - 6.8 Real-time sample array objects..... 36
 - 6.9 Enumeration objects 36
 - 6.10 PM-store objects 40
 - 6.11 Scanner objects..... 44
 - 6.12 Class extension objects..... 44
 - 6.13 CGM information model extensibility rules..... 44
- 7. CGM service model..... 45
 - 7.1 General 45
 - 7.2 Object access services..... 45
 - 7.3 Object access event report services 47
- 8. CGM communication model 47
 - 8.1 Overview 47
 - 8.2 Communication characteristics..... 47
 - 8.3 Association procedure 48
 - 8.4 Configuring procedure..... 49
 - 8.5 Operating procedure 51
 - 8.6 Time synchronization 51

9. Test associations	51
9.1 Behavior with standard configuration.....	51
9.2 Behavior with extended configurations	52
10. Conformance	52
10.1 Applicability	52
10.2 Conformance specification	52
10.3 Levels of conformance	53
10.4 Implementation conformance statements (ICSs).....	53
Annex A (informative) Bibliography	59
Annex B (normative) Any additional ASN.1 definitions	60
B.1 PHD DM status, CGM status, and measurement status bit mappings	60
B.2 Numeric extension for measurement confidence	61
B.3 Capability-mask	62
B.4 State-flag.....	62
Annex C (normative) Allocation of identifiers.....	64
C.1 General.....	64
C.2 Definitions of terms and codes.....	64
C.3 Systematic derivations of terms and codes	66
Annex D (informative) Message sequence examples.....	69
Annex E (informative) Protocol data unit examples	71
E.1 General	71
E.2 Association information exchange	71
E.3 Configuration information exchange.....	74
E.4 GET MDS attributes service	77
E.5 Data reporting.....	79
E.6 Disassociation	79
Annex F (informative) Revision history.....	80